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MARCH 8-9-10, 1944

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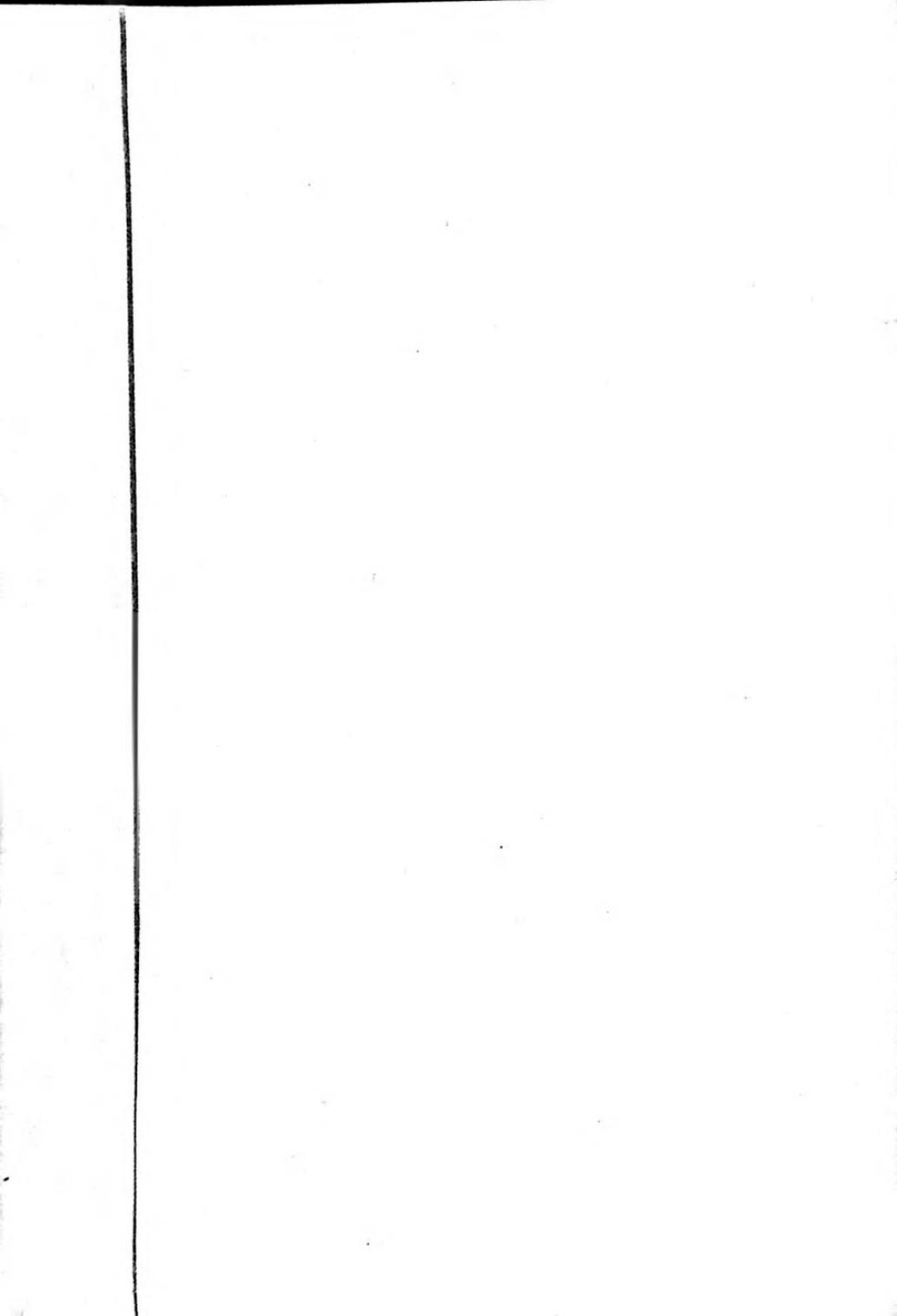
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NATIONAL COMMITTEE ON HOUSING, INC.
512 FIFTH AVENUE . NEW YORK 18, NEW YORK

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OUR CONFERENCE—ITS PURPOSE

THE addresses and proceedings published here form a record of the work of the National Conference on Post-war Housing, held in Chicago, March 8 to 10. It is a record that will interest many, both by reason of its contributions to the subject of future housing and its demonstration of the value of cooperation.

The meeting itself was in the latter sense a pioneering effort. In calling it the National Committee on Housing, Inc., undertook a task of considerable scope. Heretofore most discussions of future housing have centered within the various groups that make up the complex housing industry. Members of the different groups naturally tend to look at the subject from their own viewpoints. Seldom are the various segments of the industry able to sit down together and exchange ideas. Yet without such an exchange it appeared that the housing industry would be needlessly handicapped in attacking the many problems that lie ahead. Thus it seemed necessary to bring the diverse elements into contact as a first step toward a concerted approach to post-war housing. That was the chief purpose of the Conference.

The result exceeded expectations. In this time of difficult travel the attendance of 639 was in itself a gratifying indication of widespread interest. Thirty-two States—from the Atlantic to the Pacific, from Canada to the Gulf of Mexico—were represented. Group participation was excellent. The roster included 20 architects, 43 builders, 33 civic organizations, 78 savings and loan associations, 17 industries, 38 materials concerns, 44 manufacturers, 7 labor groups, 99 from municipal, State and Federal governments, 40 from housing authorities—as well as members of a round score of other classifications. Here for perhaps the first time in history representatives of finance, construction, labor, the community and other major factors in the housing field met in one hall to talk over their mutual problems.

Of even greater significance was the design for a united effort that appeared to be taking shape. This was suggested in President Roosevelt's letter of greeting, which pointed out that the post-war housing job was primarily one for private industry to accomplish, with the Government aiding where necessary. It was re-emphasized in many of the following addresses and discussions. Clearly evident was the realization that the post-war housing problem must be viewed as a whole, not merely as a

problem of finance, of construction technique, or of town planning. Equally evident was a desire by the various groups to pull together to insure success.

Technical phases of the future housing effort were given much prominence. Chief among them were construction economies and possible new financial techniques. In the discussions relating to these subjects it was plain that most of those present felt the need for much more effort to determine the kinds of housing required in the future. It was pointed out that millions of people will be potential buyers or renters of new homes but that many of them may be unable to meet financial requirements for such housing. Reappraisal of some present goals is therefore necessary to produce the kinds of homes families will desire—in the locality where they wish to live and for the price they can afford to pay. Along with this problem are others, among them that of urban redevelopment to revitalize decaying areas in American cities.

Out of the discussions came a clearer realization of the need for careful planning and straight thinking if the housing industry is to play its part in providing employment during post-war reconversion and produce better housing for the nation's families. No attempt was made at the conference to reach final answers to the many housing problems. The National Committee hoped merely to aid in exploring the possibilities and laying the groundwork for future action. In that the Conference was highly successful.

Now another step has been taken as a logical followup to the Chicago meeting. It consists of the appointment of a special committee to study the proceedings presented here to see what conclusions helpful to the industry may be drawn from the exchange of ideas. It will be the committee's duty to embody such conclusions in a series of recommendations. The group consists of: Carl Boester, Housing Research Executive, Purdue University Research Foundation, Lafayette, Indiana; Thomas C. Boushall, President, Morris Plan Bank, Richmond, Virginia; Miles Colean, Vice President, Starrett Brothers and Eken, Washington, D. C.; Aksel Nielsen, Executive Vice President, The Title Guaranty Company, Denver, Colorado; Hugh Potter, President, River Oaks Corporation, Houston, Texas; Ira S. Robbins, Acting Commissioner of Housing of the State of New York, New York City; Miss Elizabeth Wood, Executive Secretary, Chicago Housing Authority.

MRS. SAMUEL I. ROSENMAN, *Chairman*
National Committee on Housing, Inc.

WEDNESDAY MORNING SESSION

MARCH 8, 1944

The opening session of the National Conference on Postwar Housing, sponsored by the National Committee on Housing, Incorporated, held at the Drake Hotel, Chicago, Illinois, March 8-10, 1944, was opened at ten thirty-five o'clock by Alderman Arthur G. Lindell, Chicago.

ALDERMAN LINDELL: It is rather an unusual privilege for me this morning to have the honor of opening this conference of the National Committee on Housing. I came over here this morning to represent Mayor Edward J. Kelly, of Chicago, and to extend to you and the conference his greetings and hope that out of your meetings might come inspiration not only for those of us engaged in housing and housing problems in Chicago but also those interested in this subject in America and throughout the world.

The enthusiastic registration this morning indicates to me that there is a very widespread consciousness on the part of the people of the United States that there is such a thing as a housing problem. Here in Chicago we have been conscious of it for some time. A short time ago the Mayor of Chicago presented to the City Council what he considered to be the policy of the city in the matter of housing, and which has been adopted by the City Council as the basis of its postwar housing program. We are now engaged in implementing that program, with the idea of putting it into effective execution just as quickly as conditions will permit.

We find, although some I know are inclined to disagree with us, that it is largely a matter of mathematics. It is estimated that in Chicago 61 per cent of the population have an annual income of less than \$2,000 a year. That has circumscribed our problem to limitations which create real difficulties. There has been no great difficulty in providing housing for people with incomes in excess of \$2,000. There have been many suggestions as to what we might do to provide housing for another bracket below \$2,000, suggestions such as the extension of long-term financing at low interest rates. We have had few, if any, practical suggestions as to what we might do for the lowest income groups, which constitute probably 40 per cent of the population of our city.

There are places in this town where we cannot talk very loudly about the subject of public housing. Tax exemption and subsidies are fighting words to some people, and yet we do have a very distinct problem, particularly when we have so large a portion of our city—and our city is no different from any other—which needs reconstruction, rebuilding and decent housing for so large an element of the population.

It is not my business this morning to talk to you about housing, but it is rather my business to extend to you this welcome of our city, and to suggest, perhaps as Chairman of the Housing Committee of the City Council, that we do have here in Chicago I think as fine a guinea pig for housing thousands as may be found anywhere in the country. We have the most beautiful lake front

and front yard of any city probably in the world, but back in our backyard. As in the backyards of a great many cities and towns in America, we have a really genuine housing problem that challenges the best thinking and the best thought that can be given to the problem. We hope to gain some inspiration from the discussions which you folks will have here in this hall and in the other rooms of this hotel. We hope that out of your meetings will come an answer to some of the questions that we have been working with for a considerable time and to which we frankly tell you we have not yet found the answer.

It is my great privilege, I consider it, to have the opportunity of presenting to you the Chairman of the National Committee on Housing, Mrs. Rosenman. I am very sorry that I only met Mrs. Rosenman as I came in here this morning and I cannot give her the introduction that I am certain she deserves, but she is probably known to practically all of the members of the National Housing Committee, and I now present Mrs. Rosenman who will speak on "The National Committee on Housing Faces the Future." (Applause)

THE CHAIRMAN: Before speaking I should like to read a letter which has come to the National Committee on Housing from the President of the United States:

Mrs. Dorothy Rosenman, Chairman
National Conference on Postwar Housing,
Drake Hotel,
Chicago, Illinois."

"It is timely that the National Committee on Housing has called this conference on postwar housing now. The Conference will provide an opportunity to the various groups interested in the housing industry—financial, construction, labor and community—to confer and find solutions for some of the difficulties that lie in the way of widespread postwar housing construction.

"Without stopping for a moment our struggle to bring about the unconditional surrender of our enemies in this war, it is appropriate that we consider various objectives to be sought in establishing security and happiness in our land after the war.

"It would be idle to dream that the security and happiness can be had just by laying down arms. The war will have caused vast dislocations of population and great changes in industry and in living habits and conditions.

"The goal to be sought here at home, when peace comes is full employment.

"We must plan now to employ the men and women who will be released from war industry when victory is won—at a wage which provides decent standards of living. One of the most important of these standards of living is a decent home—whether it be owned or rented.

"The home building industry will play a most important role in postwar America—furnishing dwelling accommodations for millions of families in the United States who will be seeking new homes after the war. In performing this task, it will be furnishing employment in all sections of the country.

"This is primarily a job for private enterprise. Government must continue, however, to lend appropriate assistance to private enterprise in this undertaking.

ing, and to assume direct responsibility for doing only that part of the total job which private enterprise is unable to do itself.

"Wishing your conference success in its deliberations, I am

"Very sincerely yours,

FRANKLIN D. ROOSEVELT."

Housing is an accurate barometer of the times. In prosperous days hammers, saws and assembly jigs supply a waiting market. In dull days they lie idle. In war days new housing is built only to serve the war worker, or the families of the armed services who have come into war production or military areas. In days of peace we look for housing to be built to serve a home-loving population, to supply comfort and nestling coziness to the war-wearied returning soldier.

In days of peace we also look for housing to be a mighty force to keep this nation pulled up in the bootstraps of prosperity. That task which is expected of housing is no light assignment and cannot be accepted with thumbs crooked in suspenders and fingers piano-ing the air, head cocked back and a smile of complacency. The task is mighty.

That is why the National Committee on Housing has set these three days of conference to consider three of the great factors that concern the success of a postwar housing program. That is why there has been so hearty a response from those who have been asked to participate in the conference.

It was our privilege to call such a conference as this in the dim days of 1941 when we spoke of Defense Housing. That conference mirrored and tackled the problems which were to come in the war days. This conference attempts to do the same for the days of peace that will come. For, unfortunately, the end of war does not automatically turn on an era of well being.

The end of war will not automatically set everyone back in the community which they left when they went to the battlefields or to the shipyards. It will not automatically furnish work in the places of war adoption. There will be a period of employment adjustments which will influence the housing market and tax the ingenuity of those who would supply the market.

At the end of the war we will again be faced by the fact that our cities are ill equipped to shelter a large percentage of their population and to provide the rudiments of a successful organism for living. Yet there is plenty of space for desirable living within our cities if the old parts were rebuilt to fit present requirements.

We will again be faced with the fact that millions of people will be potential builders, buyers, renters of homes, but they may be like the ancient mariner with houses, houses everywhere but never a one that *they* can buy. It is essential that we now appraise the methods of finance, the possibilities of new materials and of new ways of production so that the glad news of peace will find us prepared to produce the kind of homes that our families will desire in the locality they wish to live for the price they can afford to pay. It is essential that we now appraise the methods of attaining full production so that our people may be well housed and so that the dependence placed upon the housing industry for employment will be realized. We trust that this three-day conference will serve as a springboard for such stock-taking.

For the past year the National Committee on Housing has concentrated the

greater part of its work upon the future. We have even changed our name from National Committee on the Housing Emergency to the National Committee on Housing because many people, thinking that there is a housing emergency only during war days, thought our work would be ended when war workers were provided with shelter. We mean to continue to try to find ways of providing adequate homes in well conceived neighborhoods for all income groups.

Realizing that time has accumulated many obstacles and that heated words or preconceived prejudices will not develop methods of conquering those obstacles, we have pursued our policy of facing each problem and studying it with the help of many minds. Believing the old adage that many minds are better than one we have used many minds of diverse interest, our only qualification being that the minds be open and not narrow.

Evidence of our method of approach and of our work can be found in the things we have done this year in the issues of Tomorrow's Town; in the development of a postwar housing program for the Niagra Frontier; in the analyses of measures for urban redevelopment; in our recommendations for the disposition of war housing; in the study of the reflections of the various items of costs that make up the total cost of a house and the relative importance of changes in cost of each item. This last compilation of facts is now being prepared for publication.

Since June 1943 we have had a staff member spending his entire time in trying to interest private builders, private capital and the people in our many cities to build homes for that portion of our population that is most poorly housed—the Negro. There are many Negroes who can afford to buy or rent new homes. They present a sizable potential market which has been neglected. The neglect is noticeable because our Negro population is so miserably housed. There has been an erroneous impression that new housing cannot be built for the Negro with private funds because the Negro has not sufficient income. Many have not, but there is a proportion of the population in every city that has sufficient income and savings. In many communities builders and financial institutions have been very cooperative and it is to be hoped that the war's end will see a growth in appreciation of this potential market and a successful development of homes for it.

After the last war there was a vast building boom. Many of our present housing headaches had their origin in that dash for construction. In an endeavor to head off chaotic development of new subdivisions, we are now preparing a set of general principles of planning a satisfactory community of small homes. Many people feel that the new subdivision has an urgency for attention that exceeds the urgency for urban redevelopment plans because undeveloped land at the peripheries of our cities is immediately available and will be the first to be used when normal construction is resumed.

The program of today's session of this conference testifies to the importance that the members of the National Committee on Housing place upon the urgency for urban redevelopment. It is hoped that today's discussions will clarify many ideas and that the day's end may find those who attend enriched by a knowledge of all possible methods of approach. It would be most helpful to our future if the discussions would result in suc

clarification that the members of the conference could feel satisfied that they had found a method of solution. That is a high goal—one that we have not set, but one that we would be happy to achieve.

This nation lightly tossed the idea of a two-car garage for every family into fairy tale libraries, but it clings hopefully to the idea that every family shall have a sound and comfortable home. Tomorrow's session will consider the financial means of accomplishing this second goal, and Friday's session will consider the contribution that new materials and new methods of production will make in reaching the desired goal.

In preparing for this conference and in the day-by-day work of the office, the members of the staff and of the Board of Directors have given unstinting service. We have been fortunate in adding to our staff this year Mr. John Toedtman, Director, Mr. Norbert Brown, Field Director, and on a part-time basis Mr. Alan Taylor as Editor of Tomorrow's Town, and Mr. Henry Churchill who is preparing the principles of planning a satisfactory community of small homes.

We have been most unfortunate in the loss of Gladys LaFetra, our Executive Vice Chairman. Miss LaFetra supplied the sinews of this organization from the time of its organization until her illness and death. Her equanimity, sound thinking, clear vision and great knowledge propelled us forward. We miss her sorely, and I am certain that we will continue to do so. Her last words that I recall as she left the office shortly before her fatal illness were "The conference will have to be a success." In memory of Gladys LaFetra and with the hope that her desire for a successful conference will be attained, I am opening this conference. (Applause)

I take great pleasure in introducing as our first speaker, Mr. Jerrold Loebel, President of the Chicago Building Congress. Mr. Loebel is a member of the Postwar Planning Committee of the Chicago Metropolitan Housing Council. He is a Past President of the Chicago Chapter of the American Institute of Architects, and was formerly Director of the Department of Architecture at Armour Institute, which is now known as the Illinois Institute of Technology. Mr. Loebel will give you a developer's analysis of the problem of redeveloping substandard areas. (Applause)

MR. JERROLD LOEBL: Madam Chairman, Alderman Lindell, and Members of the National Committee on Housing, Ladies and Gentlemen: What are the requirements for successful urban redevelopment?

Let us begin by reading a paragraph by Hugh Potter, who is scheduled to speak to you this afternoon. Quote, "If you put black spots on the map of any large urban area to indicate the sites of recent construction, you will be drawing a circle around the city. You will have a diagram of an explosion that has literally ripped large communities at the seams, and cast large segments of the population to the outskirts. It is hardly accurate to describe the process as decentralization; rather it has been a process of disorganization and haphazard disintegration." unquote.

No one will disagree with that statement by Potter, but, once again, let us analyze the causes of this haphazard disintegration.

Most of our American cities are comparatively new, and their rapid

growth resulted from the invention of railroads and steam engines. Today automobiles and electricity are now disintegrating these same cities.

Until 1930 the population of our cities increased at a fairly constant rate. The city simply grew by adding new rings of settlement around the old periphery, each successive ring necessarily ever more distant from the original core. Of course, the automobile made these outer settlements and suburbs more easily accessible, and finally tremendously increased their development. Today new subdivisions follow every highway into the distant landscape.

It is significant that since 1930, and up until the war, the city population has remained almost constant, while the metropolitan areas show an average increase of over 20 per cent. Clearly, the desire to move out is strong, and each year we see more and more people leaving.

Our cities, not so long ago, were villages. They must have been good villages—good places to settle and live—for more settlers kept coming. Eventually, the railroads came, and industries also came, and great wealth and still more people. Hopes ran high, and people were surely glad to be there. But so many things have changed and worsened; we cannot truly say anymore that our city is a good place to settle and live. People now keep moving away, escaping in multitudes to the suburbs and beyond.

We forgot so many things in the hundred years our city was growing. We forgot that as our cities spread ever outward, the center became ever more distant from the landscape. Thus we unwittingly built inside our city a vast kind of prison, where people must live with scarcely any real contact with nature—with grass and trees and animals, with the open landscape and the unspoiled sky. We forgot that we were infringing human rights, and that no such city of free men could long endure. We forgot that nature is vital to human well being and happiness, and that men confined in prisons have always felt the loss of Nature more than anything else. The larger the city grew, the larger our prison became. Sometimes we call this prison "The Blighted Area." This, of course, must stop.

Obviously, something is wrong. Why are the people fleeing from their cities? It certainly cannot be for economic reasons—it really costs a family much more to live in a suburb. For children? Yes, that's one we all hear. Assuredly, children need fresh air, sunshine, playgrounds and the green countryside. Some claim better school buildings and teaching systems attracted them. Some went for the social contacts. Some went because the real estate taxes were less, but soon found out other things cost more.

Others went because the streets were nicer—bigger trees—it was just like the country. Then, too, they went to become part of a community. They felt the community spirit. But most often we hear that the desire was to be out in the open, in the fresh air, where buildings and houses were not crowded together, and where one could have a garden.

But these good things of life are hardly possible in our big cities of today, and people know it. Our cities are blanketed with industrial smoke and fumes, so that the air we breathe is always filled with soot and wind-borne filth. The very air endangers the health of little children. Yes, and the death dealing streets endanger the lives of children.

The horse and buggy streets were once safe enough to cross, but now

the same streets, with automobile traffic instead, are dangerous for everyone. Schools, hospitals and parks, stores and offices, and all the houses, are on these dangerous and noisy streets. Certainly, our city is now no place for children; and as a place to live, it is undesirable to nearly everyone.

Going to and from our daily work, packed together like cattle in trains and street cars, and looking through the car windows into the kitchens and bedrooms of the poor, seeing all the tumbling squalor of the slums, and children playing in the streets for lack of parks—we well can wonder angrily what people were thinking of in building such a town. But our city just grew. Only it grew in the wrong way; and it still is growing—in a sort of reverse way. Yet, we could, if we really wished, so direct this growth, that eventually our city would again be a good place to live in.

To do this, we must make a plan. It must be a plan embracing the entire region, and not merely a set of lines in the sense of curved streets or straight streets, but rather a framework for a life healthy and secure. We must have a plan that takes into account the resources of the region and its future potentialities—a plan that takes into account movement of industry—a plan whereby our cities will have an efficient and related system of railroads, highways, air communications and water ports—a plan related to the geography, geology and meteorology of the region—a plan which ties the city to the recreational parks and forest preserves outside the city—a plan which takes into account the use of the soil—a plan which takes into account the possibility of future wars, so that we will not be vulnerable to aerial attack. Only such a plan could again make our cities an efficient and economical workshop and place of business, besides being a desirable place of residence.

Because this is a meeting for the discussion of postwar housing, and because I have been asked to analyze the requirements for successful urban redevelopment in the development of our substandard city areas, I will spend the rest of my allotted time on the elements which I believe are necessary to make the city a desirable place of residence.

To cure the urban evils of today, it is necessary to build new dwellings. These dwellings should be planned as a part of a decent environment suitable for the development of family life. The essential constituents of that environment, and how they should be arranged, are a fundamental concern of a National Housing Program. Let us consider for a few moments the end product of such a program, rather than just the ways and means of achieving it.

In almost every one of our American cities, particularly those away from the eastern seaboard, we find that after we take out all the acreage required for industry, administration, and transportation, the balance of the land could be so arranged with a new street pattern, that if we so desire, we could house the entire population, so that each family could have a plot of ground of approximately 4,000 square feet to live on.

A low density pattern is desirable for our urban living, and we must combine that pattern with the ability of being near one's place of business, together with the elimination of smoke and soot from the air. This can be done by keeping the residential areas in their proper relationship to heavy industry and the prevailing breezes.

If in the redevelopment the cities can accomplish that much, the substandard areas will make the first step in being in a position to compete successfully with the outskirts and the suburbs. With this will come pure air to breathe, sunlight for health, and a little space of earth to stand on or to till. These are not luxuries, but needs of existence. Without them, we must surely sicken and die, even as our cities are now dying. But, in addition to that, we will be close to our place of business. We won't have to spend an hour or two a day traveling to and from our work. What does this inefficient method mean? The anthropologist could tell us what will happen to the third and fourth generation of commuters. As an extreme case, a friend of mine lives in a suburb here which requires him to spend one hour to get to his office; a total of two hours a day; twelve hours a week; in twenty years, it amounts to 520 full days of travel; almost a year and a half, or about four and a half years of eight-hour working days. And just think he has to pay for the privilege, but he gets out into the open—the same openness we can create in our cities, just the way most of them were a hundred years ago. Could not our cities be so planned?

This low density will also help solve our planning in connection with our vulnerability to future attack in case of war. It's terrible to talk about such a thing when every day so many of our boys are giving up their lives, but I suggest that anyone who doubts the soundness and necessity for such planning just read: "How to Think about War and Peace," by Mortimer Adler, and draw your own conclusions of what may happen in the next few future generations.

And then the residential area of the cities should be divided into communities—communities not for rich or poor or white collar alone—but communities which will house all types, in which one may be born and die, in which the movement from a small to a large family and back again can take place in a life-time—a community that will have the neighborly spirit which we like in a small town or suburb.

As for the houses themselves, they should have sunlight and living space and privacy—privacy not only from your neighbor, but also from parts of your family, if so desired. The rooms of each house could open on a private garden; this garden might be large enough for a sizeable vegetable plot or just grass and trees. Apartment buildings for those who might not care to live in individual houses could also be sunny, sufficiently spacious and private, and all the rooms could face a view over gardens and parks.

We could quite easily have such dwellings; and our children wouldn't be killed crossing the streets. We would stop perpetuating the present day horse and buggy system of streets. We would, instead, build a street system fitted to automobile traffic.

Houses would be on byways, and none on highways. Tree-shaded and intimate, these auto pavements would be rather more like garden lanes than streets. Of course, the byways would connect to arterial streets; and these, in turn, would connect by underpasses and ramps to fast safe highways. No thoroughfare would ever directly cross another thoroughfare, and so traffic lights and stop signs would be unnecessary. Auto accidents would diminish to a minimum. We would soon discover, also, that the old system had far

too many streets, and the savings in paving and maintenance would help reduce the cost of running the city, and, therefore, lower the taxes. But most important—our children could reach schools and playgrounds without crossing a single traffic street. We could all walk anywhere without the least danger.

We must disperse our landscape through our city. Continuous parks, combined with orchards and vegetable gardens, would enter our cities for healthy living. There, close to his house, the city man could till land and harvest the fruits of the earth. This part-time garden work would help to offset the many disadvantages of our machine industrial age and office routine; and the return in produce would give the householder a new measure of economic security.

And with all this must come the schools—schools built in spacious parks, and staffed by really competent teachers who are integrated into a sound modern system of education.

Add to this, the libraries and all the facilities that are used by young and old alike, thus making possible the actual physical equipment being in use twelve hours a day, instead of six. Adequate and modern hospital facilities would also be located in the parks.

Merely to build new buildings in old slums can only perpetuate the present evil of the sub-standard areas of our cities. It cannot cure it. The smoke-laden air, the dangerous streets, the inefficient and needless transportation, the distant and meager parks and playgrounds, and the city's gray and unwholesome environment, unfit for growing children—all these would remain unchanged.

Only a city of green landscape and gardens—of sun-filled houses—clean air—safe streets—only a city for living can be immune from slums—how else can we redevelop the sub-standard areas of our city?

You notice I have said nothing about brick—or mortar—or plastics—or building codes—or labor restrictions—or prefabrication—or new methods of distribution—or taxes—or new methods of financing. They, in themselves, cannot solve the problem of the urban redevelopment. They are only a means to the end product I have tried to describe.

I believe that what I have described makes sense—horse sense, if you will. And from any point of view, it makes for better health—it makes for sound investment—it eliminates waste—it simplifies our municipal services, reducing our cooperative costs. It makes men better fit to work if they are in a production line. It makes living for everyone worth while. And I am sure, with that will come better understanding of one to the other. How long must we wait for action?

To rehabilitate any sub-standard area is a challenge to all of us, which has to be solved without further delay, or the consequences are too numerous to mention. To build such a city, nothing need be destroyed—nothing prematurely torn down.

The useful of today could be used. The new city would simply be built according to a reasonable plan by the gradual process that replaces obsolescence anyhow. Our existing buildings are short-lived; at best, a few will be standing fifty years hence. So, soon might the new arise entirely complete

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from the obsolescent rubble heap of the old. No billions of dollars are necessary. All that is necessary is the vision to see it and the heart to make it. (Applause)

THE CHAIRMAN: You have had the pace set for you. The rest of the day is not going to be pace-making. The rest of the day will be devoted entirely to dollars and cents. Our speaker who was to follow, Carl Chatters, unfortunately was rushed to the hospital for an emergency appendectomy, and yesterday I performed the greatest service that I will have rendered to this conference. When we really first set forth to get speakers for this day, we found a great paucity of material in this country. There are not very many people who are thinking on the subject, and we combed the country to find people who could speak about the financial ability of a city to meet the problem of urban development and we found two people. One was Carl Chatters and the other was Professor Simeon Leland.

We asked both of them and Mr. Chatters said "yes," and Mr. Leland said he had a lot of things to do and he just could not see his way clear to doing them, so when I got word that Mr. Chatters was ill, I again shifted around to find out where I could get someone else. I did not think I could go back to Mr. Leland, since he had turned me down, but I could find no one else, so in desperation yesterday afternoon I called him and he very kindly consented to come and pinch-hit for Mr. Chatters.

He has prepared no material, but he has at his finger tips not the answer to urban development but a knowledge of state and municipal financing, which he will analyze for you. Professor Leland. I meant to say that Professor Leland is the President of the Federal Reserve Bank of Chicago and Chairman of the Department of Economics and Professor of Government Finance of the University of Chicago. Professor Leland. (Applause)

SIMEON LELAND: Plans for urban redevelopment in the post-war years should clearly distinguish two types of urban centers: (1) those brought into existence, or uneconomically expanded, by reason of war production; and (2) those centers which absorbed as a part of their normal growth the enlarged productive activities due to the war. The first group of urban communities most probably represent the future problem areas—the ghost towns of the post-war decade—due to the fact that production within their borders will be uneconomical in a post-war economy. Undoubtedly efforts will be made by those interested to secure subsidies or other assistance to prevent the liquidation of these places. Nevertheless sound national policy requires that this be done, particularly if healthy communities are to be assured the growth that is their due. Uneconomic production can only be maintained at the expense of profitable production.

The second group of urban communities, not to be confused with the war-plant towns, have experienced the pains of growth incident to the expansion of war production, and have witnessed the increased demand for public services and governmental facilities arising from population growth and the increased tempo of industrial life, but due to shortages in manpower, as well as in materials, many of these demands could not be met. Such demands will be carried over into the post-war years. When the process

of reconverting industry from war to peace begins non-competitive public works projects, which form a large share of the urban back-log of demand for increased community facilities, should be undertaken. Building maintenance and repairs which have been kept at a minimum during the war should be commenced; road and street construction which have been reduced should be resumed; sewage projects will no longer have to be postponed; slum clearance projects suspended during the war can be revived; housing construction, save that in connection with war work, which has been minimized can be resumed on increased scale. With the appearance of temporary unemployment incident to the reconversion of industry the resumption of activities should help ease the employment and adjustment problems following immediately the end of the war. They will utilize construction labor now more freely available, as well as construction materials available locally. In large part they do not require machine tools or scarce goods needed for the retooling of industry. These community activities should usher in the more complete programs of urban redevelopment so necessary for modern living.

There is danger that the impetus which such reconstruction, repairs and building would give to post-war production and employment may be lost if war-time wage levels are put over on to peace-time production, or if purchasing power is lost through continued price increases, or if economically sound plans are not followed. There is always danger that money spent will not produce economically significant effects if expenditure takes place too soon (in the midst of war-time prices and costs) or if expenditure is on the wrong things or in inappropriate places. The time and place of post-war expenditures are of economic importance. There is also the danger that governmental expenditure for facilities and capital outlays may be too small to meet reemployment needs. The construction job facing American states and cities is a large one. If public expenditures on public facilities are expected to affect levels of employment and production in post-war years the sums spent will have to be substantial. To keep the present labor force (or the appropriate equivalent for normal times) employed is a task of great magnitude. It is greater than the present capacity of either private industry or government acting alone. Both must unite in the effort. The public portion of the task is far greater, too, than the resources of urban governments.

When urban governments are confronted by demands requiring additional funds three ready answers are usually given to the question, "Where will our city get the money?" The first answer advises the search for new taxes, preferably on *things* not already taxed. The second advocates increases in grants-in-aid or shared revenues or other assistance by state and federal governments. The third reply frequently given wherever capital outlay is involved suggests recourse to increased borrowing.

Borrowing avoids many problems in current taxation but at the expense of interest and future taxes. Often it is an appropriate policy; quite as often it is inappropriate—a fact which is realized during depressions when levies for debt service absorb so great a portion of the limited resources of communities that they are forced to compromise their obligations or impair public services in order to pay their debts. In the prosperous years that lie

ahead increased municipal borrowing may again attract our citizens. It is an easy way to avoid increases in present taxation and the solution of difficult fiscal problems. It is easy to argue, "why tax when we can borrow." Nor do self-liquidating loans of public industries deserve a better recommendation if those industries, too, are subject to the vagaries of cyclical economic fluctuations. Not all of them are affected by the business cycle but again general approbations lead to difficulty. The presumption, therefore, should be in favor of taxation (especially in prosperous periods, such as may lie ahead after the war) and against borrowing.

Of the two remaining courses one involves reliance by urban governments upon its own (but expanded) resources, the other involves financial assistance to local governments by the larger central units. Adherence to these schools of thought or finance often is on the basis of political philosophies rather than by reason of an understanding of the financial problems involved. At one extreme is the view that urban governments *do not need financial assistance*, at the other is the view that *they should not receive assistance*. Some communities take the view that *they want no outside financial aid*, even though the problems to be solved are beyond their capacity to meet them.

New sources of revenue for municipal governments are not easy to find. Productive taxes have largely been discovered and already are being utilized. Here and there a tax may be more fully exploited or a new revenue measure may be adopted, but by and large the property tax continues to be the main prop for urban finances. Possibilities for its further exploitation are limited; new additional sources capable of producing substantial revenues, in the typical case, are equally limited. Such taxes as urban communities can adopt due to their circumscribed political or territorial boundaries are easy to avoid; these same taxes can better be administered by larger units of government. Local sales, income, inheritance and corporation taxes, for example, can be more effectively administered by state and federal units than by cities. The states, moreover, have made the laws telling the cities what they can do. And, when they made the tax laws the states generally claimed the taxes which were most lucrative and which could also be best administered by them. Thus the unit which administers best also tends to keep all of the cash collected—or the lion's share. This process has been going on for years, during which time the financial position of urban governments has tended relatively to decline. The urban revenue system is not as adequate to meet service demands as it was a century ago. Meanwhile the demands for service have steadily increased.

It is the demand for public services which forms the primary basis of the claim of the urban government for public funds. This demand is the reflection of many factors, all of which form the roots of urban life. The service demands grow as urban centers have grown—oftimes more rapidly than population growth; they are affected by technical and scientific progress, by industrialization, by improved standards of living. The result is seen in the vast array of public services and activities urban governments perform for their citizens. Compare these services with those of any other unit of government to determine the strength of the claim of the urban unit for

funds. Contrast that claim with the resources at their disposal and the case for added funds for urban governments is clear. The centers of wealth, income and population must be given financial resources adequate to provide the communal needs of urban dwellers. If good taxes can only be effectively administered by larger units, revenue collections should be shared with local governments. If these larger units will not share the taxes collected under proper measures or provide adequate financial aids in some alternative form, local units will be forced either to curtail public services and necessary improvements or they will be forced to resort to the use of unwise tax measures likely to produce economic effects which should be avoided. Even poor taxes with improper effects may be preferable to inadequate public service. It is to be hoped that this choice may not be the only one to be made. In the face of growing demands upon urban governments this choice may, however, be forced upon the bulk of the nation's population unless urban claims for funds are better recognized.

Rather than share its tax collections the central government may prefer to grant localities subventions to support services, or activities, of interest to the grantor. Often the grants are conditional and require the matching of funds. The conditions may be framed to foster services favored by the central government and hence may not be the best use of funds for the recipient. The converse, too, may be true. The accessibility of free funds for particular uses may distort the allocation of local resources among various activities by raising the marginal worth of services subsidized through grants-in-aid. Even the matching arrangements may warp somewhat the local tax systems. On the other hand, without grants many valuable services would not be performed, new activities might not be undertaken and the whole level of local governmental service might be below the optimum sought for the nation as a whole. Special funds for special purposes create special problems, whether the funds come via taxes or grants. An imperative need of urban governments is for funds available for expenditure on the basis of local needs locally determined in the budget process. The services supplied provide a valid claim for funds unconditionally surrendered, provided that a fixed minimum in the quantity and quality of services has been provided. When governmental service reaches the agreed standard local units should be given funds through grants and shared taxes to spend as local conditions and opinions approve. The sharing of revenues centrally collected really only gives urban governments a share of the resources within their political boundaries—they share in what is their own, collected for them by larger units capable of more effective administration.

If grants are an expression of the bounty or generosity of the central government to be withdrawn at the caprice of the grantor or extended to promote the purposes of the central government, shared revenues may be regarded as a revenue source of the local government itself collected for it by the larger agency. If the sharing is in proportion to tax collections individual local governments secure a share of the resources within their confines. They are not made the object of state bounty or charity. They should be free to receive and spend what is their own. This increased freedom and the added financial resources from centrally-collected-locally-shared taxes will be needed by

urban governments to provide the essential rehabilitation required in the post-war years soon to come.

Although this sharing will provide some financial independence for urban governments in the years ahead the tasks of post-war rehabilitation require the joint efforts and the combined resources of Federal, state and local units. The cities acting alone cannot provide the required funds. If they try the effects may be inappropriate—the wrong taxes will probably be utilized, or the rates of taxation may be increased too much or at the wrong spots or at the most inappropriate time. Many of the states are now in a position to aid their local units; because of their more highly diversified tax systems states can extend aid; still other states now possess surplus funds which can be utilized to provide post-war re-employment and rehabilitation. The Federal government also stands ready to provide some assistance although the precise terms on which it may be extended have not been adopted. Those state and local officials who say Federal aid will not be required are really laughing in the dark—they do not realize the enormity of the post-war tasks. These tasks are big enough to require the resources of all governments and the ingenuity of all citizens. They require government and business to act wholeheartedly together. Post-war redevelopment will be a challenge to our economy and to our way of life.

THE CHAIRMAN: Thank you very much, Professor Leland. There has been a great deal of supposition as to what the municipality may or may not be able to contribute to post-war urban redevelopment. I think you have given us a very clear analysis of the way you find it.

Professor Leland will not be able to stay for the afternoon session, when there will be general discussion from the floor; therefore, I should like to take just ten minutes now for anyone who has some questions to address to him. Are there any questions from the floor?

LT. W. M. MILES (Norfolk Navy Yards): I should like to ask what the effect of this improvement will be in a state like Virginia where we have some old cities. Before the General Assembly of Virginia now there is a bill for just about the thing you stressed, for the state to give their surpluses to the city governments. In this case most of it would go to the county governments. Do you think that the same general principle would apply if the counties administered the money for the big cities?

PROFESSOR LELAND: I would say "yes" outside of Virginia, because in Virginia, you know, they have the phenomenon of having the cities with separate status from the counties. The first-class cities of Virginia, of which there are about a dozen, have the same status as county governments elsewhere. They are financially independent from the counties that contain them and by and large they can do about as they please.

The one problem that arises when a city occupies all the space that is assigned to it and then continues to grow and to spill over into the county is what are you going to do about it. It rather strikes me that if in the long run we are going to make any headway in solving the urban problem, with the

satellite cities, with the clusters of manufacturing around them, with the difficulties of trying to develop regional governments, the one hopeful thing is to give to the counties the kind of government which the city has and then to wipe out the urban and rural boundaries in all counties that have a population large enough to maintain a full-time competent governing staff.

By and large, if you can once get in the counties the kind of responsible centralized government that you have in an urban community, then you can make a start on the problem of providing regional government and getting government within the local territory directly involved, and you can tax all of the industries that are now outside of the city limits and are put there solely to avoid city taxes. You can tax the income of people who work in the city and who commute to the suburbs and yet who cast their burden upon the city for public service. By and large the county is a large enough first step to make toward the solution of that problem.

I do not think you can begin to solve the problems of finance without beginning also to look somewhat at the structure of government, and we need to get into our consciousness the notion that there ought to be only one unit of government in a particular spot, one unit of local government in a particular spot, instead of having, as there is in this territory here where we now stand, about twelve overlapping local units each with independent levies, each going their own way, each without a head except as it is provided in the urban government, and that is a part of your problem.

Now where you have in Virginia separate cities and counties, it seems to me that the urban centers really have the status of counties so far as the Virginia law is concerned and ought to be included in that bill or the League of Virginia Municipalities isn't very wide awake.

THE CHAIRMAN: We have time for just one more question.

MR. G. H. GRAY (New Haven, Conn.): I should like to ask Professor Leland his opinion of the city income tax of Philadelphia.

PROFESSOR LELAND: I do not live in Philadelphia. As nearly as I can find out, it is operating fairly well. There is some difficulty with respect to it because of the limited territory within which it operates, but if I understand the way it works correctly, even the commuters pay a tax and the city gets more than it otherwise would. They would get more still if it were imposed on a county basis instead of a city basis.

MR. GRAY: Do you think it is sound?

PROFESSOR LELAND: Well, it will get revenue. As an alternative between that and a state-administered income tax, I would say that a state-administered income tax, with a division of proceeds, would be even better, but it goes back to the problem that if you cannot get good taxes then bad ones will yield a lot of money.

MR. L. L. LEVENE (Freeport, New York): I should like to ask, supposing we ignore government and establish a national organization and local

groups of private enterprise, including agricultural labor, to decide on what will constitute a fair percentage of a person's income for local, for county, for state and for federal government and let the governments follow the programs that we set out to do?

PROFESSOR LELAND: Oh, you would like to take over the government? That is a decision that belongs to the government. I don't know of any other answer to that.

THE CHAIRMAN: Thank you very much, Professor Leland.

I want to apologize now for having started this morning a little later, but we had a much larger registration than we had anticipated and it took time to get you all in. I want to say that for the rest of the conference we will run as railroads used to run before the war—we will run on schedule. We will try to keep to the timing of the program and end on schedule, which means that Mr. Robbins now has a half hour in which to tell you what he thinks the state can do to answer the problems of urban redevelopment. Mr. Robbins is the one state official in the country who has had years of background and experience. He was formerly the counsel to the State Board of Housing in New York City. He has grown up with the state government in housing and, as you know, New York State was the first state to have a state division of housing. Mr. Robbins has been Acting State Commissioner of Housing this past year. I take great pleasure in introducing Mr. Ira Robbins. (Applause)

MR. IRA S. ROBBINS: In discussing the role of the state government in dealing with the problem of redeveloping substandard areas, I have, of course, to make certain assumptions. First—that nobody expects a state to do the whole job; second, that a good deal of the discussion about urban redevelopment stems from two types of recent and proposed legislation. In seven or eight states various types of so-called urban redevelopment corporation laws have been enacted. In the last year or so we have had considerable discussion of the Wagner and Thomas Bills in Congress. They provide in substance—and this is a very short description of the bills—for “loans” by the Federal Government to municipalities for land acquisition, and the repayment by the municipalities of those loans over a long period of years at a low rate of interest, provided that they can find the money to repay the loans. In other words, although the bills do not say so, there is a distinct element of subsidy involved.

In this discussion, I am going to assume either that that type of legislation is not desirable—and it is just an assumption—or that Congress won't pass it, which is very likely. I have jotted down ten points on which I think the state can play a part in helping municipalities and private enterprise in dealing with the problem. Some of these points involve finance. Others do not. My main thesis is that most of them represent a program of action by the municipalities and the states which can be commenced today. It can be started today while we wait for the outcome of the fight in Congress as to whether or not the funds are going to come from the Federal Government, or the fight in the

states as to whether or not the cities are going to get a larger share of taxes from the states.

It seems to me that it is extremely important not to think in terms of dealing with substandard areas alone. If huge sums are to be spent in redeveloping such areas, we must plan the entire community, and even the region around the community, because if we do not, we are going to be walking a treadmill. Right after the war, city officials are going to be talking about redeveloping substandard areas and perhaps they will be trying to do something about them. At the same time, the boom is going to take place on the outskirts of the cities and right over the city line and new potential slums will be created. We are likely to see some haphazard, spotty redevelopment.

Every time I think of spotty redevelopment in the form of some kind of community face-lifting, I think of the incident of the very well dressed gentleman walking up to a swanky bar and asking for some scotch, straight. The bartender gave him a jigger of scotch and the man picked it up. His hand shook so much that the liquor spilled all over the bar. The bartender took a look at him, filled another jigger of scotch and poured it into a tumbler. The man took the tumbler, but his hands still shook and he spilled it again. So the bartender said, "I'll fix you up," and he put some liquor in a beer mug that had two handles on it. The customer grabbed the two handles and got the scotch down straight. Then he relaxed and started talking to the bartender. The bartender said, "What are you doing these days?" and the man said, "The same old thing, brain surgery." (Laughter)

I am very much afraid that some of our spotty redevelopment will be that type of surgical operation. It will be awfully expensive. It will be one of a long series of operations. Unless we adopt master plans, we are going to indulge in a spending spree that will only result in cities with new substandard areas, either in the old places or in new ones. They will have the same old disadvantages, to make an under-statement, that is, lack of proper housing, lack of places for recreation, parks and playgrounds, undue density of population, traffic hazards, and what not.

It seems to me that the state has an important part in educating municipalities as to the need for a master plan. Incidentally, in jotting down my ten points and reading them over this morning, I was amused to find out that I had not listed one point that should be at the top, and that is that there should be a state planning board. It should be well financed and well staffed.

In the second place, tying up with the need for a master plan, is education on the need for orderly, planned decentralization. There are two kinds of decentralization. We have been having one type for many years. It is the haphazard type that has been described here today that wrecks the centers of our existing cities and creates the slums of tomorrow somewhere else. On the other hand, if we are going to spend money for the redevelopment of substandard areas, we must have a plan for decentralization of our cities, so that when we are finished, if that day comes, we will have the old communities stable and desirable places in which to live. We will also have new communities which will be desirable places in which to live and which will not be potential substandard areas.

In considering this problem, we must watch out and prevent the social

and economic stratification that can take place when we want to do big things in a big way. We have seen some signs of that dangerous type of stratification in the projects that have been undertaken already by both government agencies and by private enterprise and by a combination of the two. We must make the distinction between the desirability of having huge reservoirs of investment capital or government money used for redevelopment purposes, and the desirability of having that capital used for undertakings or projects of an appropriate size which tie in with a sound master plan.

My third point is that the state can help immeasurably in educating municipalities as to the need for modernizing and enforcing local demolition ordinances. There is no reason why we cannot get started today to encourage communities that have no demolition ordinances to adopt them. There are some ordinances in this country, and in my own state, which have been interpreted by the courts to mean that a public official can order a building pulled down if it is dangerous to passersby, but if it is twenty feet back from the street and would only kill the tenants or the owners if it collapsed, then the city has no right to pull it down. That type of outmoded judicial thinking or legislative drafting certainly can go by the boards. I see no reason we cannot start to put the skids under that type of legislation and obtain appropriate ordinances right away. Incidentally the enforcement of demolition ordinances certainly ought to cut down the cost of acquiring land in substandard areas.

We also need up-to-date building codes, and we need zoning ordinances that are realistic and that have teeth. We need very strict measures for subdivision control, because if we concentrate attention on the central parts of our cities and neglect regulation of land use on the outskirts, we are going to have the same old subdivision trouble all over again. We certainly need new legislation which will permit speedy and economic foreclosure of tax-delinquent property. We not only require legislation—we need some sensible policies in dealing with tax delinquent foreclosed land. The usual policy is to foreclose when the market is lowest and then to dump the property right back on the market. Cities could put tax-delinquent property that is foreclosed to advantageous use. They could use it for public purposes. They could exchange it. They could sell it at an opportune time.

The state also has the job of providing municipalities with all the legal tools that they need in order to execute any plan for redeveloping substandard areas on a large scale and for carrying out master plans. The obvious one, of course, is the power of eminent domain. In some states undoubtedly there will be a question as to whether or not a city has the right to use that power to acquire all the property and then to sell it off. In many states we know now that it is desirable to start the machinery for a constitutional amendment, so that there will be no doubt about that power and so that we do not lose two or three years in court litigation before we can actually get a program under way. In many states there isn't any question about that power, but there remains the problem of bringing condemnation legislation up to date so that we eliminate red tape, delay, and excessive awards. There are techniques for bringing down excessive awards in many states.

Of course, in one state I know of—and you probably know of others—a jury trial is required on the question of the amount of the award for every

piece of property that is taken for a public use. You can imagine how long it would take to try the cases where any large-scale undertaking is involved.

If the policy that I have discussed is to be followed we will need the power of eminent domain not merely to obtain land in substandard or blighted areas, but also to acquire land outside of substandard areas which is to be developed as part and parcel of the entire municipal, metropolitan or regional plan. What is more, we will probably need additional power, and that is the power to acquire reserve lands. These lands may be used at a later time, or may serve as a protective belt to the municipality for all time.

The idea of having a municipality acquire reserve lands may sound like a radical doctrine to the man on the street—putting the city in the business of owning real estate. I was very much interested last night to read a report about the communities built by one of the best known private developers, the most successful from the point of view of obtaining desirable communities. Mr. J. C. Nichols pointed out the need for these protective strips or green belts around developments. He also pointed to the expense involved in trying to obtain those protective strips once the development was built.

Now I should like to discuss for a moment the various types of urban redevelopment legislation that have been passed by seven or eight of our states. Many people feel that private capital should be given the first opportunity to redevelop substandard areas of our cities. I agree with that view. However, this legislation must have, it seems to me, two basic provisions. One is that the municipality should have the power of eminent domain to assemble land on a large scale for the redevelopment corporation. The second is that it is up to the municipality itself to decide whether or not it is going to assist in redevelopment by granting some sort of partial tax exemption for a stated period.

Somebody said that "partial tax exemption" are fighting words. In my opinion there is a lot to be said for the formula which provides that in any undertaking of this kind the city should tax the development on the basis of the assessment on both the land and the existing buildings before the project was undertaken. On that basis the city loses no taxes whatsoever. In many cases it probably will collect more taxes than before, because of the great percentage of tax delinquency in substandard areas. The loss for the stated period of tax exemption is probably in many instances a bookkeeping loss, because if that type of assistance isn't given, the project won't be undertaken and the city will not receive any more taxes anyway.

I am not concerned about the amount of profits that an urban redevelopment corporation makes, provided, of course, that it does not receive any cash subsidy. I think that if we are going to bring venture capital into this field, the profit motive must be realized. I am not talking about the speculator who wants to get 25 or 30 per cent more, and who wants to see it before he goes into the deal. I am talking of profits of anywhere from 6 to 12, perhaps 14 per cent, on an investment over a long period of years. I think that the way the legislation has been drawn in most of the states, there is very little likelihood that enormous profits will be made. If the fundamental objective is to clear substandard areas by private capital, then by all means help it by giving it the benefit of the power of eminent domain and partial tax exemption. Let's

not worry too much about the profits, because it is going to do the job that we want it to do.

It may be that in many instances, private capital, assisted by all the techniques and procedures that I have mentioned, cannot do the job. I realize that, and there is the school of thought that gets down to the discussion of this problem by saying, "Look, the whole thing turns on this question. How are you going to make up the difference between what it costs to obtain the land, and the value of that land for redevelopment purposes? You have to wipe out that differential and until you wipe out that differential, you are not going to have any redevelopment of substandard areas." My feeling is that there are various procedures, some of which I have mentioned, that will help to bring down that differential. However, if private capital can't do the job even after these techniques are used, I think that we should give consideration to the possibility of loans by the state, at a low rate of interest, but at the actual rate of interest which the state may have to pay for the funds. In other words, the city should get the benefit of state credit without cost to any taxpayer in the entire state. I believe that the use of a state bank would be desirable in order to have a revolving fund, and in order to eliminate a good deal of the red tape that ordinarily would come up in connection with state loans to municipalities.

I might give an example of how that might work. You all know that the interest factor is the biggest single factor over a long period of years in the ultimate rents to be charged for any type of buildings that are undertaken in a large-scale project, whether it is residential, commercial or industrial. The rate of interest over a period of twenty, thirty, forty or fifty years is going to outweigh and be more important than the land cost, the labor cost or the materials cost. New York State finances its public housing projects in part by direct loans from the state to the housing authorities. The state gets all that money back. Last week the State of New York sold a bond issue that runs for fifty years, that has the full faith and credit of the state behind it, for an interest rate that runs 1.286 per cent less than 2 per cent for a fifty-year bond issue. It seems to me that if there is any differential at all between the rate of interest that a municipality has to pay for its money and the rate of interest that a state has to pay, it would be to the distinct advantage of the cities to borrow from the state.

On the question of whether or not the state should give any cash subsidy to undertakings of this kind in order to wipe out the differential that I spoke of, we know what the obstacles are. Professor Leland put his finger on one of them. State legislatures are controlled by the rural areas. I am not looking forward to state subsidies as one of the things that we can count on at this stage of the game in financing the redevelopment of our substandard areas. However, I think that the planning item is so important that the states can help materially by contributing to the cost of planning in municipalities. By that I do not mean that they should give some money for planning in general. I think that it would be worth while for the states to share the cost of planning the redevelopment of municipalities on a fifty-fifty basis with the cities.

To be realistic, I do not think that anyone who talks or is interested in the subject of redeveloping substandard areas can ignore the serious problem of housing the lower income groups. That is a subject that is going to be dis-

cussed at length tomorrow and I am not going to discuss it today. Nevertheless the problem of rehousing those who are displaced and the problem of housing lower income groups in the community as a whole has to be faced. I think it would be a good idea for other states to consider the possibility of undertaking independent state-aided public housing programs similar to the type now being undertaken in the State of New York.

I agree with Professor Leland that the problem of working out the tax relationships between states and cities is fundamental, and it is another one of the things that we can start working on today without waiting for the war to end. Finally, I think that the states can assist the counties, towns, municipalities, and villages in planning on a regional basis.

I want to close by saying that what I have outlined is undoubtedly the hard way, but maybe it is the sound way. (Applause)

. . . Announcement as to luncheon and dinner tickets . . .

THE CHAIRMAN: I want to say that this afternoon's discussion will be both from the floor and from the dais and I hope you will all be here to participate in it. Thank you.

. . . The meeting recessed at twelve thirty-five o'clock . . .

WEDNESDAY AFTERNOON SESSION

MARCH 8, 1944

The meeting convened at two-thirty o'clock, Mrs. Rosenman, Chairman, presiding.

THE CHAIRMAN: Will the meeting come to order, please? This morning you heard from a municipality and from a state. You heard from the most reliable people whom we could find in the field, the most informed people whom we could find in the field, on what might be anticipated in the way of aid from the municipality and from the state. The third part of our government is the Federal Government, and the plans that have been proposed to date all deal with some form of help from the Federal Government. We have heard from the east coast and from the west coast and from the north and from the south, the thought that we do not want the Federal Government in this picture, but we want to get away from the Federal Government. So we asked these people who speak to us today to try to get us some means of help that can be had without resorting to aid from the Federal Government. You will have time to discuss them and to discuss the other plans that will be presented this afternoon at the conclusion of the meeting. By "at the conclusion of the meeting," I do not mean that they will be just addendums as the few questions this morning were, but the major part of the afternoon will be given over to discussion from the floor.

We will now hear from a gentleman who has spent a great deal of time in going through the country and discussing one form of aid, and that is aid from the Federal Government. You would expect that this gentleman would be a government official, but quite to the contrary he is a private industrialist, although he comes to industry by way of the legal profession and by way of the bench. Mr. Hugh Potter has been President of the Urban Land Institute, Chairman of the Houston Postwar Planning Committee, and President of the River Oaks Corporation, which has developed a residential area of 1200 acres in the city of Houston, and Mr. Potter is also a Past President of the National Association of Real Estate Boards. So you see he is no government bureaucrat. Mr. Hugh Potter. (Applause)

MR. HUGH POTTER: Mrs. Rosenman, Ladies and Gentlemen: It is, indeed, a compliment to be distinguished nowadays from the government bureaucrats. (Laughter and applause) I am happy that Mrs. Rosenman did it because I would have had to do it had she not done it. She wants to get on my side, too, and I took it from the President's letter which Mrs. Rosenman read this morning that he, too, desires to get on the private enterprise bandwagon.

Mr. John B. Blandford who is here—I saw him down in the soft drink compartment—and who will make a statement, I believe, tomorrow, made one before the House Committee on Grounds and Buildings. It was one of the

strongest statements I have heard in favor of postwar housing by private industry. So my little group is growing and you have no idea how happy I am to welcome some of you into it.

Outside of the efficient and effective management of the National Committee on Housing, Mrs. Rosenman, I believe that the unexpectedly large attendance is in some respects due to the fact that, just like the prior speakers and just like myself, most of you who come here, if not all, do not know the answer to the question: how to rehabilitate our cities. I want to line myself up right away with those who do not have the answer.

I am going to discuss, however, five forms of federal aid to the rehabilitation of cities. Of course, I am not suggesting that these are all of the types that you have heard of or that will be discussed at this meeting, but they are the ones which to my mind stand out as most important and at this time most likely to be usable. You heard Mr. Robbins say this morning that he was going to avoid discussion of federal aid and tell only about some of the aids which he thought could be effective from a state standpoint. The procedures which I will discuss do not by any means complete the field of possible aids from the Federal Government. Indeed, I have an idea that Professor Hansen will have some to discuss with us that have, as the program says, never been discussed in public before. Private thinking is more productive anyway.

In connection with these five types of federal aid, I want to hit lightly, if I may, upon local aids, but lightly because they have already been discussed and will be during the following two days, and lightly upon state aids which Mr. Robbins has covered. Then I want to have something to say about lowering the cost of housing which to my mind is an absolute necessity in the postwar period. Then if time permits I should like to have something to say about Mr. Nathan Straus' book, "Seven Myths of Housing," for I see it is nowhere else scheduled on the program, and I cannot imagine a housing conference adjourning without discussing it to some extent.

Now for the five approaches to federal aid. There is one thing that none of us will disagree about, I believe, that the Federal Government should do something to aid low cost housing and slum rehabilitation. First it should engage in a broad research program. It should have available to everyone, and particularly to private industry, population trends, conversion programs after the war, the facts of decentralization of industry, of conversion of industry, so that the probable impacts of those governmental actions may be studied in advance. You know the Agricultural Department of the government renders a service to farmers and cattlemen which is extremely valuable to them. The FHA also renders to builders a planning service, a land planning service which is extremely valuable to them.

Government aid of this sort, the assembling of reliable facts, the engaging in intensive research, apart from and on top of the research that is going on in private industry, is a way in which the Federal Government can aid in the thing that we are studying here. I believe no one will object to government research. It ought to be done regardless of whether you favor any of the other four forms of government aid or any of the additional ones which may be presented by Professor Hansen or others here.

A second form of Federal Government aid for slum clearance and the

rehabilitation of cities is the guaranteed bond, a government insured bond. The bond, of course, would be a municipal bond, but the credit of the United States Government would be put behind it by the device of guarantee similar to the one which the Federal Housing Administration uses. It is thought by many that if government guaranteed bonds issued for the purpose of assembling land, over and above the limitations now imposed upon municipalities with reference to the issuance of bonds and not secured by other than the proceeds from the assembling process, such bonds would sell for 2 per cent on the open market. If that is a correct analysis, it would be one way, and one comparatively simple way, to help bridge this gap described this morning between the excessively high cost of blighted area lands and the actual use value of those lands for rebuilding purposes.

I believe that some of the better thinkers, in government and out, are favorable to a system of government insurance or a guarantee of municipal bonds for redevelopment purposes.

A third form of federal aid in the rehabilitation of blighted areas are those devices which have been suggested by the Wagner and the Thomas bills, a direct loan by government to municipalities over long terms of years at low rates of interest for the sole purpose of assembling land for lease and sale to private corporations and individuals who will redevelop in strict accordance with a city plan. Now my only objection to these bills, after I have been thinking about them for a year or eighteen months, and listening to other people discuss them, is that the Wagner bill is too short and vague and the Thomas bill is too long and involved. Other than that I am still favorable to the idea. Mr. Robbins' criticism of the bills here this morning was to the effect that they do not in so many words say that they give a subsidy. This seems to me to be beside the point. It is not necessary in good practice for legislation to say—"this will cost us money."

Such procedure undoubtedly will cost the Federal Government money, but I have never understood why opposition to this legislation was predicated upon so insignificant a thing as the verbiage of it, as to whether or not it contains the actual word—subsidy. Legislation of that type speaks for itself. Nobody knows how much of a subsidy it would cost; in fact, nobody knows that it would turn out to be a subsidy at all. I think it would. Mr. X thinks it wouldn't. But since the bills specifically say that the government shall do certain things and municipalities shall do certain things in order to qualify for the loan, I do not think that it is necessary to go further and say this will probably result in a loss to the government or this may be termed by some people to be a subsidy. The main trouble with the Wagner and the Thomas bills right now is that the Congress won't pass them, and about that I am afraid I cannot do much, but the temper of Congress, as we know, changes abruptly and it might be that six months from today, if a lot of things happen outside of the continental United States, Congress will take a very different attitude toward long-term loans to municipalities to accomplish this difficult thing of the assembly of lands for purposes of rehabilitation.

Just as Mr. Robbins said this morning, I thought most ably, all of us have come to believe that the hump here which we have to get over is the difference between the high cost of lands that we want to work with and the

much lower cost which they must necessarily assume for practical usage in rebuilding. In this connection we hear a lot of talk about how much better off financially the cities and the states are than they have been at any period during the past two decades, and it is true. We find some cities in an excellent fiscal condition, some states with more money in the treasury than they know what to do with, and the very unusual procedure in New York State, I believe a few weeks ago, of your foresighted governor giving a grant to New York City of some \$13,000,000, was it? I wish we could get something like that out of Austin down in Texas like you can get it out of Albany in New York. It indicates that there is indeed, a changed condition in municipalities and in states with reference to their fiscal condition, but, my friends, it is a temporary condition I am afraid. When Professor Leland talked to you this morning about the dilemma in which local units of government find themselves from a fiscal standpoint, he was not exaggerating, and I believe that those who predicate their hopes for slum rehabilitation and for the production of low cost housing, upon the temporary excellent financial condition of cities and states, wherever that is the case, are going to find that they cannot carry through a long-term program. It is absolutely essential that aid be gotten from the Federal Government in some form.

It is becoming unpopular to indicate that the Federal Government should appropriate monies or should lend its credit to do anything now, even public works, and, mind you, there is a very grave distinction between low cost housing and public works which I thought Professor Leland did not quite make clear this morning. Currently you are not going to get the Congress to extend such aid, but that seems to me to be no genuine reason for our abandoning the long-term procedure of seeking government aid of some sort, either by the use of the device of guarantees or by the use of credit of long-term, low-interest rate loans.

Those are three government aids. Here is a fourth one which will come under the general head of tax incentives. I believe it is to some extent novel, and I also have an idea that it will be explored in greater detail by Mr. Herbert Nelson who is here and who is on this program tomorrow; therefore, I will not undertake to do more, even if I could, than to suggest its outlines. It is proposed by the National Association of Real Estate Boards, of which Mr. Nelson is the Executive Vice President, and by the Urban Land Institute which I have learned from Mr. Straus is the Siamese twin of the National Association of Real Estate Boards—I always call it the planning arm of the National Association, but I find that the contact is much more intimate. I think this is a very important suggestion and one that seems to be justified by history. I will take just a moment, if I may, to dwell upon that phase of it.

All of us know that in the early days of this country we did not have anything but land to tax; therefore, whenever taxes were to be levied they came upon land. This habit has grown and grown upon us until local governments are providing perhaps 80 or 85 per cent, some people think more, of their local supporting funds from land. Then in 1913, I believe it was, the Federal Government in an effort to reach out and get more money and to tax things which had not been taxed so heavily theretofore, passed what we now know as the income tax, and I remember, Mrs. Rosenman, debating in 1910 in a

triangular debate between Harvard, Yale and Princeton the subject, "Resolved that we shall have an income tax in the United States not apportioned among the states according to population." That is the way it had to be stated to meet the then requirements of the Constitution. I remember this also, if you will pardon a further personal reference. In that debate, set up where each school debated the other two, you had two teams, one on the affirmative and the other on the negative side of the subject, and in order to win the debate you had to win both sides of it. (Laughter) Well, I happened to be put upon the affirmative side and we won and I have been a little sorry ever since on each March 15th that I took that position.

When we came to levy this income tax, desirable and productive as it has been, we did not limit ourselves to things which had not been taxed before, but we humped it right up on real estate operations just as on everything else, with the result that real property, that thing which had been and still is bearing 80 to 85 per cent of the local cost of government, also has to pay an income tax to the Federal Government if and when there are profits. The bookkeeping phases and regulations of the Treasury are such that many a developer of an area, a community, a neighborhood, which, over a fifteen or twenty or twenty-five year period will make no money at all, has to pay an income tax many years during that period. That is the nature of the tax and of the regulations as they have been developed, and this is not just a surmise. This is known to be true, if you please. So that real estate and housing and shelter have been put into a position where it is utterly impossible for private industry to produce it at low cost for a number of reasons, and taxation in my judgment is one of the largest. We mean, of course, the overall cost of shelter, not only the cost of originating it but the cost of maintaining it and servicing it, what you pay for your shelter over the period of the life of the shelter.

Because of this history, here comes industry saying, "If you want us to do a job in the postwar years, you have to give us some sort of tax relaxation. We simply cannot build without reserves." "We cannot get ready for the postwar period," says industry, "unless you give us some income tax relaxation," and finally it has come to be termed "tax incentives." I have an idea that you and I will be hearing more about tax incentives from industry during the next few months than we have ever heard in all our lives before. It is also my belief that the Congress will grant to industry in various forms tax incentives. In that situation, with this over-taxed commodity, why should not real estate ask for some federal income tax exemptions with good grace and with good reason? Therefore, it is suggested that bonds, for instance, issued by the city for the purpose of assembling lands in blighted areas be, like all other municipal bonds, tax exempt from the income tax, but in addition thereto that he who puts his savings into those bonds may deduct that amount from his income tax in the year in which he makes the investment. Is that clear?

If you buy a municipal bond that has been issued by your city for the purpose of assembling land in a blighted area for rehabilitation, in addition to the interest which that bond earns being tax exempt, you may deduct in that year from your income tax return the amount of money which you paid for the bond. Again it is suggested that if you are willing to put your money into the building of the structures that go into this blighted area, you may

in the year in which you make the investment deduct that amount of investment from your income tax return.

It is also suggested that on your income tax return you may take very liberal depreciation allowances on any structure that is built in the blighted area that you own, shelter or otherwise, and it is suggested that in the case of shelter, which never has enjoyed any depreciation allowances unless you rented it out—you do not get any depreciation on your own home under the present regulations of the income tax—you might be allowed depreciation of as much as 10 per cent per year for the first ten years of the life of the home which you might own in the former blighted area, and so on.

There might be an interminable list of tax advantages and incentives suggested, but the fact is fundamental that if you desire to attract out of its present hiding—maybe hiding isn't the right word—of its present places of deposit, the sixty or seventy or eighty billion dollars that these people in this country have saved up already, no more effective means is found than incentive taxation, giving them a chance to earn more and giving them a chance to avoid the very heavy income tax. If the cities really want to clear their slums and if the Federal Government really wants to aid and if the Congress will not enact legislation that will lend its credit on long-term loans or that will insure municipal bonds for this purpose—if none of those things can be enacted into legislation and if industry is going to be successful in its effort to get the Congress to create tax incentives to stimulate private enterprise to create high levels of production and employment in the postwar era, why should not the business of clearing slums and producing low cost housing make just as sound, just as sane a request as that which comes from other industries? Indeed, since nobody is able to devise a workable scheme for accomplishing this thing that all of us know is necessary to be done, why isn't it smart for us to get in there right now and ask for these advantages?

I realize that the scheme is not foolproof. I can tell you a lot of objections which I have to it personally, and I can predict, without knowing whether my predictions are worth your time or not, that those bonds will not sell for as low a figure as some of our folks think they will. I can also hear Congress hollering to high heaven that other interests got to them first, that the boys back from the war and the various demands of other types of industry got to them first and they have already given all the tax exemptions that they are going to give for a while, that they just cannot afford to go that far. However, I seriously present—and I think it is worth studying—the suggestion that those who are interested in slum clearance and the production of low cost housing in the postwar period make a study of, and probably formulate a program of, federal income tax incentives either to accomplish or to help accomplish those objectives.

Now the fifth form of government help, federal aid, to slum clearance and rehabilitation is the legislation now on the books, passed in 1937, and under which the USHA and the FPHA operated and are still operating, although, of course, in this discussion what we know as temporary war housing, done by FPHA, is not under consideration. This means the direct appropriation of funds by the Federal Government not only for the origination and planning, the contracting and erecting of shelter, but in addition a subsidy which goes

to the partial payment of rents in the structures so erected over a period of sixty-five years. In addition to this federal subsidy there has been used, in some spots more than others, the additional local subsidy of total or partial tax exemption. To offset local tax exemptions which have been contracted for in many cases by the FPHA with the city in which the housing was erected, it should be said that voluntary payments in lieu of taxes have been made by the housing authorities in various localities in liberal amounts, and that in many instances those payments have been a greater sum than the tax return on the property before the housing project was erected.

I am opposed to that kind of federal aid for government housing, but I should like it understood that if there cannot be developed any other way, if private industry cannot be made or enabled to do the job, then I am willing to have it done that way. In short, I believe that the importance of and the necessity for slum clearance and for the production of low cost housing in this country is so vital and so important that it ought to be done even by direct appropriation of the Federal Government if it cannot be accomplished in any other way. This is said notwithstanding the fact that I am heart and soul in favor of encouraging the *private* building industry of this country—as opposed to the *public* housing industry.

I have been very much interested in what Mr. Robbins had to say this morning about the New York State situation, and certainly you and I have no objection to New York State clearing their slums in that way, have we? It just is wonderful that New York City can go to Albany and persuade the State Legislature to make loans to New York City. We cannot do it in our state. The legislature is too predominantly rural. There are a lot of other states in which it cannot be done, but those states in which it cannot be done certainly ought not to object to those states in which it can be done pursuing that course because it is sensible. Moreover, certainly you and I living elsewhere have no objection to New York City granting to the Metropolitan Life Insurance Company a twenty-five year exemption on the improvements which it will put or hopes to put on the location known as Stuyvesant Town, which procedure Mr. Robbins advocated in his talk this morning. But I do not want to do that in my town. I do not want any more local tax exemptions in my town, because every time we exempt anything in addition to the churches and the eleemosynary institutions and the charitable institutions, we not only hump up the tax on every other owner of real estate in the city, but we set up a device and a place to which the smart people gravitate and of which they take advantage as sure as history repeats itself. Local tax exemptions are an anathema to me, but if New York City wants to go about it that way, well and good. Its problem is greater perhaps than any of other cities. It is more difficult to get its slums cleared, the price of their land is so excessive, and building costs more and there is so much crowding of people into small areas. All of those things seem to enter into their picture to make it more difficult than those of other cities. So that if New York City is successful, as it has been, in getting the state to pass legislation that will enable it to follow this procedure of local tax exemption, and if New York City feels that it can afford to grant a twenty-five year tax exemption on the structures that are going to be erected there, we of other states will look and learn. Mr. Robbins calls it

a book transaction. I'm afraid it is far more than just a book transaction, because every other piece of real estate that is erected in the city of New York during the next twenty-five year period will enjoy no such advantage. It is a species of competition which is darned hard to combat. If I owned a little piece of real estate in New York City I would be very much disturbed by this sort of tax exemption, because I would know that the only outfit that could possibly take advantage of it would be big something like the Metropolitan.

The little man has no place in that kind of a tax exemption plan. Local tax exemptions by municipalities and aids from states where they can be obtained are to my mind good and usable where the people want them and feel that they can afford them. Over the country as a whole, notwithstanding the present fine fiscal condition of states and of cities. I firmly believe it to be impossible for a comprehensive slum clearance, low-cost housing project job to be done without federal aid. Of course, if we could revamp the taxing system of this country at all levels as Professor Leland has suggested this morning, that would be a solution to this question and, of course, we want to get back from the Federal Government a portion of the funds which they collect from the urban centers every year, but try to do it. We are talking about a thing, gentlemen, that has to be done now. The proper kind of a tax survey and tax reformation that he is talking about could only be done wisely after a survey of many years. It ought to be done, but in the meantime we cannot sit around and wait. It seems to me we must use whatever tools happen to be available to us now.

Likewise with reference to his consolidation of counties and cities, or, as he describes it, the absorption of municipal government into county government or some other regional form of subdivision of government. That is highly desirable. We have been trying to get it in our county and city for ten or twenty years, but it is a political task of overwhelming proportion and we cannot wait for it. So I think from a practical standpoint we just have to realize that this thing which has grown up historically upon us of letting the Federal Government come into our urban centers and preëmt all the good, all the productive forms of taxation. This leaves us in a position where we are justified in the first place and in the second place we are forced to ask from Federal Government some form of aid if we are to do a slum clearance and rehabilitation job.

I am going to have to hurry along, but we are going to have a question and answer period which I hope will develop further some of these ideas about which I am not so sure myself and I should like to hear somebody else talk about them. But I want to take occasion to say something about Mr. Nathan Straus' book because, as I said, I am afraid no one else is going to discuss it.

THE CHAIRMAN: The subject will be discussed but not the book.

MR. POTTER: Well, the reason that I think it is important, Mrs. Rosenman, is that while you may disagree with the book—I think perhaps you do in many respects—it happens to be at the moment the most important document in this country on the subject of slum clearance and low-cost housing. It is not only the most recent, it is the most comprehensive, and it is the only one

that I know of which has as a background the experiences of the USHA and the FPHA.

I think there is a lot of fine stuff in the book, and that it is very entertainingly written. The name of the book is "The Seven Myths of Housing," by Nathan Straus, published by Knopf 1944, and it has been out about a month or six weeks. Certainly, if you have not read it already and are interested in this subject, you are going to read it before long. While the book is carefully written and documented, one of the most carefully documented books I have seen, and while it is likely to impress the average reader as a powerful argument for public housing, I find myself in disagreement with it upon five fundamental points which I want to call to your attention and ask you to study or to keep in mind as you read the book if you have not already done so.

Mr. Straus says that the government can produce housing at 25 per cent less than private industry. In order to prove that statement he selects from the FHA the commitments made there over a certain period of time, also selected, and then he takes the housing that was done by the USHA, because his period of consideration ended when the USHA was changed to the FPHA, and comes to that result. He does not break down the costs in either case, as builders are accustomed to do, but he prints the statement that the Federal Government can put up the same structure for 25 per cent less than private industry can do it and that just isn't so. You know better than that.

I happen not to be one of those who contend that private industry can do it a whole lot cheaper than the Federal Government can. Some of my colleagues and associates do claim that. I don't go for it. They haven't proved it yet. By and large, I believe that there is very little difference in the cost of a given square foot of shelter, whether it is erected by public housing or private housing. The reason that Mr. Straus gives to justify 25 per cent less cost by government is first that the Federal Government can deal better with utility companies than a private individual can. That is not true. You and I are just as good traders as he is. He says that he can wheedle a lower insurance rate than I can and I don't believe it. He says that there will be fewer strikes under the same circumstances. I do not believe that. Of course, he eliminates the profit entirely, which is one of my main complaints with public housing. I think, as long as there is any industry that can function with profits, there is no excuse for the Federal Government getting into it and eliminating the profits.

He says that tenants in public housing take better care of the premises than they do in private. The experience of several housing authorities in several different cities, placed side by side with my own, gives the straight-out untruth to that statement.

Those are the reasons Mr. Straus says that the government can put up housing cheaper than can private industry and, of course, when talking about the cost of housing, he is talking about the continuing cost, not only the original cost but the continuing cost. You will also find from Mr. Straus' book that he is actually advocating that the Federal Government undertake to house about one-half of the present citizenship of the United States. Anyone who thinks that isn't competition for private industry just does not know what he is talking about. It scares the living lights out of the private entrepreneur.

the man who wants to take the risk and get the housing cost as low as he can, for any such program to be thrown into his face. Mr. Straus advocates that the way to clear slums, the best and the most efficient way, is for the government to erect low cost housing at the edges of the city and drain off the slum dwellers into those new houses and leave the central part of the city to decay until it decays to such an extent that the land may be bought for a song. He thinks that will save this big cost of buying slum areas, forgetting what is going to happen to the municipal financial structure if the city is permitted to decay at its heart in any such fashion as that.

Now, I must, in the interest of time, abandon further discussion of this subject or of the subject which was more directly assigned to me. What I desire to say is that it seems to me that the time has now come for government at all levels to clear the way for private industry in the production of shelter, if it wants a job to be done. If you think that private industry has done a poor job heretofore, that it has not cleared the slums, which it has not, and that it has not produced housing at low enough cost for people who get an income of less than \$1500, say, which it has not, I would have you bear in mind that such an undertaking is absolutely impossible under the impact of taxation and of regulations by building codes and of regulations by labor unions and of the other things which make it impossible for men who have been engaged in that business, and make it impossible for whoever goes into it, whether it is Mr. Henry J. Kaiser, who will speak to you tonight upon an allied subject, or any other genius of production. Unless and until the government and the citizenship of this country are willing to lend aid to private industry in every possible way and to give it a chance now to come back and try low-cost housing and slum clearance, the job will either not be done or this country is bound to revert to a socialization of both land and housing. If you want it that way, all right. I don't. (Applause)

THE CHAIRMAN: Mr. Potter is an example of the open mind to which I referred this morning. We are very happy to number him among our Board of Directors.

The discussion this afternoon will be kept to ways of clearing slum land. The discussion on ways of rebuilding the structures to meet all income groups will take place tomorrow, after the presentations of the various speakers and after the rebuttal which will be enjoined by Hr. Herbert Nelson and Mr. Hugh Pomeroy. So that when you think of your questions to frame today, I hope you will reserve the parts about rehousing of the low income groups and keep Mr. Straus' book in the back of your minds, and if you have not read it, take it to bed with you tonight and be prepared for tomorrow, but keep those discussions for tomorrow, please.

It gives me great pleasure to introduce to you now Professor Alvin H. Hansen, Professor of Economics at Harvard University and Special Economic Adviser to the Federal Reserve Board. Professor Hansen comes to this discussion with a most open mind. He is interested in seeing production after the war, in seeing men put to work, and over these last few months I have had the privilege of sitting with him and a group of others and watching him balance all ideas with a receptivity that would be fit for a judge. He is

willing to take any ideas and try to suit them to the purpose. It gives me great pleasure to introduce Mr. Hansen. (Applause)

PROFESSOR ALVIN H. HANSEN: Mrs. Rosenman and Members of the Conference: I shall try to be as brief as possible in order to get on with the discussion following the main speeches, and if I am not brief enough, Mrs. Rosenman, I hope you will warn me. Sometimes when I get started I talk longer than I had planned. As a matter of fact, Mr. Potter has already given a very considerable part of my speech. I do not know whether or not he saw a draft of it, but it sounded a good deal to me as though he had.

I should like to say that there is a great deal of what he said with which I most heartily agree. There are some things here and there with which I do not quite agree, but he so open-minded that I am sure it wouldn't be very difficult to make him agree with me after some discussion!

I should like to say first of all that I am a little fearful, when we talk about the various ways of financing urban redevelopment, that we may get so interested in financing problems as to lose sight of the very great importance of having these things done in the right way. It is essential not merely to get on with urban redevelopment but also to proceed within the right pattern and under the right conditions. By that I mean particularly the great importance of urban planning. I would, therefore, like to stress at the beginning, although I am not going to discuss it, the necessity of making comprehensive master plans and project development areas plans with respect to the land use in the area and with respect to ample open spaces and sufficiently low density so that the area can be soundly developed.

In this connection I should like to read just a few lines from a speech made by Sir William Beveridge at the opening ceremony of an exhibition held on December 1, last, an exhibition which had to do with the British postwar building program, and this is what Sir William said:

"The problems dealt with by the Barlow Commission and the Utwath Committee dealing with planning, and more particularly city and country planning, are much harder and more controversial than those in my report on social insurance. Squalor is a tougher giant than Want. A government which hedges on Beveridge is only too likely to be estopped on Barlow and Utwath. I wish I felt real hope that this fear was not going to come true. We cannot postpone building long after the war, if we are to house our returning soldiers properly. We cannot start building without a national plan for the location of industry, unless we mean to make a lasting mess of the country again, and we cannot have a national plan until we have decided to do not less than Barlow and Utwath."

So I should like to stress the importance of adequate planning.

Now I am to discuss various methods of financing urban redevelopment. Mr. Potter has already touched upon all of those that I am going to discuss, and, therefore, perhaps I may make my discussion brief. I may say that several of us have been getting together recently and exploring various means of financing. I think all of us are interested in getting on with a program. None of us are so dogmatic and narrow minded that we think we must stick to a particular plan through thick and thin, regardless of whether

there is any hope of getting on or not. Now, of course, I think none of us are willing to compromise to a point at which the thing is done in a definitely wrong way, but I do think we need to be open minded as to various approaches to the problem.

As you know, one of the approaches to this problem of financing urban redevelopment is the Thomas and Wagner bill type of approach which Mr. Potter has already discussed. He said that the Wagner bill is too short and vague, with which I agree. It pays insufficient attention to planning. He said the Thomas bill is too long and involved. As a matter of fact, there has now been introduced a revised Thomas bill which remedies this defect to a very considerable extent. Let me say that in this second Thomas bill we do not talk about loans made by the Federal Government. We try to make it very plain and clear that *advances* are made by the Federal Government; that these advances are not in the nature of ordinary loans.

We seek to avoid all the language of the private lending market. We say that the Federal Government will make advances to the municipalities; that the municipalities do not pledge their full faith and credit to return these sums, but merely pledge themselves to pay over to the Federal Government such returns as they get from the development process itself over as long a period as is needed to repay the sums in full to the Federal Government together with 1 per cent on the unpaid portion. Of course, they may never be repaid in full. Very clearly there is the recognition that the Federal Government may, in fact, be making large contributions to urban redevelopment. It is particularly specified in the amended bill that the administrator making the advances should take cognizance of the general effect of the urban redevelopment upon the community as a whole—the increase in productivity and income and the indirect benefits that flow to the community as a whole and thus indirectly to the federal treasury itself, in that such urban redevelopment and the higher income and higher employment that would follow therefrom would indirectly increase the taxable capacity of the Federal Government.

I still am in favor of this method. Mr. Potter also said that he is in favor of the general method which is common to both the Wagner bill and the Thomas bill, namely, federal advances to the municipalities. But at the moment it appears to be impossible—perhaps we are too pessimistic—to get any such measure through. So we have tried to examine other possible financing methods.

Another method which we have discussed was briefly described by Mr. Potter, and that is simply the method of federal guarantee of the municipal or urban land authority bonds, these urban land authorities being created and controlled by the cities. These bonds are to stand on their own. They are to be issued only in such cases as it would appear that the returns from the development process would make them pay; that is to say, the returns would be adequate to cover the fixed charges, the interest and amortization on these bonds. They may be regarded, therefore, as federally-guaranteed revenue bonds. The aim is to provide very low fixed charges, low interest rates, and a long amortization period. It has been suggested that the amortization period might be as long as ninety-nine years, that would make the amortization charge small. Then in addition to the long amortization and low amortiza-

tion charge, such bonds would presumably be able to sell at a low rate of interest, first because of the federal guarantee, and second, because these bonds presumably would be like other municipal bonds—tax exempt. I am not in favor of local tax exempt bonds, but we have them and as long as we have that provision on the statute books, then, of course, they would have this advantage. Moreover, such bonds being revenue bonds, they could presumably be issued outside the debt limitations of the city. Thus that hurdle would be passed.

The weakness in the program is simply that quite obviously the amount of urban redevelopment that could take place would be considerably less under this program than under the Thomas or Wagner bills, less because of the fact that you would only be able to redevelop such projects as would be able to pay the fixed charges in full. There is considerable danger that a program of this sort would result in development in areas that are suburban or at any rate that it would be difficult to tackle the really serious slum areas owing to the fact that in the really serious slum areas the gap between the cost of acquisition of the land and the new use value of the land would be perhaps so great that this particular method of financing would not be able to meet the problem.

A third method that we have very seriously explored and discussed and was also mentioned by Mr. Potter is the tax incentive device. I shall also discuss that briefly. The particular device, the particular method that I shall describe, is a little different from that which Mr. Potter discussed and it is a little different from that which Mr. Herbert Nelson has suggested and which presumably he will discuss tomorrow. It is somewhat more modest, I think, than the one that he discusses, but the general fundamental character is the same. It is proposed that urban land authorities should issue bonds with a particular tax privilege attached. That would require, of course, federal legislation. I am not talking about the tax exemption with which we are familiar, which I mentioned a moment ago. This has nothing to do, of course, with the exemption from federal income tax of the interest from local bonds. This already is exempt.

The special feature here involved is that anyone investing in these local land authority bonds would enjoy certain tax abatement in his income tax in the year in which the investment was made. If I may describe it very briefly, a person in calculating his taxable income would be permitted to deduct from his income up to a certain percentage. I warn you I do not personally favor this program. I have serious doubts about it, but I want to discuss it as openly and in as impartial a way as possible. A person in calculating his personal net income would be permitted to deduct from his income, let us say, up to 25 per cent if that much had been invested in urban land authority bonds in the year in which he is making his tax return. The arithmetic of it is exactly the same as the arithmetic which is now permitted with respect to deduction from income of gifts to charitable organizations. He may now deduct for this purpose up to 15 per cent of his income in arriving at taxable income. Similarly it is proposed that he may deduct up to 25 per cent of his income if an investment equal to 25 per cent of his

income has been made within the taxable year in these urban land authority bonds.

To illustrate: if he made a 15 per cent contribution to charity and had invested 25 per cent of his income in these urban land authority bonds, his taxable net income would be 60 per cent of his total income.

There are certain weaknesses involved in this plan. There is first, of course, the question of equitable taxation. I am not disposed to stress that too much, because I believe that it is quite possible that we may effectively use tax incentive devices in the postwar period for public purposes and that the social benefits and the social gains involved are sufficient to justify it. Nevertheless, we do have to be careful about any plan that is proposed that will seriously interfere with what is generally regarded as tax equity. That is certainly a point that needs to be considered. Moreover, I would myself be more inclined to favor a tax incentive device which had the aim in view of stimulating construction, real investment and employment than a program which offers a tax incentive to the purchaser of urban land authority bonds.

I recognize that the point that I am here making can also be driven too far, because some form of aid to urban redevelopment must be made to permit the purchase of slum and blighted land. It might also be argued that any federal aid had better be given to construction than to the acquisition of land. I think it is so important that we do tackle the problem of land assembly and planning that I am certainly not opposed to public aid for this purpose. You may say that it is somewhat inconsistent to be in favor of federal aid for land assembly in general, as for instance, in the Thomas bill, and yet be rather skeptical about it when it comes to tax incentives. My objection, therefore, really comes to the point that I am afraid that this particular device is not going to be very effective in producing adequate urban redevelopment and land assembly commensurate with its cost to the Treasury.

In the first place, the cost involved to the Federal Government is very unpredictable, and cannot be so accurately calculated in terms of the benefits received as can be done with almost any other plan of federal aid that we have had under discussion. It is not at all clear, as Mr. Potter said, at what rate of interest bonds of this character could be sold. I know that there are some people with whom I have talked, very competent people, who believe that these bonds could not be sold on a favorable basis unless the full faith and credit of the city were behind them. There is no federal guarantee behind them. There is only this tax abatement aid, and unless the full faith and credit of the cities were behind them, it is very doubtful that bonds of this character could be sold on a favorable basis. And if the full faith and credit of the city were behind them, then presumably they would have to come within the debt limitations of the cities. This would be a serious obstacle so far as this plan is concerned.

Another plan that has been suggested is a modification of the second plan which I discussed—federal guarantee of revenue bonds. Again the bonds would be regarded as revenue bonds. There would be the federal guarantee of the bonds issued by urban land authorities. In addition, in order really to tackle the slum and blighted areas, where the gap between acquisition cost and use value is very great, it is proposed that there should be grants in aid,

made both by the city and by the Federal Government on a fifty-fifty basis for, let us say, a twenty-five year period for each project that it is intended to develop. It would be calculated approximately how large a grant-in-aid would be necessary in order to cover the fixed charges—the amortization and interest on that particular project area. The municipality would engage to pay half of these grants-in-aid and the Federal Government would engage to pay the other half of the grant-in-aid.

The grant-in-aid would vary with every project according to the requirements of each particular project area. So far as the city grant-in-aid is concerned, it is believed that the city could well afford so to do. When the development has been made the local taxes on the improved properties in this area, it is believed, would frequently bring in very considerably more than the current taxes on the slum and blighted areas. Thus the city, even though it made a 50 per cent contribution to these grants-in-aid, might very well come out ahead. There are certain calculations that I have seen for certain projects which would seem to indicate that the city would come out ahead under this program.

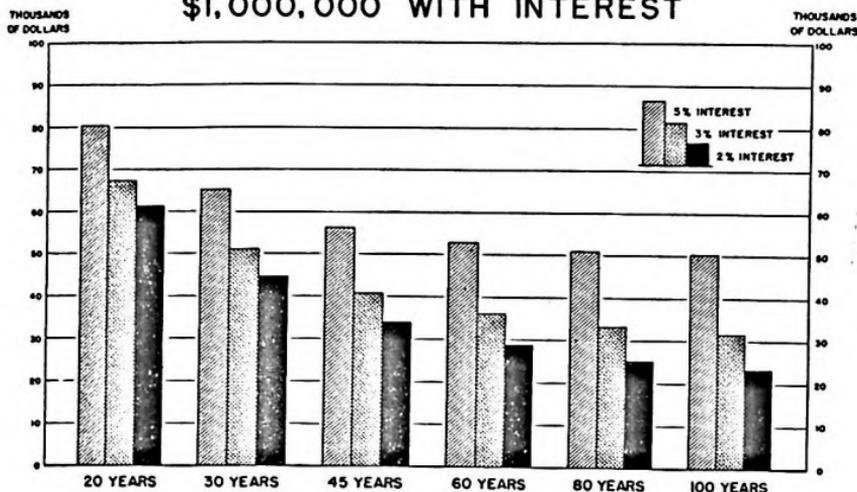
Now the amortization might cover just the twenty-five year period, which, of course, would make the amortization charge fairly high. Or you might conceivably provide a longer amortization period than the twenty-five years, in which case the obligation of the Federal Government would terminate at the end of twenty-five years and the city would then have to carry on for whatever amortization period was applied, perhaps another fifteen years. That would make the amortization charges less in the first twenty-five years and consequently the grants-in-aid at first would be less. The municipality presumably would be able to carry forward after the twenty-five year period as more and more urban redevelopment had taken place. In view of a continued redevelopment program the city would be in a stronger financial position and therefore able to carry on.

You can see how various modifications might be made of this plan and I am merely suggesting the general principle. The advantages in this particular plan are that there would be no capital financing by the Federal Government to which many people object. Of course, the same is also true of the second plan and of the third plan. Only in the Thomas plan and in the Wagner plan would there be capital financing by the Federal Government. In all the other three plans the capital financing would be undertaken by the municipalities or by the urban land authorities created by the municipalities.

An advantage of the fourth plan outlined is that the obligation of the Federal Government, the contribution or the aid of the Federal Government, would be very specific and clear. There is first of all the guarantee and then there are the specific annual grants. We could calculate very precisely beforehand what the Federal Government is letting itself in for, and I think we would discover that in fact the amounts of these annual grants would be very small in terms of the social benefits that would be received—in terms of the urban redevelopment, the construction that would follow, the increase in employment, the increase in national income, the indirect gains to the federal treasury from the increased taxable capacity of the country as a whole.

I believe that a careful, thorough examination would show that these

LEVEL ANNUAL PAYMENTS TO AMORTIZE \$1,000,000 WITH INTEREST



LEVEL ANNUAL PAYMENTS TO AMORTIZE \$1,000,000 WITH INTEREST

Period of Years	Interest Rate		
	2%	3%	5%
20	\$61,156.72	\$67,215.71	\$80,242.59
30	44,649.92	51,019.26	65,051.44
45	33,909.62	40,785.18	56,261.73
60	28,767.97	36,132.96	52,828.18
80	25,160.71	33,111.75	51,029.63
100	23,202.74	31,646.67	50,383.14

National Housing Agency
Office of the Administrator
Research and Statistics Division
March 4, 1944

grants-in-aid for urban redevelopment would, in fact, prove a good investment for the Federal Government, even though these grants were non-recoverable. The amounts in terms of our national income would be incredibly small and I think that the benefits involved can be shown to be very great. Indeed, I think that one of the things that is urgently necessary in order to get forward with an urban redevelopment program is an amassing of facts showing how costly slum and blighted areas are to urban communities and how great are

the advantages, direct and indirect, to the local government and to the Federal Government of an urban redevelopment program. I believe that if we amass these facts in the manner in which they can be amassed, the evidence would be so overwhelming that any reasonable person would see that this program is just plain common business sense.

I am reminded of the fact that a good many years ago labor legislation was continually being turned down by state and federal courts, and Mr. Brandeis, before he became Justice of the Supreme Court, amassed an enormous amount of facts with respect to the conditions that were involved in long hours of work and the social costs involved. This amassing of facts was the thing that convinced the courts. It was the amassing of *economic facts* that convinced the courts that these things ought to be done and that led to a reversal of decision with respect to the constitutionality of these measures. I think that is an impressive illustration of what can be done. The facts are overwhelmingly convincing.

Now I hope that the discussion from the floor and the questions that may be asked may bring out other points. I think, in order to get on with the forum, Mrs. Rosenman, I had better stop here. (Applause)

THE CHAIRMAN: When you put your questions, will you be good enough to give your names first? Questions are in order. Have the speakers made the plans so clear there are no questions?

MR. LEVENE (Freeport, N. Y.): It seems to me that both of the speakers seem to work from the top down, hoping that if the government can give the proper aid, somehow or in some way private enterprise will receive the incentive to furnish these homes for low income workers. There is one point, though, that I think is a preliminary step to any request for government aid and that is a break-down of the worker's income as to the various things he needs in order to live, which is so much for food, so much for clothing, so much for housing, and so much for transportation and medicine, etc. If there is no public knowledge of what the worker can afford to pay for housing, both the local community and the Federal Government will be making some grants on one hand and on the other hand will be taking something away.

THE CHAIRMAN: May I interrupt? We want to keep the discussion to questions and not to speeches, in the first place. In the second place, you are dealing with a wider problem than we are discussing right here. Everyone who has come to this gathering has acknowledged the fact that land is out of proportion to the cost of the dwelling that is to go on it and we are trying to discuss ways and means of bringing down that cost. Anything else is out of order, I am afraid.

MR. LEVENE: I want to bring up just one pertinent point. You take in the town of Hempstead, they have decided that a worker who does not buy a home for \$3800 is a loss to the community, so they have put in certain restrictions, a restriction of 1,000 square feet per house, and restrictions as to certain land values, so even if private buiders did get low taxes they would find these

various restrictions coming up, because there has not been public recognition as to what the worker can afford to pay for housing.

THE CHAIRMAN: Thank you. I am glad you brought the last point up because in many places in the country there is a lack of familiarity with those clauses that are springing up and will spring up to a greater extent. I think one of the gentlemen down front will remember the discussion came up in Columbus and there people said they had never heard of such restrictive covenants but they do take place.

MR. EDMUND KUHLMAN (Detroit, Mich.): I should like to ask this question of Mr. Potter. As regards these bonds that it is proposed you be permitted to buy and to deduct from your income tax, suppose you have them six months. Can you then dispose of them and yet take advantage of their purchase in your income tax return?

MR. POTTER: Mr. Kuhlman, you must have been in the banking business. That is the way the banks have been existing. The banks no longer make money from loans. They just buy government bonds and resell them, as you doubtless know. Seriously, the plan for incentive taxation that has come to my attention has a stipulation in it that if resold certain of the advantageous features will at once be withdrawn, which provision, of course, will prevent the original sale of the bond at as low a rate as was hoped for. So that I agree with you in the implication which your question suggests, that in incentive taxation all kinds of protective devices must be thrown around them to prevent such a device being made a means of speculative procedure upon the part of ambitious citizens. (Laughter)

THE CHAIRMAN: Are there any other questions?

MR. POTTER: I should like to say something about the question that the gentleman propounded over here if I may. Such break-downs as you indicate certainly are important and many have been made. I do not know whether or not they are good, but the ones that have come to my ears are like this: A man and his family can afford to pay for rent about one-fifth of the total family income. Of course, that will vary in Hempstead, in New York State, as against Houston, in Texas, and there has to be a recognition of the fact that life and its necessities may be had in some parts of this country at a very much lower figure than they are available in other parts. I do not know whether or not one-fifth is a good break-down but it sounds reasonable to me.

Another one which real estate developers are fond of using is that a family can afford to buy a home which does not cost more than double their annual income, so, for instance, if the family income is \$2,000, a breaking figure that was mentioned here before this afternoon, a family could afford, under that theory, to own a home costing \$4,000 or could afford to rent a home upon a basis capitalized at an original cost of \$4,000.

There is no question but that the private developers, public developers, government—in fact nobody can produce a home that is decent, that will shelter a large portion of our population. These devices are intended to lower the group gradually in which the private developer can operate constantly

by giving him certain incentives that will enable him to recoup on his investment from sources other than the actual payer of the rent, but no matter what devices are used, we eventually come, of course, in every community to the family which cannot pay an economic rent, and to those families we believe there should be given, as has always been given, relief in the form of a tax certificate or a tax payment, which will cover the difference between the economic rent and the one which he is able to pay. That goes on down until you get to the fellow who can pay nothing and, of course, he must be taken care of entirely by relief, and we submit that that relief in that form, for both the family that cannot pay anything and for the family that cannot pay an economic rent, should be the contribution of local government, and that the Federal Government can well keep its hands out of any effort to pay rent for its citizens in this lower group.

THE CHAIRMAN: The question of rent relief comes tomorrow. I am sorry to departmentalize so, but we don't want to step on the next day's toes.

MISS IRMA GREENAWALT (Commissioner, Denver Housing Authority): The first question is, Who is likely to hold these bonds on which there would be an exemption of tax? The next question is, Is not this scheme of income tax exemption to the holders of these bonds an adroit way of really giving the real estate man a tax exemption on land and, after all, isn't that a subsidy to the real estate man?

THE CHAIRMAN: Who do you want to answer those questions, Professor Hansen or Mr. Potter?

MISS GREENAWALT: Either one. Professor Hansen.

PROFESSOR HANSEN: I think the first question was, Who would be likely to buy these bonds? Well, anyone could buy them in all income groups. According to the plans that I discussed—I won't say that I proposed, but that I discussed—it is suggested that in arriving at his taxable income, he might deduct up to 25 per cent of his income if invested in these land authority bonds. That could be done by people in any income group. It is, of course, true that the person with the very high surtax, the very rich person, would be benefited relatively more by reason of the fact that it would come out of his high surtax, and the man in the lower income group, it would also come out of his highest surtax, but that would be very much lower.

Now the second question is whether it would really not be a subsidy to the real estate owner. Well, let us suppose that this tax abatement—by the way, this proposal does not change at all the tax position of this person with respect to income in the future. The tax abatement applies only to the income of the year in which he makes this investment in urban land authority bonds. Let us suppose that this tax abatement has the effect of driving the rate of interest down very low. I am fearful that its effect in that direction would not be so very great, particularly if the bonds did not carry the full faith and credit of the city, and even though they did carry the full faith and credit of the city, I am fearful that the decline in interest rate would not be as great

as we would wish for. We know that the local bonds that are now tax exempt do not sell at as low a figure by a long way as might be expected if we calculated the advantage of tax exemption to the very rich. If we calculated it on that basis, one would arrive at an extraordinarily low yield on municipality bonds that are tax exempt, and we know that while the rate is lower by reason of tax exemption, it is not driven down as low as one would think by taking, let's say, the upper 5 per cent of the population and the benefits to be calculated directly to them in tax exemption. So I am somewhat afraid that the rate of interest would not be nearly low enough to consider the actual subsidy which is involved. But let us suppose that it does bring the rate of interest down. Then I do not think it could properly be said that this is simply a gift to the real estate people. If it really brought the rate of interest down, it would be a way of getting on with urban redevelopment. There would be very large social benefits from it, and I think the plan has to be judged plainly on the basis of how effective it is. If it were really effective in getting on with urban redevelopment, if you could really bring the rate of interest down to a very, very low figure, so that the fixed charges were very low, indeed, and so that you could, therefore, cover this gap between acquisition cost and use value by reason of that extraordinarily low rate of interest, then it would genuinely be a social benefit that would be well worth the cost. I think it has to be judged on the basis of how effective the plan is.

THE CHAIRMAN: Mr. Potter wants to discuss this.

MR. POTTER: In answer to your first question, I think that the bonds would be invested in largely by very rich people and that would be my hope. I should like to see the rich people of this country have their funds channeled into no place as much as I should like to see them channeled into low cost housing and slum clearance, and I think it would be a very vast advantage to use the money of rich people rather than the money of government which comes from all classes.

In answer to the second question, your fear is that the subsidy would go to the real estate men. I believe that ought not to worry you. Competition among real estate men is very keen, and no one person in the business could possibly get himself into a situation where he could make a lot of money out of a government subsidy, because the others would be right on his heels doing the same thing.

Again when this country wants to do something that is important to its life and vitality, as it did in past years in the building of railroads, and it becomes necessary for a subsidy to be given, there is no inconsistency, nor incorrectness, in my judgment in the subsidy being given by government to the industry. The railroad subsidies were given to the railroads, not to the passengers, and that enabled the entrepreneurs of that business to lay rails and to buy rolling stock and to produce transportation in spots which otherwise would not have been covered.

Here, if you please, the desire of all of us is to enable private industry to produce a house cheap enough for the fellow with \$1500 and lower income to occupy economically. It means the route of the subsidy is to my mind un-

important and could not result in the last analysis in heaving a bouquet or a bonus or a large profit to those who happen to be engaged in the industry which is being subsidized.

THE CHAIRMAN: I should like to add just one thing on that. I think that the misconception in discussing this particular proposal is that it has been launched as an attempt to get away from federal subsidy. It has been launched with the idea that if the Federal Government gives a tax remission, there is no subsidy coming from the Federal Government. I think in viewing this proposal one must realize that it is but another form of federal subsidy, and if you do not want federal subsidy, then you must not choose that form any more than you must choose another form.

After we admit that those forms are forms of federal subsidy, we can talk about the merits of the procedure and see which form costs the Federal Government more money.

Now I will take some other questions. That was just the prerogative of the Chairman to get in one word.

MR. ALFRED BETTMAN (Chairman, City Planning Commission, Cincinnati, Ohio): As the Thomas bill is planned, it contemplates that the net proceeds of the development area will be paid over to the Federal Government, and the third plan also contemplates that the net proceeds of an area will be paid over to the Federal Government. I should like to ask Dr. Hansen if the difference is anything more than that under the third plan the municipality pays one-half of the difference between acquisition cost and the use value, and if that be so, if the municipality is to pay that, then it has to raise the money, and if, as experience would tend to show, the current operating revenues of cities are hardly sufficient for current operations, would we not have the problem of capital raising for payment of that one-half of that gap, which would bring us back to the debt limit problem?

MR. POTTER: I think, Mr. Bettman, that it is the fourth plan that I discussed to which you are referring, the one that is the fifty-fifty matching grant on the part of local government and the Federal Government. The fourth plan involves first federal underwriting, federal guarantee of the local land authority bonds, and in addition it provides for a fifty-fifty grant in aid by the municipality and the Federal Government sufficient to cover the fixed charges, the idea being that the rentals from the land, the returns, in other words, from the development process itself, from the rentals from the land as developed, will not be adequate to cover the fixed charges, so you must have this grant in aid.

I think Mr. Bettman's question is, since the local government has to raise taxes in order to cover its part of the grant, are we not back at the debt limitation again of the municipalities? Is that it, Mr. Bettman?

MR. BETTMAN: Yes.

MR. POTTER: Well, the municipal government presumably in this case would not issue bonds in order to cover its share of the annual grants in aid. It would rather be a question of its local taxing powers or of its local tax

powers. There would be no bond issue in this case. So there is an important difference there, I think, between that plan and plans that involve municipal financing of the land purchased which would involve the issuance of bonds. Is that not right, Mr. Bettman?

MR. BETTMAN: Yes.

THE CHAIRMAN: Mr. Keyserling, you have some notion of the amount that Plan No. 2 might take care of. I wonder whether you would be willing to talk about the extent to which Plan No. 2 might be used. That is the plan that would involve no federal expenditure or local expenditure.

MR. LEON H. KEYSERLING (General Counsel, National Housing Agency): I had not planned to talk about Plan No. 2. I did, however, have a question which I might address to the Chairman or to whomever she might want to turn it over. It seems to me that all of these plans recognize the need for subsidy, and if subsidies are going to be advanced by the Federal Government, the question arises as to the responsibility to the people who are providing the funds to pay the subsidy, and that leads to this question: If there are going to be subsidies, should not they be administered in the cheapest way, and where is the dividing line between the straight pattern of local public housing authority operations, where the subsidy is kept down to the difference between the cost and what they can afford to pay on the one hand, and on the other hand, a subsidy which also takes into account a profit, whatever it may be, to some particular enterprise?

I am not asking that question because I am in any sense opposed to these various plans, but I think that is one of the questions that will need to be explored and dealt with in attempting to popularize any of them.

THE CHAIRMAN: I think Mr. Potter might like to answer that one.

MR. POTTER: If I understood the question, Mr. Keyserling, you feel that anyone who is willing to go along with a subsidy of the kind that Mr. Hansen and I have been talking about should be willing to live with the subsidy that the FPHA now gets.

MR. KEYSERLING: No, I am not suggesting that at all. I am merely raising the question, when the government gets into a subsidy operation, what is the measuring test of the size of the subsidy and the objectives to be accomplished? Once you carry it beyond lowering the charges against people of extremely low incomes and carry it over into the area of galvanizing enterprise, you have to define certain limits or you soon get into an area where the government is extending that type of aid to all enterprises, a very forward looking and advanced proposal.

MR. POTTER: I agree with those last two statements. Is there a line between local government subsidy and Federal Government subsidy? Is that what you are trying to get at?

MR. KEYSERLING: No, I do not think there is a line between local government subsidy and Federal Government subsidy at all. I think it is a

line between the proper areas of subsidy and proper areas of private enterprise that have subsidy. It is a line between government activity and private enterprise.

MR. POTTER: Professor Hansen, quite willingly upon my part, wants to answer your question.

PROFESSOR HANSEN: I hope Mr. Potter will comment when I am through. I did not want to eliminate him. I want to hear what he has to say. I have a feeling that there are two things that we ought to distinguish very sharply which this question raises and which I have a feeling it confuses. I have a feeling that this confusion has appeared through much of our discussion today. I think that there is a very important difference between that aid which is necessary in order to assemble the slum and blighted land and make it available under planned conditions within the pattern of a plan for private development—there is a very important difference between that and the subsidy that is necessary to give low cost housing to people.

What is the first aid? What is the character of it? It is very different, I think, from the aid to low cost housing and I think we ought to distinguish them very sharply. The first is a special kind of problem. The land in the slum and blighted area is excessively priced. What is the fundamental reason it is excessively priced? It is because communities in the past have allowed an antisocial use of that land. Let me illustrate it in the city of Boston or any city I presume you want to talk about. In the city of Boston some years ago what happened? There were areas in that city a good many years ago in which enterprising real estate people, Mr. Potter, decided that it would be a very nice and profitable venture to build houses in the alleys and to enormously increase the density of population, so that there is no open spaces at all, creating slums by that fact.

Now when you can offer sweated land like that, of course, you make the land valuable. We have allowed that in the past. The thing you have to do in order to make development possible in these areas is to bring in wholly new conditions. That means ample open spaces. It means low density. Now then, the land under those conditions, which are the only sound conditions, is necessarily worth less than it is when you can over-sweat it and get a tremendous rent out of an area where you have excessive density and no open spaces. There is a problem that is of a special character and that is essentially the problem of purchase and assembly of the land. The private enterprise that comes in and leases the land under these new conditions will do so under competitive conditions, or competition will come in and bid for that land and the rentals will be on a competitive basis. He, in fact, is getting no subsidy from the standpoint of his use of that land. He is simply competing on a competitive basis for that land under the new conditions laid down in the master plan and in the special project area plan. He is not getting any subsidy in any true sense of the term from his standpoint because he is on a competitive basis, but when it comes to building low cost housing you cannot build housing for low income groups without somehow or other directly subsidizing the people who live in the house, and you can do that by various methods.

You can do it by the USHA method, in which the Federal Government, and to some extent the local communities with tax exemption, pay the difference between the economic rent and the rent these people can afford, and you can do it by Mr. Potter's method. The only objection I have to Mr. Potter's method of simply paying them the difference as a relief measure, is that I am afraid that Mr. Potter's method would only subsidize people for living in slums and we would not get any construction out of it. The USHA gives us construction.

I do believe that people have taken too narrow a view with respect to Mr. Potter's proposal. I think that it could be utilized with a method that would give us construction. I am not opposed to his scheme if we combine it with something that will give us low cost housing, but I do think that we ought to distinguish between the subsidy and low cost housing and this problem of land assembling, because in this problem of land assembling there is the fundamental question of making this land available under conditions that are not antisocial, under conditions that make for a sound development and the person who goes in there will go in on a competitive basis and he will not be able to make profits other than competitors in general are able to make. He is not getting any subsidy.

THE CHAIRMAN: Mr. Robbins wants to add a word.

MR. ROBBINS: Mr. Keyserling has raised the fundamental question of the introduction of subsidy into a new field, and if we do accept that principle, how far do we go? Perhaps what I am going to say is exactly the same thing that Professor Hansen has just stated, but I should like to say it in my way or from my point of view.

In the first place, the discussion of the redevelopment of substandard areas involves not merely low rent housing or low rent housing at all, because any substantial redevelopment is going to take into consideration the construction of industrial, commercial and residential building, and some high priced residential building and a great deal of medium priced residential building, and we cannot tie this discussion to low cost housing. Secondly, the comprehensive development of substandard areas on a planned basis is going to produce increased values to the municipalities over a period of time. I cannot tell you how much that increase is going to amount to anywhere, but it is going to amount to more than the additional taxes that the municipality is going to obtain from the area re-developed. There is going to be a stabilization of values and planning itself increases values around the area redeveloped as well as in the area redeveloped.

My third point is that, therefore, I think it is good business to redevelop substandard areas and to subsidize them for that purpose. The subsidy is justified provided there is control not only in replanning the redevelopment but in supervising the policies which affect the use of that land over a long period of time. Certainly, if for the period of financing involved we are going to have localities issue bonds for 40 or 50 or 99 years, then the government is justified in seeing that there is control over the type of development or redevelopment that takes place during that entire period.

When we are all working on that basis, we won't be concerned with the fact that we have extended a subsidy into a new field. We have been using subsidies for years, from our protective tariff to our mail service to our public housing, and now it is suggested and I am for it—I disagree a little as to some of the details, but the idea of bringing subsidy into local communities is to have the city start with a clean slate and adopt what we should have adopted long ago, sensible urban land policies, which is extremely worth while.

MR. W. T. VANDERLIPP (New Jersey Housing Authority, Newark, N. J.): I still do not think that the question has been answered, and I should like to ask it in this way: Is it not true that to deflate the cost of land to the builder, regardless of the method used, permits a profit by the builder to the ultimate owner out of that process?

THE CHAIRMAN: Certainly, it does, but it is a social gain to the ultimate owner not to the past owner. It does to the ultimate owner because the ultimate owner gets the land at a less value, but he gets it at a value that is a going value in the community; therefore, he is not getting any benefit that he should not get.

MR. VANDERLIPP: No, we are talking not about the owner. We are talking about the man who buys it competitively for the purpose of building on it and passing it on. I am interested in it because it has to do with the cost of the land to the ultimate owner, that is, the householder who finally becomes possessed of that property.

THE CHAIRMAN: I think he is talking about somebody twice removed. He is talking about a speculator, a middle man.

PROFESSOR HANSEN: I think I have already answered that question. If everybody comes in and competes for that land and bids up its new rental value to as high a level as competition can bring it, he is not getting any subsidy and there is no possible basis of his making any excessive profits out of it. How could that be so, if by competition the new value of the land is established? I repeat, why is it the competitive price will not equal the present value? It is largely because the land in the past has been used in this unsocial way, extraordinary high density. Now the new owner is not getting a subsidy. If he goes in there and competes with everybody else, obviously he is paying a competitive price for that land. The rental is a rental price or sale price, whichever it is. I do not think there is any subsidy to the buyer of the land or to the long-term lessor of the land.

MR. VANDERLIPP: Does not the low cost of the land to him enable him to make a profit which would not be possible if he had to pay the other cost?

PROFESSOR HANSEN: No, sir, because as it is he does not make any development at all, he cannot do it, and there is no profit beyond the competitive profit. There could not be, since the price he pays for the land is a competitive price.

MR. LEVENE: Supposing there is a greater demand than the available land, then there is a question as to who will get that advantage.

PROFESSOR HANSEN: If there is an enormous demand for that land, of course, the city that assembles the land is going to come out very beautifully. It will enable them to sell it at a very high price or to lease on very favorable figures. In that case, the new use of the land is high, not low, and he will have to buy on that basis. I think it is a complete error to think that there is any gain over and above a normal competitive gain on the part of the private developer. Under the plan developed there cannot be, because he will be bidding for that land with competition.

MR. SAMUEL SMITH (Deputy, Amalgamated Clothing Workers of America, Chicago, Ill.): I am sorry that I cannot comprehend all of these theories, but it seems to me in my humble way of thinking, that if we are to get subsidies—we all agree on subsidies—does it not seem logical that the source of the subsidy or home project should also have some sort of say in regard to rentals or regarding the upkeep of the properties? Mr. Hansen, I raise that question with you. Are clearcut subsidies to be given to certain groups of builders and is the government to have nothing to say as to supervision of how much rental should be charged at certain periods of time?

PROFESSOR HANSEN: I repeat, there aren't any subsidies made to these private developers at all. The city buys land and it offers it on a competitive basis and under competition the land is bid up and the rentals are bid up as high as competition can bid it up. No subsidy is paid to these people. All that society is doing is making possible a decent development of that land under decent social conditions, not under these slum or excessive dense conditions. There is no subsidy at all to the private developer. He pays the full competitive price for that land. There is no subsidy in any sense. However, it is true that under a master plan, under a comprehensive master plan, and in a detailed project area plan, a plan with respect to these respective projects, 100 acres or 200 acres, whatever it may be, the person who comes in and develops that land must do so in accordance with the plan and thus his project is under social control to insure that the public subsidy, the subsidy to urban redevelopment, not to him, but to urban redevelopment, will be safeguarded to insure that the project will go forward in a way that will prevent further slums and blight. The interests of society will be protected in carrying out the plan. That is the social control over the matter.

MR. VANDERLIPP: May I ask one more question? I should like to ask this question which seems to me to be fundamental. Assuming that the city pays more for the land than it is purchased for at competitive bidding, is not the difference a cash subsidy?

THE CHAIRMAN: Well, I do not think so I am sure.

PROFESSOR HANSEN: It is not a subsidy to the person who buys the land. It cannot be since he is paying a competitive price. It is a cost that

society pays in order to get rid of these slum areas and in order to get sound development in the future, but it is not a subsidy to the private developer. He is paying a competitive price. Anybody who pays a competitive price is not being paid a subsidy. (Applause).

MR. GEORGE H. GRAY (New Haven, Conn.): When this land is assembled for any one large project it is in the hands of certain individuals who held it maybe a short time or maybe a long time. Undoubtedly much of it will be in the hands of certain mortgage companies who have held it at a considerable loss. That was their investment. Isn't there a danger in buying this land of bailing out these mortgagees who have been stuck?

PROFESSOR HANSEN: This land would either be purchased or it would be condemned under eminent domain, that is, it would be paid a value according to the value which the courts set upon it. In our country under our constitutional system we cannot buy the land under any other basis. Now I myself think that we ought to enforce our urban regulations with respect to sanitary conditions and safety and all that, which in effect we have not done and if we did it adequately, the value of this land would be lower than it is now, and that we ought to do our utmost to convince the court when we take it under eminent domain that the land is not worth the excessive price that is often held out, but as a matter of fact, we cannot get the land on any other basis under our constitutional system.

I do not like to pay a higher price for the land than we ought to pay, but I think that under our system we probably will pay more for it than in fact we should. We very frequently in practical politics run into that kind of a situation. Alexander Hamilton ran into it in the days when he proposed the federal assumption of state debts. Exactly the same argument was made that he was bailing out the owners of state debt, and he was, but the social benefit accruing from his act I think hardly anybody today would doubt, and even Thomas Jefferson finally agreed to it under certain restraints which he later on was not altogether happy with. Nevertheless I think that we are agreed that if the end that Alexander Hamilton had in view could not be accomplished in any other way—and perhaps it could not be—it was very well worth the price. I think we are in something of that same situation now.

I do not propose just to sit down and do nothing because of the fact that under our constitutional system we may in fact have to pay a higher price for this land than I would like to pay. I think that the losses we will sustain, if we do not do anything, will be so enormously greater than the cost that is involved in buying this land under such conditions as we can under our constitutional system that we had better go ahead with the land assembling in the best way we can, but I would certainly do the utmost to convince the court of a fair value.

MR. GRAY: May I ask a further question? Don't you think that we should right now begin to make an effort to establish such laws as they have in England whereby slum properties may not be sold for a value greater than the capitalization of its present income?

PROFESSOR HANSEN: I think you would run into very serious legal and constitutional difficulties in our country. In England you can pass any law you wish to pass. In our country there are a good many laws that are unconstitutional.

MRS. GENEVA VALENTINE (Emergency Housing Committee, Washington, D. C.): I should like both gentlemen to tell me what will happen to restrictive covenants on lands so acquired.

THE CHAIRMAN: That is a very pertinent question. What would happen to restrictive covenants on land so acquired?

PROFESSOR HANSEN: Ask Mr. Potter. He is a lawyer.

MR. POTTER: It is presumed, I do not know whether accurately or not, that in the slum areas of our cities restrictive covenants have run out, that one would find in an overall undertaking of slum clearance an almost entire absence of the kind of restrictive covenants with which in this generation we have become familiar in the development of residential subdivisions. If, however, there were encountered old restrictive covenants which had no termination, and sometimes we do run into those, it is my belief that courts of equity will, upon a proper showing, abate those restrictions. For example, in certain instances where a restrictive covenant has been placed upon, let us say, a corner of an intersection by the original subdivider of that area and thereafter there has come upon the other three corners development of a type widely varying from that to which the first corner is restricted by the covenant, courts of equity have granted relief and they have said that the common good is of such heft that the restrictive covenant will be abated. Does that answer your question?

MRS. VALENTINE: I do not believe so.

MR. POTTER: Put some other phase of it then and see if I can get to it.

THE CHAIRMAN: Mr. Robbins would like to take a crack at it.

MR. ROBBINS: The plan for assembling land in any municipality envisages large-scale assembling. It seems to me that if the municipality becomes the owner of any large section within its boundaries, it will become the owner of all the parcels that are affected by any particular restrictive covenants. Once the ownership of all that property is in the city, I do not think that the city would be bound by covenants at all. The only thing that could happen, as I see it, is if a city acquired land which was covered by a restrictive covenant but failed to acquire other property which was subject to the same restriction, the person who remained the owner of the other property might have a legal right to insist that the restrictions be imposed on the land acquired by the city, but I think that is an extremely unusual and unlikely situation.

MR. BETTMAN: Does not the purchase of land include the purchase of restrictions, if there be any, for the benefit of somebody outside?

MR. ROBBINS: If the purchaser acquires all of the land that is affected by the restrictions.

MR. PHILLIP NICHOLS (Massachusetts State Board of Housing, Boston): Where the land is taken by eminent domain, whoever takes it, takes it with the restrictive covenants. The city would simply have to pay the value of the land, and if the restrictive covenant belonged to somebody else and that decreased the land, the award would be divided between the owner of the restrictive covenant and the owner of the fee and the restrictive covenant would come to an end.

MR. BARRETT (Duluth, Minn.): I should like to raise this issue. I think we will all agree that any large volume of housing development under the redevelopment procedure you are discussing is going to take years. We are faced necessarily after the war with a considerable volume of private building, which ordinarily would go not to new subdivisions which we may be able to control with subdivision regulations but to laid-out subdivisions of forty, fifty, or sixty years ago. I think it would be desirable to have some discussion of what to do with that problem facing us now, to head off the creation of a situation in the future with which we are now trying to contend.

THE CHAIRMAN: Mr. Robbins, would you like to try to answer that one?

MR. ROBBINS: I do not think that is an easy question to answer, but it fits in with what I said this morning. It simply means that although it is going to take years to work out the procedures and especially the financing of large-scale redevelopment, there are a number of things that can be done right now to reduce the cost of ultimate redevelopment. One of those things is to get busy on the master plan; secondly, to conform your zoning regulations to that master plan; thirdly, adopt your building codes and density standards and other standards that you want to see utilized in the redevelopment.

Now despite that you undoubtedly will have some building that will result in additional cost to the municipality when it undertakes a large-scale redevelopment. My point this morning was that there are a great many techniques that can be used to reduce that ultimate cost.

MR. KEYSERLING: I think that since my earlier question caused a certain amount of discussion, I ought to try now to answer the question that the Chairman addressed to me. I think that question was to give a very simple illustration of how land charges might be reduced without subsidy through the second plan that Professor Hansen discussed, namely, long-term amortization and low rates of interest.

To give the very simplest explanation that I can think of, ordinary twenty-year financing at 5 per cent interest would produce about \$80,000 a year charge against a \$1,000,000 piece of property, and 99-year financing with regard to land and 2 per cent interest, which was the rate of interest that Mr. Potter thought to be obtainable in connection with government guaran-

tees, would produce a \$20,000 annual charge in connection with the same piece of land, so that through the device of long-term financing on land, with low interest rates, even without any subsidy either from the Federal Government or the locality, you would get a reduction of about 70 to 75 per cent in the annual revenue that would need to be collected from the uses to which the land was put in order to retire the obligation in full, the difference between \$80,000 and \$20,000 representing the difference in the annual charges based upon cheaper methods of financing.

THE CHAIRMAN: Thank you. The thing that I was interested in bringing out is that while that method will not clear the slums that have the greatest land costs attached to them, it will clear a great amount and it might be well to start with some simple plan like that and work up rather than to think of clearing the whole thing at one time because we have to make a start some place, and I just wanted to get the simplest of devices before you and show you what that can do.

Are there any other questions?

MR. GRAY: I should like to ask Professor Hansen what he thinks of the possible advantage of long-term leases of the land, title to remain in the city rather than outright sale. It might be 99 years, 199 years, or in some cases even 999 years.

PROFESSOR HANSEN: I personally am very strongly in favor of the lease rather than the sale. The sale if made ought to be made under rigorous, continuing controls. One of those would be to insure that the development then and subsequently would be in accordance with the master plan. Moreover, I would think that any such sale ought to permit the city to recover that land after a certain interval as specified, at the price at which it was sold, so as to prevent speculation on the land. With safeguards of that sort, the sale may perhaps be justified, but I would think that there is a better chance of continuing proper use of the land and control if the land remains in the hands of the city, and we know that from the standpoint of the private developer, there really isn't any serious objection that I can find, and, indeed, I think there isn't on their part any serious objection as far as I can discover to a long-term lease. We are familiar with that even under private ownership of land, long-term leases that are quite as satisfactory to the developer as outright ownership is. So that I personally would be strongly in favor of the lease and the continuing ownership of the land in the municipality, although I would agree that with proper safeguards one ought not to say that no good social benefits could accrue from a development program that involved sale because I think that is possible. It is a matter of which is the better plan.

MISS LOULA D. LASKER (New York): I should like to ask Mr. Potter a question. When the city resells a plot of land to an urban redeveloper, will there be any provision made for the city to receive financial recompense for that part of the street bed that isn't to be used for streets in the new planning? I take it that there will be less need for these old-fashioned streets and, therefore, the planner will receive some of the land. Will he pay for the land?

MR. POTTER: Miss Lasker, it would seem to me that that would be a question of contract between the city and the purchasing developer. If, for example, the city felt that a better trade could be made for it by providing for a rearrangement of streets and thus a lessening of the price perhaps to be paid for the land, well and good, but to enter into a detailed discussion as to just how much should be allowed for a narrower or wider street or a rearrangement of the area would be to impinge too much upon our desire to make this legislation a matter of local planning as largely as possible. So I think it would be a question of contract between the city and the developer.

MR. N. H. DOSKER (War Housing Commission, Louisville, Ky.): I should like to ask any of the gentlemen who are answering questions if they do not think that a part of this loss, if not all of the loss, that might be suffered in the resale of this land that is taken over by the city would not be saved or gained back in the lessened cost to the city due to the fact that the slums no longer exist.

MR. ROBBINS: I thought I answered it before. I think that there would be considerable saving, but we do not know how much.

MR. DOSKER: No, of course, not.

MR. H. E. KINCAID (Chicago Planning Commission): I should like to address this question, as it applies to the assembling of now vacant land, but subdivided and not available for use because of the financial obligation, the location of titles, etc. In Chicago we have about thirteen and one-half square miles of this blighted area and about twelve square miles of subdivided vacant land which is not usable but is suitable for new residential operations. It is just as important to make the best use of that land now, vacant, subdivided areas, as it is to rebuild the blighted sections of Chicago. Would it be possible then for legislation to encompass the priorities of reassembling these blighted lands and replanning those areas along modern lines so as to make the best use of them?

THE CHAIRMAN: Which gentleman would you like to have answer that question?

MR. KINCAID: Professor Hansen, probably.

MR. ROBBINS: I said this morning that the power of eminent domain should be accorded to municipalities not merely for acquiring land in substandard areas, but anywhere within a municipality, going right out to the rim of its territorial jurisdiction, and I can even envisage cases where it would be necessary for municipalities in towns and villages and counties about them to work out some plan for land acquisition in a region. The question of whether the policy of eminent domain can be used to acquire subdivided land that is not used is one that involves the attitude of the courts. If we can prove to the courts that it is just as important for the city of Chicago to obtain title to the twelve acres of subdivided land as it is the thirteen acres or so of substandard areas, the courts will go along. If the courts do not go along, then you will

have to have a constitutional amendment which extends the power of the city to use of the power of eminent domain for that purpose.

MR. GEORGE F. ENERY (City Planner, Detroit, Mich.): The discussion here so far has revolved around certain phases of land acquisition. We have made a number of studies of this matter in Detroit, and I should like to bring out this phase of the problem that has not been mentioned before. We are assuming that after we have acquired this land, cleared it, replanned it and put it in shape for redevelopment, we will have a ready market of eager developers who would like to get the land and rebuild it either for private sale to individual owners or for rental housing.

We examined the rental pattern in the city and we find that the areas which are blighted are occupied largely by the lower income groups, and we find, if we analyze the redevelopment of these areas, that generally speaking the people who occupy those areas now are incapable of paying an economic rent in the redeveloped areas even though the land cost is nothing. We either have to assume that in the redevelopment process we will attract people from other areas of the city who are now paying economic rents and carrying economic loads in their particular areas and displace the people who occupy the blighted areas or the people who now occupy the blighted areas will continue to occupy those sections after rebuilding has been carried on. It seems as though the second alternative is the more desirable one, and yet it appears that substantial subsidies will be required to make it possible for the present occupants of the blighted areas to continue to live in those sections, and even though we do subsidize the acquisition of the land and put it into a perfectly fluid condition, we still have the problem of financing the construction of the housing and other residential developments on that land for which there will be a ready market.

I should like to know what the speakers here today think about that phase of the question.

THE CHAIRMAN: We have separated this conference into three days, dealing with three sections of the subject. We have assumed that the redevelopment of land has a broader use than just housing and the acquisition of land and its redevelopment is the subject of today's conference. Tomorrow we will deal with the ways of rehousing people who live on that land, and I do not think it is quite appropriate for us to get into that discussion now, because it is almost five o'clock and it is a large subject in itself, but, Mr. Enery, if you will be on hand tomorrow, we will promise to give that a full day's discussion.

Are there any other questions now?

... A motion was made for adjournment ...

THE CHAIRMAN: There is a motion that we adjourn. The members of the National Committee are asked to stay for a very short, three-minute business meeting.

... The meeting recessed at five o'clock ...

THURSDAY MORNING SESSION

MARCH 9, 1944

The meeting was called to order at nine forty-five o'clock by Mrs. Dorothy Rosenman, the Chairman of the National Committee on Housing.

THE CHAIRMAN: The meeting will come to order, please. I should like to introduce as the Chairman of today's conference, a lady who has been in the housing field for many more years than her age will tell you and who has brought great understanding and great knowledge to the field. She will preside over today's session, and it gives me great pleasure to introduce Miss Elizabeth Wood. (Applause)

... Miss Elizabeth Wood assumed the Chair ...

THE CHAIRMAN: I think that today is going to be the hottest day of the three days.

Yesterday's sessions dealt with the very important problems of land acquisition and urban redevelopment. (I will supplement and summarize as seems necessary.) Today's sessions are devoted to the specific problems of ways and means of securing the construction of an adequate number of needed houses after the war. After the last war there was a building boom. It is because that boom did not represent the best use of the building industry and because it did not result in the construction of houses in the best interest of the persons housed and of the city that we, as planners, are here today. During the last few years we have been scanning the operations of the building industry as scientifically as we know how, and we have been dissecting the forces at work causing the growth and death of the city. The net result is a basic determination that residential construction after the War shall not follow the "let nature take its course" philosophy of the Twenties, but it shall be directed as much as possible to the achieving of three important objectives. I insist that in spite of impassioned differences of opinion on methods that undoubtedly exist in the minds of all of us present today, there is general agreement on these objectives. Let me list them:

1. There is agreement that the building industry, which is the second largest industry in this country, shall be implemented so that it can be used to the fullest, not only in the special postwar employment job, but also so that it can have a long and healthy life conspicuously lacking in peaks and depressions. A healthy and prosperous building industry is essential to the economic health of the country. I mean by the building industry not merely contractor and labor, but also the realtor, finance agency, and the professional man, all of whom are used in the job of producing a house.

2. There is also, I think, agreement that all families, regardless of income, must be given an opportunity to occupy an attractive and decently safe and

sanitary home in an environment commensurate with the possibilities of 20th century techniques for planning and building.

3. There is agreement that the building industry shall be implemented and controlled so that its activities will contribute to the health of the City. It has *not* been said, as strongly as it should be said, that the fate of our cities lies in the post-war residential building program. And I mean by the *city* not just a political entity, but the vast economic entity represented by the investments in industry, commerce and utilities as well as residential and other buildings. The building industry must face that fact and assume its full share of responsibility therefor.

These objectives are very closely linked. They cannot be separately considered. Let me illustrate. Everyone knows that the largest market, in terms of need,—(and I mean need), exists in the providing of housing for the low and lowest income groups. Every bit of implementation that permits the production of an increased number of houses for families now living in substandard houses, increases the actual amount of business for all elements of the building industry. At the same time the program of providing houses for low income groups is the program which will settle the fate of the City. The demolition, the displacements, the rehousing programs that were mentioned yesterday are all going to settle the fate of the City.

We may differ among ourselves on the relative importance of these three objectives and on the methods and procedures for achieving them, but progress will come today when we strip the discussion of emotional biases, names, and preconceptions, and stick to the objectives. I haven't met very many people who are experts who say no governmental participation, implementation or other words.

The most violent difference of opinion lies in the question of the nature and extent of the governmental role in the housing field. Perhaps, the *only* agreement among us is on the fact that a governmental role of *some size* and kind is necessary. In general, discussion of the role of government in housing lies in three categories.

Most experts believe that the government must act if there is to be adequate enforcement of acceptable standards of land planning, of land use control (including zoning and other techniques of subdivision control), of building construction and of building maintenance. This category of controls has, in general, been in the hands of municipal departments and is universally acceptable. It has not, nevertheless, reached the necessary degree of effectiveness. A new form of control has been established under the operation of the Federal Housing Administration. Here, for the first time, has been developed a control over physical standards in the functioning of a finance operation. This is a most important contribution to a program of sound city development.

Most experts believe that an advantage is to be gained from a system of mortgage insurance so far available only in governmental form in the FHA. It has been proposed that a mortgage insurance company under private ownership could be established on a national basis in lieu of the Federal system. Since the objectives of mortgage insurance are (1) reducing the risk of individual mortgages; (2) reducing thereby financing costs to the buyer; and (3) broadening thereby the market for the industry, the question as to federal or

private ownership can be judged quite scientifically in terms of these objectives.

At last, most experts are coming to an agreement that if the housing program is to achieve its necessary size, *some* money has to be *given* (and I mean *donated*) to *someone* if decent houses—new or second-hand—are to be provided for all income groups. That is the conclusion that is hardest for most people to take. It is an indubitable fact that a large number of families cannot pay for their shelter a sum sufficient to enable an owner of a house to pay off its costs, and at the same time maintain it in decent and sanitary condition at a profit to himself. The suggestions as to *who* shall give the money to *whom* are manifold, and this is the hottest controversy. Some experts believe that all employers should give all employees enough money so that they could all afford to pay the costs of housing. In Sweden, I understand, this is practically the case; some day it may very well be the case in this country. Other experts believe that the Federal Government or State or local relief agencies should give cash or issue rent certificates to poor families or to the landlords of poor families. Other experts believe that the Federal Government or the State or the local government should give capital grants or annual grants to public authorities or private, or quasi-private, corporations. You can see how wide is the range of suggestions. Other experts believe that the Federal Government should make direct loans to public or to private corporations at a losing interest rate in order that costs can be reduced. Almost all experts have this in common—that some individuals or corporations, public or private, must receive some money from some governmental department, if all families are to be properly housed.

All of these methods can, and must, be analyzed and appraised in terms of the equal distribution of benefits to the three equal beneficiaries of a housing program—the building industry, the persons housed, and the city.

The first speaker on today's program is dealing with one of the most interesting of the questions of the day. Over and over again there has occurred in conversations about houses the question as to whether all poor people should not be housed in second-hand houses as all poor people have ridden in second-hand automobiles. The analogy has occurred repeatedly. It is, therefore, very interesting and very important that the first speaker this morning should discuss the question of "Modernization of Existing Housing." Mr. Philip W. Kniskern, who is the speaker on that subject, is President of the First Mortgage Corporation of Philadelphia and a Past President of the National Association of Real Estate Boards and formerly appraisal adviser to the Federal Home Loan Bank Board. Mr. Kniskern. (Applause)

MR. PHILIP W. KNISKERN: Thank you very much, Miss Wood.

It is a real pleasure to be here before this large group that is studying this big problem of housing with such open minds and such broad thinking. The answers to the housing problems of the country are only going to come from such conferences as these where we are glad to hear the other man's thought, to give it the benefit and recognition that is due it, and to modify our own thinking a little so that we all reach a common conclusion.

After the very scholarly discussions yesterday and the big, broad subjects

and the broad implications that came from those subjects, it may not be quite so interesting to get into what is in fact a smaller but a very important segment of this housing question.

We may say first, What do we mean by rehabilitation or modernization? We do not mean maintenance. Maintenance has been deferred in many houses in this country because of the rental restrictions and because of the restrictions on materials. At times some landlords have taken undue advantage of these conditions while at others, tenants have not been as careful as they should. There is lots of maintenance to be done after this war is over.

When we speak of modernization we mean rehabilitation which is a fundamental change in the property, a recovery of long years of depreciation and a recovery of obsolescence. It is the conversion of a building into a more intensive use than it has had before, or it may even include the conversion of a building from one use to a new use.

Rehabilitation fundamentally deals with the individual property. It does not deal with a broad-scale plan of whole neighborhoods and whole large areas. We talked a good deal yesterday about slum clearance and replanning and rebuilding of our cities. It is a real subject and a subject we need to work on, but every time you start on it you are working on a large, tremendously ambitious program. It is inherent in the subject. There are very many controversial questions which have a wide effect and a mixture of affects in a country that is so heterogeneous as this country is.

We get into such wide questions as to who is going to profit and who is going to get the subsidy benefits and who is going to control the operation? Sometimes as I hear these discussions go on I wonder if we ever will find the answers that we all can agree upon sufficiently to proceed on a program. I think we will. However, the questions are deep enough and broad enough and serious enough that it will take time at least to reach a common conclusion.

When we get those questions all settled and when we do reach an agreement, any replanning program of any city is in itself a big program. After we have gotten the overall policies settled, there is bound to be a time lag, there is bound to be time lost while the appointed officials are selecting the particular sites or areas; while they are accumulating the sites; while they are planning what they are going to do with it after they get it—and believe me, there are going to be plenty of local arguments about how they are going to treat those areas, about what they are going to do and what the basic local policy is going to be. Then after all that is cleaned up and the land acquired, you are going to have the problem of leasing or disposing or putting it into the operating hands, whatever procedure may be followed.

After that the individual must work out his own building plan and then he must go back and get his plans approved. There is a tremendous amount of detail that follows in this program after you get the overall basic policies settled.

As I think of this vast program, I am reminded of the story of the little English boy and American boy who were bragging about the size of the production of their countries, the English boy claiming that their battleships were so large the commanding officer had to use a jeep to go around the decks of the ship. The American boy, not to be outdone, said, "Well, our Army is so

big when our chefs start to cook soup for our troops, they have to take submarines to go around and find the beans." (Laughter)

That is an exaggeration, but at the same time the immensity of this overall rebuilding problem and the details cannot be exaggerated too much. Now by that very bigness anything we have talked about in replanning cities is going to be a long and a slow process. That is why we are working now, probably several years before it can go into effect. It requires big operators. It leaves out the small operator who, after all, in our historical building, at least, has built the great bulk of the housing of this country. A tremendous percentage of the housing of this country, as you all well know, is built by the man who builds from two to ten or fifteen houses in a year, and some part of these plans that we make now must provide to use him.

Rehabilitation, on the other hand, requires very simple planning. It deals with the individual property. The planning is simple. It permits a quick start. It permits quick employment. True, each operation may provide for only one, two or four families, but when you get a large number of those types of operations under way, the accumulative effect is surprising in the number of families that are provided for in that way. I would predict that if we got into some program of this kind, we would find that we had a very big program of actual accomplishments before we realized what was going on. I do not want to deny the benefits of the bigger programs. I do not want you to misunderstand what I am now saying as in any way opposed to the bigger programs. I am not nor do I propose or suggest rehabilitation as a substitute. I think we should do both. I think one supplements the other. There are many areas in our cities, many cases where any big planning will not cover. We can lay out areas and there will be fringes on those areas where something else can be done, so that rehabilitation need not interfere in any way and should not be a substitute but a very essential corollary operation.

The obvious advantages in rehabilitation over new construction lie in the building labor and materials that may be saved by using existing foundations, walls, floors and roof construction. Then, too, there are the public services, sewer, water, etc., and there are the schools and churches and transportation that do not need to be recreated. The degree of savings of this kind, of course, varies with each location and with the age and condition of the particular buildings and the particular neighborhood.

As compared to new housing, we are in this country very wasteful of existing capital resources when we go to virgin territory and incur the expense of new planning, new facilities and new materials. We should do a lot of this new building, but at the same time when we do it, let's realize that we are wasting many good assets that we have that we could repair and make useful.

Now, new subdivisions, new houses, broad city planning and all of those things are very glamorous. They are romantic. They offer a freedom of planning that does not exist in rehabilitation. I think sometimes with all this glamor and romance of these bigger procedures and the new things, we are led unconsciously away from the many advantages that lie in using our existing facilities and equipment. Rehabilitation in old neighborhoods is a drab thing to look at. It involves hard work. It involves many concessions in the planning, and it involves lots of risk. Some people think there is more risk in rehabili-

tation than there is in new construction. I am not ready to say that I disagree, but sometimes I wonder if the glamor of new construction does not blind us to some of the risks that are involved in creating these wholly new conditions.

Financing is probably the most serious and acute problem in this rehabilitation program. Private lenders are hesitant for many logical reasons, which are aggravated by comparisons to the romance and glamor of new construction. After all, we lenders are influenced largely by the physical appearance of things, although we say we go back just to the financial soundness and seriously attempt to do so nevertheless we cannot help but be influenced by the glamor just as the operators are.

Federal financing similar to the Lanham Act funds which were used for wartime conversions are definitely not an answer because of the requirements for lump-sum contracts, the precision of detail that is required in the plans, the problems arising from financial accountability and many other items that make the work too expensive and too slow in operation. The answer probably lies in some form of insurance of mortgages. It may be in some new title under FHA, much as Title VI has provided for special conditions and recognized the difference in risk involved.

Properties now used for residential purposes are most suitable. Some of them require the recapture of depreciation and obsolescence, some require complete change. I believe that there is a great deal of study necessary yet, before we will be sure that the conversion of office buildings, stores, garages and like buildings are types of conversion that we want for a permanent rehabilitation program.

Now, if we will look at the record for a minute, I am not going to give you statistics but observations. I am always a little afraid of statistics.

In discussing rehabilitation, it is appropriate to look over the results of the Federal Conversion Program that is so recent. Some people may feel that there was a very great delay in converting this program into results as well as much confusion in carrying it out. Much of this is true but it must be remembered that the Homes Use Conversion Program was an emergency program. The decision was made and the work started virtually the next day so that the Administrative and Directing Officials had to, in a very real sense, catch up with the field work. Much of the delay and confusion was eliminated as the organization was perfected. Some of the internal interference and confusion never could be eliminated in spite of the excellent administrative job that was done due to the fact that the basic causes were in the provisions of the Lanham Act itself while other difficulties were those that are characteristic of any Federally financed operation. No individual who has not had personal financial responsibility in the disbursement of Federal funds can fully conceive of the problems that arise and the care that must be exercised over the minutiae of detail when operating under these Federal regulations. There are lots of things you can do in the collection of statistics and lots of things you can do with them after you get them.

We have had many laboratory tests for this rehabilitation, something somewhat akin to the manufacturer's pilot plant, and for us to find a way we should really follow this program. The Homes Use Conversion Program of the Federal Government is an excellent laboratory. There has been some excellent work

done. There has been a good deal of study of the results, out of which we can find some very good guidance for a postwar program. Then there are many operations around the country, such as Arthur Binns' of my own city of Philadelphia, where he has done a great deal of this work with highly satisfactory results. Of course, the argument is raised as to Arthur Binns' work that his properties were "given" to him at a very low cost. Many of them he did buy very cheaply, but we have to find the answer in this rehabilitation the same as we do in a broader replanning. We have to answer high original cost, high acquisition costs with long-term financing.

Now it, to my mind, is a public or a quasi public job to generate and inspire this work and to assist. Some may ask why. I think the reasons lie in the fact that any rehabilitation work of this kind retards further deterioration. There are a great many social benefits. There are many municipal expense savings, and it does, as I have pointed out, give us an immediate postwar work employment program to meet the demobilization problems.

If we look at the internal record, hastily, of the homes use service, we find that three out of four applications were declined, either declined, dropped or for some reason did not go ahead. Of those that were declined, 22 per cent were unsuitable because of the size, construction and condition. In some 12 per cent the cost was excessive. Some 24 per cent were withdrawn by the owners because they weren't satisfied with the deal, and became discouraged over the delays or for one thing and another. When you look at those figures, remember the limitations under which this wartime conversion program operated, namely, it had to be financially successful, at least to the extent of repaying the government investment; it had to work under the rent restrictions of the Lanham Act, and in some cases under the rent control provisions. In other cases that was adjusted and removed. They could not spend more than \$2500 per family, and in this kind of government operation, it is \$2500. It is not \$2501, so that you hit a hard and fast line. The cost had to be amortized over seven years out of the rents, net operating income. Some estimate that maybe 25 per cent of these applications that were declined or failed would have gone through with very minor adjustments of the limitations under which this program operated.

It was interesting to me when we first started on that program—I say "we." I had only a side-show position in it. My official position was to help the department so far as I could as a representative of the Realtors of the country. We were doing a cooperating job. When we first started I was very much worried about the problem of zoning, but the records seem to indicate that only 3 per cent of the applications that were declined were declined because of problems of zoning.

There were many less apparent problems in that program. There was this matter of spending government funds and the personal accountability, and I cannot repeat that too many times to you people who have never had to have one of your vouchers approved by the General Accounting Office. It took an organization that was doing an excellent liquidation job and converted the thinking of a whole segment of that organization into an active operating job. It is a hard job to change an organization from the one approach to the other

approach. The program involved an extremely complex problem, an administrative problem, to decentralize the work sufficiently to get prompt action at the source. There were many variable local interpretations of the regulations as they were sent out. I know during my service in charge of appraisals for the Home Owners Loan Corporation I used to figure that if I could get 50 per cent efficiency in the field from the regulations issued from Washington I was doing a pretty good job.

The program got off to a wrong start in the wrong way because it started almost as soon as the idea was conceived, and the administration, as I said before, had to catch up with field. The program is one of great detail and it is of necessity ponderous and slow-moving. I am convinced that the government's part in a new program of rehabilitation should be limited to the stimulation of the activity, to supervision, without direct activity, no direct construction activity and no direct management activity and no direct contracting activity. We should provide for some form of insurance to relieve the minds of the owners of private money of the risks that are involved in any rehabilitation program.

In the reëmployment question, I think this rehabilitation program should be given very serious and careful consideration. I believe that we will get bigger aggregate results in the early stages of our post-war readjustment period through a procedure that gets a large number of individuals working on their own small individual problems in a process where they can work it out themselves and get going in a short time. If we have large numbers all over the country doing that, we will get bigger and quicker results than we will if we have a large number of large operators waiting at the centralized desks that must exist in this larger planning. There is bound to be a bottleneck where they have to get their big programs all fitted into the other major programs before they can start to do anything. The bigger planning will do the long-range, bigger job. The smaller planning, the rehabilitation work, I believe will do the quicker, short-term job and will fill a very necessary link in the problem that, after all, we are all thinking about, namely getting our boys back to work when they come back from the war and putting them into something that is really productive.

THE CHAIRMAN: Thank you, Mr. Kniskern.

I think it probably will be very hard on you all to hold your questions until this afternoon, but because there is a good concentrated lot of speaking to be done this morning, we are asking you to please hold them until the end of the program this afternoon. Then there will be plenty of time for questions. I hope your suppressed questions do not give you too much indigestion.

The next speaker on the program is Dr. Ernest M. Fisher, who is now with the American Bankers Association of New York. Dr. Fisher is the very first economist with whom I ever talked. He made a deep impression on me at that time. I think it was about 1933 or '34, when he was the economist with the Federal Housing Administration. His subject for this morning is "The Future of Mortgage Insurance." I am very glad to introduce Dr. Fisher. (Applause)

DR. ERNEST M. FISHER: Miss Wood, Ladies and Gentlemen: You notice that in addressing the Chair I said, "Miss Wood." I did a great deal of research to find out just how I should address the Chair. I knew I could not say, "Mr. Chairman." I thought of saying "Madam Chairman," but that is a little ambiguous, and "Madam Chairwoman" sounded a little unorthodox to me, so I will say, "Miss Wood."

The program of mortgage insurance was initiated just ten years ago. This was a unique program; its parallel cannot be discovered. During the ten years it has been in operation, it has achieved many important and praiseworthy results. It has been administered with a scrupulous and resolute regard for the basic principles in accordance with which it was designed. It has written a record of achievement in which all those who have been connected with it may take justifiable pride. As the end of the decade of operations is approached, it is timely to re-examine these basic objectives to appraise the record, and to restate the basic principles in accordance with which the program was designed and by which its future operations may be judged.

In undertaking this task, it will be well to limit its scope by focusing attention solely upon the mutual mortgage insurance system. Operations under both Title I and Title VI have been limited in time or designed to accomplish certain purposes essential or peculiar to current and temporary situations. The mutual mortgage insurance system has been, since the beginning, without limitation as to time, and by its very character represents a long-time operation.

Among the enduring accomplishments with which the operation of the mutual mortgage insurance system may be credited are the following:

1. It has wrought fundamental changes in the practices accompanying the financing of mortgage credit on homes. For a widespread and nefarious system of multiple mortgages written for short terms and involving high refinancing costs at frequently recurring intervals, it has substituted a single long-term totally amortized mortgage. This change has brought about a realistic adaptation of mortgage credit terms to the conditions under which mortgage credit is in most cases extended. It has served to focus the requisite attention upon the significance of the borrower and the analysis of the transaction from his point of view. It has thus been largely instrumental in stimulating a re-examination of mortgage lending practices and the initiation of changes in those practices which were long overdue.

2. It has brought a great improvement in the quality of materials and workmanship employed in the construction of homes. For the moment the effects of this significant contribution have been somewhat diminished by the restrictions necessarily imposed upon the use of materials and manpower; but these restrictions are an accompaniment of the war effort, and when they are no longer necessary will probably be removed. At that time this influence on construction standards will again become increasingly manifest. It is significant that the adoption and enforcement of minimum construction standards on a national scale was initiated under this program.

3. A tremendous impetus has also been given to the study of land planning and the better adaptation of the dwelling structure to its environment, and to the importance of the creation of an environment as well as a dwelling unit.

This accomplishment has been brought about through continuous insistence upon the application of sound principles of land planning as a business proposition; it illustrates the influence which an important organization may have in spreading the recognition of proved new methods of operation.

4. The operation of this system of mortgage insurance has created, for the first time in the history of our country, a market for mortgage securities larger than local in scope. This accomplishment was made possible by the creation of a unique method of estimating the quality of mortgage loans and certifying that quality. The insurance itself serves to establish a minimum grade of quality on a mortgage insured: that is to say, it essentially fixes an upper limit of loss which may be incurred if the mortgage goes into default and has to be foreclosed. But this fact alone might not have enabled the development of a widespread market for the insured mortgage. It is the risk rating plan that enables purchasers of the insured mortgage in the market to make their purchases with discrimination and with confidence. This development of the machinery by which the scope of the mortgage market is enlarged will probably assume increasing significance with the passing years.

These are no mean accomplishments. They testify to the rigorous administration of the Act, as well as to the soundness of the original concept of mortgage insurance. It probably would not be an exaggeration to say that every one of these accomplishments has flowed from a tenacious insistence upon the operation of the mutual mortgage insurance system as a bona fide insurance plan. They have arisen out of the effort to place mortgage financing on a sound basis and at the same time to preserve what is the essence of an insurance operation. Insurance as such substitutes for a large loss, uncertain in amount or time, a definite loss or expense, certain in both amount and time. The definite premium certain in time is determined on an actuarial basis, and is set in an amount which is sufficient to pay all costs of operation and to create reserves to enable losses to be met when they are incurred.

So far the system has met this test. It has paid its operating costs out of premium income, and has built up its reserves for losses in a substantial amount. The responsible officers of the FHA maintain that these reserves are adequate to meet all anticipated losses and to continue to pay all operating costs.

This feature of the plan is basic. To the extent that losses and operating costs are met out of revenues, the operation is one of insurance. To the extent that revenues fail to meet these costs of operation, the plan is no longer one of insurance, but, *pro tanto*, a gratuitous guarantee. In passing it must be noted that the cost of validating claims on account of such guarantees is real, and must be paid just as insurance premiums must be paid. No organization can make gratuitous guarantees and validate the claims arising from them unless it has access to independent resources. The mutual mortgage insurance system does have access to such resources, because its debentures are guaranteed by the Federal Treasury. But it must be made plain that if the system ever should require the Treasury to redeem debentures out of its general funds, it will have broken down as an insurance operation. Incidentally, this provision of the law has been much misinterpreted, and because of this Treasury guarantee it has been frequently represented as a subsidized operation, using the credit

of the Federal Government to underwrite individual obligations. This representation is not correct so long as the system is maintained without recourse to the general funds of the Treasury. If such recourse should be taken, the system will have lost its character. In the meantime, the guarantee of debentures may be looked upon as a substitute for the creation of the large reserves which would probably be necessary to secure acceptance in the market of the debentures or of the right to claim debentures. It is not the place here to examine the adequacy of premium income or the actuarial soundness of the whole plan to date. These may be taken for granted for our present purpose, and the case may be rested with the assertions which have just been made.

It may be that in certain circumstances gratuitous guarantees on the part of the Treasury are justifiable for some purposes. It would be unfortunate, however, if such guarantees should be paraded as an insurance plan, or if these guarantees should be confused with the sound insurance operation in which the mutual mortgage insurance system has thus far been engaged. As an insurance plan there are certain limitations upon the operations of the mutual mortgage insurance system; there are certain things which it cannot be expected to accomplish. It is commonly supposed that FHA insurance eliminates the risk involved in a mortgage loan. This assumption, like the premature report of Mark Twain's death, is a gross exaggeration. Insurance does not, *per se*, reduce risk. Certain activities of insurance organizations are designed to reduce losses by reduction of risks; but these are ancillary activities, and this is not a function of insurance as such. As a matter of fact, many types of insurance tend to increase risk because of the nature of the insurance transaction. A man who is insured against loss because of fire may be less careful in protecting himself against the fire hazard. Credit insurance companies have found it difficult to maintain the same degree of circumspection in the extension of credits on the part of those who are insured which they maintain when they are uninsured.

Furthermore, insurance companies develop a constantly sharpened discrimination in the process of selection of risks, but they make no pretense of reducing risk by the insurance process. It was in the effort to develop this discrimination that the risk rating system of the FHA was created. Insurance stimulates the measurement of risk, not its elimination. Thus the insured mortgage is not a riskless investment. It is one in which the risk has been discriminatingly measured, and on which, in consideration of the payment of a premium, the major portion of the risk of loss is undertaken by the insurer.

It must be emphasized that the operation of any insurance plan involves the collection of a premium which is proportionate to the risk insured against. The recognition of this principle leads to an examination of the circumstances in which the mutual mortgage insurance system has been operated. These circumstances have been such as to contribute toward, rather than detract from, the success of the operation. Established in 1934 in the midst of a nation-wide and profound real estate depression, when real estate values had sunk to a very low level, its operations have covered a period characterized by rising incomes, increasing real estate values, rising costs of construction, and rising rents. It would be unfortunate to draw too broad conclusions from this experience. The system has never been tested either by the strains and

stresses of a boom or by the disasters of a violent depression. The acid test of the whole concept, then, lies in the future. It remains to be seen whether the objective of maintaining "a sound mortgage market" can be achieved. It will at least be worth while to point out some of the critical tests which the system will face if these phenomena recur.

A period of rising real estate prices, high incomes, rising costs of construction, and rising rents creates hidden risks in mortgage lending against which precautions must be taken. These precautions focus on the measurement of risk and the adaptation of the premium to it. There is little reason to suspect that the fluctuations in the real estate market which have characterized its past history will not recur. When they do recur, the mutual mortgage insurance system must be fortified with adequate reserves created during this period of rising levels of values, rents, and incomes.

The test of the whole underwriting analysis of the mutual mortgage insurance system may come in a period of boom, and indeed may now be upon us. It brings with it questions of valuation bases and reliability of borrowers' incomes, as well as the broader questions of levels of national income, the effects of technological changes and of the movements of population and economic activity. In projecting these forces, and in the analysis of their effects on the risks underwritten by the mutual mortgage insurance system, the test of the underwriting procedures and of the solvency of the mutual mortgage insurance system lies.

In this situation it is not valid to reason from past experience of the system. That experience probably will not be acceptable as final evidence until the passage of another decade or more. There is no absolute guide in determining these policies for the years that lie ahead. They must be formulated in the light of reason and prudence. It is hoped by those who want to preserve the mutual mortgage insurance system as an insurance plan, that every precaution will be taken against conditions which might undermine its soundness. Among those which may be suggested are careful consideration of the relationship between current real estate prices and the percentage of funds advanced to the total valuation of properties that stand as security; the rigid scrutiny of the borrower's probable prospects for continued earnings; the advisability of curtailing the terms of loans insured as periods of rising prices and high incomes approach culmination; the nice adjustment of amortization schedules to probable developments in the market.

No more important contribution can be made by the mutual mortgage insurance system to sound mortgage financing and the development of a sound home building and home financing situation, than the continuation and expansion of the careful market analyses which it conducted in the years prior to the war. The techniques employed in these surveys and the study of the conclusions to which they pointed should be augmented and pursued with diligence and firm resolve.

If one adopts the point of view that mortgage insurance must be conducted on an actuarially sound basis, it follows inescapably that the controlling consideration in future FHA operations cannot be the desire to secure a large volume of construction or even to promote widespread home ownership. If these laudable objectives involve the acceptance of risk which is dispropor-

tionate to the premium charged, they must be abandoned. It is a fortunate and happy circumstance that a large volume of residential construction brings about a large volume of employment and contributes much to the economic prosperity of the nation. It is an equally happy circumstance that many families wish to own their homes and can frequently implement their desires by taking advantage of mortgage insurance. But these happy circumstances would be bought at too dear a price if the soundness of the mortgage insurance operation were undermined thereby. If these objectives are so attractive in themselves as to justify gratuitous guarantees or other measures involving demonstrable losses, they should be advanced on their own merits and not suggested as prime or controlling considerations involved in mortgage insurance.

There is much talk, which sometimes seems irresponsible, about the uses to which mortgage insurance may be put. There are many proposals to lengthen the term of amortization, to reduce the down payment, and to take other measures which will facilitate the purchase (or, more precisely, the sale) of homes by (or to) large portions of the public. We must not allow ourselves to be deluded by these proposals and by the persuasive and emotional arguments that are made in connection with them. They seem to take it for granted that securing possession and occupancy of a home is the equivalent of owning it. But obviously the two are far apart. For the possession and occupancy are both insecure and hazardous until the ownership is debt free. It is not always made clear that home ownership encumbered with mortgage indebtedness is only a temporary expedient; it places both the borrower's equity and the borrowed funds in jeopardy until the debt is paid.

One of the fundamental tests of the soundness of any home financing program is whether it facilitates the payment of indebtedness. To be sound it must promote the liquidation, not the perpetuation, of debt.

The hard fact must be faced that it is not easy to pay for a home. For the usual family it involves years of genuine sacrifice and careful management. To attain debt-free home ownership is a worthy motive. But it is not easy; and it is an error closely akin to crime to minimize the difficulty.

The undue extension of the term of the mortgage may serve to contribute to the delusion that home ownership is easy to attain. It can be demonstrated that little is to be gained by the borrower and much is to be hazarded, by the extension of the term beyond 20 or 25 years. For every penny saved in monthly payments by such an extension, the borrower obligates himself to pay tens of dollars in interest charges. If one were to seek a reasonable basis for fixing a maximum term, he would attempt to find one that represents a balance between the monthly charge and the total interest involved, between the rental value of the home and the monthly carrying cost; a term that would represent the period over which the capital invested in the home might well be expected to be amortized. Conspicuous for its absence from this enumeration is a balance between the borrower's income and the monthly debt service. This should be determined by the price of the home rather than by the term of the mortgage.

Similarly, great caution must be exercised in an analysis of the proposals to reduce the amount of the down payment which establishes the equity of the borrower. Naturally, all such reductions increase the ease of sale, tend to

promote the purchase of homes by larger numbers of families, and thus, at least temporarily, broaden the market. It is not easy to oppose proposals which can lay claim to such attractive objectives. But again, these proposals must be subjected to the rigid test of whether they increase the risk involved in insurance of the mortgage indebtedness. It may reasonably be asked whether the requirement for a down payment to establish an equity should be a fixed one, or whether it should be a variable one, adjusted to the risks inherent in the market situation or even possibly to the individual transaction.

It is to be noted in this connection that the legislation controlling the operations of the mutual mortgage insurance system fixed minimum equity margins, and one might deduce from this fact that it is not the intent of the law that these minima shall be always available. The adoption of a policy of requiring a margin of equity that would vary according to the circumstances in the market and in the individual case is defensible not only from the point of view of the mortgage insurance operations, but also as a matter of fairness to the borrower.

There must be some distinction between the character and functions of equity funds and those of borrowed funds. This distinction appears to be found in the degree to which these funds stand exposed to the shocks of ordinary market fluctuations. Technically the equity funds stand completely exposed; the borrowed funds unexposed, except to the shocks of extraordinary, unpredictable, or even calamitous fluctuations. Thus the equity funds may profit from price rises and may suffer from price declines. Borrowed funds cannot participate in any profits accruing from price rises, and should not be exposed to loss resulting from ordinary market declines. The corporation would be poorly financed whose borrowed funds represented so large a proportion of its assets as to be threatened by ordinary market fluctuations. It is just as unwise to borrow until ordinary market fluctuations result in disappearance of the equity as it is to lend to that extent. This observation would appear to be as true in connection with the financing of a home as it is with respect to the financing of a corporation.

Reducing to absurdity the proposals to lengthen mortgage terms and reduce the down payment required to establish an equity, one might observe that it would be much easier to acquire possession and occupancy of a home if no down payment at all were required, and to retain that occupancy and possession if the entire transaction were financed with a 100 per cent mortgage loan in perpetuity at zero interest rate. But the apparent ease of acquiring ownership by such painless plans is a delusion. Every advantage which can be claimed for any of these proposals is offset by a disadvantage. The smaller the margin of equity the more likely it is to be erased by market fluctuations. The longer the term of the mortgage, the larger the total amount of interest paid and the longer the term of bondage to mortgage debt service. In connection with both the payment on account of equity and the liquidation of the mortgage debt, the ownership of a home is not easy to acquire.

To take such a position lays one open to the charge of urging the exercise of the old-fashioned but unfortunately unfashionable virtues of thrift, sacrifice, and saving. But there still is no way in which we may be "carried to the skies on flowery beds of ease." There is no balm in Gilead which can remove

the aches and pains that accompany the achievement of a noble objective. Such strivings bring their own rewards, attainable only by those who are willing to "bear the toil and endure the pain" which their achievement costs.

One other current proposal deserves some careful attention. This proposal is to finance housing without a mortgage, or to make all the funds involved equity funds and then to insure the equity. The proposal is an interesting one, and at first thought appears feasible. On further examination it loses much of its attractiveness. On close scrutiny it is observed that this operation can be performed only if the premium charged is sufficient to cover any downward market fluctuations, or if, on the other hand, in effect only a portion of the equity is insured. A premium sufficient to build up a reserve to cover downward market fluctuations would be so large as to absorb a considerable portion of any likely upward market fluctuations. In other words, the premium would be so large as to constitute a loss comparable to the loss insured against. The situation would be analogous to that of insuring the life of a man who is past the age of sixty-five. The hazard is certainly insurable, but whether at such a premium rate as to make it an attractive transaction is debatable.

The other alternative is to insure only a portion of the equity. In most discussions of the plan, recourse is had to this alternative. But this recourse is usually expressed in terms of proposing to insure a yield on funds invested which represents only a portion of the yield expected by the investors. Obviously, insuring a yield which is only half of the expected yield is equivalent to insuring a full yield on half the equity. The plan therefore is not one to insure the equity, but one to insure only a portion thereof, comparable in effect to the insurance of a mortgage.

The topic which I was asked to discuss is the future of mortgage insurance. It may have been expected that I would attempt to chart the future course of this device and to say whether it would be a dominating factor in the mortgage market, whether it would be abandoned, or whether it would pursue an innocuous and insignificant course. I have not made such an attempt, because such an attempt would be futile and would insult the intelligence of those to whom I speak. I have endeavored instead to examine some of the principles upon which mortgage insurance is based, and to delineate the limitations which these principles impose upon an insurance operation. I have tried to distinguish between an insurance operation and its potentialities and the less rigid requirements that would have to be made of a system of gratuitous guarantees. If I have not done so, I should express a personal hope that the two types of operation would not be confused in the administration of the mutual mortgage insurance system. It would seem to me to be very unfortunate if so promising and novel an approach to home financing as that represented by the mutual mortgage insurance system should not be given an opportunity to demonstrate conclusively both its long-term usefulness and its limitations. (Applause)

THE CHAIRMAN: I greatly regret that we cannot have questions at this point, because it was a most provocative statement.

The next speaker on the program is Mr. Morris Macht, President of the

Welsh Construction Company in Baltimore. He is going to speak on "New Aids to Private Enterprise in Supplying Low-Cost Housing." (Applause)

MR. MORRIS MACHT: Miss Wood, Ladies and Gentlemen: Yesterday a great deal of time was spent on discussing the financial techniques of acquiring land in blighted and so-called slum areas. It seemed significant that there was very little discussion outside of the now heralded tax incentive plan as to just how those areas were to be built up and who was to do the building. Perhaps it would be well if you would permit me as a builder to sketch in briefly the history, certainly the contemporary history of the home-owning business.

In the year 1940, before restrictions came into effective being, it was estimated that there were something over 25,000 firms in the business of building residential properties. That figure is not an exact figure. The building magazines speak of 100,000 firms or of 125,000 firms, and there are others who even doubt that there were as many as 25,000, but let us say something over 25,000 firms, and when I speak of firms I mean not necessarily corporations. I include individuals and sometimes building material concerns that foster home building and lumber yards, sometimes real estate men who branch out as builders, and sometimes even lawyers who go into it or judges.

The average builder's volume was not very great. It was something less than ten houses per year. In very few places would you find a builder who constructed as many as 100 houses in a given year. The volume was large but there weren't very many large entrepreneurs and there weren't very many large builders. The home builders had not been organized. They had not been associated into a national organization. The industry itself had done nothing to make a study of the various housing markets or of the feasibility or means of meeting the market needs in an organized manner.

Such studies as were made were usually done by research groups like the Twentieth Century Fund, the Pierce Foundation or the National Bureau of Economic Research or the National Committee on Housing. If good housing "myths" were made, the builders did not make them—indeed, the builders were, in the late thirties, busy building and selling new houses.

It might be interesting and possibly important to note just how an individual operative builder determined what sector of the housing market he would cater to. The impelling reason might be one of many. Sometimes the temptation to buy land, considered to be cheap in price, would motivate a developer. New houses would follow, usually in keeping—as far as price is concerned—with adjoining properties, although not necessarily so. Some builders seemed inclined by temperament to build high priced properties for the so-called luxury trade. Perhaps their desire to build beautiful, expensive things moved them. Other builders bought land in growing, attractive neighborhoods, paying a higher price and capitalizing on the extra demand in such sections. Only occasionally would an operative builder, taking his cue from big industry, cut prices and profits to reach a volume market. But direction and orientation had been haphazard. It was only at a time when the exigencies of the war need gave necessary impetus that home builders, as such, organized themselves into a national association. That association has

already done much to formulate a program for the whole industry. It is reasonable to believe that it will do a great deal in the years to come.

These home builders were, in the main, prior to the war, building homes for sale to owner-occupants. Excepting in a few places there was little building of rental investment properties. Indeed by 1940, rents had not recovered to a sufficiently high level in relation to prevailing building costs to justify large scale rental development. Section 207 of the National Housing Act, set up to insure 80 per cent mortgages, was to have been the financial vehicle to encourage such building. I have heard Dr. Fisher speak at great length and I think with great profundity on the question of the mutual mortgage insurance fund but I cannot help remembering the fact that when the original FHA legislation was introduced, the purpose of that legislation was to aid the proper recovery, and not long after that Mr. Nathan Straus went before one of the congressional committees and pointed out as one of the three purposes of the USHA Act the purpose of stimulating industrial activity. However, as far as the builders were concerned, it was not sufficient incentive to make the FHA Section 207 work very well. The President of the United States, in a message to Congress, had urged the passage of this legislation on the ground, among others, that it would be a stimulus to business activity. But incentive was obviously not great enough, for operations of the FHA in rental housing through 1940 had produced only 317 projects with an average of approximately 100 dwelling units in each project. That section was at that time considered very liberal. It insured mortgages at 80 per cent of the cost and that cost included the builder's normal profit.

To what extent—in the pre-war era—did the private builder provide new housing for the lower income groups? Data showing the relation of borrowers' annual income to principal amounts of *all* home mortgages is nowhere available. FHA, however, does tabulate such information concerning its own insured mortgages. For the year 1939, borrowers with family income of \$1499 or less made only 4 per cent of the FHA mortgages in that year on new owner occupied properties. Speaking in pre-war terms, this would indicate that new FHA insured properties were beyond the reach of about 60 per cent of our non-farm families. Beyond the reach—that is to say—or the desire to buy on the basis of a 10 per cent down payment and a 90 per cent twenty-five year mortgage. For this group little new housing could be built for rental purposes. The private construction industry and its mortgage facilities were not geared to the market in the sense that new housing could be furnished to the lower income groups.

Title VI of the National Housing Act offered for the first time insurance to the extent of 90 per cent of valuation on rental dwelling units, the loan commitments being made directly to the builder or to a controlled corporation. This was FHA's defense housing legislation. While many builders ceased operations at the outbreak of the war, most of those who remained in the business expanded their volume of construction greatly. It has not been unusual for individual builders to produce as many as 500 family units of war housing in a year. The more ingenious builders devised new and improved methods of construction for volume output. For the first time in modern times home builders turned to building residential units for rent, in volume.

Granting the need in the future for new rental units at rents lower than war workers have been able to pay, how can these units be made available by private builders? Volume building should, of course, reduce capital costs. But it has been stated that, in a typical case, a 20 per cent reduction in labor cost would give only a $4\frac{2}{3}$ per cent reduction in monthly fixed charges, a 20 per cent reduction in material cost would result in a $9\frac{1}{3}$ per cent reduction in monthly fixed charges, whereas a 20 per cent reduction in interest and amortization would result in a 16 per cent reduction in monthly fixed charges. In other words, a 20 per cent reduction in principal and interest would have a greater effect in terms of the rental dollar than a 20 per cent reduction in the cost of both labor and material. The road to lower rental is, it would thus appear, the road of lower interest rates and longer amortization.

In the more—or less—friendly discussions between the advocates of public housing and the advocates of private housing, one frequently hears it said by the advocates of public housing that the floor of private housing is the ceiling of public housing. The private builder's aim then is to lower the floor of private housing. Gentlemen, I want to pause at this moment to say an obvious thing, and that is that when a man lives in a house and makes a payment for it, whether it be a payment by way of reducing the mortgage debt or a payment to a landlord, he is paying for certain things inevitably. He is paying for the taxes on the property. He is paying for the maintenances of the property. He is paying an interest yield to the owner, if he is a tenant, or to the mortgagee, if he is a mortgagor, and in addition to that, he is paying a sum of money, which you could call amortization or profit or an equivalent depreciation or obsolescence, so no matter how much you argue in favor of quickly getting to the day when you are debt free, the fact of the matter is that the other alternative, which is renting, means perpetual indebtedness to a landlord, so it seems to me that we must think clearly on the question of being in debt. Are we going to be indebted to a mortgagee and what are the advantages of that, or to a landlord and what are the advantages of that? A lengthening of the mortgage period by FHA from its present 25 or 28-year term to something comparable to USHA's 40 to 60-year term would result in the first long step toward a radical cut in rental prices.

Controversial as that step may be, suggestion of a further reduction in interest rates may draw even stronger fire from the embattled phalanxes of the mortgage loan interests. But since we are speaking of the use of public credit, whether directly or indirectly, for insurance of mortgage investments, we must consider the matter from every viewpoint, keeping in mind the social implications and the public purpose involved in this type of enterprise.

How low can mortgage interest rates go, even with an FHA guarantee? One hears of 3 per cent money, $3\frac{1}{2}$ per cent money, 4 per cent money. The government has currently established a $2\frac{1}{2}$ per cent money rate for its longest term bonds. Mortgage servicing costs at least $\frac{1}{2}$ per cent. Some claim to make a profit at that figure where volume is obtainable. Others, in the building and loan association field, have claimed a cost of doing business as high as 2 per cent. Adding the varying estimated service costs to the government going rate, produces a rate of 3 per cent minimum, $4\frac{1}{2}$ per cent maximum, with no incentive to purchase such mortgages as against par purchase

of government bonds. That incentive, including various factors, has been estimated at not less than 1 per cent. We thus reach a minimum of 4 per cent. This is a reduction by 11 per cent from the $4\frac{1}{2}$ per cent rate at which most Title VI, Section 603 FHA mortgages are being presently written.

The mortgage loan interests are for abolition of the FHA entirely. The organized savings and loan association interests are for the abolition of the FHA, but we are speaking of low interest rates, and we are going to have to find a way of achieving that with a minimum of subsidy, and, of course, we are speaking of the use of public credit whether it is the direct use of it or the interim use of it. In speaking of those things, we certainly must keep in mind the social implications of what we are talking about. The implication of finding a way of housing for the lower income groups—and by that I am not particularly referring to the very lowest income groups, but I am referring to that zone of middle income group which has never been tackled by the private home building industry. There are social implications involved in that type of enterprise. There are public purposes involved in that type of enterprise, and while they probably do not call for or justify the extensive subsidies that are discussed or used in the local housing authority techniques, still they are charged with a public purpose, just as many phases of life are charged with a public purpose today.

When I talk of interest rates, I am not speaking of legerdemain like incentive taxation. I should like for this moment at least to be orthodox. I should like to speak of normal lending by mortgagors and money at fixed rates of interest. The question is how low can those interest rates go. We builders as a group like to think that we will find available to us very low interest rate money. We sometimes speak of 3 per cent money. Personally I think that is unrealistic. We are confronted with the fact that the going government rate is $2\frac{1}{2}$ per cent. The cost of serving a mortgage has been estimated at different amounts. Some say that servicing a mortgage costs $\frac{1}{2}$ of 1 per cent a year. In fact, those people say that if they get enough servicing, if they get a volume, servicing at $\frac{1}{2}$ of 1 per cent will yield a profit. Others say, and they say it very vehemently, that it costs 2 per cent to service a mortgage, to collect the interest, to follow for delinquencies, to check on the properties, to do all the things that are necessary to run a mortgage lending business. In fact, the spokesman for the building and loan group testified before a congressional committee that the cost to his very large group was 2 per cent.

So that you add to the basic rate of $2\frac{1}{2}$ per cent, the basic interest rate, and then add, let's say, the minimum of $\frac{1}{2}$ per cent for servicing and you have 3 per cent, and you still don't have any incentive to a lending institution to take an insured mortgage, because for the $2\frac{1}{2}$ per cent that lending institution can go out and buy current government bonds. It can keep its finger on the pulse of the government bond market. It can bail out almost instantly. It can do things that you cannot do with an FHA mortgage, so you have got to have something by way of an incentive to the mortgage lending institution over and above that $2\frac{1}{2}$ per cent. That has been variously estimated. The figures, I would say, average $1\frac{1}{2}$ per cent. That brings it to a 4 per cent interest rate. FHA is already insuring mortgages at 4 per cent. Six hundred and eight mortgages are at 4 per cent, and, indeed, in the old Sec-

tion 203, the small home selling in certain areas like in the metropolitan New York area was financed somewhere around 4 and $4\frac{1}{4}$ per cent. Then what we must look more closely at is the question of the amortization period.

Of course, there is one other fixed factor in the matter of buying or renting a home and that is the matter of local taxes.

In considering this approach to aid private enterprise to provide good housing within the means of lower middle-income families, it may be well at this point to mention the collateral aid to be obtained by partial local tax exemption by municipalities. Such a law, for instance, was passed by New York State in 1943 following similar earlier laws. Probably no complete lowering of "private housing's floor" through "public housing's ceiling" can be obtained without such aid.

This, then, is one approach to the problem of the furnishing by private enterprise of adequate housing within the means of families in the lower middle-income third.

Another approach is that of interest subsidy by the Federal Government. Here we move on directly to adopting Miss Wood's suggestion of this morning—the accepting of a gift from someone. In this case, the private builder-owner receives a subsidy and passes it on to the tenant by way of a reduction in rent. This plan would subsidize a 4 per cent interest rate by a proposed contribution, let us say 50 per cent, from the government. The effective interest rate would then be 2 per cent.

Still another approach is the so-called yield insurance plan of Mr. Frederick Babcock, formerly Assistant Administrator of the FHA. This plan provides for the financing of projects by private capital without the use of mortgages and with provision for a guarantee of a minimum rate of return. Yield insurance, for the purpose of moderate rental housing, consists of a guarantee of a minimum yield of $2\frac{1}{2}$ per cent per annum on the amount of the established investment which remains in any year. If a project, in any year, earns less than $2\frac{1}{2}$ per cent FHA will pay, in cash, the difference between $2\frac{1}{2}$ per cent and the amount actually earned. The total benefits collectible under this plan are limited to 10 per cent of the original established investment. No claims are collectible after twenty years from original date of insurance. FHA collects an annual premium amounting to $\frac{1}{8}$ th of 1 per cent of the portion of the established investment remaining uncaptured in each year. A similar plan is proposed for slum clearance, using, however, different rates.

One new phase of private enterprise in housing is the use by life insurance companies of their own funds in direct investment. Metropolitan Life Insurance Company's ventures into this field are well known. A few years ago a Title VII addition to the FHA act was proposed for the purpose of guaranteeing to large investors like the insurance companies 100 per cent of their investment in large-scale rental projects. Tapping the resources of this large pool of funds might give great stimulus to rental housing construction. For years past a large amount of life insurance has been written at premium rates which assumed interest earnings by the companies at 3 per cent per annum. The pressing need for earning that rate might take the life insurance companies into the housing field in an expanding manner in the post-war era.

All the plans outlined above are designed to facilitate the construction of properties for rent. But the urge to own a home is deep rooted in many people. The desire is strong to control title to the abode where one's family dwells. Control of continuing right of occupancy, never possible in the case of a renter, is one of the strongest motivating factors in the case of the home buyer. The home buyer wishes to be assured that he may continue to reside in the home of his choice, there to raise a family and enable his children to have an established and familiar background. But as has been said earlier in this paper, the private construction industry and available mortgage facilities have not been geared to the needs of the lower middle-income groups, the largest potential market for private home builders. Our experience here has been quite different from that in England before the war. There—during the building boom of the middle 1930s—we find the British building new dwellings to match the needs of family groups having incomes of \$2,000 or less. In the years 1934-35, families with incomes of \$2,000 or less constituted 84 per cent of England's population. Eighty-seven per cent of the new dwellings built were priced for that income range.

What, then, can be done by way of credit aid to solve the American problem along the lines of home ownership? A substantial reduction in monthly fixed charges can be had by prolonging the period of amortization. A 40 to 45-year period spanning the most useful life of the property itself might be considered. Note that emphasis is on the property itself. It will be argued that the productive earning career of the buyer is likely to be less than the mortgage term. But, as has been said, the emphasis is not on the borrower's capacity to save. The very purpose of the plan is to reduce the monthly payments to the amount of a moderate rent. It is to be noted that we are speaking now of homes built to sell in the lowest price range.

Note that that is directly opposed to the philosophy that the watch dogs of the mutual mortgage insurance companies expound and sincerely believe, but that does not necessarily mean that that would destroy the validity of the mutual mortgage set-up, because you will note that when you speak of a 40 or 45-year mortgage you have shifted the emphasis from the borrower to the property which is one good way of doing it. It will be argued, for instance, that the productive earning career of a borrower is pretty likely to be less than the mortgage term, but as I have just said it is not based on the borrower's capacity to pay.

Once again, adverting to Miss Wood's offer, we shall need to take advantage, too, of the lowest possible interest rate. And—of an FHA mortgage guarantee. If in addition it were possible to reduce the down payment to 5 per cent, another of the big hurdles to ownership would be overcome. The question of down payment is the one obstacle that keeps the man who wants to get control of his own home in his hands. He cannot save the 10 per cent. Our economy itself is such now that incomes are low. In 1935 and 1936 the average urban family income in this country was as low as \$1295.

This is an attempt to find a workable formula for meeting the housing needs of a certain group. The private builder is invited to meet that need. Let me quote Mr. Nathan Straus, Chapter 9, Myth 7, page 177: "It is of importance to recognize that the aspirations of middle income families for

better housing may become a very disturbing social factor unless provision is made to satisfy their desires." And, to further stimulate the private builder, we find the following on page 182, footnote 7. "The various plans for meeting the housing needs of middle-income families which are suggested above (by Mr. Straus) contemplates private ownership and operation. It is clear, however, that the same goal might also be achieved by expanding the field of public housing." In that event, Mr. Straus says, little or no federal subsidy would be needed. But the extended mortgage period and the tax exempt interest arrangement of USHA (now FPHA) would, presumably, be used.

For this group of home buyers we need to consider the effect of the seemingly inevitable ebb and flow of the economic tides. We recognize that the future, like the past, will experience good times and bad; that when bad times come, many people will face economic hardships. In the depression years of the 1930's the experience of mortgagees was that often distressed borrowers could meet the obligation of interest and taxes. It was the demand for principal payment which most frequently caused mortgage difficulty. It is for this reason that proper provision should be made for indulgence as to principal payment in eras of business depression. Such a mortgage might conceivably contain provision to the effect that the mortgagee and FHA, the insurer, could look for recourse only to the property and that no right to deficiency judgment would inure to the creditor. The owner of the equity, under such circumstances, would be safeguarded against much of the financial hazard of ownership and resale of such equities should be easily negotiable. The occupant of such a home would be enabled to reside therein without, as in the case of a tenant, being dependent on the whims and moods of another, or the need to rely, as at present, on federal rent and occupancy control to keep him from being turned out on short notice.

It is recognized that mortgages of the type just described may be repugnant to some lending institutions. Indeed, it has been said by Dr. Fisher that it is an error closely akin to crime to minimize the difficulty of attaining debt free home ownership. However, the extension of the amortization period of mortgages, first generally adopted in this country in 1934, did minimize the difficulty of attaining home ownership. The price involved, postponing the period of debt freedom, was considered not too high a price to pay for the social good attained. By products of this crime—if crime it be—were the very purposes of the original FHA legislation—increased industrial activity throughout the land, the widening of the base of home ownership and—let it be added—the unfreezing of a badly frozen mortgage market. By the end of 1940 the majority of FHA insured mortgages were held by the savings banks, the state banks and the national banks of the country.

Let me at this time point out the possibility that families of the lower income group are as much interested in having decent shelter to occupy as they are in being totally mortgage-debt free. Indeed, the housing plight of some groups in the last war was so bad that courts sometimes refused and, more frequently, delayed granting the right to speculative landlords to dispossess tenants by eviction notice. Caught between the lower mill-stone of insecurity of occupancy and the upper mill-stone of remaining a mortgagor, the latter is to be preferred to the former.

May I state one of the axiomatic rules of mortgage lending? One of the tests of the safety of a loan is the measurement of the ability of the borrower to meet his maturing obligations. The amount of the periodic payment depends, of course, upon the rate of interest and the period of amortization. Is it not obvious that a process which tends to keep payments within the paying capacity of the borrower has benefits for the borrower, for the lender and for his guarantor?

Some organized groups of mortgagees have been vehement in their opposition to public housing for low income groups with particular reference to new public housing on vacant land. There has, however, been a paucity of offerings of specific alternatives to meet the need. Here, then, is a possible alternative which is wholly within the now accepted mores of the private enterprise system.

The plan suggestion in this paper for the purchase of a new home might also apply to the purchase of a used home. There have been periods, which many of us remember, when an oversupply of housing in certain places contraindicated the need for additional new construction of a given type. It may be, for instance, that some of the war housing built under FHA's Title VI when no longer needed by immigrant war workers may constitute just such an oversupply. By minimizing the down payment, the interest rate and the amortization requirements, these homes may be placed within the reach of resident dwellers who desire to buy them. A change in the amortization and interest schedules would require the cooperation of the holder of the mortgage and FHA. In cases where the present mortgagee is unwilling to agree to such a change and in cases where the mortgage is in default and FHA is being called on to make good its guarantee, it is suggested that FHA arrange assignment of mortgage to the Federal National Mortgage Association, which can by mutual agreement rewrite the mortgage contract.

All of the methods discussed in this paper are predicated on private ownership and private management of properties. The disadvantages of public ownership and public management of rental properties has been vigorously set forth by the opponents of public housing. It behooves all private entrepreneurs whether in the building business, the mortgage business or the real estate business to join forces in devising means within the framework of private enterprise to furnish decent housing to the widest possible market. In the words of Mr. Blandford—"We may find, when peace comes, that lower income groups more than ever before may be served by private enterprise, through new methods, and through types of aid not yet utilized but still representing smaller governmental commitments than public housing. (Applause)

THE CHAIRMAN: The last speaker of the morning will speak head-on to the question of housing of the lowest income group. Dr. Hovde is not only the housing authority of the city of Pittsburgh, but he also is President of the National Public Housing Conference which has the protection of the lowest income group as its chief interest. Dr. Hovde. (Applause)

DR. B. J. HOVDE: Thank you, Miss Wood. Ladies and Gentlemen: In any discussion of a national housing program, the basic objective must in-

evitably be the provision of decent and standard housing for *all the people*. This obviously does not mean that we shall immediately proceed to the replacement of all the housing we now have. Millions of American houses are completely standard and many of them are relatively new. We shall preserve standard housing for the longest possible use even if, according to modern planning standards, the neighborhoods surrounding them are not planned in an up-to-date manner. In spite of this, however, the American need for new houses is very great and grows progressively greater as we proceed down the scale of family incomes. So far as new housing is concerned, it must obviously be planned to meet the needs of families with different incomes, families of different sizes, and families with different use requirements. But decent housing for all the people is the obvious and all-inclusive desideratum in any post-war housing program.

In order to achieve this national objective in the housing field, namely, good housing for all, within a reasonable length of time, the country should estimate the need for new houses and schedule their production over a period of years. There have, quite understandingly, been many estimates made as to the number of new houses needed in order to put all American families in good housing within a space of fifteen years, and the estimates have understandably varied with the viewpoint of the estimator. Generally speaking, authorities in the field of housing seem to have reached at least a tentative agreement that somewhere around a million and a half new houses will be needed every year for a period of fifteen years. What such a program would mean to our national economy and especially to the building industry can be judged by recalling that the largest number of dwellings ever built in any one year in the United States was something over 900,000 in the year 1926. Whether it is possible to expand the building industry to enable it to fulfill such a housing program, and without considering further whether the country can afford what these houses would cost, we may immediately recognize that the houses produced must be distributed over the whole range of American family incomes. It should go without saying, but there has been so much willful or ignorant misinterpretation in the past, that unfortunately *it must be said that the overwhelming part of such a national housing program must and can be done by private enterprise for private enterprise*. Let no one misquote me on this point. Public housers never have and never will claim that public enterprise should provide any but a comparatively small part of the national housing program.

The group of families in which public housers are interested, and for which they believe public enterprise should provide houses, are those families that are known generally as "the lowest income group." Who are these families and what are their numbers? Some definition of the term is necessary before we can proceed with a discussion of how this group should be housed. In the first place, it is obviously wrong to assume that the lowest income group includes "one-third of the nation." At least it is certainly wrong to assume that "one-third of the nation" requires public housing. On the other hand, it is equally wrong to limit the lowest income group to families on public assistance, as the home builders and real estate men seem to want to do. The best and most realistic definition of "the lowest income group," from the

point of view of housing, is still to be found in the United States Housing Act of 1937, Section 2, sub-section (2): "The term 'families of low income' means families who are in the lowest income group and who cannot afford to pay enough to cause private enterprise in their locality or metropolitan area to build an adequate supply of decent, safe, and sanitary dwellings for their use." This definition has been followed in practically all state housing authorities' acts with this principal difference—that the state acts generally do not appear as restrictive in their definitions as does the United States Housing Act of 1937. In the actual operating practice of this definition throughout the various states, and among the various local housing authorities, there are inevitable variations in the application of the definition. In its proper sense, the definition means that all families which cannot pay more than an economic rent for decent, safe, and sanitary housing are to be classed as belonging to "the lowest income group." Obviously, private enterprise cannot be expected to house these families, since an economic rent provides no profit. Public housers have often been accused of idealism and naïveté; but they are not so naïve as to expect a private investor or a private builder to produce decent, safe, and sanitary houses out of the goodness of their hearts, foregoing all profit. It will be well understood, of course, that the cost of housing and the range of family incomes differ from section to section of our country and even considerably within each section; therefore, what may be an economic rent for good housing in a high-cost community will differ markedly from the economic rent in a low-cost community. Similarly, of course, the incomes of families able to afford no more and no less than an economic rent will differ. Therefore, determinations concerning families eligible for public housing will have to differ from community to community.

How many families there may be at a given time, or over a given number of years, who may thus be classified as members of "the lowest income group," will vary with a number of circumstances. In periods of unemployment and distress, their number may be very high. If we can maintain full employment at adequate real incomes, their number may be comparatively low. Special economic and social circumstances may produce considerable local deviations from the national average. This makes it impossible to do more than roughly approximate the number of American families who will have to be provided with public housing if they are to have decent housing at all. We know that there are some 10,000,000 houses in America, which, according to the 1940 census, are in such a state of disrepair and substandardness that they will have to be completely replaced. But this does not mean that they must be replaced wholly or in the larger part by public enterprise. There are approximately a million and a half families which must be provided with new housing to relieve the over crowded conditions in which they live, but perhaps only a small part of them need to be provided with public housing.

In view of the present and probably continuing uncertainty as to the number of families to be permanently classified as members of the "lowest income group," the wisest course would seem to be to turn private enterprise loose, and give it the necessary legitimate assistance, to produce the largest possible number of the supposedly necessary program of 1,500,000 dwelling units per year, and at the same time to make provision for a strictly limited

number, perhaps 300,000 to 500,000 units per year, by public enterprise for a limited period of five years. At the end of this five-year period, we would be better able to assess the further need for public housing and may then intelligently increase or decrease the public housing program.

We may now consider HOW housing ought to be provided for "the lowest income group."

Public housers do not for one moment insist that housing for "the lowest income group" must necessarily be provided in the future as it has been provided in the past. They are constantly searching their own minds and discussing among themselves new and improved ways of providing adequate shelter for these families. They read avidly the comments and suggestions of builders, real estate men, bankers, and others, hoping to get from them new and better ideas and plans, but they are sufficiently realistic and hard-headed to refuse to give up a plan that has worked for mere idle dreaming. They insist on testing the hardness of the stone before they will pronounce it a diamond.

At this point, it will be well to review briefly how adequate housing has been and is being provided for "the lowest income group," in order that we may have a measure against which to judge certain other suggestions. As of December 31, 1942, out of the congressional appropriation for federally-aided low-rent housing amounting to \$800,000,000, a total number of 160,851 dwelling units were in active status, at a total estimated development cost of \$759,101,000 or \$4,718 per dwelling unit. The capital financing of the projects was based on a Loan and Annual Contributions Contract between the Federal Public Housing Authority and the many participating local housing authorities. In the development period of the various projects, short-term notes were issued, at exceedingly low interest rates, up to 90 per cent of the development cost. For the remainder of the development cost, namely, 10 per cent, local housing authorities sold their Advance Loan Notes to the Federal Public Housing Authority at an interest rate of the going government rate, plus $\frac{1}{2}$ of 1 per cent (generally $2\frac{1}{2}$ per cent total).

In this connection I may say, as a side remark, that Fulton Lewis in his radio speeches does not know the difference between this 10 per cent local capital contribution and annual local contribution in the form of tax exemption. He has the two all confused.

Millions of dollars in interest were saved during this period by the system of short-term financing. Upon the conclusion of the development period for each project, temporary financing was converted to permanent financing by the local housing authorities' sale of Series "A" bonds and Series "B" bonds. The Series "A" bonds were sold to private investors in amounts far exceeding the 10 per cent of the development cost required to be so sold by the United States Housing Act at long-term interest rates ranging between 1.75 per cent and 2.25 per cent. These bonds found a ready market among private investors, mainly because they were supported by a pledge by the local authority and the Federal Public Housing Authority that they would have first charge upon the annual Federal Public Housing Authority subsidy permitted by law, namely, a maximum of 3 per cent of the total development cost per annum. Series "A" bonds are amortized with interest before the retirement of Series "B" bonds begins. Series "B" bonds are bought directly

by the Federal Public Housing Authority, carrying the going government rate of interest, plus $\frac{1}{2}$ of 1 per cent (generally $2\frac{1}{2}$ per cent total), and are issued in volumes to equal the difference between the volume of Series "A" bonds and the total development cost. It will thus be seen that the tax-paying public will, over the total amortization period, recover 100 per cent of the money loaned to local housing authorities directly and will actually gain $\frac{1}{2}$ of 1 per cent in interest. The public part of the loan can, therefore, not be considered a cost to the taxpayer but only an investment.

The cost to the taxpayer is the amount of permissible federal and local subsidy that the local housing authority must call for in order to cover all costs and still keep rents within the ability of eligible families to pay. There is first of all a federal subsidy, the maximum of which permissible under the law is 3 per cent of the total development cost per year. The purpose of this subsidy, as stated in the law, is to reduce rents, to keep them within the ability of families in the lowest income group to pay. The pledge of this subsidy as security for the Series "A" bonds is a very practical means for achieving the objective of low rents because it has the effect of markedly reducing interest rates. As a matter of actual practice, most local housing authorities are able, by careful operations, to get along with less than the maximum permissible federal subsidy. Thus, in 1943, on 3,073 dwellings, the Housing Authority of the city of Pittsburgh required a federal subsidy of only 1.65 per cent of the development cost. The second form of subsidy is exemption from the obligation to pay taxes to the local taxing bodies. Here, too, the total permissible local subsidy is annually reduced by the amount that each local housing authority pays to the local taxing bodies in lieu of taxes, generally 5 per cent of the shelter rent. The local subsidy is figured on the basis of full normal taxes, as they would be figured if the projects were privately owned. But it may well be asked whether there is any real local subsidy at all if (a) payments in lieu of taxes are equal to or greater than taxes formerly billed against the project area prior to its acquisition by the local authority, or (b) payments in lieu of taxes equal approximately what the project tenants formerly paid in taxes indirectly through their landlords. One thing is clear—if public housing projects, serving families with incomes as low as those of their tenants, were to pay the same taxes as private property, these projects could never have been built to serve the same low income families without throwing the whole burden of subsidy on the Federal Government. The whole clamor for full taxes against low-rent public housing, therefore, amounts to a demand that something be created out of nothing, something which is possible for the Lord Almighty but not yet for human beings, whether they are in public or in private enterprise. I am fairly well acquainted with public housing, but I know of no single instance where any local government has had to increase its millage or its assessment on private property because of the tax subsidy to public low-rent housing. On the other hand, I know of several instances in which fire stations and police stations have been reduced in number directly because of public low-rent housing.

Recently, public housing has been roundly condemned and its liquidation demanded by the National Association of Real Estate Boards, the National Association of Home Builders, the Producers' Council and the Mortgage Bank-

ers' Association. It is said that construction costs have been exorbitant. The average per dwelling unit cost has been \$4,718, which is not the cost of the structure but the cost of over-valued land, a small administration cost, the architects' and engineers' fees, all site improvements, community buildings, playgrounds, landscaped areas, the cost of the original tenant selection in order to keep out of competition with private enterprise, and the structure. We challenge our friends to do any better. It is further charged that the shelter provided has not served those with the greatest need. None of the tenants in public housing were accepted for admission unless they had incomes well below those which would enable them to pay economic rents and unless they lived in substandard housing. We keep records and they can be examined. It is true that during the war, housing authorities, in areas of critical housing shortage, have generally permitted their residents to remain in public housing even when their incomes have increased beyond the point where normally they would be required to move out. But these local housing authorities thought that they could best serve the war effort by allowing war workers to remain decently housed when there was no place else for them to go. If that was wrong, let our critics make the most of it. We are accused of not having cleared the slums. Did they expect us to clear the slums with \$800,000,000? Did they expect us to pay fantastic prices for built-up slum land (which has been done in many, many cases) when there were available vacant and waste lands at prices representing large savings? Furthermore, one substandard dwelling comes down for every standard one we build, except during the war when there would be no place for the occupant of such a dwelling to go. Public housing is denounced as a "social and political menace" which has "already become a vested interest of tenants and political job-holders." It is understandable that tenants who cannot get standard housing from private enterprise at rents that they can afford to pay would regard public housing with enormous interest, but I fail to see what vested interest public housing has become for those who work in it. We are governed by the Hatch Act, and if any public housing employee becomes involved in politics, there are remedies at hand to the interested citizen. A mere enumeration of the organizations which have condemned public housing shows where their interests are vested.

Let us now examine some of the proposals for housing "the lowest income group."

The first proposal is one which, under our definition of the lowest income group, we can dismiss quickly, namely, "let private enterprise do it." So far as the lowest income group has been housed in the past, it has been done by private enterprise, but because it has been done badly and in substandard housing, it has been found necessary, as well expressed in the United States Housing Act, various state public housing enabling acts, and in a great many court decisions, for the public to assume this obligation as a part of its obligation to "promote the general welfare." By what magic, or at what wishing-well, it is now thought that private enterprise either can or will provide standard housing for the lowest income group *at a loss*? Everyone knows that it will not be provided at a loss. Consequently, there are proposals to the effect

that private enterprise, in order to do this job, must have various kinds of public subsidy.

The public has always had an interest in private housing, just as private enterprise has had a very large share in public enterprise. And public housers have no antipathy in principle against public aid to private enterprise. They do, however, insist that every proposal for public aid to private enterprise in the field of housing, as well as in other fields, must be tested by itself. They believe further that no such proposals can be justified, except in terms of the public interest. Proposals for aid to private enterprise, therefore, must show that the public interest will be well served and served as cheaply as possible. We also insist that public aid to private enterprise must not be of a kind or in an amount which will deprive private enterprise of its most important and valuable characteristic, namely, enterprise. A degree of public aid which deprives private enterprise of its entrepreneurial character makes it fat and lazy and is the surest way to destruction of individual initiative.

It has been proposed that the public should subsidize the high cost of land and thus enable private enterprise to provide housing. Students of the problem agree that excessive land cost, especially in inner-city areas, results from the previous errors of the public and that, therefore, a public subsidy to the land cost, over and above the use-value of such land, is justifiable. But it will take very little budgetary figuring to show that a public subsidy to private land cost is insufficient to enable private enterprise to house all of the families who fall into the category of the lowest income group; therefore, this proposal must be dismissed as insufficient for the purpose.

It is indirectly but very earnestly proposed that public housing enterprise is guilty of paying excessive labor costs, and that if private enterprise were to do the same job as public enterprise, it would do it more cheaply because it would not pay such excessive labor costs. Admitting that small-scale private enterprise rarely employs union labor and rarely, therefore, pays the union scale of wages, it must be pointed out that large-scale private enterprise practically always has to do what contractors for public enterprise have had to do,—not because the public insists upon it but because the industry is so organized—namely, pay the wages demanded by organized labor. The economic history of the United States affords little proof of the ability of private enterprise to withstand the demands of organized labor for decent rates of wages. And it is at least highly questionable whether it is in the public interest to reduce the incomes of the great consuming mass of the American population. On this point public housers believe that private enterprise could not, and that public enterprise should not, try to reduce the labor cost in the building industry, except by one perfectly sound method, namely, that of increasing the productivity per man-hour.

It is proposed further that private enterprise can find other means of reducing the cost of housing, which public enterprise stupidly and stubbornly has refused to employ. The fact is that public housing, so far as structures are concerned, has built for approximately 75 per cent of the cost paid by private enterprise for the most comparable kinds of buildings. In spite of the high land costs, voluntarily assumed by public enterprise in the interest of urban redevelopment, and in spite of the relatively high labor cost of public

housing as compared to small-scale private building, the average all-inclusive cost of public low-rent housing in the United States, to date, is well under \$5,000 per dwelling unit. It is, therefore, incumbent upon those who insist that private enterprise can produce comparable houses more cheaply than public enterprise to get busy and prove their contentions in actual practice, rather than in over-heated oratory. Public housers hope they may succeed, and under our definition of the "lowest income group" public housing enterprise will retreat from every margin of the field conquered by private enterprise.

It is proposed, as though it were a new and brilliant thought, that if the housing of the lowest income group were left to private enterprise, and private enterprise were given public assistance, the lowest income group could be housed in old, but rehabilitated, areas and structures. Certainly, it is in the old, but unrehabilitated, areas and structures that the lowest income group has been housed until the public decided to undertake the job itself. We in the public housing field do not glibly and casually dismiss the thought that some structures and areas may be rehabilitated for the use of the lowest income group rather than rebuilt with absolutely new housing. We do insist, however, that in the interest of long-range economies, decisions of this kind must be based upon careful budgetary considerations. Actual studies of rehabilitation projects have not been encouraging from this point of view. In my own city (Pittsburgh), independent studies of a most promising rehabilitation area, checked and concurred in by the Housing Authority of the City of Pittsburgh, produced an initial dwelling unit cost approximately \$1,000 higher than the cost of building new structures and a very much higher long-term maintenance and operation cost. It was, therefore, dismissed as being too expensive for the purpose of housing families in the lowest income group. The rehabilitation field is completely open to private enterprise and the public is simply waiting to see what it can, and will, do.

The favorite and most far-reaching suggestion to enable private enterprise to house the lowest income group is the most amazing of all, namely, the Rent Certificate Plan. Here it is proposed that the general taxpayer should simply and trustfully pay to the individual owner and landlord the difference between what low income families can afford to pay in rent and what the landlord requires in rent. This scheme has the plausibility of simplicity, but it is a simplicity which simply wraps all public subsidies in one bundle for delivery to the private owner and landlord. The subsidy required would be, not only the building cost now figured into public housing subsidies, but such other costs as commissions to real estate operators for renting the properties and some undefined profit to the landlord. There will be no limitation of subsidy to 3 per cent of the development cost per year as in public housing; furthermore, all families classified as members of the lowest income group would have to be subsidized—not only those who now receive rental subsidies in public housing. Finally, full taxes would have to be subsidized by the general taxpayer. The bill would be staggering in its size. Something might be said for this scheme if it were based upon definite guarantees and a very precise system for enforcing housing standards, but the proponents of the scheme have seldom mentioned this little matter. On the face of it, judging by past experience, it

would prove practically impossible to set up a system which would insure decent housing for the lowest income group in return for the very large public subsidy. The net result would probably be, therefore, that owners of substandard housing would be put on a preferred list of citizens, to be guaranteed against all losses and even a profit, without any enforceable obligation to furnish even minimally decent housing to families in the lowest income group. The comfortably guaranteed incomes from this subsidized substandard housing would probably result in its higher assessment, which would again have to be covered by subsidy, and thus a vicious inflationary spiral would develop. Finally, only a subsidy high enough to invite much new building, in fact, a considerable excess supply of housing, would result in improvement of the standards of housing. A bigger and grander gravy train than this could hardly be imagined.

In conclusion, therefore, it seems justifiable to suggest that the lowest income group continue to be supplied with decent, safe, and sanitary housing by public enterprise, along much the same lines as at present. Public housers generally believe that local housing authorities should pay somewhat more in lieu of taxes, perhaps as much as 10 per cent of the shelter rent, instead of 5 per cent of the shelter rent. Ten per cent of the shelter rent would probably equal the amount normally paid by families in the lowest income group as the tax item in their rent. Thus, the local governments would practically be relieved of all effective subsidy. The United States Housing Act and state housing legislation should be amended so as to enable local housing authorities to borrow 100 per cent of their development costs from private investors, thus making it unnecessary for Congress to appropriate any tax money for capital development. Experience has demonstrated that it is far cheaper to borrow money from private investors than to borrow it from the United States Government. Finally, it would seem right and proper that Congress, in authorizing commitments by the Federal Public Housing Authority for subsidies to low-rent public housing, should put certain control limitations, both of time and quantity, upon the volume of public housing. The authorized volume should be large enough to enable the Federal Public Housing Authority and local housing authorities to do a real job of re-housing the lowest income group, but it should be small enough and sufficiently limited in time to enable Congress periodically to re-examine the need for further public housing.

Every proper public aid should be extended to private housing enterprise to enable it to adequately serve as much of the American people as it can serve. If this aid, without destroying either the private or the enterprise character of private housing enterprise, will enable it to go further down in the income scale than it has yet been able to go and so reduce the number of families that must be included in our definition of the "lowest income group," public housers will be very happy.

More necessary than anything else is national agreement upon a well-defined housing policy to adequately house all of our citizens,—by far the greater number and as many as possible in private enterprise housing, but for the residue of our low income citizens in public housing. The greatest obstacle to both private and public housing enterprise, and to the objective of decent housing for all of our people, is disagreement and indefiniteness of national,

state, and local policy. If we are all dominated by considerations of citizenship, if we can all lay aside our narrow-mindedly selfish interests, agreement should be easily possible because there is so much public interest in private housing and so much private interest in public housing that the two forms of enterprise merge with one another imperceptibly. (Applause)

THE CHAIRMAN: These have all been fighting speeches and party lines have certainly not been very clear.

. . . Following announcements, the meeting recessed at twelve-fifteen o'clock . . .

THURSDAY LUNCHEON SESSION

MARCH 9, 1944

The meeting convened at one forty-five o'clock, Mrs. Dorothy Rosenman, Chairman, presiding.

THE CHAIRMAN: We have been rather surprised by the quality, the quantity, and the attention of all of you who have come from so many parts of the United States when travel is difficult. We are most gratified not only that you came, not only that you represent so many interests in the housing field, every interest in the housing field, I might say, but we are gratified that when you have come into the conference room there has not been the usual entrance and exit and side conferences. You have stayed and I hope that that means that you are finding the conference of real worth and interest.

Sitting with us as part of the interested public has been a gentleman who is a private citizen in the capacity that all of us are private citizens, a gentleman who in his public capacity is administering the great housing program of this nation, a program which I hope will increase with time and develop into a great peace program.

It is with real pleasure that I introduce to you now a gentleman of great balance and discernment, the Administrator of the National Housing Agency, Mr. John Blandford, Jr. (Applause)

MR. JOHN B. BLANDFORD, JR.: Mrs. Rosenman and Ladies and Gentlemen: First, from the perspective of a seat in the bleachers, I wish to congratulate you and the National Committee on Housing for organizing and operating a distinguished conference on housing, excepting, of course, your luncheon program for today. The conference is important and stimulating for several reasons. It reveals, through its large attendance, a keen, strong, nation-wide interest in housing; second, the range of participants and the scope of the subject-matter symbolizes the total approach to housing; third, the thoughtful contributions of its speakers gives assurance that we are well on our way in the search for improved tools and new tools to do a bigger and better job; fourth, and perhaps most important of all, there has been that tolerance of discussion, openmindedness of speakers, the general spirit of not knowing all the answers, and the emotional stability of the meeting, all of which gives promise that the new tools will be forged on the basis of fact and reality and in the full public interest.

I venture the prediction that after another conference or two of this kind, we will have the materials and even the accomplishments for a new book with a new title, "The Seven Miracles of Housing." (Applause)

It is now two years since the National Housing Agency was established. As you all know, it represented the consolidation of about sixteen housing activities of the Government under one supervision and direction. The first

purpose of this consolidation was to help build war housing faster to help win the war.

We in the Agency have been true to this first purpose, but as we approach the war housing goal, we have begun to see the full challenge of more distant goals in the post-war era. This is entirely in accord with the spirit of this war—a war not only to preserve the good things of our past, but also to clear the way for an even brighter and more progressive future.

Many of the problems that war housing faced in early 1942 were pretty much common to the whole war effort—problems of obtaining materials, of labor supply, of allocation and of regulation. But on top of all of these difficulties, there was another that was especially characteristic of housing, even if not limited exclusively to it. This was the absence of unity. For many reasons, there had been a lot of cross purposes in the housing area. We needed quickly to develop one philosophy, one purpose and one course of action. We needed to get everybody connected with housing pulling together as a team.

I think it is a fair statement that the war housing program bears witness to the unity already attained. This unity, achieved by good will and not by force, has been the mainspring of war housing. We may now ask ourselves: How has it been achieved? What prospect does it offer for the post-war period?

On the record, it is clear that this unity in the war housing program has proceeded from one very simple formula. We did not get this formula by examining the needs of home builders or lenders, although we believe that they have both received fair and considerate treatment. We did not begin by considering the interests of public housers, although we have relied on local housing authorities for a great part of the war job. We began by examining the whole need of the whole American Nation, for war housing in this war emergency. That was the starting point. We refused to reject any tool that was required to meet this need. We refused to accept any tool that could not help to meet this need. We persevered in our determination to do the whole job, regardless of obstacles. If we could not build one kind of housing, we built another. If we could not use one kind of financing, we turned to another. If certain materials were unavailable, we used other. If part of the job could not be done by private enterprise, we did it through public construction. Nothing was allowed to stand in the way of meeting the whole need. And because, during the war, nobody has dared to deny that the whole need *must be met*, we have had unity in our housing endeavor.

As we look toward the post-war period, and toward the post-war prospects for housing, we shall need different tools from our war tools. But it is already obvious that our post-war economic problems will be as challenging as our war problems. We shall be faced with unparalleled tasks relating to full employment, to industrial stability, to high national income, to social progress, and to housing. And every person here today, every reflective person everywhere, knows that when peace comes, the need for unity will not be over. It will be more imperative than ever.

We shall need unity in Government, with the Legislative Branch and the Executive Departments working closely together.

We shall need unity among producers—among workers, employers, farmers and investors.

We shall need ever-increasing cooperation between business and Government.

We shall need better intergration of the activities of the localities, the States and the Federal Government.

We shall need understanding and tolerance among all the various groups in the country, majorities and minorities as well.

Last but not least, we shall need unity in housing.

This meeting of the National Committee on Housing is a token of the desire and the firm resolve to retain and strengthen that housing unity. All of us here today represent housing interests, in one way or another. In fact, everybody comes under that classification, because we all live in houses.

In peace no less than in war, we cannot cement this housing unity or build upon it, if each individual or group approaches the housing problem primarily from the standpoint of its own isolated interests. The builder wants to build houses—but housing does not exist just for the sake of building. The investor wants to invest funds—but housing does not exist just for the sake of investment. The worker wants a job—but housing does not exist just to provide jobs. The central, predominant purpose of all post-war housing activity will be to serve the need—the need of American families for an American standard of housing. In peace as well as in war, our nation's needs should provide the unifying theme for our housing endeavor. That need, and the task of serving it, should hold us all together.

The first task for us all is to appraise this post-war housing need. It cannot be measured with a ruler, because it depends upon values as well as facts. It depends upon certain fundamental questions about the kind of economy, and the kind of American society, that we aspire to after the war.

Do we want a post-war economy that drags us backward to an annual income of 90 billion dollars or 70 billion dollars? Or do we want a post-war economy with an annual income of 150 to 175 billion dollars?

Do we want a post-war normal unemployment figure of five to ten millions or do we want full employment?

Do we want to assume that bad housing for one-third of a Nation is a natural law which cannot be changed? Or do we believe that we have the resources and the capacity to provide decent housing for all Americans?

Do we want a housing industry that produces 900,000 homes in some years, and 100,000 in other years? Or do we want to strike a level of a million to a million-and-a-half homes per annum during the first decade after the war?

What we want is not debatable. We want America to move forward, not to stand still. And we want housing to be a pacemaker, not a laggard in the forward march.

If we keep our eye upon serving the whole housing needs of the American people, the formula for post-war housing unity is ours. This formula leaves no room for bickering, or for anyone who is cocksure that his way is the only way. It leaves all the room in the world for many tools and many modes of thought—so long as they are all tied together by the single unifying theme of meeting the whole need. Each individual, each group, each community, has a specific contribution to make toward determining this whole need, and toward helping to fulfill it.

Most communities have enacted building codes and evolved standards of housing related to health. Hundreds have established local housing authorities to clear slums and provide public housing for families of low income. But hardly any localities have perfected any comprehensive method for determining their whole housing need, through the democratic participation of all interested groups. The perfecting of this method, is perhaps the first big post-war housing preparation task of American communities. This will be far more important in peacetime than today, because in peacetime the appraisal of housing needs should be entirely a community enterprise. It should not be done in Washington or by the Federal Government.

The home building industry likewise has a vast post-war preparation task. In the past, its market has been restricted, because it did not serve millions of families of low income or lower-middle income who needed decent housing. The industry must study and learn how to build better houses at lower costs for more people. It must initiate improved construction techniques, additional financing devices, and more imaginative neighborhood planning.

All those who provide investment money for housing have their work cut out for them. In so far as they can help to check overemphasis upon short-term speculative investment in housing, and increase the volume of long-term prudent investment, they will be raising the standards and enlarging the service capacity of the whole industry. To the extent that they can make money available for private home building at lower costs, they will substantially expand the volume of private home building.

The groups that have been concentrating upon public housing need not rest on their oars. Most of the publicly financed war housing has been temporary. It will have to be removed during the first years of peace. But a realistic person, who keeps his eye focused upon the need, cannot doubt that publicly aided housing will be needed after the war to supplement privately financed housing. The millions of families who are living in the slums will not be satisfied to remain there until everyone in America has a comfortable income; or until the \$1,000 dream house becomes a reality, or until private enterprise can serve them all. The boys returning from the war will not be satisfied to return to the slums.

The intelligent course for private housers and public housers is not to attempt to kill each other off, but rather to work together. This involves a firm and realistic definition of the appropriate field for each—a definition that should not rest upon prejudices or upon the past, but upon a constant inventory of current experience. Private and public housers, instead of trying to take each other over, should take over some of the things that each can learn from the other. Some of the techniques of large-scale planning and development, embodied in public housing, have served and can continue to serve as a constant challenge and inspiration to private housing. Likewise, experience in construction and management which have been developed by private enterprise should be shared with all forms of Government undertakings. Beyond all this, the objective of stimulating private enterprise to serve a larger market will undoubtedly lead to new admixtures of techniques. The current talk about urban redevelopment, for example, is really a proposal that some of the methods employed by public housing, and some of the methods employed by

private enterprise, be linked together to expand the potential field of profitable housing.

There is nothing inconsistent between the proposition that private enterprise should serve as much of the housing need as it possibly can, and the proposition that public housing should serve the housing need that private enterprise does not serve. If we reject either of these two propositions, we reject either the goal of decent housing for all Americans, or the principle of maintaining our system of private enterprise and utilizing it to the maximum extent. We cannot afford to reject either the principle or the goal. We must abide by the principle and still achieve the goal. A balanced program, with public assistance supplementing private enterprise to meet the whole need, will in the long run benefit private enterprise. For it is only failure to meet the demands of the people that could in the long run threaten the popularity of our traditional freedoms and of democracy itself.

Labor groups also have an immense stake in post-war housing. They are affected both as producers and as consumers. I might suggest that we should like to hear even more from these groups in the role of consumers—because, as consumers, workers represent the vast majority of those American families who have not yet been provided with decent housing.

Coming now to the Government's part, the Government is after all not something distinct from private enterprise, or American communities, or investors, or labor groups, or consumers. The Government is the unified representation and fusion of all of these interests. The Government exists to provide a clearing house for the whole National welfare, and to help do those things which the people and the communities cannot do alone. The Government, in short, is the main emblem of the essential unity of the American people. It is *their* Government.

It has therefore seemed to me that the first large contribution which the Government might make toward post-war housing would be to prepare a platform or list of principles upon which to build our housing unity. Out of our war experience, and out of the wealth of pre-war experience located in the various constituents of the National Housing Agency, we have prepared a statement of housing principles for America. Any such platform must be refined and amended through the process of democratic discussion; its planks must be weighed one by one in the scales of public opinion.

Toward that end, I should like to submit to this representative gathering, with a request for critical evaluation, this statement of housing principles for America:

(1) *Housing serves human needs.* The family centers around the home. The Nation centers around the family. Decent housing cannot create Utopia. But decent housing is vital to the health, safety and welfare of the families of the Nation.

(2) *All Americans should get decent housing.* This includes millions of veterans who will need homes. It includes families in rural shacks and urban slums. It includes all minority groups. We have the manpower, resources, industry, and brains to do the whole job.

(3) *The slums must go.* Their economic and social cost is intolerably high.

They must be replaced gradually through a rounded program which includes decent housing within the means of slum dwellers.

(4) *Better housing makes better towns and cities.* Streets, transportation, schools, recreational areas and business districts are built to serve homes. Local revenues are affected by home values. Well-planned and well-built housing reduces the cost of congestion and blight.

(5) *Jobs and prosperity depend in large measure upon housing.* Home building creates jobs, business opportunity and income on a vast scale effecting our whole economy.

(6) *Housing must be progressive.* Our economy cannot expand to its maximum capacity if housing stands still. To get full employment, full investment, and higher standards of living, housing must be a leader among all American enterprise. Leadership means quality as well as quantity. We must reach for ever-higher and more efficient standards of design, construction and livability, applying to the housing unit, the neighborhood and the community.

(7) *Housing progress must be shared with the workers.* We must combine improvements in housing methods and techniques with assurances of fuller employment at steadier pay for those whose livelihoods depend upon building houses.

(8) *Housing should conserve when it can.* Investments in present housing have value. Fundamentally sound housing that has commenced to run down should be rehabilitated and repaired before it is too late. Neighborhoods should be maintained, rather than discarded or allowed to decay.

(9) *Opportunity for home ownership should be enlarged.* The first step is producing good housing at lower cost. In large projects, new types of home financing, such as the mutual method, should be explored. At the same time, rental housing should be available for the family that does not want to buy. This is an additional chance for enterprising builders and lending institutions.

(10) *Housing is predominantly a job for private enterprise.* The task is so big that any other approach is unworkable and unrealistic. The acceptance of this principle, is a starting point for housing progress. We need a million to a million-and-a-half new houses annually in the first decade post-war.

(11) *Housing differs from public works.* Most of it is privately financed. The publicly-aided portion must also be handled as housing, so that there may be a coordinated approach to the whole housing need.

(12) *Housing is mainly a local responsibility.* In peacetime, housing should be planned, built, owned and managed by individuals, by private enterprise, by voluntary groups, or by local housing authorities. The Federal Government should constantly seek to reduce its ownership or operation of housing. It should not assume responsibility for local planning.

(13) *The Federal Government's role in housing should be supplementary.* It should do what cannot be done otherwise. It should help private enterprise to serve the largest possible portion of the Nation's housing needs. Public agencies must be ready to withdraw from any area, when better incomes or lower costs enable individuals, cooperatives, labor groups or business organizations to pick up the responsibility and carry it forward. But the Government's

role, while supplementary, involves bedrock responsibility for making sure that decent housing for all the people is gradually achieved. This means that the Government should use funds or credits to aid local low-rent housing projects, to the extent that low income families cannot otherwise be served.

(14) *Housing requires local cooperation.* All the housing problems of a community are interrelated. Private enterprise and local communities should agree upon the distribution of responsibility for meeting housing needs. In peacetime, the Government should not program housing.

(15) *American housing needs unity.* This unity should be founded upon free and fair debate, upon facts and reason rather than prejudice or emotion, and upon intelligent adjustment of conflicting interests. This indicates that housing should draw its principles from the principles of democracy.

(16) *Housing and democracy.* The application of the principles of democracy to housing may be summed up in this proposition:

The most important stake in housing is held by the American family. Solving the housing problem means providing more American families with better housing at lower costs. All other factors—the lender, the landlord, the contractor, the materials supplier, the real estate operator, the worker engaged in housing, the local, State, or Federal housing agencies—exist to do this job. Their own welfare depends upon how well they do it. Housing will advance when the driving force behind it is the needs of the American people, recognized, expressed, and fulfilled by themselves. (Applause)

THE CHAIRMAN: There is nothing to come after this until later on this evening when we hope to keep the same high plane and I am sure we will. I am sorry to disturb the interest that I see registered on all of your faces and to ask you to move into the next conference room, to the meeting which should have started five minutes ago. We will return to the other room and start the afternoon session.

... The meeting recessed at two-ten o'clock ...

THURSDAY AFTERNOON SESSION

MARCH 9, 1944

The meeting convened at two-thirty o'clock, Miss Elizabeth Wood presiding.

THE CHAIRMAN: The meeting will please come to order.

The name of Mr. Walter Reuther appeared on the program this morning. It was very unfortunate that he was unable to be here. Mrs. Rosenman received a telegram from Mrs. Reuther this morning to this effect:

"Tried to reach you by phone to advise you that Mr. Reuther will be unable to participate Housing Conference due to illness. Mr. Reuther had been looking forward to your conference with great enthusiasm and only a persistent case of the flu could keep him away. Please accept his regrets. Mrs. Walter Reuther."

I also have a telegram which Mrs. Rosenman asked me to read from Mr. R. J. Thomas, President of the International Union UAW-CIO and Chairman of the National CIO Committee on Housing, also Chairman of the UAW-CIO Post-war Planning Committee. This is the telegram:

"Please accept my sincere regrets that prior engagements make it impossible for me to attend and participate in your working conference relative to our nation's post-war housing problems. In common with all American citizens we, in the ranks of labor, are greatly interested in these problems and in the broad national policies for the solution of these problems that will grow out of the deliberations of conference such as you are now holding. The UAW-CIO has long felt that the three following principles are basic in the consideration and development of any economically and socially sound national post-war housing program:

"A. That public aid be given private enterprise to meet the nation's housing needs and to provide full employment. Such public aid to private enterprise must be conditioned on the return of a maximum public benefit. To insure this, definite controls must be retained by the Government. The following are examples of the type of public aid which we advocate:

"1. Substantial reduction in the home building mortgage interest rates, consistent with the physical and economic soundness of the housing built under such a program and consistent with the public benefits to be derived from adequately housing families in the lower income groups, guiding urban decentralization into sound community patterns and providing the way to urban slum clearance and redevelopment programs.

"2. Longer periods of mortgage amortization for housing developed in planned communities in accordance with above program.

"3. Public assistance in the acquisition and assembly of suitable land. These examples of our recommendations for Government assistance to private enterprise also carry with them corresponding obligations on the part of private enterprise to use this aid and encouragement in the public interest.

Any recurrence in the post-war period of the kind of speculative real estate and house building boom that followed in the last war must be guarded against. A repetition of such a catastrophe would not only forever discredit private enterprise in the housing field but would have wide and serious social and economic repercussions.

"B. That the Government should, to the greatest extent possible, use housing as part of a public works insurance program against possible critical post-war unemployment. Prior to the war, our year of maximum production was 1939. Even during this year many millions of employable citizens were unable to be employed. In the light of the tremendously expanded productive capacity of our country, developed during the war, and the technological advances made during the same period, it is our fear the production equal to that of 1939 could be achieved with an unemployment as large as that experienced in the bottom of the depression. It is distinctly possible and likely probable that we shall experience periods and areas of acute unemployment despite the aid contemplated for private enterprise. For such a large scale public works housing program to stimulate employment be taken as soon as possible and held ready for use if and when needed. Should the Government find it necessary, and we believe it will, to effect a public works program to supplement the activities of private enterprise, we know of no type of public action more constructive or more in the public interest than the provision of decent homes for American families and children. We believe that is the responsibility of our public officials—to guard against the recurrence of having to plan for periods of economic instability in haste and unpreparedness. It is essential that this form of public insurance be adequately provided now.

"C. That it is imperative that minimum housing standards be established to provide decent living conditions below which no groups, no matter how poor, will be forced to live. In order to protect itself that responsibility must be accepted by society in the same manner as it now provides educational sanitation and health facilities for the use of all without respect for ability to pay. Public agencies must be responsible for the building of adequate healthful housing facilities for all income groups whose need for such housing is not met by private enterprise. In brief, we have attempted to develop our proposals so that a minimum of public funds will be required to produce a maximum of public and private benefit. May I extend to the conference my heartiest congratulations for the magnificent work they have done in the past with respect to securing vitally needed housing for war production workers and to offer my sincerest wishes for the success of the deliberations which you are now holding.

"R. J. Thomas,
President, International Union UAW-CIO
Chairman, National CIO Committee on Housing
Chairman, UAW-CIO Post-war Planning Com."

And now in the corner in the right is Mr. Herbert U. Nelson, Executive Vice President of the National Association of Real Estate Boards, Chicago. Mr. Nelson. (Applause)

MR. HERBERT U. NELSON: Miss Wood and Ladies and Gentlemen:

Before starting on my statement, I want to comment on the very fine statement that Mr. Blandford made this noon, in the ringing call that he gave for unity of objective and of purpose. I am sure he found an answer in every heart and in every mind in this conference. It is true, as he said, that the various groups in this field can kill each other off if they make up their minds to do so and that must not happen. We must lay our different ideas on the table for full and frank discussion, but we must get together before we are through.

My part in this program, as I understand it, is to present what I conceive as an integrated program with respect to urban redevelopment which does include housing. I did not know that it was going to be a debate, but I imagine that when Mr. Pomeroy and I get through the audience will take care of that part. I am glad to be bracketed with Mr. Pomeroy in this matter. He represents, I suppose, the high priesthood of the public housing movement, and he has repeatedly said that it is his ambition, like that of a good doctor, to eliminate himself. Now that is an ambition which I hope to further in every way possible. (Laughter)

We have had yesterday and today some most stimulating and fine ideas presented, and what struck me constantly is that the area of agreement among both private and public people who are studying this field is so large and that where we differ, we differ largely on minor questions of ways and means.

We all agree that our cities must be replanned and redeveloped for healthful, convenient, and civilized living. Slums and blighted areas must be reconstructed with such buildings and facilities as is suitable to their location. There must be more recreational spaces within the cities. More of the country must be brought back into the city. The neighborly virtues of village life must be restored to the metropolitan communities by the creation of neighborhoods in which people can live and feel at home. All of this must be done according to plans made by entire metropolitan areas which will have binding force upon land uses, both public and private. With this must come a gradual integration of many governmental functions, perhaps all, in metropolitan areas now plagued with a multitude of government units and overlapping taxes. Perhaps this is a program that most of us have in mind and that nearly all of us can agree upon as to its objectives. The path to these objectives is a long and hard one, however. There is no easy and quick shortcut.

CITIES SHOULD BE INDEPENDENT

No program of city replanning and redevelopment can succeed until our cities once more gain freedom of action to handle their own affairs. This they have in large measure lost. State governments are reluctant to grant cities adequate fiscal and other powers to solve their own problems. Worst of all, however, is the new slavery of our cities to Washington. Endless hordes of federal functionaries and employees crawl over our cities, duplicating work which city officials themselves can do better. In nearly every state in the Union, and in many of the cities, federal employees now outnumber the combined total of state and local employees and officials. Cities are told how to plan from Washington. They are told where housing projects must be built. They are instructed in no uncertain terms as to what they may and may not do

with respect to their own tax policies. No more insidious and dangerous attack has ever been made upon local government, and therefore, on free institutions, in our country than the insistence by Federal Government that its properties or those in which it is interested shall not pay local taxes for local services but shall hand out doles in lieu of taxes in such amount as government bureaucrats decide.

We are moving slowly and surely towards a unitary governmental fiscal system. Dr. Luther Gulick, in a recent address in Washington, described this process vividly and held it to be inevitable. Such a system envisages a possibility that the federal tax powers must be unlimited; that the Federal Government would collect all taxes and remit what it pleased to local governments for their uses under federal direction. This is the unitary state. This is the Fascist state. This is what we saw happen in Germany in pre-war years and in Italy. He who rules the pursestrings rules all. If this movement be not stopped, we can only anticipate the decay of local government with all that it means of freedom, personal accountability of elected officials, and the ability to consult with one's neighbors on common problems.

A \$40 BILLION JOB

The enormous possibilities of urban redevelopment to create employment, as well as healthful living conditions, in the post-war period are generally conceded. We have an urban plant consisting of land and buildings worth well over 120 billion dollars. Forty billion dollars of this plant is run down and seedy. It needs replanning and rebuilding. This would give employment to millions of men if we spread the redevelopment program over a ten-year period. No economist believes that we can have post-war prosperity through the manufacture of automobiles and consumers goods. Only a large scale activity in durable goods has ever been able to give full employment. Buildings are the most important of durable goods.

How shall we proceed then to give true freedom to our cities to plan, to recapture slum and blighted areas, and to rebuild not only for the poor but for the benefit of all urban dwellers?

WHO IS MASTER?

There are many in public life, and especially in Washington, who think and believe that our Federal Government should remain the master and should tell the cities what they must do and how. This group, and the so-called public housers, propose in substance that the Federal Government continue to tell the cities how they must plan, what they must build, and for whom. This is to be done by still more massive tax collections by the Federal Government. Then the Federal Government will in turn hand out loans or grants, or, proceeding by more devious methods, the Federal Government will guarantee or underwrite local expenditures, thus again gaining the master hand. They point out that the cities do not have adequate fiscal resources of their own, and because the Federal Government can print money, it should do the job.

I for one oppose this whole philosophy. I think the entire process should

be reversed. The whole program of urban replanning and redevelopment should be returned to the cities themselves where it belongs. The cities in turn should be given the powers of planning and the fiscal powers necessary to do the rebuilding. This means for one thing that cities should be no longer asked to give tax remissions and tax exemptions in return for federal loans and grants. It is the Federal Government which should yield. It is the Federal Government which should get off the backs of cities in tax matters, so that the cities will have adequate financial resources to put their houses in order.

REAL PROPERTY A LOCAL RESOURCE

Most people do not realize the extent to which the Federal Government preëmpts all sources of revenue. Real property, which is traditionally the main fiscal resource of local governments, is also subject to state taxes and to very heavy federal taxes in the form of federal income levies. Cities can only have freedom to act, therefore, in fiscal matters if there is a segregation of tax resources. This means that the Federal Government should and must leave real estate, both as to value and as to income, as a local tax resource only. The Federal Government draws 90 per cent of its enormous tax resources from the cities. It can well afford to leave real property alone so that local governments can function and survive.

Last June I attended the annual conference of governors. Forty-two were present equally divided between Republicans and Democrats. There was not one of them but what was not indignant over the fiscal usurpations of the Federal Government and they determined that this must be ended. It is no wonder that the legislature of fifteen important states have recently adopted a Resolution asking for a constitutional amendment which would limit the taxing powers of the Federal Government on incomes to a maximum of 25 per cent.

LET'S USE TAX INCENTIVE

Now how can we solve this problem of restoring a freedom of action and fiscal freedom to local government? How can we bring back a balance between local, state, and Federal Governments upon which our liberties depend?

I suggest that adjustment of the Federal Revenue Act be used to bring this about through tax remissions and allowances. In short, incentive taxation. There is no logical reason why this should not be brought about. The Federal Revenue Act is now a mass of exemptions. That is why it covers hundreds of pages. Nineteen different types of corporations, including certain mutual savings banks, agricultural organizations, savings associations, charitable and commercial associations and foundations, are almost wholly tax exempt under federal law. So are labor unions. Excise taxes are a mass of discriminatory rates. The Revenue Act has always been used to effect public policies. If it is sound policy to grant tax remissions or exemptions in the Federal Revenue Act for the creation and maintenance of public institutions such as universities, which serve a public purpose, then certainly the replanning and rebuilding of our cities for future health and welfare is an equally sound public purpose to which tax policy should adapt itself.

THE REDEVELOPMENT METHOD

How should we proceed? I suggest in brief a specific program which is now under discussion. Here are some main points:

1. **LOCAL REDEVELOPMENT AUTHORITIES:** State enabling acts should be passed which will permit any municipality to set up a redevelopment authority. This authority would have the right of eminent domain and would be designed to buy up large blighted areas, perhaps whole square miles, in order that they might be replanned on a modern basis. The authority, after its plan had been approved by the city, would have the right to carry forward also the necessary public improvements to prepare the area for rebuilding. When this had been done, sites for private building would be offered to anyone and everyone at low annual rentals or on long-term land contract agreements.

2. **BONDS:** The bonds of the redevelopment authority would, in effect, be municipal bonds, but would not be full faith and credit bonds of the city. Such bonds would be secured by fee ownership of the land acquired by the authority. Being municipal bonds, they would by definition be exempt from personal property taxes and from state and federal income taxes.

3. **INCENTIVE TAXATION:** It is recognized by everybody that buying up of slums or blighted areas creates a financial problem of the first order because such areas will cost, with their old buildings, several times what they are worth for a new use. We cannot solve this problem under our Constitution by expropriation, as has been done in some countries. According to a recent finding of the United States Supreme Court such property owners will undoubtedly have to be paid whatever the courts decide is fair, even though this may be an excess of current use value. Some may call this a bailing out process. Perhaps it is. On the other hand, one cannot too much blame property owners who have paid taxes on high local valuations for years if they feel that they should recover such values in case of expropriation.

In order to cover this excess cost and write it off by means of a long period of time and a very low interest rate, it is suggested that the bonds of the redevelopment authority be issued for periods up to 99 years. In order to bring about the exceedingly low interest rate which is necessary to write off excess values, it is suggested that the Federal Government remit all federal taxes upon the portion of current income of persons or corporations which is used in the purchase of such bonds. This means in brief if a man had an income of \$100,000 and invested \$50,000 in such bonds, the \$50,000 would be deductible from his taxable federal income, just as though he had given that \$50,000 to a university or a charity. This process would bring unprecedented low interest rates. It would mean that persons and corporations in the higher brackets could invest 50, 40 or even 20-cent dollars in the purchase of such bonds. This might well drive the combined interest and amortization rates on such bonds down to new lows of 1.3 or 1.5 per cent per annum. This would enable the writing off of excess acquisition costs by as much as 70 or 80 per cent. Here is the instrument by which we can restore worn out city lands to a new use. In the long run, the Federal Government would lose less by this

process than by any other method of handing out federal loans and grants for urban redevelopment.

4. **REBUILDING:** Having purchased its land and prepared it for rebuilding, the redevelopment authority would then offer sites to private builders. Such persons and corporations should be compelled to build according to the plan for the area and for the uses prescribed by zone. They could finance their operations in the usual ways—by loans from insurance companies, savings associations, banks, etc. The financing of buildings upon leaseholds is an old accepted practice in most countries and in many cities of our own country. The town of Evanston, Illinois, has been developed in this way. Much of the land upon which it is built was owned by the Northwestern University. Baltimore and Philadelphia are also examples. The terms of such annual leases or sales could be $\frac{1}{4}$ or $\frac{1}{2}$ per cent above the interest rate of the bonds, based on the cost of the ground to the authority. This would in turn give the new builder and developer an annual ground rent or ground charge consistent with the new use. The leases given to builders, whether of apartments, stores, homes, or whatever is prescribed for the area, should also run for long-terms, certainly with the life of the improvement. Reversionary rights, however, should go to the lessee, rather than to the city. If the city keeps perpetual fee ownership of such properties, you will find that the public will feel that there is a tendency toward socializing of all urban land which might be resisted.

5. **LOW RENT HOUSING:** Then there is the problem of low rent housing. We have had little of it in the last few years, in spite of some of the comments we have had recently about how successful it has been. In five years, 165,000 units isn't a very big program. The effect of policies of this Administration has been to encourage high cost housing. It has then tried to offset the bad results by various forms of subsidy. I suggest that low rent housing be built by corporations in the cities, and preferably in redevelopment areas, as a part of a general diversified neighborhood with *capital which would also be deductible from current taxable federal income*. The income from such low cost housing developments should also be exempt from federal taxes. In other words, the money going into low rent housing would have the same status as the money going into the bonds of the redevelopment authority. This would recognize that low rent housing is in truth a public purpose, as the Congress has repeatedly declared and as 42 state legislatures have declared. Such corporations might be limited to net earnings of 3 per cent, all income earned in excess of these amounts to be plowed back in lower rents. Here again we would have a chance to reach unprecedented low rents because of the low cost of capital. Here again builders would be investing 30, 40 and 50-cent dollars in enterprise helpful and useful to communities. It is not possible to give overall figures for rents, but certainly rents of \$4 and \$5 per room could be reached for good modern facilities. This in effect would be a new form of public housing—just as a private college functions as a public institution. But it would be public housing under private ownership, private management, private control. Some local agency, perhaps the redevelopment authority, would have to police this measure and see that it was not abused.

6. TAXES: Local tax policies with respect to redeveloped areas should follow normal lines. The leasehold values and the building in the redevelopment areas should pay normal taxes based on tax policies now in existence. There should be no local tax exemption of any kind whatsoever. In this way we can restore fiscal health to our cities. They need this help. It is the cities that bear the brunt of all the vast multitudes of social services that we now render to our citizens. If the Federal Government makes these concessions for the rebuilding of cities, it will gain in the long run through increased economic activity. It will only pay through tax incentives for a small part of new improvements instead of paying for all of them and paying the whole price at least twice, when interest is considered. Over a 50-year period this program would cost the Federal Government less than one-fifth of the cost of a program based on direct federal spending.

7. SOCIAL ASSISTANCE: Finally we come to that group of our citizens who cannot pay any rents. Some through misfortune or sickness cannot pay economic rents. We now give such families rent assistance, and will continue to do so, just as we give them necessary medical care, food and clothing. There is no more reason for building federal housing for poor families than there is to open up federal grocery stores and sell groceries to them at less than cost. Such rent assistance is extended without any loss of dignity. There is less pauperization involved in rent assistance than in creating segregated housing projects where every family is marked as a special ward of the state through rents given at less than cost. (Applause)

CITIES SHOULD DECIDE

This is, in broad outline, a dynamic program that can function, that can restore freedom of action to our cities and that can get that "Old Man Sea," the Federal Government, off our backs. This plan is practical. It is workable.

There are those who say that Congress will never approve of it. Perhaps we have been too much concerned about what Congress will or will not do. Maybe the time has come when we will tell Congress what to do. (Applause) If one hundred cities in this country decide this is a practical program, I can promise you that Congress will adopt it. Our task, therefore, is not with Congress, nor with the Administration, which constantly reaches out for more and more power over our cities. Our task is with the everyday man in our cities who wants better living conditions, who wants his own community to go ahead and progress, who wants his own city to be well planned, convenient and beautiful. If we can give him a workable program, we need have no worry about Congress.

There may be other programs that will be advanced. This one is laid before you only for discussion. I, for one, do not hold that the program described herein is the only answer. I feel that the time for talk is passed. I believe with all my heart that the time for making specific proposals and plans has come. It is high time that all men of good will who want local government to survive and who want to see our cities rebuilt into the beautiful, proud American communities they should be get together on a plan. Let's try to get together. (Applause)

THE CHAIRMAN: Now in the corner on the left is Mr. Hugh Pomeroy, Executive Director, of the National Association of Housing Officials, Chicago. Mr. Pomeroy. (Applause)

MR. HUGH R. POMEROY: Madam Chairman, My Worthy and Amiable Opponent and Members of the Conference: I have been referred to as a member of the high priesthood. I should like to have a word at the beginning on the nature and purposes of the National Association of Housing Officials. It is just what the name indicates, primarily an association of officials engaged in all phases of housing at all levels of government. There are associate members consisting of any citizen who is interested in better housing for the American people. We number some of Mr. Nelson's NAREB members among our members, some of them as active members, because many of his fine members head up local housing authorities throughout the country and are operating this iniquitous program of public housing; others, I am sure, to see what the high priesthood is trying to do and is about, but the Association is interested broadly in the job of providing adequate housing for the American people.

Predominantly our field of activity is that of public housing because most of the housing officials throughout the country are engaged in public housing, most of them at the local level of government. We number among our members a great many of the active housing authorities throughout the United States as agency members, many of their staff members, many state and federal officials, and of the Federal Housing officials, our membership includes those who are engaged in public housing and who are engaged in governmental activities for the service of private housing. What I have to say this afternoon, in the way of presenting an outline of a postwar housing program for the United States, represented the adopted policy of the Association. What I have to say in comment on the so-called tax incentive proposal, just outlined by Mr. Nelson, will be my own comment. There has been no opportunity for the Association to pass on it. I got the latest form of it just a few days after I had made all my figures on the form that was put out the week before that. I do not know whether our Association could move rapidly enough to get action on a program or if it would be held long enough. So that no holds are barred in what I had to say about Mr. Nelson's proposals.

One of the important parts of the program of the National Association of Housing Officials is its endeavor to strengthen in every way the independence and responsibility of local housing authorities and local units of government. I was greatly impressed by what Mr. Nelson said about getting together and then I was not sure as to just what he meant by it, but when he announced the wholly worthy purpose of assisting in Pomeroy's elimination, I discovered who was supposed to be the tiger and who was supposed to be the goat.

I was interested also in the fact that Mr. Nelson so vigorously disavowed some of the measures of financial assistance that he was espousing not so very long ago.

Much of what he says is very sound. What he says on local responsibility, divested of some of its emotional overtones, his strong advocacy of comprehensive and effective planning and better zoning and better building control,

are heartening words to anyone who has been interested in better community planning for many years. So I do find myself in agreement with much that Mr. Nelson says, but I would comment that it does not take very much of a dose of strychnine to be too much.

Now coming down to the topic "An Integrated Housing Program," and I have given the emphasis to housing, as Mr. Nelson has properly, with his predominant interest in urban redevelopment of which housing is a part, given the emphasis to an integrated program for urban redevelopment.

The term "program" as used in this paper is divested of its necessary wartime connotation of control and dictation. It refers simply to the aggregate effort of all who are concerned with the provision of decent housing for the American people. The term "integration" as applied to such a program refers to this common purpose and to the cooperation which must characterize the activities of the participants if the purpose is to be achieved.

No finer statement of the purpose and the need for integration of a peacetime housing program for the nation is before us than the one made by Mr. Blandford this noon. Two quotations will summarize:

"The central, predominant purpose of all post-war housing activity will be to serve the need—the need of American families for an American standard of living. . . . That need, and the task of serving it, should hold us all together.

"The most important stake in housing is held by the American family. Solving the housing problem means providing more American families with better housing at lower costs. All other factors—the lender, the landlord, the contractor, the materials supplier, the real estate operator, the worker engaged in housing, and local, State, or Federal housing agencies—exist to do this job. Their own welfare depends upon how well they do it. Housing will advance when the driving force behind it is the needs of the American people, recognized, expressed, and fulfilled by themselves."

No greater disservice to the accomplishment of this great purpose can be rendered than by emotional appeals that bandy about such substitutes for intelligent discussion as threats of "slavery to Washington," a "master government," and "the Fascist state." Such phrases may be popular in an atmosphere of political conflict; they may be normal to political campaigns; but they have no place in a meeting of intelligent people seeking to find solutions rather than to promote disunity or to obscure the facts. (Applause)

Undoubtedly repeating much that has been or will be said in the sessions of this conference, let me suggest some of the elements of an integrated housing program. I was very much surprised to find that some of the things that I have said have been echoed in what Mr. Blandford said this morning, some of the things that Mr. Potter said yesterday, and some of the things that I heard on the program this morning. To avoid any misinterpretation, let me repeat that by program I mean a set of objectives and a common effort, and not anything handed down from on high. Here are several points that I should like to suggest as the elements of an integrated housing program and these represent the adopted policy of our Association.

1. The objective of a housing program for the United States should be the provision of adequate housing for all families—i e., housing of at least a minimum standard of adequacy for every family, with housing beyond the mini-

mum available in satisfactory neighborhoods as individual desire may require and individual initiative may make possible.

2. This requires a housing supply that will serve a market representing the diverse needs of all the people as to types, sizes, locations, and income levels served.

3. The housing objectives of the nation should include:

(a) The best use of existing housing, calling for adequate maintenance, and for repair and modernization as required.

(b) The replacement of substandard housing—both that which is so substandard that replacement rather than repair and rehabilitation is the only remedy, and some that may be of acceptable quality but is located in substandard neighborhoods that must be completely redeveloped.

(c) The provision of housing for doubled up families and for overcrowded families not included in the foregoing categories.

(d) The replacement of housing that currently becomes obsolete or that gives way to other uses in changing community development.

(e) The provision of housing for new families.

(f) The provision of housing in communities which experience net additions to their population as a result of migration.

(g) The maintenance of a sufficient percentage of vacancies to assure a smooth functioning of the housing market.

4. To accomplish within fifteen to twenty years the objective of adequate housing for all families will require the production of from one million to one and a half million new dwelling units per year.

5. Means should be devised toward assuring, in so far as possible, that variations in the total volume of house construction which occur with variations in the business cycle will not operate to distort housing production too greatly in relation to need. Whatever the total volume of production may be, it should remain in reasonable balance with respect to the various segments of the market representing the housing needs of various income groups.

6. The national objective of adequate housing can be accomplished only through comprehensive local housing programs. Adequate housing means a satisfactory house in a satisfactory neighborhood, and good housing is possible only on the basis of sound community planning.

7. Private enterprise is responsible for providing decent housing for all families who are able to buy and maintain it or to pay a rental that will return a reasonable profit. Families whose incomes are too low to return a profit to enterprise can obtain decent housing only through the exercise of a public responsibility to provide the housing. Both the national and the local interest compel the assumption of this responsibility by the public. Even so, the actual production of publicly provided housing is done through private enterprise in construction, in the furnishing of materials, and in financing. Private enterprise can find outlets for materials, labor and capital in serving the needs of families whose incomes are too low to return a profit on the operation of housing, only if public agencies assume the non-profitable function of undertaking and operating such housing for the low-income families needing it. Attempts at solution of the problem by putting families on relief cannot provide decent

housing for them, would only perpetuate substandard housing, and would be hugely costly to the public.

8. The provision of better housing at less cost, whether by private or public enterprise, requires:

(a) Extensive improvement in the whole process of producing housing, including better organization of the house building industry, improved financing methods, modernized building codes, elimination of restrictive practices, improved techniques, and greater use of new materials and methods.

(b) Improvement in local planning techniques and procedures in (I) determining the housing market; (II) relating housing to the basic physical structure of the community and to neighborhood design; and (III) translating the housing plan for the community into a positive housing program.

(c) Improvement in the methods and the financing of the provision of land for housing, so as (I) to facilitate land acquisition, including its assembly; and (II) to make land available at a cost determined by its value for the proposed use.

(d) Continual improvement in the design and site planning of housing.

(e) Improvement in the methods and procedures for the maintenance of housing, the rehabilitation of housing, the management of large-scale housing developments, the protection, maintenance and rehabilitation of neighborhoods, and the elimination of obsolete housing—future as well as present.

(f) Development of various means for extending home ownership and improving its security.

9. The improvements outlined above, together with various methods of public facilitation of and assistance to private enterprise, should enable private enterprise to provide decent housing for families of lower incomes than of those now served adequately by private enterprise.

10. At the same time, the foregoing improvements, together with the development of procedures for greater flexibility and variety in the operations of public housing agencies (such as the utilization of existing housing, and cooperative arrangements with private enterprise) should enable these agencies better to serve low-income families not provided with decent housing by private enterprise, and to do so at less cost to the public.

11. There is both a national and a local interest in the provision of adequate housing for all families. This calls for financial participation by the Federal Government, and for the sharing, on a workable basis, of whatever subsidy may be required in the provision of housing for families not adequately served by private enterprise. There should be clarification of the respective obligations of the federal and local governments in the provision of subsidy, and improvement in the methods, and their application, for providing local subsidy.

12. The Federal Government, in any financial participation on its part, should see that the national interest is safeguarded by requiring the observance of stated minimum standards, and prudence in the use of funds, and should limit its supervision to his responsibility. The local community should have the final responsibility with respect to the site layout and design of housing, and for determining the need for housing and its location in relation to

the physical pattern of the community. The construction and operation of public housing developments should be an exclusively local function.

13. Housing has a different function and purpose than public works, and should not be regarded as a form of public works. But housing construction should be considered along with public works in dealing with total construction, employment, and stabilization of the national economy.

14. There is immediate need for:

(a) The formulation of comprehensive national housing objectives, designed to assure the provision of adequate housing for all families.

(b) The preparation of comprehensive local housing programs, based on competent local planning.

On most of the points in the foregoing statement there is little disagreement. Adequate housing for the American people is recognized as a desirable objective. The clearance of slums and the elimination of unfit housing are generally advocated. Comprehensive and effective community planning is regarded as fundamental to sound redevelopment and housing programs. The development of housing programs is recognized as primarily a matter of local responsibility.

On one major point there is current dispute. Thirty-nine states and the Federal Government have established the procedures for providing publicly-operated housing for families not served with decent housing by private operators. These procedures have been put to use in several hundred communities throughout the country, and the resulting programs operated locally have the backing of preponderant public opinion in these communities. Those responsible for these programs seek to provide public housing only for families not adequately served by private enterprise, and are increasingly seeking to collaborate with private enterprise in studies of local housing needs and in the development of sound local community development and housing programs. I am speaking now of housing authorities that are concerned with the long-range, low-rent program and not of some of those who have been completely engulfed and almost exclusively engulfed in the job of providing war housing. The opportunity for such collaboration is being impaired, and the preparation of redevelopment programs is being thwarted by the attitude of a miscellaneous group that seeks to abolish all existing public housing and to prohibit further public housing. Some of this group claim, with hopeful promises but with no proof or demonstration, that private enterprise can provide decent housing for all but physically or mentally disabled families or those temporarily in economic distress. A qualification of this claim is that low income families can be provided with decent housing by building excess amounts of housing for higher income families and letting this housing "filter down" to low income families as it deteriorates in quality or desirability. I did not know that that proposal was seriously considered any more until the representative of a great national organization suggested it to me about two weeks ago. Another sector of the group claims that public subsidy to enable low income families to obtain decent housing should be applied in the form of a dole to be used in the private housing market. Still others are seeking to develop methods of financial assistance to enable private enterprise to provide decent

housing for all but distressed families. Some of the general group have become migrants, as they have moved from one position to another.

Let us examine these positions.

The unqualified claim that private enterprise can provide decent housing for all but acutely distressed families is the one most quickly abandoned by its advocates, and, to our best knowledge, is not made by any person or group who has given more than casual attention to the problem. To be sure, the time should come when continuing full employment at a high level of national income, broadly distributed, should raise family incomes to levels sufficient to obtain decent housing in the private market. Those levels should be considerably lower than the minimum now necessary, as improvement in techniques, organization, procedure, and financing enables private enterprise to produce better housing at less cost. When substantially all families have incomes thus sufficient, there will be no further need for public housing. Public housing advocates are content to let private enterprise itself set the upper income limit of public housing by adequately serving income groups down to that limit.

The "filtering down" process has had full opportunity to work for the past hundred years. It has produced all our slums and blighted areas. There is no magic whereby there can be any other result. In a freely operating market, families get the kind of housing they can afford. The only way in which they could get better housing than they can afford would be for there to be an unprofitable surplus of housing; and such a surplus would be of good quality only until lack of maintenance dragged it down. Private enterprise, by its very nature, cannot subsidize families whose incomes are too low to enable them to pay for decent housing.

There now seems to be general recognition that there is a part of the population which requires subsidy in order to obtain decent housing. There are still some thoughtless advocates of applying this subsidy in the form of direct relief payments to families. Disregarding the demoralizing social welfare aspects of such a proposal, it need be said only that there is no practical way in which a general rent relief scheme could do other than perpetuate slums and blighted areas, placing an insuperable obstacle in the way of the elimination of unfit housing or urban redevelopment. Beyond this, any such general scheme would be unthinkable costly, imposing a crushing burden of taxation on local real estate—even assuming the most general federal participation. Furthermore, it does not appear that there is any way in which a system of rent relief could offer any secure basis for new building, or for other than relatively minor repairs.

As for saying that a family has more dignity if it goes on relief and goes down and gets a check for relief than if it lives in a public housing project, with the living conditions that are provided in that project, I just wonder whether anyone who makes that statement has gone far through the slums of American cities or has visited with the families who, with dignity and pride and better responsibility of citizenship, are learning how to appreciate the better things of life in public housing projects. (Applause)

We come then to various proposals for assistance to private enterprise in producing housing for lower income groups than can now be served adequately by private enterprise. With the objective of improving the operations

of private enterprise to enable service to lower income groups there must be hearty concurrence. Some of the general areas of possible improvement were noted in the outline presented early in this paper.

The proposal currently being presented under the designation of a "tax incentive" scheme, however, calls for careful examination. The kaleidoscope of variations in this proposal indicates that an active exploration of methods is under way. In fact, the rapid footwork on it appears to have transformed the wrestling ring in which it began into a hockey arena. I am certainly no "goalie," but I do want to see where the puck is going.

First of all, we ought to be honest about it. The so-called "tax incentive" is no more no less than tax exemption and, as applied, is a direct subsidy. No "mairzy-doats" formula can make it anything else. It is somewhat less than honest to call it tax reduction. It obviously is not. It is a discriminatory tax concession for a special purpose. And however beneficial this purpose may be, it is also less than honest to liken the proposed tax exemption to tax deductions allowed for gifts to charitable and educational institutions. The moment such an institution were to operate for profit, the income tax deduction would no longer be allowable. Nor is it honest to compare the housing that would be produced under such a scheme to public housing and declare it to be a "public purpose" on the strength of court decisions holding public housing to be a public purpose. At the very heart of such decisions is reliance on the non-profit character of public housing.

The proposed tax exemption is a subsidy no less than if it were received in the form of a check from the United States Treasury. It is stated that it will operate extensively in the upper income brackets. Wherever it would operate, it would mean that the other taxpayers, including those who invest in post-war industries or, in fact, in any form of development except that in an area redeveloped under this particular scheme, would have to carry the extra load. The income of the owner of every home not built in a redeveloped area would have to pay more taxes to subsidize the redevelopment. The income of the owner of every store or factory not in a redeveloped area would be taxed to subsidize every store or factory in the redeveloped area.

I think that, even so, I would not be inclined to call the exemption scheme immoral if there were a compelling public purpose involved, if it worked fairly in the real estate market, and if the financing method assured the best use of the taxpayers' money. At least, the advocacy of tax exemption and subsidy by the proponents of this scheme should offer a useful precedent in considering various other programs for public benefit.

The fact is, however, that an investor in the 80 per cent income tax bracket (one who would use the 20-cent dollars we heard about) would be getting an 80 per cent capital grant. His return of $1\frac{1}{2}$ per cent would amount to $7\frac{3}{8}$ per cent interest (interest only) on the 20 per cent of his own money that he had invested. That's a rather good return—also tax exempt—especially compared with the 1.2862 per cent rate at which the last New York State fifty year housing bonds were sold.

The story just begins here, however, because income invested in the redevelopment itself would be tax exempt, and income from the redevelopment would also be tax exempt. Again, in the 80 per cent income tax bracket, that's

another 80 per cent capital grant. The proposed maximum allowable interest of 3 per cent would be a return of 15 per cent on the investor's own funds. Public low-rent housing operates with no capital grant, and with an average annual federal subsidy of 2.8 per cent. That was before the war. Of course, it is considerably less now in the monthly distortion of the occupancy. It looks as if public housers were pikers.

Let's look at the results. First of all, the long period of amortization and the low interest rate for land acquisition might make it possible to reduce the land cost (on an annual basis) to one-third or even one-quarter the annual cost under normal methods. This would make it possible to achieve lower rents than under normal methods. The proposed limit of return on investment in building in a redeveloped area to 3 per cent—those are the figures I got last week; it was 6 per cent the week before—would also make possible a further lowering of rent (as against, for instance, large-scale FHA developments or limited dividend housing under the New York law).

Even with these reductions, however, it is not likely that rents could be brought down to less than from \$28 to \$30 per dwelling unit per month. Such rents would serve very few, if any, slum-dwelling families. They would seek other slums. Any talk of \$4 or \$5 per room per month is just hot air.

Contrasted with this, the average rent in low-rent public housing projects throughout the country (before the war) was just under \$13 per dwelling unit per month.

Let's see what the scheme would do to the real estate market and to the economies of housing production. As to the former, every new house, every new private housing development that was not in a redevelopment area would be strangled by the competition of housing *in* the area, with its favored treatment by an 80 per cent capital grant (assuming those 20-cent dollars), a further annual subsidy equal to the interest return on the handout (2.4 per cent annually on the 80 per cent basis), and by tax exemption on that return. The pickings—from the other taxpayers' pockets—that such a scheme would afford would be marvelous to behold. The invitation to the pyramiding of tax-free investment on tax-free investment on the part of those able to get on the "in" would intrude a new force into the dynamics of local community action, and I am speaking euphemistically!

The whole scheme would have a striking effect on the economies of housing production. No longer would we need to worry about the operations of the producer of a half a dozen houses a year—or half a hundred. He would disappear. We don't need to be told about those 20-cent dollars. The whole field of housing production would be taken over by those with incomes in the top brackets. The great army of "home builders" in communities throughout the nation would be replaced by great corporations, who would have the "incentive" to invest their funds—tax exempt—in house building in redeveloped areas.

The production of housing would be geared to the cycles of industrial income. In periods of high employment, and consequently high prices, money would become available for building—at the top of the business cycle, and the purchaser would never be able to get out from under, the renter would always have to come from a higher income bracket than if building were to

take advantage of the opportunities of lower prices in the dips of the business cycle—incidentally strengthening the whole construction industry and national volume of employment.

All the nice-sounding phrases in the world can't make the scheme any more palatable. Public housers have no desire to invade the field of private enterprise. At the same time they have no intention of abandoning the only program that has ever really cleared slums in any city—thus beginning real rather than conversational urban redevelopment—the only program that has ever provided low income families with decent housing at rents they can afford to pay—a program that has paid large dividends in both civic and social improvement—they have no intention of abandoning this program for some mystic legerdemain that would be more hugely costly to the taxpayers than public housing could ever be, that could provide very little housing that low income families could afford, and that thereby could never get very far toward the accomplishment of its avowed primary purpose of urban redevelopment.

On the other hand, public housers are constantly seeking to improve their methods, reduce their costs, and strengthen local responsibility. They do not feel that any formula thus far used is infallible. They seek the opportunity for the collaborative development of effective local housing programs.

There is a great job to be done—the provision of adequate housing for the American people. There is a challenge in it that calls for the best thinking that can be put to the task. It's time to quit trying to climb over the back fence. It's time to get around the table and get to work—together. (Applause)

THE CHAIRMAN: Will the speakers of the morning please come up on the platform so that they can take their share of the questions?

All right, according to the rules of the game, please say your name and indicate who you would like to have answer your questions. We are ready for them. What, no questions?

MEMBER: I should like to have Mr. Nelson answer Mr. Pomeroy in rebuttal.

MR. NELSON: The suggestion is that I make some comments in rebuttal on what Mr. Pomeroy has just said. I assume that he will have the same privilege. First of all I want to say that I think the boys got together on me. You heard him read those long quotations from Mr. Blandford's speech which was delivered only about an hour ago and I wonder how they got into his paper.

MR. POMEROY: I got a copy of it last evening—you weren't around—not from Jack either.

MR. NELSON: I think that Mr. Pomeroy's criticism of the suggestions that I have advanced for discussion is, on the whole, a fair one and the comments he makes are those which are inevitable. As Dr. Hansen said yesterday, what we are looking for here is a device whereby we can get cheaper capital than we have ever had before, in order to write off these tremendous, excessive costs in the slum areas, and if we can call forth great wealth, large incomes, for that purpose, I know of no more useful purpose to which that money can be put, and I contend that it is a wise public purpose.

Mr. Pomeroy, in developing his program, or in describing what the public housing group has in mind, devotes himself necessarily almost wholly to housing. To most of us who view the urban scene today, that is an important thing but rather incidental to the major job of replanning our cities for healthful living for all the citizens, in which perhaps public housing, or some form of low rent housing, must have its place, and it is that particular problem which concerns most of us at this time as a great post-war project that will give employment.

The public housing formula, as we have it at present, is pretty familiar to all of us. In 1937 I personally went before Senator Wagner's committee and said I thought it was a good thing and we supported it on the theory that it would work out and that it would clear slums and that it would be something fundamentally helpful. We have been rather disappointed with the results. The volume has been too small. There is something about the formula that causes resistance. Cities do not like it. The Mayor of Atlanta comes forward with a diatribe against public housing. If you go to any mayors' conference you hear all kinds of talk of that kind. It sets up a form of discrimination among citizens in the same community that is distressing and difficult.

I know that there is a cold wind blowing from Capitol Hill today with respect to the continuance of this USHA formula, and, talking about legerdemain, I don't know of anything more complex than this business of the loans and grants that take place between the federal authority and local authorities and grants made by Congress all intermingled so that no one can identify anything. The fact is that the Federal Government does pay for these local housing projects with money which it has to borrow from the public and on which it pays interest, and I have not done the actuarial figuring, but I will wager that over the sixty-five year period, if you include interest, it pays for those projects almost twice over. Certainly that is true if you include local tax exemptions.

Now we suggest a program under which the Federal Government would give tax remissions—or call them tax subsidies, call them anything you want—on the money that goes into this type of housing, and the Federal Government loses the taxes on that money in that year and in that year only, and it loses it only once, and for every dollar of such subsidy or tax remission, the Federal Government gets \$4, \$5 or \$6 of private money in the same project, put to work, so that from that standpoint I believe that the tax incentive method is a much wiser method, a much better method, and a much more productive method.

Think of the difference that exists with respect to capital charges. You get money other than savings, very low-cost money, put into low-rent housing. The capital charges on a housing unit that costs, say \$4,000 including the land, are about \$7 per month per thousand including amortization and interest, or about \$28. That is your capital charge, and to that has to be added taxes and operating costs, perhaps another \$15 or so, \$43 or \$45. If you can get the type of money which is not savings and which is content with a very low return for the privilege of retaining the capital itself instead of giving it to the Federal Government, if you can get this kind of capital which is content we will say with a 2 per cent return—2 per cent on \$4,000 for a year is

only \$80 and divide that by 12 and you have a capital charge of about \$7 per month, including amortization, as against \$8.

Don't you see how powerfully that type of money can be put to work and how far we can drive rents down? Now I assume in all my discussion that any type of incentive taxation of this type has to be protected. It has to be protected against abuses. It isn't going to be a holiday for a lot of people to make a lot of money. It has to be policed. The policing of such a program may be done locally. It may be done federally. If a program of this kind can be a part of a larger program, those are devices that have to be thought through. Certainly no one wants to give a few people a tremendous advantage in order to make a lot of money. What we are trying to accomplish here is fundamentally a public purpose. So I hope that in thinking this problem over, you will not be too sensitive to the plea that perhaps we are giving the fat boys an out. That isn't the thought at all.

The thought here is, how can we put great wealth at work to accomplish the purpose that we all want? There isn't anybody here, I assume, who does not think that an institution like the Rockefeller Foundation or the universities that have been endowed by great wealth do serve a useful public purpose. Here is another public purpose, which we all admit is a public purpose which can be served by great wealth or by people of larger incomes, if we find the device by which we can put it to work, and so I ask your future consideration of this suggestion with the same attitude of tolerance and open-mindedness that you have displayed throughout this conference. (Applause)

THE CHAIRMAN: Do you want to rebut?

MR. POMEROY: No, I would just read my paper again to rebut.

MR. WILLIAM W. BRILL (Acting Director, Citizens Housing Council, New York City): Mr. Pomeroy termed Mr. Nelson's use of \$4 or \$5 per room rent as just hot air. I should like to have Mr. Nelson say that it is more than hot air, or in view of the fact that the plan is changed so frequently, I should like to have him tell us what next week's plan is.

MR. NELSON: Well, at least you will all grant that business today does not have that die-hard attitude and does not cling to old ideas too long (applause) and certainly that is an asset and not a liability. Certainly that is the way to approach a conference table. Now perhaps I can in turn suggest that perhaps the public housers are clinging too long to this outmoded formula that was developed in 1937 and that there needs to be new thinking done before we can find a formula which is generally acceptable to the country.

I thought, sir, that I indicated to you just how a \$4 or \$5 a month room rent could be reached in this matter of the tremendous reduction of capital taxes which would occur if you can get this type of money into low-rent housing projects. To repeat: If you have a \$4,000 unit, low cost or low rent unit, perhaps the land would be \$500 and the structure, \$3500. The capital charges today under the FHA program, if this building is built with savings, are about \$7 or are they \$7.25?

MR. MACHT: A little less than \$6 a thousand.

MR. NELSON: They are about \$7 per thousand per month or about \$28 for the capital charges, including interest, mortgage insurance, and amortization. If you can get this kind of low cost capital that we have been talking about into one of these projects, say, at 2 per cent and you have a \$4,000 unit, that is \$80 a year capital charges. At \$80 per year, that is about \$7 per month per thousand, so that you, therefore, reduce at once your capital charges, say, \$18.

All of this business of giving illustrative figures is, of course, pure argument, because in any part of the country and under all sorts of varying conditions, such figures must always vary.

MR. POMEROY: I should simply like to make this much comment on it, that that low interest rate would be possible and the scheme would operate only on the assumption of a tax subsidy that would have to come out of the taxpayer's pocket. It does not make a great deal of difference whether you are taking it out of the taxpayer's one pocket or his other pocket, the taxpayer pays for it in the long run, and I cannot see how it is possible to pay all the charges on housing, plus profit, at less cost to the public than to pay the charges for a subsidy without profit.

THE CHAIRMAN: Any further questions?

MR. NELSON: That is where legerdemain comes in. (Laughter)

MR. POMEROY: That is what I am afraid of.

MR. LEVENE: We have heard both Mr. Pomeroy and Mr. Nelson discuss the responsibility in financing a building program, but they have not covered the subject of reducing the cost of building the building itself, and I want to bring that up because it may precipitate discussion on that phase of the question which I think is important.

Let's return to the automobile industry, and they have produced millions of cars for which the people pay in one year and from which they receive great utility and great satisfactions. When the automobile industry started they had a more difficult problem than housing, because in addition to structural qualities, they had to devise a vehicle that could stand high speed, danger of explosion, danger of fire and collision, but their industrial engineers were given a free hand. What would the automobile industry be like today, if the industrial designer had to apply to thousands of boards all over the country for the adoption of a single little gadget?

I am going to talk from the angle of a prefabricator who has really been interested in trying to reduce the cost of housing. This is a definite problem. The first thing he decides is, why have tremendous interest costs? Why not build a house that can be paid for in the period of five years at the same rate of rent that the average person pays today. He went to the city and the first thing they asked him was, what is the size of your house? He said, "Well, I have designed it in such a way that one can buy a unit and as one can afford to pay more, he can add another unit to it, but it has every facility for health and for good living."

They said, "We are not interested in it. If your house hasn't got 1,000

square feet of area, it can't be built here." That is that. So the prefabricator went to another city and they said, "We will allow you only 750 square feet," and he said, "Well, the people need housing and I cannot give you a house to be paid for at that rent, at that price." They said, "Well, that is just your tough luck," but these very people went around and claimed they were interested in low-cost housing.

The second question comes in materials. You will find that to reduce the cost of the housing, you have to prefabricate your plumbing and other materials at the factory. Try to substitute lighter materials that can be shipped distances and the local codes say, "No, you have to use steel or you cannot use anything." You find material that is just as suitable and you cannot use it. They restrict all along the line and they don't make any suggestions or furnish buses to make transportation easier. They just say you cannot build.

I suggest that the people who are really interested in reducing the costs of housing for the people who can afford it adopt a national policy and make it so that every local official who goes out to the public and says that he is interested in reducing the cost of housing must apply for a license the same as a professional engineer does. Let him apply for a license and state that he generally agrees to sponsor every movement for low-cost housing and to be open-minded about it and then we can make progress.

MR. C. PHILIP PITT (Executive Secretary, Real Estate Board, Baltimore, Md.): I came out to listen and to learn, but frankly I am terribly confused, particularly by the last two speakers, Mr. Nelson and Mr. Pomeroy. Mr. Nelson emphasized very strongly that his plan would cost the taxpayers vastly less than they are now paying under the present plan. Mr. Pomeroy intimated it would cost the taxpayers several times as much. I want to find out, if I can, which one is telling the truth. (Laughter)

THE CHAIRMAN: We might put them in a room and lock the door and see who comes out alive. (Laughter) They will make their speeches over again.

MRS. VALENTINE: Before I state my question, I should like to make a statement. It seems as though, while there is much confusion, there is a meeting of minds on several points. First, that there must be housing for all of the people in the post-war plan and that there must be a redevelopment of slum areas. I come from a segregated section of the country, the nation's capital, where we face extinction, partially due to the real estate interests and partially due to the Federal Government. Under the power of eminent domain, in clearing slums a great deal of acreage has been lost to Negro occupation. There has been clearance, of course, of slums for government buildings, for roads and highways, and for various purposes. The area has been lost to Negro occupancy. We have a definite territory within the city limits, which means that we can spread only a certain distance. When this territory has been diminished by the various methods stated, Negroes have been unable to repurchase in those areas which have become white occupied. Now we are unable to spread into the nearby counties. In Arlington County all of the ownership has been lost. In nearby Montgomery County there is very little ground that can be had, and within the metropolitan area we are restricted by covenants.

We are unable to spread to the south or to the west. We are holding in the east and there is nothing to the north that isn't covered by covenants.

In order to get the property at all, it becomes necessary first of all to try to find some person in a depreciating white neighborhood who is willing to sell his home. Then we must find a purchaser who is courageous enough to go in and face the possibility of eviction if the covenant is upheld and the courts tend to uphold them, or who must face the possibility of embarrassment and perhaps bodily injury, and then if he is forced out, he must go into a more crowded condition. I wonder how we are going to overcome that situation, whether it will be done by the government's purchasing ground.

I can see this possibility: If, as it is suggested, the government takes over and resells to private industry, are they going to permit the covenants, which perhaps will be lost in the accumulation of the ground, to be replaced by private industry in their rebuilding?

THE CHAIRMAN: Would you like to direct that question to any particular gentleman here?

MRS. VALENTINE: Yesterday there were three attempts to answer this question, and I am hoping that someone from the public and someone from the private industry might answer it to my satisfaction today. Because of the limitation of space, it seems to me, when you suggest rehousing all of the people, that Washington, unless the picture is changed altogether, will not rehouse its Negro population who are able to buy homes and to pay for them and are very good risks and have proven themselves capable and willing to keep up their homes to the standard to which all American people wish to live.

THE CHAIRMAN: Thank you.

MR. POMEROY: I wish that I could answer this question. I sometimes wonder just how sincerely we believe in what we are fighting for in this war. I would observe that in the Washington situation the problem is greatly aggravated by the all-out attacks at the present time on the National Capital Housing Authority, which is the only agency that has any possibility of providing housing for low income families in need of subsidy. That attack has been declared to be the pattern for the attack on public housing all over the United States. I would commend the National Committee on Housing for having undertaken a campaign to endeavor to foster private housing developments for Negroes.

I make one more comment. I believe that any redevelopment scheme must have as an obligation either as part of that development, or as a concurrent obligation, the provision of adequate housing for all dispossessed families. (Applause)

THE CHAIRMAN: Is there another question?

MRS. VALENTINE: I should like to get the thought of the representative from the National Real Estate Board on that, if I may, because I am wondering if I yet have a clear answer. (Laughter)

MR. NELSON: Well, madam, I wish I could give you a clear answer.

Mr. Potter yesterday tried to answer your question with respect to covenants. He is a judge. He has been a judge, and he gave you as good an opinion, I think, as any lawyer can give. In most of the areas which are sought to be reclaimed, I imagine that such restrictive covenants do not exist, or if they have existed in the past, they have run out, and I can well see that if there were a large area on the west side of Chicago or on the south side which was subjected to the kind of reclamation program we have in mind, there should be a place there for Negro housing.

As to the problem of segregation, it is impossible, as far as I have been able to discover, to establish a program because you have such violent differences of opinion in local communities. In some places segregation is accepted as a public policy. In many northern cities it is not, and you cannot lay down at this time a program which only time and patience and infinite tolerance can solve, but certainly in any redevelopment program for our cities, there should always be a place, and a good place, for Negro housing. I think that the Negro race is making great progress in education and in economic stability, and they have just as good a right as the rest of us to have good houses if they can afford them and to have good places to rent housing.

THE CHAIRMAN: I think it is legitimate for a person in the gallery to speak.

MR. MILTON SHUFRO (Chicago, Ill.): I hope that Mr. Nelson will understand when I advise him that I am a public houser and also a Chicagoan that I am somewhat confused and that he will forgive me. Today he said that public housing has not cleared the slums or that it has not done a big job in clearing the slums. Of course, we haven't because public housing is still in its infancy, but if Congress had done more for public housing, I think we would have cleared still more slums.

But there is one thing that does get me confused. If I may, at this time I should like to go back to the geologic past, to December, 1943, and I remember reading an article in "Headlines," written by Mr. Nelson, in which he speaks of a delightful visit of an Englishman who comes to the blighted area, or so-called blighted area, of Chicago, and this Englishman says, "Do these houses have plumbing? Do they have light? Do they have central heating?" to all of which Mr. Nelson says, "Yes," and the Englishman says, "Why this is upper middle-class housing in England," and the intimation in the article is that we have no slums in Chicago. So you see it is very confusing under those circumstances. (Laughter and applause)

MR. NELSON: The comment to which the gentleman refers was written in "Headlines," but he does not give quite all of it. Charles Morgan Webb came over here and I tried to show him some of the slums on the west side, and he did ask me those questions and I did answer "yes." Housing in many of our cities is bad not so much because certain facilities are lacking but because of the disorderly land use and because of the constantly shifting types of people that use the housing, which tends to destroy neighborhood values. I think we concentrate too much on the structure when we talk about housing. Good housing is just as much a matter of a nice neighborhood where you like

your neighbors, and where you can have your children play freely in the streets and be sure that they are getting along all right, and where you can have the kind of things that make a pleasant home life. Now many of those things are outside of the house, and good site planning is just as important in my opinion as the house itself.

The very point of that article, however, was to point out that the bad housing in this country is not on the west side of Chicago, relatively speaking, or on the east side of New York. It is on the farms in the South and on the farms in a part of the Middle West and Southwest, and when you see the kind of tumbledown shacks those people live in, where not 5 per cent, perhaps not 1 per cent, have inside, running water or inside sanitary facilities, then you realize where the really bad housing of this country is, and I have always felt that if this housing movement is completely sincere, it should address itself in part at least to the bad housing that we have on the farms. (Applause)

MR. POMEROY: May I simply say that the post-war housing report of the National Association of Housing Officials is now undergoing another revision (laughter) because of some of the objections of some of the private enterprise people who are endeavoring to suggest some of the answers on rural housing. Public housers are always willing to undertake to make up for the deficiencies of private enterprise, rural or urban. (Laughter)

MR. THURGOOD MARSHALL (National Association for the Advancement of Colored People, New York City): I want to ask Mr. Nelson just one question, that is, just what is there in this plan that will protect us from what has happened in the past under private development? I speak specifically of the Metropolitan Life Insurance project in New York with which I am sure you are familiar and the proposed Stuyvesant project, and I cannot for the life of me understand why we should support the plan proposed by Mr. Nelson of giving people 80 per cent back of what they put in and let it go to concerns of the type that build projects from which they exclude practically all minority groups. In other words, I, as a member of a minority group, lose 80 cents on every dollar that they will put in under your plan, because if they do not get the 80 cents back from the man who is going to buy these bonds, they will get it from me. I cannot understand why I should give up my 80 cents to construct projects that my group and other racial minority groups are barred from solely because of racial color and are forced to live in an apartment house owned by the same company, charging double the rent that they charge for apartment houses exactly like it. So I am kind of wondering whether or not there is anything in your plan that would by any stretch of the imagination, for example, make me be in favor of it. (Laughter and applause)

MR. NELSON: Well, sir, I do not know whether I can sell you or not. I would feel exactly as you do, and if the Metropolitan Life Insurance Company is going to build housing projects and they have Negro policyholders, I see no reason why they should not build housing projects that they can live in. As a matter of fact, the Prudential Life Insurance Company has built two such projects for Negroes and they are very successful.

MR. MARSHALL: May I ask just one more question? What is there in your plan that will prevent them from continuing to do that?

MR. NELSON: There is nothing whatever.

THE CHAIRMAN: Is there another question?

MR. GRAY: Mr. Macht this morning referred to getting down to 4 per cent as a minimum. That has been accomplished under FHA. I think Mr. Kniskern might be interested in this question too. The Farm Security Administration has been lending money at 3 per cent through the Federal Farm Loan banks. It is possible that Mr. Kniskern could tell us how that is done and why the other governmental agencies can't do the same thing.

MR. FISHER: I am not Mr. Kniskern, and I did not mention 4 per cent, so I am not going to answer the question.

MR. MACHT: I am not Mr. Kniskern either. I am Mr. Macht. I will answer it. It seems to me that there is confusion when one speaks of the Farm Security Administration and when one refers to the interest rate at which it is possible to have private money. The figure of 4 per cent was arrived at this way: The government's current long-term rate is $2\frac{1}{2}$ per cent. FHA insurance at the moment is $\frac{1}{2}$ of 1 per cent. That is 3 per cent. Now, put yourself in the position of a lending institution, and you will at once recognize that in order to have—may I use the word "incentive" to put money out for mortgages you have to get better than 3 per cent, because you can get 3 per cent, that is, to say you can get the $2\frac{1}{2}$ per cent by buying negotiable government bonds.

The question merely is how much incentive is necessary. It seems to be the opinion of bankers that that incentive must be 1 per cent. That brings it up to $2\frac{1}{2}$ per cent. Add $\frac{1}{2}$ per cent for mortgage insurance and you get the 4 per cent interest rate. I did mention that mortgagees were taking private mortgages with FHA guarantee at 4 per cent. That is under Section 608, Title VI of the FHA Act. It also should be clearly understood that this is the kind of money that is not directly lent on government credit. It is not government borrowed money. The government isn't borrowing that money. The government is giving its guarantee. It is an indirect guarantee. Matters of waste, foreclosure costs, the question of the time—those are factors that cause the private investor to ask more than the $2\frac{1}{2}$ per cent that the government is paying for money at this time. I hope that does answer the question.

MR. GRAY: Well, the specific question was that FSA is lending money at 3 per cent. How is it accomplished?

MR. MACHT: Do you mean the Farm Security Administration?

MR. GRAY: Yes.

MR. MACHT: It is lending money at 3 per cent to whom, may I ask?

MR. GRAY: To farmers for housing and improvements on the farm.

MR. MACHT: That may well be, and if it is so, it obviously involves the direct relationship between the government and the borrower. In the instance of the private development of houses for rent or for sale you do not have that

direct relationship. The government does not lend the money. FHA, as you probably know, is not a lending institution. It is merely a mortgage guarantee institution and it is that difference that makes the difference in the interest rate from 3 per cent to 4 per cent.

MR. CARL FEISS (Denver Planning Commission) : I represent the real minority here, the city planning commission which has been given the very difficult task of being the middle man, apparently, between the various interests which have been discussing housing during the course of the last two days. I should like to put a question to both Mr. Pomeroy and Mr. Nelson. Either one can answer possibly better than I can. If I am to prepare a master plan for a city and am to include in that plan redevelopment areas of all sorts and kinds, do I let that plan out for competitive bidding to private and public housing enterprise? If I do, who will let me know when I can come out in the open again? (Laughter)

MR. NELSON: I feel a certain fellowship with Mr. Feiss because I was once a city planner. Obviously, it is the function of government to make a plan. No private group can or should dominate the type of city plan that is made in any community, and to that extent planning is necessarily a governmental monopoly. Now you have to take the good with the bad, and like all public officials, you have to take the rap if you do not please everybody, but certainly, you, sir, and all of the city planners have not only a great responsibility but a great opportunity, and it seems to me that we are generating more business for you fellows than you have ever had before in your lives. (Laughter)

THE CHAIRMAN: That might flatter him, but I don't think it answers him.

Are there any other questions?

MR. FRANK PALMER (Executive Director, Allegheny County Housing Authority) : I hope I won't discourage Mr. Nelson too much if I preface my question by saying that I am a little doubtful of his getting through Congress, despite his statement about 100 cities, a plan which will give a greater and greater subsidy, depending on the man who gets the subsidy being wealthier and wealthier, and I should like to go back to that discussion of this morning, which seemed to me to be so much more practical, between—I may also get the speakers mixed up—I think Dr. Fisher and Mr. Macht in regard to the longer amortization and the lower rate of interest and also steal something from John Taylor, if he does not object—I don't know whether he is going to use it tomorrow or not—who suggested to us in New York the idea of refinancing every seven years—of course, not indefinitely, I take it—so as, as I recall his suggestion, to take advantage of about a 20 per cent reduction in the amortization per month.

I wonder if Mr. Macht would comment after Dr. Fisher speaks. I should like to have both of them speak on that possibility of longer amortization periods which reduce, of course, the cost per month, plus the refinancing suggestion, which, as far as I know, first came from Mr. Taylor.

THE CHAIRMAN: Dr. Fisher, would you like to speak first, as you were against long-term amortization?

DR. FISHER: I am guilty of having spoken to the subject linked with amortization. The point I tried to make in my talk this morning was that the longer the term of amortization, the longer the interest runs, and the larger the amount of interest that the borrower has to pay; that the function of a good plan of financing is one which liquidates debt and not one which perpetuates it. I do not know whether the place where you ought to cut off the term of amortization is 20 or 25 or even 30 years. Somewhere in that area you get to a point, and I can prove it mathematically, where the benefits, the reduction in the monthly payment bear a slight proportion to the total amount of interest and length of time that the mortgage indebtedness runs.

I was simply arguing for a realistic point of view to get people out of debt and not to perpetuate it over too long a period of time for the sake of a few cents reduction in the monthly payments. I want to make it clear that I do not stand on any particular term. I mentioned 20 to 25 years this morning. I might have mentioned 20 to 30 just as well, but there is a mathematical point, I mean that is demonstrable mathematically at which interest becomes the principal charge and not amortization, and the longer the term the more important the interest factor becomes in the equation. It seems to me, just realistically, that comes somewhere probably between 20 and 30 years.

One of the problems in real estate management that complicates the whole question of financing is the fact that we have no second-hand market, that is, we have no market for second-hand real estate. If we had such a market, then plans for financing could be adapted to that market. If refinancing at the end of the seven years would facilitate the adjustment of the real estate market to the sale of second-hand houses, I would be very much in favor of it. I think it is only one of the factors that have to be adjusted, and I think I would even go further and say that I would be in favor of a clause in FHA mortgages, or in any other long-term mortgages, which gave an opportunity for refinancing at the end of seven years without penalty. Most mortgages, except FHA mortgages, can be refinanced as some of the mortgagees have been finding recently to their grief.

MR. MACHT: On the matter of getting out of debt, getting in debt first and out of it last, the practical view of the plight of the man who wants to occupy a home is this: If he does not own his home, mortgage or no mortgage, he is going to pay rent. He is going to pay rent when he is 30 years old, 40, 50, 60 and 70 years old. He always pays interest, depreciation, taxes, maintenance, and in fact, sometimes additional profits, so that it seems to me that it is unrealistic to speak of any time when you will get out of debt, because if you aren't in mortgage debt, you are in the debt of a landlord. Now then it must be obvious that when one speaks of this kind of financing he isn't speaking of financing for every income group. This type of financing is intended for that bracket of income families which is just about the ceiling of the public housing groups. We take that ceiling and we raise it up and raise it higher and higher.

That should apply, just to use a rough figure, to housing units which cost \$4,000, although it would be very difficult to draw that line at any time in any place. I might remind the audience that in the last war, when there was no rent control and no occupancy control, courts frequently had to resort to suspending judgment for evictions at the pressure of speculative landlords because of the fact that tenants had no place to go, and if it had not been for that favorable action of the courts, people would have been in very dire plight, indeed. That was in the last war. Many instances arose of tenants finding themselves ordered out of houses with no place to go. One of the very purposes of the long-term amortization mortgages that I mentioned this morning is to protect those people in the right of the occupancy of their own homes. These people are caught between the upper millstone of mortgage debt and the lower millstone of house insecurity and they have a choice to make. They must choose between the two. If they choose to remain in mortgage debt, you cannot blame them.

As to how drastic a change it would be if you lengthened the amortization from 25 years to 45 years, I should like to say that the Federal Housing Administration has furnished me with a figure of what it would take to pay off a 45-year mortgage per month. The figure was at a $4\frac{1}{2}$ per cent interest rate. That rate was \$4.50 per thousand, not \$4 as I had hoped to get. I think that the present rate per thousand is \$6. That difference, the difference of \$6 or \$7 or \$8 per month, is of enormous importance to the class of people of whom we speak.

I might say that it is significant that not only the group of which I happen to be a member offer this plan but that the Housing Committee of the UAW-CIO has it, too, in its platform.

DR. FISHER: I think I have succeeded in making myself misunderstood. That is one of the liabilities that you undergo when you try to make a two-hour speech in 30 minutes. I had to be too compact. I tried to set out the four or five criteria by which the mortgage term should be determined and the one that I left out purposely and referred to in passing was the relationship between the debt service and the borrower's income. I did not mean to say that there should not be a relationship between the mortgage debt service and the borrower's income. Obviously there is. One way to reduce the monthly carrying charge, whether the mortgage term is 10 years or 40 years, is to reduce the price of the house that you buy and the amount of mortgage that you become involved in. That is the point at which the borrower's income becomes the major consideration, in considering the price he pays and the total amount of the mortgage.

One purpose for which the extension of the mortgage term can be used is to induce people to buy houses at higher prices than they ought to pay compared with their incomes. First I would start out with a determination of the price which a given income justifies, and then I think you will find that in the period of between 20 and 30 years the ordinary purchaser can liquidate his indebtedness at a monthly payment figure which is favorably comparable with rent.

I said also that another criterion to be used in determining the mortgage term is that period of time over which the capital ought to be liquidated. I do not know in investment properties many cases in which people would invest in rental properties that would not return the capital within a period of twenty to thirty years. As a matter of fact, they will try to get it down to fourteen or fifteen years. Well, somewhere in the area between 20 and 30 years these two factors seem to coincide, the normal rental value of the property with the monthly carrying charges and the period over which the capital might well be expected to return to the owner.

THE CHAIRMAN: Are there any more questions?

MR. WOOD: Do I interpret this discussion to mean that rather than to wait for a national program we should handle the thing locally as we find an intelligent solution?

MISS LASKER: May I ask Mr. Nelson a question? Mr. Nelson frankly states, quite properly, that he is particularly interested in urban redevelopment and is not particularly concerned with the provision of low-cost housing. On the other hand, he demands the abolishment of our federal low-cost housing program. I should like to ask what assurance does he make to us what provision will be in his plan for low-rent housing.

MR. NELSON: Miss Lasker, I think that the public housers and you and others who feel as you do about having public housing will have to carry that flag. I feel that in these redevelopment areas there may well be a place for that kind of housing, but I don't conceive it to be my job, as the representative of private enterprise, to get out and work for public housing. My job is to do the best we can with private housing. If you feel that there should be public housing, your job is to see that that is done.

MISS LASKER: I think you misunderstood my question, or at least I did not get an answer to it, so may I frame it in another way? I will accept your plan for the sake of argument. I will accept, also for the sake of argument, that the public housing program has not done what we hoped it would do. I don't happen to accept either of them fully, but this is for the sake of discussion. Now we will accept the urban redevelopment plan and we will no longer have public housing in the sense of the word. You feel that there is no responsibility on the part of redevelopment companies to build low-cost housing. We must get it in some way. We won't get it by public housing any longer.

MR. NELSON: The urban redevelopment program, Miss Lasker, is primarily a program for the recapture of blighted and slum areas and clearing them off and replanning them so that they may find a new and productive and good use. What those uses shall be I think lies within the determining of each community, and if there is to be some public housing in those areas, that is for each community to decide for itself.

THE CHAIRMAN: That is all.

... The meeting adjourned at four-thirty o'clock. ...

THURSDAY EVENING SESSION

MARCH 9, 1944

The meeting convened at eight forty-five o'clock, Mrs. Dorothy Rosenman, Chairman, presiding.

THE CHAIRMAN: When the National Committee on Housing decided to have a conference we set down on paper the names of the speakers whom we would like to have. We pick the best in the land, and on some subjects we had to do a lot of searching before we were able to put down in black and white the name of the man next to the subject. We set a very high goal, and the testimony to the fact that the goal has been achieved is your presence here in such great numbers. The sixth that we set down were the speakers for this evening's conference and we were hopeful that they would accept, but we knew we were reaching pretty high, and with much timidity I called each one of them, and I am very happy that they set the pace which the rest of the speakers followed.

It is a great pleasure for me to be able to present to you gentlemen who can set the pace against which all housing must turn, the pace of the financial position of this country in the post-war era. It is with great pleasure that I introduce Mr. Beardsley Ruml, whose activities and whose imagination and whose thoughts are, I am sure, familiar to all of you. Mr. Beardsley Ruml. (Applause).

MR. BEARDSLEY RUM: Madam Chairman, Members of the National Committee on Housing: No matter what special axe a speaker has to grind, he is sure to have something to say about the way housing is related to his subject and, therefore, about why people who are interested in housing ought to be interested in him. If he is a clergyman with a plea for morals and religion, he will point with pride or chagrin at the housing of the people. If he is a physician or a public health official, housing will be a key to many of his problems. The banker and insurance man looks to housing to provide him with better or worse mortgages and always a good rate of interest. The retailer looks to more and better housing to set higher standards of consumption. In fact, all special interests find a meeting ground in housing; and so, while all will agree that housing is almost as fundamental to our well-being as the home itself, all are busily engaged in tearing the subject apart in order to make some fraction of it serve a more particular and personal special interest.

This, of course, is not true of those rare individuals who are concerned with housing in the abstract, as a thing in itself, to be contemplated as "pure idea." But the number of such persons is not large, certainly not large enough to fill this room, and, therefore, as one who has a special interest in a special problem, I do not feel embarrassed or alone.

My own special interest is in post-war national fiscal policy because I am convinced that fiscal policy will have a great deal to do with getting and

keeping a high level of employment and production in the years that will follow the war. That is why I am talking about "Financing the Future," that is to say, the role of fiscal policy and fiscal administration, at this meeting of the National Committee on Housing. I believe that a vigorous and understanding interest on the part of people generally in better housing will help the country to a constructive fiscal policy. I believe this because I know that a constructive fiscal policy is indispensable if we are to house the people of this country according to acceptable standards of health and decency which, with efficiency and economy, we all know we can well afford.

Many people throw up their hands when the problem of fiscal policy is raised and say, "Fiscal policy is over my head. This is unfortunate, and by and large it is not true. The technical methods of carrying out a fiscal policy may be difficult to understand; the basic principles of a national fiscal policy are not.

A doctor friend of mine, some years ago, told me that if a patient was suffering from both tuberculosis and diabetes, the proper procedure is to control the diabetes first. "First control the disorder of metabolism, so that the body may be properly nourished and that it may help rather than hinder the attack on the second disease."

This rule of medicine can be extended to a wider field. The body politic has long been suffering from undernourishment, caused in large measure by disorders of fiscal program. This undernourishment has brought with it restrictive practices that lead inevitably to government-controlled monopoly, class prejudice and international tension. The first step is to control the undernourishment, and to make sure that the life blood of purchasing demand is adequately maintained. Only then can we truly appraise the nature of the other evils that afflict us; only then can we decide with confidence on the other measures that ought to be applied.

Business wants a fiscal program that will help it create good products, good jobs and good investments. Business does not expect a national fiscal policy to do the work of business for it. It does ask for cooperation in maintaining a flow of purchasing demand that will have some general correspondence to what agriculture, labor, and business are able to produce and distribute.

Business knows that fiscal policy alone cannot produce a healthy condition of high employment and high production. In addition to a sound fiscal policy, there must be government stability, protection against illegal aggression, confidence in the outlook for profitable relationships between volume, costs and prices, access to markets and to the means of production. But the fiscal policy here suggested will aid strongly in getting the high production and high employment we all want; and it will also check tendencies toward restrictive practices that spring from fear of insufficient effective consumer demand.

To help stimulate discussion of post-war national fiscal policy, I have drawn on a number of sources and put together a suggested nine-point post-war national fiscal program. I am not going to repeat the nine-point program since it has been widely published and you are doubtless informed as to its basic proposals. I should like, however, to comment in some detail on the

Second, Fifth, and Sixth points, since I believe these will be of particular interest to this Committee. These three points must be understood against the background of Point No. 1, which is as follows: We want no public spending for its own sake and no projects merely because they support purchasing power in general. Let us base our budget estimates on the efficient and economical carrying out of worthwhile activities to accomplish our national purposes.

Point No. 2 calls for a reduction of tax rates to the point where the budget will be balanced at an agreed level of high employment. We do not want a deflationary tax program at times of less than standard high employment. This means a drastic change in our whole attitude toward federal taxation.

First of all, we must be clear that when we speak of a balanced budget, we mean the whole budget, not a special section that excludes many important financial transactions. And by "balancing" we mean income and outgo that will be as nearly as possible neither inflationary nor deflationary in the effect on national income.

Next, it must be understood that we are thinking of a budget of about eighteen billion dollars, outside of social security which should be separately financed. We must realize that we will move on to a new budget level after the war, and we must have high levels of employment to support it soundly.

Third, we must have some notion as to what we mean by high levels of employment. Opinion today seems to be centering on the figure of 55,000,000 workers at a 40-hour week as being a fair standard for high employment. It might be a million more or less, depending on a number of assumptions as to what is likely to happen. The figure can hardly be less than 53,000,000 or more than 57,000,000. Mr. Paul Hoffman, of the Committee for Economic Development, and Mr. Philip Murray, of the CIO, have mentioned goal figures within this range within recent weeks. Expressing this concept of standard high employment in dollar terms, this means a national income at present price levels centering around 140 billion dollars. It is against this national income that we should set our tax rates to produce revenue to balance an eighteen billion dollar budget.

It is obvious that under this policy large immediate reductions in tax rates should be made when war demands are satisfied. Present rates will produce over forty billion dollars at high employment. The question of *what* rates should be reduced and *how much* is an exceedingly delicate political and economic problem. I hesitate to give an example to show what might be done, and I definitely do not at this time give this example as a recommendation. However, if we retain three billion dollars of income from the major excises, chiefly tobacco and alcohol, the federal tax on corporations could be reduced to 5 per cent, and the individual income tax could be reduced substantially—probably as much as one-third in the aggregate—and we could still raise eighteen billion dollars, even at present price levels. (Such a budget might still be deflationary because of the character of the expenditures contemplated and further reduction of tax rates might well be in order, depending on other fiscal and monetary considerations.)

This, then, is the significance of the Second Point. Such reduction of tax rates will be a powerful and immediate restorative of normal peace-time

demand, which controls itself when standard high employment has been attained. It is one of the two giant arms that will lift us to high peace-time production and that will keep us there.

A word should be said about the problem of the national debt after the war. Several groups are studying this question, and I think it is fair to say that as of today there is little final that can be said, except that the catchword solutions are probably wrong. Certainly the problem will not be solved by a fixed amortization every year, nor can it be dismissed by saying that the debt is of no importance because we owe it to ourselves. On certain points, however, I think we can be fairly clear. First, the principal of the debt will be paid off or refunded as it matures at one hundred cents on the dollar; second, the interest charges on the debt are more significant than the amount of its face value; third, the debt should and ultimately will be handled in a manner to support the prior consideration of high employment and high production. I do not see any insuperable difficulties associated with the problem of the post-war federal debt.

Point No. 5 of this program refers to public works. I want to call your attention particularly to the importance of public works planning as a means of lowering costs in the construction industry, and thereby increasing the available housing to the people generally. The importance of public works as an element of fiscal policy is well understood. Much has been said and written about public works as a means of providing employment and of evening out the business cycle. Lately we have become familiar with the phrase "a shelf of projects" to be ready if business should become depressed.

We must not expect too much from a public works program as a general support for high employment. If we believe in the policy of no wasteful public expenditures and no spending for its own sake, the administrative and technical difficulties make proper timing extremely difficult, and reduce the potential volume well below the requirements of a true depression. Public works alone cannot do the job. The most we can expect, and this is no small gain, is that public works can be planned and undertaken in such a way as to even out the activities of the construction industry itself, thereby providing a reasonable level of construction throughout the year and year after year. Some rough approximation could be made of what aggregate employment in construction would be suitable over a period of years, and, to maintain the desired volume of construction, public works might be undertaken when private construction fell off.

What level of employment in the construction industry should we take as a long-time normal? The suggestion has been made that we might take as a rough standard the average rebuilding of our physical plant once a generation. This suggestion has the appeal of picturing each generation turning over to the next generation new, modern structures instead of old, outmoded houses, schools, and factories. It has been estimated that such a program would require about 8 per cent of the national product and would keep 6,500,000 men employed on and off site; but this figure should only be taken as a preliminary approximation.

It is important to have some such standard, both to indicate how far we ought to go in bringing forward the scheduling of public works planned for

future years, but also to restrain us from avoidable public expenditure for construction at times when private demand is extremely high. It is likely that immediately following the war, and for some years thereafter, we shall have a considerable boom in private residential building. It may well be that this boom, together with industrial demands and public works that cannot be postponed, will be more than sufficient to carry the construction industry to a standard normal. If this should happen, and if at the same time there should be substantial unemployment, there would be a temptation to accelerate postponable public works, even though a full quota in the construction industry had already been reached. Barring local situations and public works actually urgently needed for public safety and welfare, it would be wiser to hold back public works, in spite of the presence of some unemployment, and it would only make the business outlook worse to create so high a level of employment in the construction industry that it could not be maintained, a level that would say to all who could hear, "Crisis ahead!"

This stabilization should be attempted not only for the country as a whole, but also regionally. The full requirements of stabilization will not have been met unless the overwhelming majority of the workers in the construction industry are able to spend at least two days a week at home every week. This means that the planning and scheduling of public works must be done both in financial and geographic terms.

Taking everything into account, it seems to me unreasonable, indeed, I feel that it is reckless optimism, to expect that public works expenditures can be counted on as a balancing factor for the economy as a whole. However, if we could only achieve reasonable balance in the construction industry itself, a great deal would have been accomplished. Public works, indeed, would be the second great arm that would bring us to high prosperity.

A reasonably continuous level of activity in the construction industry within the year and over the years would greatly increase the efficiency of the industry and any given level of employment would yield a larger and larger product as the years went by. The traditional recurrent idleness of men and equipment in the construction industry has forced, for sheer survival, the adoption of cost-increasing practices which all deplore. These practices, I feel sure, can be largely eliminated once the industry comes to have confidence in continuity of activity. But as these practices now exist, they are a serious obstacle to the use of the construction industry as a publicly-supported agency for employment.

It is, indeed, difficult to justify large public expenditures today to support the construction industry at a high-stabilized level while it is operating under existing restrictive practices. Nor is it likely that the construction industry will change on its own initiative. In fact, a commitment on the part of the Federal Government to see that a high level of construction is held year after year would tempt into the industry a new following that would leave the industry on a stabilized level to be sure, but with most elements only partially employed and with costs as high as ever. The industry would still be pricing for idle time, and the government and the public would still not be getting their money's worth.

As you know, I have felt for some time that a program for stabilizing the

construction industry through the use of public works should be preceded by a thorough congressional inquiry into the industry, with recommendations that would result in its reorganization. I am not thinking of an inquiry that would be a witch hunt or a persecution of the industry. I am thinking of an inquiry of the scope, dignity, and competence of the National Monetary Commission, following which the Federal Reserve System was established. It is possible that such an inquiry would find that certain of the restrictive practices of the industry should be continued even under high stabilized production. If so, they should be sanctioned by law and supervised by an appropriate regulatory body. Let me be clear, if, and to the extent that it is found that the restrictive practices of the industry should be continued under high stabilized production, they should be sanctioned by law and supervised by a regulatory body.

The construction industry, stabilized by public works' expenditures and regulated in the public interest, would be a very different industry from what it is today. It would still be competitive, just as the radio or the banks or the airlines are competitive; it is possible that the industry would be even more competitive than it is today. Certainly, earnings of workers would be larger and profits would be higher. The dominant factors in the industry would turn to innovations and economies as their way of bidding for a larger section of the construction pie.

An industry that is looked to for 8 per cent of the national product is certainly a matter of national concern. Over the ten years following the war between 30 and 60 billion dollars in public funds will be spent in construction. The industry is indispensable as a source of essential public works, of housing and transportation, and as an outlet for the investment of the people's savings. The industry should be given a chance under the law to reorganize for the most efficient service to the community as a private, competitive, regulated construction industry.

Obviously, the National Committee on Housing has a special interest in a more efficient construction industry. Lower-cost construction means better homes and roomier homes for more people at lower prices. The costs that have gone into the house to pay for idle time should be transformed into the home as better living.

Now is a particularly good time for a congressional inquiry into the needs of the construction industry. There is today no scandal that would obscure real problems and result in distorted legislation. Further, in the period immediately after the war, the industry will probably be in a fairly healthy condition as far as demand is concerned. During this period the inquiry could go on without the presence of crisis in the industry forcing premature judgments.

There is an opportunity for the pattern of the construction industry to be redrawn in the years immediately ahead, resulting in a new pattern that will give stability and order to the industry; efficiency, modernization and lowered-cost industrial and home construction to the public; and sound public works programming to federal, state and local governments.

The suggestion for a congressional inquiry into the construction industry should not be used as an excuse for delay in the preparation of detailed plans and specifications for federal, state and municipal public works. Experience teaches us that the practical circumstances of getting work under way make

it desirable to have plenty to do. If a Commission of Inquiry should be appointed, its report would be many months in preparation at best. Nor is it likely that action would be taken on such a report after it was issued until after much debate, discussion and popular education. In spite of great potential long-time benefits, we must recognize, I think, that such a Commission will be of little practical value in the immediate post-war period, and public and private construction will have to accommodate their plans to each other as best they can, but in any case, the more good plans we have ready, the better all around.

It has been obvious for a long time that a public works program to be an effective tool of fiscal policy must rest on a reasonably clear understanding as to the relation of federal, state and local interests and responsibilities. To think clearly about public works, we must be clear on the general problem of national, state and municipal relationships with respect to functions, services and burdens. On these relationships we are far from clear.

Sooner or later we shall have to decide what social standards and what public services are the proper concern of what level of government, and arrange our financing accordingly. There is no solution for local tax problems in shifting the burden from real estate to consumption and back again, and, although we must exercise every measure of efficiency and economy in carrying on the worthwhile activities of the municipality, we must not expect too much from mere economy as a means of large-scale tax reduction. We must re-direct our attention to the problem as a whole. After all, I am at one time a citizen of the nation, of the state and of the city. In one way or another I pay all the bills. These are not three levels of government competing for my money in order to serve me, but it is Me divided against Myself unable to have the things and to do the things I know that, with economy and efficiency, I can well afford.

High statesmanship is required to re-integrate my shattered tax-paying personality and to restore my perspective as to my pluralistic citizenship. If I can only find out who I am and what I want, I feel sure that I can have and enjoy most of the things I really need.

Point No. 6 suggested that the social security programs be neutralized as far as their fiscal influences are concerned. Up to the present time they have been highly deflationary. We all recognize that the attainment of high levels of employment will still leave many individual men and women in need. A modern industrial society with its enormous productive capacity can give a certain minimum protection to the individual citizen against the occasion of unemployment destitution in old age, accident, and disease. It can assess the burden of this minimum protection with reasonable fairness against the aggregate national product. I do not believe that such humane provision will weaken our energies or our ambitions, nor do I feel that we require the spectacle of fortuitous human distress to teach us the wisdom of avoiding error and evil, but whatever provision for social security is adopted as public policy, let us be sure that in financing it we aid rather than hinder the gaining of high employment, which is, after all, the best social security for most people.

There are two difficulties in talking about the period that is to follow the war. In the first place, no one wants to give the impression that dreams about the future are being permitted to distract thought and energy from the para-

mount job of winning the war as speedily and as decisively as possible. The second difficulty in talking about the post-war period is that what is intended to be analysis may be interpreted as prediction. I think I can explain what I mean by an illustration.

Suppose I should tell you that when I get back to New York I am going to draw a triangle on top of my desk, and suppose I should ask you to tell me about that triangle. There are many things that you cannot know about my triangle. You do not know what shape it will be, nor do you know its size, except that it is certainly smaller than the top of my desk, and so you can go on to other statements about my triangle. You know that the sum of the angles in the triangle add up to 180 degrees, or you should know. You know that the longest side is opposite the widest angle. You know that if the sides are equal the angles are equal. There are many other things that you know about this triangle—knowledge that does not come from the facts about the particular triangle that I am going to draw, but that follow necessarily from the points and lines and angles that occur in every triangle, including the one that I have told you I will draw on the top of my desk tomorrow morning.

In the same way, without predicting what is going to happen, we can draw certain conclusions as to necessary relationships that must exist in the post-war period. For example, we must either have 55,000,000 people employed or we shall almost certainly have so many people looking for work that we shall have a problem of mass unemployment. If we have 55,000,000 people employed, we shall either have a national income of 140 billion dollars, or we shall have an average work week of less than forty hours, or we shall have a price level lower than it is today. Thus, if we make certain assumptions, certain conclusions inevitably follow. If you assume a national income of less than 140 billion dollars, you must also assume one or more of the following conditions: mass unemployment, an average work-week of less than forty hours, or a price level lower than it is today.

The practical fact is that we can have tolerable social and working conditions in this country only at higher levels of prosperity than we have ever known. These levels can only be reached by the hardest kind of work, the most imaginative planning and cooperation among all special-interest groups.

The solution of the prosperity problem would have a significance extending far beyond our own borders. Plans for world economic relationships have recently received a great deal of governmental attention and public discussion. For the success of all these international plans, a high level of employment and production in the United States is everywhere conceded to be indispensable. With high prosperity, we shall require large imports of raw materials, and we may even welcome the economic advantages to ourselves of lower tariffs on foods and manufactured goods. With high prosperity, we shall be less greedy for foreign outlets to take up low-cost excess capacity and we will be more willing to see our exports directed to the world's essential needs.

The critical program for high prosperity for the United States has been too little emphasized in official circles. The Baruch-Hancock report, reassuring as it is, does not go much beyond saying that the government should pay its bills promptly and move along, always taking the national interest and the human element into account. This is good as far as it goes, but it leaves much im-

portant planning still to be done by others. Both the Senate and the House have committees that are studying the problems of peace-time reconstruction. This, too, is good, but I doubt whether effort to date is proportional to the task. The problem of domestic recovery and long-term prosperity should no longer be so neglected nor should it be relegated to the private agencies of agriculture, labor and business. Much as these private agencies can and must do, they cannot do all; indeed, they cannot even do their part without proper governmental leadership and cooperation.

We must succeed at home if we are to succeed abroad. Our great contribution to world peace and freedom can only be made if we are able to use our unparalleled advantages in establishing here at home a high standard of prosperity and democracy. (Applause)

THE CHAIRMAN: You have heard the framework and you will probably have some questions about that framework. The framework has been set against which the master builder will have to build. There is no one in this country who can set the pace for that building with greater enthusiasm, with fuller words or fuller emotion than our next speaker, and you need to have no introduction of him. Mr. Henry Kaiser. (Applause)

MR. HENRY J. KAISER: Mrs. Rosenman and your Board of Directors, Mr. Blandford, and to all of you who have honored them so by coming here: I am anxious to talk to you personally before I talk to you as seriously as I want to talk to you.

You know I have been asked a question many, many times, and it has always been difficult for me to give an answer to the press. They have said, "Now, Mr. Kaiser, just what is the secret of this that you have done?" What is the secret of this that you have done? I have never answered that question, and tonight I am going to tell you the secret. It is very simple and it is very close to all of you. It is a home. That is the secret. (Applause) Someone has said sometime, somewhere, that God could not be everywhere and so He made mothers, and I was in a home of a mother, simple as it was. There were five of us and I don't think the family income could have been over \$5 a day, but it was a home and it was there I learned the secret of every single thing I have done.

I have had two homes. I am sorry that Mrs. Kaiser could not be here tonight. She would have liked to have been and I would have liked to have had her, because I should like to have given her the credit for the home that I now live in, which again is one of the secrets. I know that some times she is a little severe on me. (Laughter) I am looking into the faces of a lot of husbands and I think they will understand what I am saying.

She said when I left, "Now, daddy, just what are you going to do in Chicago when you are there alone?"

I said, "Well, dear, I am going to talk."

She said, "Listen, I am losing confidence in you. I am tired of your talking. It is about time you did something." (Laughter)

That is absolutely true. She meant it. She is losing confidence. She wants

me to do something. Now you can all understand that. She would say the same thing to you if she were here. She might be referring to all of you.

I am also indebted to a home because I have sons who to me are a gift from God. I can't tell you how many sons I have because in my home there are hundreds of them, young men, willing, eager, anxious, and I know that they are going to contribute to the future. I have faith in them, faith in all of them, and if I should fail and if you should fail, don't be discouraged. They will pick up where we left off and carry on. Be sure of that. Depend upon it, not only the youth of our land that is here, but the boys who are fighting to come back to the thing that you and I must do for them.

Now I could go farther. I could tell you that I was in the home of Mrs. Rosenman and there, too, I saw a mother, and there, too, I understood and knew why it was a delight for me to come here and be with you. I want to talk about her a few moments later. I will talk now a little about my arrival here. It was so very interesting. I came in on the train this morning, and the first thing I experienced was an argument between an industrialist and a red cap as to who was delaying each other. (Laughter)

I was reminded of the story that I have heard someone tell somewhere about the sign that the railroad company had, which read, "Please be kind to the red caps; customers we can get." (Laughter)

Then I got into a taxi. I thought I was getting into the taxi all alone, but there was a big argument about how many should get into the taxi. When it ended up it was a question about whether there was room for five and all the baggage, but that was finally disposed of. I had a grand time. This has been a thrilling day. I have enjoyed it tremendously. It was settled all right. I didn't have to do anything about it. They finally settled among themselves how many should get into the taxi and how much space there was and how much baggage there was.

Finally I got to the hotel. Then I came to the session and I attended the session. Well, there seemed to be some arguments in the session. (Laughter) Perhaps you heard some of the arguments that went on in the session this morning. They did not all appear on the surface, but nevertheless they were there.

When Mr. Blandford spoke at luncheon this noon, the striking thing to me that I think each and every one of you should remember was that he spoke of unity. We all love this young America of ours. We will not do anything about it, or we will not accomplish a single thing, and we will be in desperation and despair if we do not understand the word "unity." I am thrilled with the idea that this is of interest here. If I could do one single thing I would convey to the heart of each and every one of you that unity is essential in this all-important work that you are about to do. It is needed everywhere. I think I have explained it was needed today. It was needed this morning, and it is needed everywhere.

Just before leaving the Pacific Coast two weeks ago I was having a conference with one of the executives in our organization, who carries heavy responsibility for a young man thirty-six years of age, and the day had been particularly trying for him and life in general and the Kaiser organization

in general seemed to be highly complicated. In other words, he was decidedly low. I was decidedly high. I was leaving all the problems with him. (Laughter) So before I departed I said to him, "Now isn't this a wonderful organization? Every member of the staff is free and none of them have to punch the clock. Everyone does just as he wants to do and everyone is his own boss. Have you ever seen such freedom in your life?"

He shook his head with some misgiving and he said, "Good God, yes, what freedom! It is magnificent, but what a responsibility!" (Laughter)

Now I was recalling this incident this morning as I turned over in my mind what I should like to say by way of greeting to the gracious lady who presides over this conference. I really wanted to give her a word of encouragement and appreciation, and no matter how much I tried, this word "responsibility" completely occupied my thoughts. I do not know of anyone in the United States today who has voluntarily taken up a greater obligation than the one Mrs. Rosenman has now assumed, for housing clearly holds first place among the prospects for post-war employment and is among the greatest challenges to every American citizen. The overall conception of the post-war housing needs is due in no small measure to her own thoughts, her own persistence in assembling and making known the facts and to the splendid work of her loyal, hard-working committee.

For your information—I am not supposed to repeat this. This is confidential and secret. I am used to this secret, confidential business, you know, but for your information, she told me today that she started with \$400. That was a big budget for post-war housing (laughter), and so once more I can hear the voice of the young man in California saying, "What a responsibility, to be charged with the direction of an effort that will mean the livelihood of literally millions of our citizens," and it is a trust which few individuals would care to execute. It will be on her heart and mind day and night, waking and sleeping. It is a burden that she can neither lay down nor delegate. It will call for all the nerve and sinew and spirit which are essential elements of leadership. You see, I am giving the same kind of a talk I gave to the boy. I would be a false friend, indeed, if I spoke only of the demanding requirements of the task to which she has set her hand.

I know—and I am telling you that I know—that she can do this job and I know that she will do it, and I know some men, who rejoice in their strength and who hold that women are not endowed with executive capacities, would like to play the role in this drama of creating opportunity. It was at her insistence that I took time to survey the potentialities in the housing program. I have not only been enlightened, but I have been astonished. It is so vast that it transcends our powers to comprehend the good which it could do, and it rests squarely on a social principle, namely, that our society must provide a decent standard of living for all who are willing to take part in producing a high national income.

You heard Mr. Ruml say tonight what he thinks about national income. He does not know what I think about it. He is a pessimist. (Laughter) Yet it in no way ignores the right and obligation of the individual to do for himself, to provide in so far as it is humanly possible for his own security and happiness, and everyone of you here knows that there is no greater free enterpriser

in America than myself, but I do believe in privileged enterprise, so here it stands in bold relief, the No. 1 design, and you are a part of it, for wholesale employment, the major avenue of escape from the scourge of a post-war depression, a glorious adventure, a self-sustaining welfare. My God, what a responsibility for all of you!

More than a year ago I ventured to say that the American people were suffering from an excess of theoretical post-war plans. Literally, thousands of individuals, and hundreds of organizations, have been drafting blueprints for the brave new world. We have grown weary of flights into Utopia. We are now ready to come to grips with reality and to work for the goals which are well within our reach.

We are all familiar with the fact that for centuries, business in all of its many forms has moved in cycles from extreme activity to critical inactivity. Unfortunately, there is as yet no evidence that we shall escape these oscillations, although we have made some progress in tempering their severity in both directions. Therefore, in so far as housing is concerned, it is a matter of extraordinary interest to observe that the building cycle in the history of American enterprise is unusually long. On the average, it is more than twice the length of the swings from prosperity to depression in industrial production and retail trade.

There is a lot of truth in the old saying that figures can be made to prove anything. Most statistics are tiresome, and I am often suspicious as to their worth. Nevertheless, the course of building activity has been carefully studied in this country since the Civil War. The swings in the building cycle are not less than fifteen years in length, and at least one, which hit a peak in 1905, ran for twenty years. To put it another way: building activity has increased over periods from seven to ten years, and then decreased for seven to ten years. It is the old story of Joseph's interpretation of Pharoah's dream—the "seven lean years," and the "seven fat years!" I would like to believe that our social and economic thinking is now so enlightened that we could say goodbye to the business cycle forever, but realism compels me to temper any such hope with a forthright recognition that we are not yet ready to march over a long plateau without any variations.

Building activity declined from the all-time high peak which it attained in the early 1920's, and dropped at an accelerated pace through the year 1932. Then the slow process of recovery began, and it was well on its way upward when the war overtook us. In 1941, residential building in all the non-war areas practically ceased; even repair work and improvements slowed down to a virtual standstill. However, in that same period, war housing set an astonishing record, which ranged from 813 contracts in Wyoming, to more than 200,000 contracts in California, for a grand total in all states of 1,750,000. No one will quarrel with the statement that many of the war-time housing facilities are purely temporary in character. Some, at least, will be dismantled, and the cost of maintaining others may well be prohibitive. In general, war housing was not intended to serve a permanent need.

In so far as peace-time housing is concerned, extraordinary changes are in process. The palatial dwellings which were built in the luxury areas of our cities and their suburbs are now a drug on the market. A few have been

turned into public services, such as schools, orphanages, and places of refuge for the aged, the wounded, and the sick. Some have been torn down, so as to obviate the burden of taxation. Still others stand only as monuments to an epoch when the extremes between poverty and wealth were all too obvious.

We have entered the century of social consciousness when the rights of all are recognized—a fact for which we may well give thanks. The progressive spirit of America understands that everyone who is willing to work and to save has the right to be decently and comfortably housed. In the light of this truth, it is time to frankly face the fact that a very large number of residential districts in our country are out of date, and that many more are altogether unworthy of the American standards of life.

Furthermore, statistics prepared for the National Committee on Housing should give us grave concern. They show that the median income of our urban population is well under \$2,000 per year. There were also findings of serious import concerning low income housing in the Hearings of the Temporary National Economic Committee in 1938. There is stark reality in the fact that no new homes were built for families earning less than \$1,000 a year; and adequate housing was constructed for only a fraction of 1 per cent of families earning from \$1,000 to \$1,500 annually.

It is not enough to say that this situation is solely the concern of the government. No matter where the responsibility lies, housing must be provided. It must be carefully planned and properly financed. *It can be done!* The task will be accomplished in some part by individual initiative. But the undertaking is so vast that there must be a joint effort in which the Federal Government, states, municipalities, banks, labor unions, insurance companies, and industry take an active part.

May I venture an illustration from personal experience? Recently we built a complete city in 90 days, in which 35,000 people are housed. At this very moment, certain of our organizations are planning confidently for another city on a larger scale, which may be located on a beautiful waterfront near one of our industrial operations. This conception came from the mind and heart of one of our young executives, who is operating four shipyards! He calls it his "dream city." In it there will be room for light and air, those basic essentials to healthy, happy living. The broad streets will be lined with trees and flowers; nor will they be marred by any overhead electric installations. From parks and playgrounds will come the laughter of happy children. On athletic fields men and women who have worked all day, on what are often the monotonous routines of technological production, will find recreation in the games which all Americans love to play. In schools designed to stimulate and encourage learning, there will be the advantages that modern education knows how to present. Churches, planned for the dignity and beauty which all worship implies, will provide for that religious freedom which is a tenet of our political faith. Health centers not only will make available preventive and curative medical service, but will offer the facilities and the counsel for prenatal care, child-birth, and the rearing of children.

Every home will stand on a plot large enough to invite and encourage the development of a garden—and may I pause long enough to remember a rare fragment, from the treasures of the English countryside:

"The kiss of the sun for pardon;
The song of the bird for mirth;
You are nearer God's heart in a garden,
Than anywhere else on earth."

Within the framework of thoughtful planning, there will be room for individual tastes and choices as to construction, form, line, and color. In the winding boulevards, the circles, and the plazas, there will be that artistry that makes for beauty, and consequently for well-being, and best of all, this is a realizable ideal. It is no flight of fancy. I expect to see *it* and many others completed.

Out of the shambles of war in England, Russia, and Europe, there are certain to arise new cities—modern, safe, efficient, and beautiful. Can we afford to be laggards in such a march of progress? Obsolescence, depression, and the advance of technology are joining with new conceptions of social justice and public welfare to render our cities not only old-fashioned but antiquated, and I am confident that these, too, will be replanned and brought nearer to that perfection of which America is worthy.

A great deal of thought is now being given to population trends and their influence upon our social and economic institutions. Unfortunately, the studies present a good deal of contradiction and inconsistency. One research agency states that the population of tomorrow will be older, that the families will have fewer children, and that we may witness a period of static, or even declining birthrate. Such prophecies are sufficiently dubious to merit at least skepticism. If living conditions in America even approximate that which is now potentially possible, our population could show a substantial increase in the next decade.

But there are some things of which we are certain. The total number of wartime marriages is well above the average marriage rate. Thousands of our fighting men have left their brides at home with their parents. The whole tendency since the depression of the early 30's has been for families to share their accommodations with their immediate relatives. But when the war is over, there will be a spreading out, with extensive requirements for separate dwellings. The consolidations of households during severe unemployment and wartime is a well-known phenomenon.

Another thing we know, to our sorrow, is that a considerable segment of the American people have *never* been decently housed. Their earnings have never been sufficient to provide a dwelling worthy of the American home ideal. If industry has the courage and the resolution to organize, expand and exploit production so as to raise the income of every willing worker, this housing goal can be accomplished in far less time than we dare to forecast. Many of us are aware that the extent to which we fail to meet this challenge will be a direct invitation to the Federal Government to take over the job which is fundamentally our own. For we have moved forever into that zone of social responsibility where rights cease to be abstract, and where every responsible citizen can claim his share of that prosperity which is made possible by the very social organization of which we are all a part.

As regards the future, there is an interesting correlation between inadequacy, obsolescence, and the dislocations of war, with the fact that the long-

term upward swing in building construction was checked at the halfway mark on December 7, 1941. Everything is propitious for a revival of building activity which can well be unparalleled in the history of the United States. Chief among the factors just enumerated is the will of the American electorate to bring the opportunity for respectable and comfortable dwellings within the reach of every citizen who is willing to make an honest effort to contribute to his own, and to the national well-being.

In the interests of being practical, as well as idealistic, it may help to review the essential elements in the upswing of the building cycle: abundant labor in all degrees of skill; building materials, both traditional and novel; land values which are neither inflated nor depressed; employment at good wage levels; and a general expansion of economic activity. It is a fact that this building cycle is almost irresistible. The upswing is as strong as it is long; nothing but a major disaster like war seems to stop it.

As to men, skill and materials, there is no problem. The old standbys: stone, concrete, steel and wood, lime and plaster, are quite apt to survive all of the innovations. Nevertheless, new adaptations of light metals, plastics and other synthetic substitutes are sure to be employed, and provide improvements which defy imagination. As to the methods of construction, many modern homes will be built with stone, brick, and timber, after the established practices of the building trades. Unquestionably, some houses will be prefabricated and delivered to the building lot ready for assembly; also portable dwellings, easily set up and dismantled, will be available for pioneers and transients seeking new opportunities.

How far these new developments will go, it is not wise to predict. Prefabricated houses might provide as little as 5 per cent of the total during the first five years of peace. But prefabricated units are a different story. In the *Ladies Home Journal* for January of this year, Richard Pratt, the architectural editor, gives us a stirring preview of the possibilities: a bathroom "completely prebuilt and equipped, would come ready to be fitted into its pre-planned space and be fully connected within an hour." (It certainly is within my conception to believe that some day people will be rewarded as much as \$30,000 just for the design of a kitchen, so that the kitchen will be built and prefabricated and moved into place and be a means of economy and an abundant place and a healthy place for food and for the things and the comfort that the housewife needs.) Such a room, cast almost in one piece out of plastic, is no idle dream. From what we now know about the economies of mass production, it is reasonable to suppose that the cost would be one-half, or even less, that of present installations. The same unit construction will in all probability be available in kitchens, laundries, bay windows, sleeping porches, and even garages. The prefabricated unit will enjoy an immense popularity, and the economies will be substantial.

Many of you may fear that labor will oppose such a situation. I do not fear that. I believe that labor knows as well as we know, as we industrialists know, that the unity of joining together for a purpose which is for the good of all is necessary, and my experience with labor—and God knows we have 300,000 of them—means that I am never fearful that when I have right on my side and have time on my side and understanding and good will and fellowship,

I will have any difficulty whatsoever convincing them of what is necessary and for the good of both of us.

Furthermore, we are assured that there will be no repetition of that drab similarity which characterized the unhappy period when our forebears built block after block of brick and stone shelters which had no more individuality than dread monotony. We smile, but with a touch of something more than mere amusement, when we remember the monstrous creations of that epoch in American architecture which is sometimes called the "gingerbread era." Today our architects, city planners, and builders are not only ready, but eager, to build for beauty, as well as utility.

As regards financing, we have also come a long way toward the ideal of home ownership for literally tens of thousands of families who have had no hope of achieving it under the conditions which prevailed in the last century, and we are looking forward to the next century. In a comprehensive program such as this conference offers, I need not review the financial agencies which are now available to the common man. If we are wise, we will make home ownership attractive; we will be certain that every home-owner has some equity in his property—the larger, the better—which he acquires for himself.

The dawn of the new world does not mean the indiscriminate scrapping of experience. The building of a home is in some respects comparable to the building of a life. One's heart has to be in it. Into the materials there must go the plans and the dreams that give home reality, and throughout the life of the structure there must be that patient and devoted maintenance which is an essential part of the cost, even though it is not reflected in the installment payments.

Again, if we are wise, we will encourage our people to shorten the mortgage period as often as the opportunity appears, for there is something in the full and outright ownership of property, and particularly residential property, that give stability and soundness to the social structure.

An eager America is looking to the organized real estate dealers, the American association of architects, the building trades councils, the associated contractors, the bankers, and the building and loan associations, to come forward with plans for a nation-wide building program. Profits, as important as they are in an independent economy, must be secondary to that degree of social vision which will provide a vast volume of employment for the huge army of men who are skilled in the building arts. Such vision would grasp those things which are in the realm of possibility, and even presume to recognize the good in human nature, rather than to emphasize its selfishness.

Modern American advertising, with its genius for eliciting responses to direct consumer appeals, could separate fact from fancy, but let us in such advertising be scrupulously honest with the American people. Let us not tell them that one type of construction is as good as another, unless it is a fact. If infra-red heating is not now within reach of the average home-owner, let us say so. Careless talk of unrealizable fancies could easily upset the normal cycle of post-war building, by persuading thousands of people to "wait until the new gadgets are ready."

One thing more about frankness in advertising: It should tell the whole

story. Many people in their eagerness to have new homes seem to forget that the cost of the dwelling does not include the cost of land and utilities; nor does it include taxes and upkeep. Perhaps if we hammered such points home, we could save a lot of foreclosures, in which everyone loses. I am confident of this statement.

The true American wants to pay his way. He would like to buy his medical service on a sound insurance basis, making regular provision for the unknown hazards. He would like to pay for the goods and chattels of his everyday life before they are worn out. He would like to choose his own styles in housing, as well as in clothing. He would like to deal frankly with his banker, without approaching him with his hat in his hand. He asks neither subsidy nor special privilege. We all depend, in a very large measure, on group organizations—the church, the fraternity, the labor union, the trade associations. Self interest leads us to pool some of our rights for the benefit of those with whom we are associated. All of us would like to believe that the doctors, the architects, the builders, and the bankers have some interest in our welfare. Therefore, I venture to say that any national housing movement should have the staunch support, and the active, aggressive planning of all those groups which have to do with the market for land and the stuff from which homes are made and equipped.

You will be interested in this. For months I have been listening to more or less expert estimates of the number of units of housing which will be required. I determined at last to make an inquiry which would give some tangible evidence and lend substance to our plans. We employed nearly half a thousand men to do this. We asked 91,000 people in our Portland yards 21 questions concerning their hopes for the post-war world. More than 80,000 replied. If I am correctly informed, this is the highest percentage of response ever received in so large a poll on any topic. I was shocked at the answers. I thought I knew a little about it. Question No. 8 read as follows: "After the war, what is the first thing for which you will spend your savings?" I knew it would be an automobile. Twenty-six per cent replied that they would buy a new home. Only 6.1 per cent of the total said that they had no savings and, therefore could not plan. Here is the astonishing fact: In the subquestion of question No. 8, we asked them how much furniture they would buy or would they buy furniture. One per cent of the 26 per cent replied that they would buy furniture. Isn't that a challenge? Doesn't that make you realize that the people want shelter, that our people want homes. They do not want extravagance. We think they do. We have just glancing perspectives of what our people are like. Now let us translate the partial results of this questionnaire into some more concrete figures. Sixty-five thousand two hundred war workers in the Portland area want to stay there if they can get jobs. Seventeen thousand of that number want to build homes. If they were able to do so, they would create more employment than the 65,000 now enjoy. This estimate includes not only the actual building, but the fabrication of all of the things that are necessary in home construction.

Let us take this factual statistical sample, in which there is neither padding nor caprice, and multiply it by the workers all over the United States, who are accumulating savings out of the war effort, and whose first desire

is to own a home. Then, let us go back to our discussion of the building cycle. All the portents are in our favor. The upswing in building activity is poised for a resumption of its advance. To the unmistakable need, there are now added those factors of hope which are the very substance of the new democracy, chief among which is the recognition that the great mass of our people should enjoy the national wealth which they help to create. Their desire for homes, and their present accumulations, could accelerate the cycle and bring it to an all-time high in building production. Has American industry, labor, capital, finance and government ever contemplated a more real and inspiring prospect?

We are all deeply aware of the needs of our fighting men. We are resolved that they shall have all of the sinews of war. The most gigantic production record in history now assures them on that score. Food, clothing, drugs, blood plasma, armaments, ships, planes, and munitions flow from America in unbelievable volume. I could spend one whole day talking to you about that, and it would shock all of you, because many of you, due to the secrets of war, know little of what the production really is and how it is proceeding. *But it is not enough!* These men must know—yes, in the very heat of battle—that they are coming home to opportunity. *In this we dare not fail.* Housing is one of the major prospects for employment. Present requirements, accumulations, and expressed desires, could keep millions employed for years. Can we do it? Will we do it? Do we dare to believe that IT CAN BE DONE!

. . . The audience arose and applauded . . .

THE CHAIRMAN: I think the hour is late and we should give the chance to those who have other engagements and want to go, but Mr. Kaiser will be very happy to stay here and answer the questions of those who want to stay here and ask them. I think Mr. Ruml has another engagement. He has an engagement with a train, so that he may stay for a little while, but he has to run on later. Will those of you who are going out try to do it as quietly as you can and those who want to remain come just a little nearer?

Are there any questions? Have Mr. Ruml and Mr. Kaiser answered all of your questions? Then, if there are no questions, we will say "good evening," and thank you all for coming. We will see you in the morning. (Applause)

. . . The meeting recessed at ten-fifteen o'clock . . .

FRIDAY MORNING SESSION

MARCH 10, 1944

The meeting convened at nine forty-five o'clock, Mr. Carl F. Boester, Housing Research Executive, Purdue Research Foundation, Lafayette, Indiana, presiding.

THE CHAIRMAN: May we get started, please? Before we start in on the program, I should like to make some announcements concerning several changes. It apparently has been impossible for Mr. Robert W. Dowling to get here from New York, and so I will have to burden you by pinch-hitting for him. Likewise it was not possible for Mr. Godschalk to represent the small builders, and we have another man in the person of Mr. Fred H. Ludwig from Reading, Pennsylvania, filling that portion of the morning program.

Since it is my privilege to preside over this meeting I am going to exercise the prerogative of making a comment or two concerning it and if possible keynote the day's endeavor.

For the last two days we have heard much about the social, legal, and economic aspects of housing. It is the judgment of the members of the National Committee on Housing that the "how" of housing is as important as the "why"; so today an earnest discussion of home building materials, techniques, and costs will be presented.

The building of domestic shelter is tied up in costs of materials, cost of labor, and the cost of distribution. As long as the cost of the average dwelling house is out of proportion to the prevailing wages, there will be a housing problem. The objective is to overcome high costs, and this can only be done by careful analysis of costs. One of the most recent and useful surveys in this direction is the work of the Producers' Council. A typical \$5,000 pre-war house was thoroughly reviewed from the cost angle. It was found that all the materials laid down on the manufacturer's shipping platform totaled only \$1,150. Detailed study of the labor at the site showed an expense of \$1,450, a combined labor and material cost of \$2,600. The remaining \$2,400 was in the cost of distribution, such as freight, warehousing, wholesaling, retailing, taxes, insurance, architect fees, contractor profit, etc. In many respects this is quite a revelation.

The good house is a wise combination of materials to get the lowest cost and the least maintenance. A great amount of research has been done on the material problem; much more needs to be done. As yet there is no such thing as the all-steel, plastic, wood, or concrete house.

One of the major bottlenecks in the construction of post-war housing is the lack of "know how." There seems to be no dearth of well thought-out and well tried-out ideas. The big rub is in training people to execute the newer ideas and methods.

While research work in the field of housing at Purdue University is just one of many activities of the Purdue Research Foundation, the objective of the work—better housing for less money—is not an end result. We are not

trying to play big brother to the building industry. It is the things we learn in the pursuit of answers to various research problems that are of primary interest to us; they add to our fund of teaching information. The end result may be at the moment a quite unused by-product. In an engineering school there are only two factors we can attempt to study in the cost of housing: labor and material. Regardless of our pattern of endeavor, we keep these two factors foremost in our thinking. It must be remembered that in the final analysis all materials are purchased and delivered on a cost-per-pound basis; so the more materials employed, the higher the cost.

In our research in housing we strive to do as does the aeronautical engineer, to use less and less material more intelligently for greater strength and durability. As for labor, you can't affect its wage or use speed-up tactics, but you can by better engineering reduce unit costs. A typical house has 30,000 to 40,000 parts in it, each hand cut and fitted. By simplifying and reducing the number of parts, great savings in manhours can be effected, thereby contributing to better housing for less money. The big item of cost, distribution, is for the economists and the specialists in marketing to solve. It is to this phase of housing costs that prefabrication may make some real contribution, but in material and labor used the prefabricated house will then have to be quite different from our present conception of houses.

Experience seems to indicate that the home-building industry has in the past been supported by from 6 to 15 per cent of the population of the country. The other 85 per cent have had to take what they could get. Those who are engaged in and responsible for the production of housing are the least qualified to find the answer to the problem, because they look at it in the light of their *own wants* instead of the very simple *needs* of the many. I'm not suggesting cheap material or shoddy labor, but merely a difference of degree in its application.

It must be remembered that housing requirements are predicated on living habits or patterns of human behavior and that our individual needs are at all times subservient to such habits, not to imaginary standards of would-be idealists. In the past, shelter has often been provided that created real social problems in that it elevated some groups to levels they could ill afford, particularly when other factors of such elevation added to costs of living. A new home means new furniture and other higher degrees of living. By contrast, the problem should be solved by degrees. The prospective home owner should be asked to compare a newly developed idea in housing not by imaginary standards but by the degree of improvement over his current shelter. When handled in this manner, progressive steps can be taken that are most successful. Partial use of electricity, water, sewerage disposal, etc. is better than none. Such partial use need not be inferior in quality or workmanship. The de luxe job is not the first step. More single-family homes are still heated with stoves than by any other method; yet no one can say the people using them are less warm, except by misuse or faulty equipment.

We are fast experiencing the development of houses that are safe, sanitary, spacious, convenient, and comfortable than can and will meet the needs of the 85 per cent. They cannot, however, be super dreams of 19XX.

A moment ago I mentioned that the big bottleneck in housing development

was the matter of people trained in the "know how." In order to overcome this hurdle and make possible a development and production of homes to meet the needs of the majority of the people, it would seem wise to develop an entirely new technique in the preparation of plans and specifications. Very limited experience has already taught us that substantial savings can be effected simply by the employment of more intelligent drawings and the use of specifications stripped of all their legal jargon and adequately descriptive of what is wanted. To be sure, such plans and specifications will have to be used for thousands of houses in order to get the cost of their use within reason, but that is no excuse for their not being so employed. Just, for example, Henry Kaiser stated last night, it certainly isn't unreasonable to expect someone to design a bathroom and collect a fee, say, of \$30,000. In the final analysis that fee will reach the home owner at a cost as he stated, of about 15 cents.

We should take a lesson from the experience of the aircraft designer and engineer and prepare drawings that are clearly pictorial rather than a confused jumble of symbols which only a chosen few can understand after years of study. A good set of small home drawings should be prepared, not only in orthographic projection but also in perspective, isometric, diametric, trimetric, and exploded assembly. Furthermore, they should be executed in color. It might be well to further complement the effort in this direction by having many of the parts duplicated in transparent and colored plastics to show the craftsman what is desired. We have found that the boy just out of school can comprehend what is wanted just as quickly as the tradesman with years of experience when we present the problem in this manner.

Repetitive use of basic plans and specifications does not mean in any sense that the houses have to look alike. Before such plans and specifications are finally prepared, a tremendous amount of research must be given to such problems of house design as combination of materials and character of equipment; and after such work is done, adequate examination of the end result must be made by a thoroughly critical public before the drawings are prepared for final use and distribution.

It has been the Committee's hope that a finger can be put on specific costs by today's discussion, and perhaps it will be by the speakers to follow. But if greater "know how" is made possible by today's review of materials and techniques that are to come, better costs are sure to follow.

MRS. ROSENMAN: Mr. Boester, may I interrupt a moment?

THE CHAIRMAN: Certainly, Mrs. Rosenman.

MRS. ROSENMAN: We have had a very good example of never giving up in the housing field. We thought Mr. Dowling was not coming, and I understand it was announced that he was not coming, but he just turned up. Mr. Boester, though, when it was thought that Mr. Dowling was not coming, was good enough to talk over procedure with the panel, and Mr. Dowling hopes that Mr. Boester will keep on until such time as he is exhausted and then he will take over.

THE CHAIRMAN: Thank you. We are glad to see you here, Mr. Dowling.

Well, we are going to set the rules as follows: We will listen to the speakers in the order of which they are given on the program. Then we will have a period of interrogation among the panel members. There will be no holds barred. They have sharpened up their knives. We had an interesting hour's discussion prior to coming here, so each one knows what to expect of the other. We hope by such means to develop the kind of answers that you want. After that period of interrogation, it will be Mr. Dowling's and my privilege to try to pull it together, and I want you, Mr. Dowling, as the program develops, to feel quite free to pull that microphone over to you and draw the thing together as you see it. I will try to support you in that direction. Then after that discussion, these experts on the platform on the subject of today's discussion will be at your mercy. Any questions on any subjects pertaining to the technical aspects of housing are fair game. So we hope that you will make this your meeting and get as much out of it as you can.

Now the first speaker to present his subject is known to many of us. He is Mr. D. C. Slipher, Vice President of the Continental Homes, Incorporated, Lafayette, Indiana, and a man who has had broad experience, backed up by ten years of it in the field which he has elected to pursue. He is also Vice President of Research Associates, an organization for research and development of building techniques. This is also located in Lafayette. The subject of Mr. Slipher's discussion is "Prefabrication—Its Problems," and I certainly think he is well qualified to talk on it. It gives me great pleasure to present Mr. D. C. Slipher. (Applause)

MR. D. C. SLIPHER: Thank you, Mr. Boester. Ladies and Gentlemen: The subject that has been assigned to me does not have much glamor. The glamor in prefabrication was very aptly expressed last night in Mr. Kaiser's talk. To say the least, you can assume from the beginning that I am carrying the torch for prefabrication or I would not be here and that I believe in its potentialities to an even greater degree than was held forth as a possibility last night. However, I am here today to talk about the problems of prefabrication, that is, the dirty linen and there isn't much glamor to that. Nevertheless, it is important that building technicians generally realize that those problems do exist and that they must be solved, and I am going to attempt to present at least a resume of the more important problems. It would take the Encyclopedia Britannica to present all of them. I won't attempt to do that.

The first and major problem that faces prefabrication today is, without question, the matter of public acceptance. When I say "public acceptance," I do not wish to limit the term to consumer acceptance. I am also talking about acceptance of prefabrication by the building industry itself, the building technician and particularly the people right in this room. Those of us in the business are becoming more aware every day that we do not understand too well what prefabrication really means and that those around us who are also technicians in the building industry do not too well understand; therefore, I am going to attempt to shed a little light on what we in the industry feel "prefabrication" means.

Briefly, I feel, and I think many others in the prefabricated house industry today feel, that prefabrication in the true sense means any new development

in the art of construction where mechanical procedure is substantially substituted for handcraft methods. Every brick, every window and door, every concrete block, and, in fact, every piece of dimensioned lumber is prefabricated building material. Thus it becomes a question of the degree or amount of prefabrication in a particular building structure rather than whether it is prefabricated or conventional construction. All modern building techniques involved more or less prefabrication.

As applied to housing, prefabrication as a descriptive term is now pretty generally accepted to mean a housing unit, site assembled, from either site or factory fabricated panel units for floors, walls, partitions, ceilings, roofs and gable ends. There is a noticeable trend at this time toward larger panels and more complete sub-assemblies, thus reducing the number of pieces handled in the field. As an example, a substantial number of war housing units are now being factory assembled into three dimensional house segments, comprising complete houses, into which plumbing, wiring, heating and even furniture are factory installed.

In this connection it is my opinion that after the war the degree of prefabrication will vary inversely with the sales price of the housing unit. In other words, the home in the lower priced field will involve more prefabrication than the home in the higher priced field, and there are very definite reasons for this prediction having to do with reduced production costs as a result of factory fabrication and assembly and a higher degree of standardization.

The next problem that faces prefabrication is that of establishing once and for all the fact that prefabrication is an essential part of, and not something apart from, the building industry. Prefabrication is just as intimately a part of the building industry as any other element that now exists within it. It is not something in a cloud all by itself and set apart.

As in all human activity, whether it be politics, religion or business, we have conservatives and liberals within each field. Within the building industry today even the most conservative use some prefabrication, and as we analyze the liberal in the building industry we find an exponent of prefabrication to the maximum. The degree of prefabrication used in any particular building technique is a measure of the acceptance of mechanization as replacement for handcraft methods. It is in this that we have the industrial revolution within the building industry. Both the ox-cart and the modern airplane are modes of transportation. In the same sense both the adobe hut and the segment house are products of the building industry, and if we can make that plain to the public as well as to those in the industry, it will do much to remove the confusion that exists in the use of the word "prefabrication."

A second major problem which is vital to the question of public acceptance is to establish definitely that the use of prefabrication can and does produce permanent construction. The wide use of prefabrication in war housing has placed upon us a major burden of public education after the war. Much of the war housing that has been prefabricated has been purposely designed for temporary use or for demountability. It has received publicity and it has been occupied by large numbers of people from all parts of the country. The public's impression and opinion formed from this combination of circumstances is not favorable to post-war acceptance of prefabricated

homes as permanent because of lack of knowledge and understanding. Thus we are faced with a major problem of proving by actual demonstration and by physical results that prefabrication is just as applicable to permanent construction as it is to the temporary needs of the war and the war emergency.

Another problem under the category of public acceptance — one which cannot be answered fully at this time, and around which there is still much controversy is that of demonstrating that prefabrication as applied to home building can, does and will produce better homes for less money. Unless that is a fact prefabrication as a method of building will not survive for it will have no economic justification.

The needs of war invariably call for speed in construction without regard to cost. Insofar as the public is concerned after the war, dollars and cents will come first and speed will be of secondary importance. Also after the war instead of having one customer, the Government, the prefabricator will have to sell 130,000,000 individual customers. This will be quite a different matter.

Beyond the paramount problems of public acceptance, prefabrication has a whole series of problems which I have chosen to group for brief discussion as Internal Problems. There are many of these and I am only attempting to set forth here the basic ones and the more important ones. Prefabrication as applied to housing for the post-war period has very major technical problems involving both architectural and structural design. In this connection I am going to accuse our industry of gross negligence in equipping itself with an adequate technical organization. I am intimately familiar with the operations of a number of prefabricators and I think, by and large, that they have been poorly staffed from a technical point of view. Unless this situation is corrected, we are not going to survive in the competitive scramble after the war. If we are to prove that we can produce better homes for less money, it must be done through ingenuity in the use of materials, in production methods and in the application of labor. For these assignments highest forms of technical skill and experience will be required. Competition will be extremely keen and unless each of us is equipped with the finest technical brains available, we will undoubtedly find it difficult going in the post-war period.

We prefabricators have had a tremendous opportunity during this war period to develop new and superior production methods under high volume production conditions. It is definitely our responsibility to use this knowledge, this know-how, to provide the better prefabricated homes at lower cost that the public rightfully expects. In other words, if we have not learned our lessons during this war period wherein we have been operating under high volume production, if we cannot so apply these lessons to insure the consumer a better and less costly home after the war, then our existence will not be justified. Our experience has been handed to us on a silver platter by Government need and by war need. Now it is up to us to make use of it.

Another and most important internal problem, especially at this time, is the acquisition of authentic information on consumer preferences, about which there has been much conversation but not much actual investigation. Unless this information is acquired and on a sound basis, we are going to have terrific marketing problems after the war because of public resistance to ideas that we as prefabricators are sold on but they are not. Now this question of

consumer preferences cannot be separated from geographical influences and the question of price range of product. No horizontal conclusions can be drawn as between one method of building and another method of building without careful consideration of public preference as to design. Geography and price play a very large part in this picture and the method of building is not going to determine the public's reaction to the fundamentals of living within a house. Actually, the public is not interested in the method of building. They are interested only in the end result as a place in which to live and whether it meets their ideas of a desirable and attractive home.

Prefabrication must soon select a method of distribution to the public. Selling Uncle Sam has been primarily climbing on the train to Washington. After the war, with 130,000,000 customers to call on, it is going to be a very different story. Prefabricators of homes must select and establish and put into operation a sound and economical method of distribution—this is our greatest single problem. I have attempted to give you the most important internal problems as I see them. You know, we prefabricators disagree on many things, but I do believe there is agreement among us on the existence of these problems.

We also have important External Problems and under this heading comes first our relations with material manufacturers and suppliers. Mr. Boester pointed out only a few minutes ago that upon analysis the cost of a house to John and Mary Jones is only about 50 per cent labor and material as built under ordinary practice. Thereafter there are a lot of dollars distributed through many different sources and into a lot of different hands. Prefabricators, in their relations with material manufacturers and suppliers, can develop important economies because of volume buying of identical materials and types of materials which will cut the cost of distribution to the basic manufacturers and contribute to a lower sales price for the prefabricators' product.

Another external problem is that of intelligently combatting the now existing or expected restrictive influences. I mean by that, for example, the antiquated building code which has often been written fundamentally in the form of a specification. Building codes must be established and operative on the basis of performance standards. A building code cannot properly be a specification—it can only establish safety requirements under today's legal concept of a building code's jurisdiction. It is for the protection of public safety and exists only within the police power as defined by Constitutional law. Very constructive work has been done and is now being done on the subject of building codes with very noticeable results. Communities generally are becoming much more open-minded in the acceptance of new methods of construction which could demonstrate equal or superior performance as compared with the letter and wording of the code under which their building departments were operating.

Another important subject, and one which has been discussed for years in connection with prefabrication of homes, is its relations with labor. That question has often been held out as the great stumbling block, the skeleton in the closet, etc. Our personal experience has been that when we began to produce in volume, demonstrating our ability to produce a product that was

sound and represented good dollar value, our relations with labor were not difficult; in fact, we found that labor was ready and willing to co-operate with us. Of course they wanted to know what is was all about—they did not want to be left on the outside, uninformed and criticized because of an attitude that they were supposed to have but didn't. Actually, to date we have no reason to believe that if house prefabrication establishes itself with the consumer, resulting in a volume market for its product, that there will be any lack of co-operation from labor. In fact we are sure that under such conditions labor will understand that we can actually provide substantially more work for the building tradesman rather than less work.

In that connection there is also another very definite problem in the fact that, by and large, the building craftsman of today is an old man. He is from 55 to 70 years of age. Another ten years and he will be gone. The question is, who is to replace him? The younger generations coming up are accustomed to mechanical methods. They are fighting today's war mechanically, not by hand, and they are going to expect a high degree of mechanization of the future. They are going to want a good living, which is a natural desire, and they will understand and welcome prefabrication if it demonstrates its fundamental concept—better homes for less money, because if that is true the public will buy in volume, thus creating employment and a higher standard of living.

Still another external problem of importance is the relationship to be established with sources of mortgage money. A house to be sold to the consumer is inseparable from its financing. The question of whether panels in the prefabricated house should be vertical or horizontal is ridiculous in the extreme unless there is a method of financing that house for the consumer after the argument has been settled. Building and loan associations, banks, insurance companies and all financial institutions interested in the home mortgage field are very much interested in prefabrication and are desirous of learning more about it. Our problem is to give them facts and not fancy as to what we have actually accomplished and what can be accomplished in the near future.

The prefabricator must also take into consideration the problem of establishing good relations with the land developer. No house, regardless of method of construction, can be separated from land. There are some who may disagree, but it is a fundamental truth that if we are to do a volume business our houses will be attached to land. Land development and prefabrication of homes must, therefore, go hand in hand. Prefabricators should learn more about land development principles. We do not know enough about them now because we have been too busy worrying about whether we were going to use rectangular splines or triangular splines in joining panels together, etc. In looking ahead to the post-war market we must not overlook the importance of having suitable sites and community developments for our product. This means the development of land in accordance with modern principles and we must know how it is to be done if we are going to design the right kind of house to be integrated with new land development.

Relations with government is another very important external problem, involving federal, state and local governments, not as customers but as con-

trolling influences in the building industry. Recently most of our contact with government has been predicated upon the acquisition of orders during the war emergency, and the question of government regulation and government participation in post-war housing from an entirely different point of view is something to which we have not paid too much attention. We have to give this matter more attention than we have in the past.

The last external problem which to my way of thinking is very important is very simply this: I think it is reasonable to assume that after the war many companies both large and small will spring up in the prefabricated home field. In practically all cases it will be a new venture within the scope of their experience and past operations. The problem is that these people must be prevented from making the same mistakes that we have made in the past. In the last ten years a great many mistakes of all kinds have been made in the field of prefabrication—both technical and otherwise. The most serious thing that could happen would be a repetition of all these mistakes after the war, because if that occurs public acceptance of prefabricated homes may be deferred, possibly to a point that it will be very difficult to develop our fullest potentialities.

This is a personal experience of only the last few days. A large corporation, with considerable technical organization and background, is considering entering the field of prefabrication after the war. I recently received a letter from the technical director of that organization, presumably dealing with the major problems confronting prefabrication, and, believe it or not, the whole letter of about some six pages was confined to discussion on the question of whether bolts should be three inches long or five inches long to connect panels together, with no consideration at all of those other problems which are far more important. I am not discounting the importance of technical problems. All that I am trying to say is that we must look at the picture as a whole and realize that prefabrication has many of the problems that the building industry has had for a long time and some new ones that go along with pioneering.

Thanks very much.

THE CHAIRMAN: Thank you, Dave.

I should like to correct your program in one other respect. As you know, Mrs. Rosenman announced that Mr. Dowling is here, and for those who came in late, he will help in pulling the program together. There is another substitution that I forgot to mention and that is on the subject of prefabrication of parts. Mr. Russell Creviston, due to illness, is unable to be here, and his place is being taken by Mr. Tyler Stewart Rogers. I am just so used to seeing Tyler on a platform of this kind that I overlooked the fact that he is replacing somebody.

Carrying on with the program, you have just heard some of the problems concerning prefabrication. Now we shall go into an earnest discussion on prefabrication and its future. This subject will be very ably discussed by Mr. John C. Taylor, Jr., President of American Homes, Incorporated, of New York. Mr. Taylor. (Applause)

MR. JOHN C. TAYLOR, JR.: Mr. Moderator, Members of the National Committee on Housing and Your Guests: If we had held this meeting three

years ago, we would have had a discussion on the subject of "For Prefabrication or Against It." Here this morning I think you will find that the speakers will disagree from one standpoint and from one standpoint only, namely, the approach to prefabrication from the standpoint of extent. I do not think we are going to have any major difficulty, if we will remember a story I think it is Congressman Lanham uses quite frequently about a politician who was campaigning in a little town in Texas where they raise a lot of geese.

The geese had been allowed to run over the streets until they became such a nuisance it was proposed that they be banned and put in pens. At the next election that was the most important issue, and, as usual with political questions, everybody from 8 to 80 bridled on one side of the other. This politician, after pondering the question for some time, developed this approach. As he met a prospective voter he said, "Now, you are going to ask me about the goose question, but I just want to assure you that I am all straight on the goose question. We are not going to disagree," but I want to talk about prefabrication not as an all-covering blanket in the construction field, but as an integral part of a chain made up of architects, realtors, contractors, supply people and manufacturers, and I should like to tell you what I think it is, what we have demonstrated it will do, and why it came into existence in the first place.

If you go down to a typical toy shop to get something for your son, you can buy, or could buy him at one time, a miniature shovel. It was a completed job, or you could buy him a Mechano set out of which he could build a shovel. I want to talk this morning about prefabrication of the Mechano set type. That will mean a series of parts from which can be built any house or apartment that the architect chooses to design. We have proved over a great many thousand units that in using this Mechano set or these parts of a house we can give the home owner what he wants as to size or shape or room arrangements or materials, if you will exclude a house that is 100 per cent masonry. We have shown that contractors like to use it, and we have found that the results are generally speaking good. In other words, let's talk about something that is within the industry as it exists. We do not feel that we need to become experts in land planning. We need to know where land planning talent is. We are going to leave the real estate job up to the realtor. We are going to leave the building job up to the contractor, and we are going to talk to the public as Gold Medal flour talks—Buy More Bakers' Bread. Buy your house from the contractor. Have your local architect design it. If you need real estate assistance locally, go to an intelligent and able and well-thought of real estate man. We are not doing that because we want to duck these other problems. We do it that way because we think that our contribution to building begins at a certain place and that it ends at a certain place.

Our neighbors on one side are the contractors who are our customers, and on the other side the manufacturers of the material, the people from whom we buy. So I say that this method of building will produce essentially what would be produced without it, built by the same people and sold to the same customers in the same general locality. There are reasons for this approach. We think that the American dollar is the best spent piece of money in the world. People just don't go out and create something and sell it to the American people unless there is a need for it, unless it is fulfilling an economic

need when you are considering durable goods. The reason we think it is needed is shown by history. The lumber yard came into existence because the variety of materials increased to the point where the average contractor could not do an intelligent and efficient procurement job, and the addition of the lumber yard to this chain of units in the building industry added to the dollar value which the consumer received.

The local distributor of plumbing and heating equipment, the electrical contractor, the heating engineer and the heating contractor came into existence because they were needed to handle materials which the carpenters and masons could not handle, and the addition made a contribution to the dollar value to the ultimate consumer.

For the last twenty-five or thirty years there have been three developments within this industry which have created problems for which up until a few years ago there had been no satisfactory solution. In the first place, the kind of materials that a builder was called upon to sue increased. You had glass blocks and copper and zinc and lead and tin, and now we are faced with plastics and aluminum and magnesium and a lot of other things, and by throwing this material down at the site, you were giving the contractor a job which he could not carry out with efficiency, and it has been proved by the general feeling throughout the country that if you set out to build a \$6,000 house, it will cost you \$7,000 or \$8,000 before you get through, and we have blamed the contractor and he has not been the one to blame.

The second trend or development has to do with research. Research in housing for the last twenty-five years has been carried out by either some university or endowed research laboratory, which was loath to publish its findings if it favored one material or rejected another, or research was carried out by the manufacturers of material, and we owe a lot to them for the splendid job they have done, but that sort of research cannot refrain from being biased. The steel mill or the steel company want their research men to show that the whole house should be of steel. I am sure that the Portland Cement Association would like to hire a man who could prove that all of the house should be cement, and the same would be true of plastics or glass or of any other material chosen.

There has been a need for an overall laboratory that could examine these materials and test this equipment and apply them to houses on the basis of results produced without any regard to who the manufacturers of the particular material happen to be.

The third trend has been confusion regarding costs. Variations in costs came from a lot of places. In many instances an energetic salesman for a new material persuaded the architect to write it into the specifications, and neither one of them thought of asking the contractor whether he had the tools and equipment and know-how to use the material after it arrived.

The increasing amount and variety of materials, as I said a minute ago, has produced confusion as to cost and the result has been that the banker has been scared, the prospective investor has been afraid, and in many instances the home owner was not at all certain that his \$6,000 house was going to cost him \$6,000. I think that this last trend is the most serious of the three, for when we are talking about reducing the cost of homes or of

an apartment or of places where people live, there is nothing that will make the contribution that can be obtained by a uniform rate of building. If we could start out as an industry on January 1 and say that we were going to build four, five or six hundred thousand houses at the rate of the same number per day for a period of ten months, then we would get a uniform rate of activity on the part of everybody in the game and there is nothing that will reduce cost to such an extent. In other words, we need to build a stockpile, and that means that we must pull into this industry venture capital that will make an investment in equity, and to get that investment we need to be able to know what our costs are going to be as far in advance as from six to eight months.

In other words, if you approach an investor and ask him to buy the equity in a five hundred thousand rental unit—and, by the way, 50 to 60 per cent of all housing in this country is built for rent—he wants to know what it is going to cost, what his return is going to be, and, therefore, to attract him, we must be able—and here I should like to use the word “positivize.” A prefabricator not only makes this Mechano set and sells it to the contractor, but every cost factor in connection with each part of that set is known, how much labor and material it costs, how much it costs to transport it, to unload it, to put it in a house and to finish it. The type of prefabrication I am talking about I think answers these three questions, and the company which I represent I think has proved it in the construction of close to 20,000 units since Pearl Harbor, every one of which was sold to a contractor, and if we can by this method take the raw material as it comes from the factory and refine it so that the contractor can use it efficiently, if we can carry on our research as an independent private capital venture that aims at putting the best equipment and the best material in a house, and if we can continue to show costs that are positivized, then we are and we will continue to make a contribution to the places in which man lives.

I think that after the war you will find that pre-fabrication to some extent will be adopted in close to 100 per cent of the structures, and as new materials come onto the market, as the plastics people fulfill some of their ambitions and the magnesium people become suppliers to us, the percentage to which the individual house is prefabricated will grow. If you will put those two trends together, you will have an industry faced with an expansion that can be anticipated by no other activity in this country. That I think is the future of prefabrication. (Applause)

. . . Following is the paper prepared in advance by Mr. John C. Taylor, Jr.:

When invited to be here today, I was told that those in charge of this conference on post-war housing desired a searching examination into costs. We welcome such an approach because unless prefabrication of structures will result in the home owner receiving more for his dollar than, in my opinion, prefabrication has no future that is worth while. I believe that prefabrication enables the construction industry to produce better homes in a shorter period of time and at a cost less than can be obtained by any other method and I hope to show you that it is logical for us to anticipate such a result from this industry.

This question has been for some time one of national interest and, as is usually the case when a subject is much talked about and much written about, people begin to write and speak and act as a result of their feeling rather than as a result of their thinking. I do not want to discuss the type of prefabrication whose proponents prophesy that it will cut the cost of houses in two, that this will be accomplished by a "Detroit" of the housing industry with long assembly lines producing houses by the thousands, nor do I mean the prefabrication theory that pictures the house of tomorrow as a sort of nomad's tent that can be set up in a few hours and moved from place to place at will. I cannot go along with the thinking to the effect prefabrication means an entirely new type of contractor and that the use of this method will change the real estate picture, and to a large extent eliminate the electrical and plumbing contractors as they exist today. I am not concerned by the statements of those who say that prefabrication is a fallacy, that it cannot produce anything except substandard housing of box-like nature, and that conventional building methods will, in the post-war period, lead the parade. I do want to discuss prefabrication as a method, a new method of construction which will use, for the most part, the same materials which would have been used without it and produce the same house as to design and arrangement as would have been produced without it, for this type of prefabrication has a place in future building.

Much of the confusion surrounding prefabrication can, I think be cleared up if we will stop and examine the history of the industry within which we work. It has not been so many years since the early settlers cut down trees, hewed logs and built a home. Procuring material was a question of taking the forest at hand. A group of neighbors meeting at the site created the house for the newcomer. During the years following such construction of log cabins, the variety of materials desired in a house increased. The builder needed nails, glass, siding, shingles, flooring and other materials, and the result was that the builder became faced with a procurement job which he could not perform efficiently. There grew up in the construction industry a logical need for specialists in the procurement and assembly of building materials. This logical need was met and there grew up in this country the modern lumber yard. The result was added efficiency and a greater dollar value to the home owner.

The second major step in the development of the commercial side of the construction industry came with the introduction of heating, electrical work, sheet metal and plumbing. This resulted in a new type of procurement, a new type of site operator, because the materials used were unfamiliar to the general contractor as he existed at that time. This was another logical need, a need for the efficient distribution and installation of a different type of equipment and new materials. This logical need was met and there grew up new distributors, new dealers and new types of contractors to handle plumbing, sheet metal, heating, etc. The introduction of the lumber yard was merely an extension, another link in the chain making up an industry. The same manufacturers produced material as before and the same customers used it. Plumbing, heating and electrical work was really an added industry to an old one as it required new factories, new distributors and new contrac-

tors. Both contributed to the value per dollar delivered and both came into existence as the result of a logical need.

Developments in this industry over the past twenty-five years have created three problems for which a solution is needed. They represent the logical need for a new step in the construction industry, and in prefabrication, I believe, lies the solution.

In the first place, there has been a great increase in the variety of the materials which a contractor is supposed to use. There has been an increase in the variety of design of buildings, specifications have become more rigid and, as a result, we have been asking the contractor to perform at the site a lot of operations which he cannot perform efficiently. In other words, there has been a need for a refining operation which would take this wide variety of materials and refine them by cutting and a assembly so that the work at the site can be carried with speed and efficiency.

In the second place, practically all of the research in connection with applying materials to housing has been carried out by the producers of these materials. The industry is indebted to these companies for the splendid job which they have done, but it has been and will be increasingly difficult for such research to remain unbiased. It is natural for those employed by a producer of steel to try to show that the entire house should be built of this product. The same would be true if the material were cement, plastics or what not. The result of this type of research is the placing in specifications of clauses requiring the use of material without thorough knowledge as to the difficulties encountered in fitting it with other materials at the job site, and this has aggravated an already growing difficulty for the contractor at the site, and this is evidence of a logical demand for research that takes in all kinds of materials and equipment, studies them in relation to each other and fits them together as parts of a house without regard to who the manufacturer is; a need for a research program so close to field operations that adjustments in materials can be made for any part of the country in which the home is going to be built.

In the third place, there existed prior to the war in this country a great confusion as concerned what a house should cost. The feeling became universal that if you set out to spend six or seven thousand dollars on your home, it would cost you eight or nine before you finished. It was difficult for an architect to design to a price. It was difficult for a banker to feel sure that the contractor could operate within his budget and the contractor usually was faced with certain operations covering new materials with which he was not familiar and which resulted in his estimate being in part, at least, a guess.

There has been a logical need for something which would, and here I would like to use the word "positivize" costs. Costs so estimated in advance that the contractor and the banker and the home owner could proceed with as much confidence in connection with the financial side of the operation as exists in other industries.

I believe that prefabrication is the answer to these three problems, for prefabrication is a refining operation set down between the manufacturers of building materials and the contractor and set down for the purpose of refining the material to the point where the contractor can use it efficiently.

The prefabricating company which I represent operates a laboratory as a separate operation for the study of all kinds of materials and equipment and their application to housing. I can assure you that such research is aimed at producing the greatest dollar value, regardless of the source of the material.

A prefabricator not only manufactures a panel which the architect can use in designing and the contractor in building, but every single cost factor in connection with that panel is known in advance. The cost of the labor and material to make it, the cost of loading it and transporting it, the cost of placing it in the house, and the cost of finishing it. The result is that a contractor operating in conjunction with a prefabricator can be certain that his estimate will be met, and this is good news for bankers, realtors and prospective home owners. This ability to "positivize" cost is in itself a challenge which those who are opposed to prefabrication will have difficulty in meeting.

Because of the existence of these three logical needs and the ability of the prefabricator to supply the answer, lies the reason for believing that prefabrication is assured a place in post-war construction.

We can draw a rather accurate picture of the type of operation which will be used for prefabrication, and the type will be entirely different from that used in the production and distribution of motor cars. In the beginning, automobiles were assembled jobs. Wheels were manufactured at one point, fenders at another, and so on. It was soon learned that such a method was not in the interests of low costs because the cheapest way to transport any part of an automobile was and is as a part of the finished product, and so there began the centralization of the automobile industry, the manufacturing of parts at or near one point and deferring transportation until the car could be moved under its own power at a cost of three or three and one-half cents per mile.

The final assembly of a house must take place at the site and, in the interest of economy, transportation should be as nearly direct to that site as is possible, for transportation plays a major part in determining house costs.

It seems reasonable then to believe, and this has been proved by actual experience, that the house of tomorrow will be prefabricated and the operation carried out under the principle of assembly. Those parts which require elaborate machinery and large inventories will be produced in a few central plants which may ship over an area covered by a radius as great as 750 miles. The simpler and heavier parts requiring less machinery and smaller inventory will be produced in plants which ship over an area covered by a radius of possibly not more than 200 miles. The practical results of an operation of this kind have been determined through actual experience in the production and construction of several thousand homes.

Believing that prefabrication will be used extensively in the post-war period and that operations will be carried out through an operation embracing the principle of assembly and in smaller plants widely scattered throughout the country, the question arises as to what type of person or business will be the operators and owners of these factories. There are in operation today several companies who are strictly prefabricators who perform the operations desired with materials purchased from the producers of materials and

sell their products to the contractors. There are manufacturers of materials who believe that prefabrication is a function or a step which should be carried out by them and that a new set of business managers or owners is unnecessary.

There are contractors who believe that they can own their own equipment, set it up at the site, and perform this refining operation as efficiently as the prefabricator can in his permanent plant.

I mentioned a few minutes ago that it was difficult for the manufacturer of a building material to carry on unbiased research and, for the same reason, it is a little difficult for me to speak of the three possible owners of prefabricating operations and keep my viewpoint unbiased. I would like to point out, however, a lesson from history and also call your attention to some evident trends. If prefabrication is a logical new step, then the builder who engaged in this activity or the manufacturer of building material who creates such an enterprise is indulging in vertical integration and history has few examples which show success resulting from such expansion. The manufacturer of building materials would engage in this operation for the purpose of selling his product and I do not believe could do as efficient and comprehensive a job as people who are in the prefabricating business exclusively.

The site prefabricator can undoubtedly take a quantity of houses, set up his factory, and produce with a resulting cost no higher than would be the case if he purchased from the prefabricator, but he cannot do this for one house or ten or fifty and, as the variety of materials specified increases and the design of houses become more complicated, the number needed to be built at one time, if this site prefabricator is to operate efficiently will increase. Efficiency in such an operation is limited to a case which might be called extreme. That which is practical in extreme cases should not be considered a guide for the general practice of this industry in the future.

We believe that the post-war period, because of need, will see prefabrication adopted to some extent in close to 100 per cent of all houses built. We do not know what percentage of each house will be prefabricated. That will be determined by the number of operations which can be performed more efficiently in a factory than at the site. Whatever this percentage may be we can feel confident that the introduction of new materials or the more extensive use of such materials as steel and glass and plastics and aluminum and magnesium will call for additional operations which cannot be performed at the site and this will mean that throughout the years the percentage of the house which is prefabricated will grow. These two steps, the universal adoption of partial prefabrication, plus the growth of that part which is prefabricated, promises for this industry a growth over the years and an expansion which can be anticipated by almost no other industry or activity. That, we believe, is the future of Prefabrication. . . .

THE CHAIRMAN: Thank you, Mr. Taylor.

Our time is running fast. We will get onto the next subject under discussion, "Site Methods versus Factory Production." This particular subject will be very ably handled by Mr. David D. Bohannon, President of the David

D. Bohannon Organization of San Francisco. He is Vice President of the National Association of Home Builders. Mr. Bohannon built many homes in the San Francisco area, in the modest as well as in the high-priced field, before the war. Since 1941 he has been building Title VI homes. Mr. Bohannon set a construction record for the erection of 700 permanent homes at Rollingwood in Richmond, in 693 construction hours. This project was developed to serve the personnel connected with the Kaiser shipyards in Richmond. It gives me a great deal of pleasure to present at this time Mr. Bohannon. (Applause)

MR. DAVID D. BOHANNON: Mr. Boester and Members of the National Committee on Housing, Guests and Friends: After listening to the two leading exponents of prefabrication, I wonder if I should talk at all; yet in my experience I have endeavored to find ways and means of creating homes acceptable to the home buyer at the lowest cost in the fastest possible manner. Second, I would say I, up to now, have been unable to find any of those products, as far as the West Coast or the San Francisco Bay Region is concerned, available.

I have for a long time hoped that our great industrial genius would tackle this housing problem, because I have such confidence in our technological ability to solve almost any problem to which we apply ourselves. So I am encouraged to hear Dave Slipher's achievements, and I know a little of his great achievements. It is encouraging because he has made a contribution that we must recognize. Now Mr. Taylor actually is going a bit further in the direction that I have been thinking, a stockpile of highly perfected equipment, material parts that can be assembled into houses of various size and design. But I am going to proceed now with my prepared paper, and you will see that I am thinking in terms of how to do it now.

Before I proceed, I regret very much that Mr. Dahlberg isn't here at the moment, because I had a very pleasant evening with him the other morning (laughter), in trying to get him to take an order for 1,000 houses. Three weeks ago I read a most startling report in the American Weekly that, shucks, the problem is all solved. I might as well not go to Washington for that conference because it is all done. Now I can just stay home and order these houses if I can get Roy to take the order, but he won't; in fact, he could not even tell me what the size of the house is. So I am sorry he isn't here to defend himself. He may be later. I hope he will be.

In the past, the great majority of homes have been built by small builders in every city, town and hamlet, spread throughout the country. Antiquated practices, developed years ago, have become habits that add materially to the cost of home building. Never before has this vast industry been so alert to the need of improving its techniques. It is now becoming aware of the challenge to supply homes to that considerable segment of the population who have been unable to pay the cost of a good home. Important to the economy of America is the widespread employment of labor and services connected with the production of homes. The achievements of this country in performing a miracle of production under the pressure of the war emergency leads to the hope that homes, too, can be produced in a price bracket that will tap the

vast hitherto untouched market. This is a natural desire, but upon objective analysis, some interesting factors are uncovered.

Shelter was one of our first industries, and as science and manufacturing progressed, builders have found an ever-increasing supply of materials and equipment available. House plans have been improved and adjusted to the changing living habits of home owners, but the fundamental functions of the home have changed but little. Experience has demonstrated that a typical American family desires a home which provides certain minimum facilities. Thus a bungalow with a Livingroom, two or three Bedrooms, modern Bath and Kitchen, adequate heat and storage facilities are the minimum, for the standard of living every family should enjoy. The degree of luxury that can be afforded expands from this minimum. The challenge to builders is not so much to provide added luxury, but to find ways and means of producing the acceptable minimum home at the lowest possible cost.

The factors that have made for a relatively high cost for the small home are high improvement and land cost, due to speculative land prices, inefficient use of manpower in converting raw material into finished houses, and practices within the building industry. The building crafts have resisted mechanization and labor saving methods, such as the resistance to the use of spray painting.

The difference in cost between the 1911 house and the 1944 house, gadgets and modern equipment duly excepted, is the difference in cost between material and labor in 1911 and material and labor in 1944. The industry has merely followed its material and labor in the rise to higher levels. It has failed to profit by mechanization of processes, or by economy of purchasing. Due to a lack of coordination and planning, material men were forced to meet the whimsies of a thousand architects, regardless of inevitable cost. They were obliged to keep in stock 1,200 to 1,500 patterns of lock hardware, 19,238 sizes of valves and pipe fittings, 139 sizes and kinds of paint brushes, 179 varieties of iron and steel roofing, 32 thicknesses of 2" "one-inch" boards, 75 dimensions of face brick, and 150 different strengths of window glass. And these figures are all reductions from previous practice, for the Bureau of Standards has persuaded the industry to get along with 72 types of brass lavatory and sink traps in place of 1,114, and 1,156 kinds of cut tacks and small cut nails instead of 21,200. Middlemen, for the same reason, have become "inert warehousemen masquerading as merchants."

The pressure of war time production has made it possible to put into effect many practices that were frowned upon by labor before the war. This applies to simplification and standardization of material and fittings. Were it not for the application of efficient production methods in the building of small war homes where time is the factor due to the urgent need, the increased costs of inefficient and high cost labor—and let me say there, when I speak of high cost labor, I am not in favor of any reduction in the scale paid labor, but I am interested in increased production per man hour of that labor—together with the difficulties of securing materials on time would have resulted in a much higher price tag than now appearing on the bulk of war homes.

It is true that competition tends to bring all cost factors, including sales costs to lower levels. There are but a few short periods in our history when

the demand has been greater than the supply, such as now existing. Rents and prices will be held close to the cost of production as in the past, when it is again possible to catch up with the urgent demand. Then the benefits of improved methods will be sought by those builders who are to survive.

The question is—how far can mass production benefit the average home builder who, after all, produces a big percentage of the total. Recent experience in precutting and site fabrication has demonstrated that most of the economies resulting from efficient programming can be applied to the relatively small operation. The degree of benefit is dependent upon a continuous operation—I again agree with Mr. Taylor there—so that a project of fifty houses or more can be completed on a predetermined schedule. By concentrating upon one or two highly efficient floor plans, cutting schedules can be set up so that materials can be accurately estimated and ordered. In the case of frame construction—I might say that my experience is in frame construction—lumber can be purchased in car lots and random lengths with little waste resulting, due to the fact that a properly set-up cutting yard will make use of all this lumber as the percentage of short items in the frame is relatively high. Thus an upgrading of lumber is possible, with its resultant economy. Again I do not infer that there is any reduction in the quality.

To avoid monotony, a good variety of elevations is desirable and does not seriously retard production. In order to have this variety, there must be a number of roof elevations. The cutting of rafters for these variations can lead to difficulties in precutting. However, this is again simple enough, if the cutting schedule is properly programmed. For example: all the rafters of a given dimension for an entire project should be cut at one setting of the saws. An advantage of large-scale development is an opportunity to create a community of predetermined character. Parks, playgrounds, schools and church sites, community building and shopping center should be planned as a functional part of the community. The cost can be spread over each unit and the entire project completed at once, to the end that the home owner may enjoy the amenities immediately.

Most important in creating an attractive development of standardized small homes is land planning and subdivision pattern. The project must be planned as a whole, and houses placed on each lot so as to have good orientation and elevation detail giving the feeling of variety within the range of vision. At least sixteen distinctive elevations should be used—twenty or twenty-four can be created from one floor plan. Color and exterior materials deserve expert handling. Landscaping will do the rest.

I should like to say in addition to my prepared script that the building industry must immediately become aware, more than it has been—it has been aware in some places—of the need for good land use, good land planning. I hope builders will take it as excellent advice. Believe me we have a great assignment there. If we are going to do the merchandising of the possible 19XX house, we will do it, realtors and builders, land developers, because we deliver what is required in this country in the way of community facilities, whether it is redevelopment of urban areas or of suburban new developments. To that we should give continued and constant thought.

As new materials are developed they will be used, providing they meet

the critical and exacting needs of an industry that has been seeking for generations improvement in the simple frame—floors, walls and roof. Site development and construction of foundations will continue to be necessary regardless of what the house is built of and the use of local materials must be taken into consideration.

The building industry has for the first time become organized; i.e.; the Home Builders are more alert than ever before to the problems they must solve. They now have a great national organization composed of local associations throughout the country. Exchange of ideas is becoming accepted and popular. Trade and Building magazines are making an important contribution, and are being read by practically all of the builders, small and large.

Builders will welcome any true improvement in new materials and equipment. The average small house is an assembly of thousands of items. I did not realize, Mr. Boester, that there are as many as 40,000. I never counted them. Many of these items can be assembled in a factory, obviously metal products, such as kitchen units. Mr. Kaiser referred to a kitchen or bath assembly that appeared in one of the home magazines recently. I happen to be familiar with it because the designer is a San Francisco man, Gardner Dailey, an unusually successful architect, because he has a great technical ability. I looked over that work before it was submitted to the magazine. He admitted that it was merely on paper and that maybe a lot of perfection would be necessary and great industrial tooling to produce such a unit, but he is optimistic. Plumbing and Bath equipment must be produced in a factory. Standardization of activities tends to produce more per man hour of labor. Thus, site fabrication, if in sufficient volume to permit of specialized crews, produces a factory-like efficiency. Lumber and bulk raw materials can be more economically shipped and handled than when assembled into finished units.

Site fabrication does not necessitate investment in a costly plant, whereas a factory requires a substantial capital outlay, extensive warehousing and storage of parts, long in advance of final erection on the site. Precutting equipment is mobile and can be economically moved from job to job. One of the claims for factory prefabrication is speed of erection at the site and the economies of jig table assemblies. Our use of foundation forms insures a true and accurate foundation. Thus our floor takes the place of a table. Plates are all marked from a master plate at the cutting yard, thus each part of the frame is erected just as a toy block set. The result is a rigid and accurate frame which produces a house as well built as any conventional wood frame house can be.

Our experience in Richmond, California, just to be a little comical, is this: We had to take the kind of labor we could get under that very critical area situation, and so we almost said to the man, "Yes, we see you are a journeyman carpenter. Put your card in your pocket. Now come out here. That is the frame of a house you are looking at. Come over here. This is a two by four. Pick it up and put it over here. This is a hammer and these are nails. You hit a nail and drive it in. Just keep doing that and move along." We got them built.

We believe we have demonstrated conclusively that we can build a conventional house of equal size, with fewer total man hours, by our methods, than

is possible by prefabrication off the site where the whole wall sections must be carried to the site and assembled. We have recently completed 700 three-bedroom homes in 693 working hours. Four weeks after ground was broken, a completed home was ready for occupancy every thirty minutes of the working day—and I will add it was occupied. Pre-cutting and site fabrication will be the most economical and immediately available means of producing large quantities of attractive low-cost homes. That means landscaping also, totally completed, packaged, functioning and finished. When the price of a house is quoted, all the facts should be set forth, the square foot area, cubage and simple specifications, so that proper comparison can be made. If a prefabricated house is quoted, it should be made clear as to whether it is to be factory erected or site erected, with all utilities connected, grading, landscaping, walks, garage and fence, in a spick and span package, ready for occupancy. This is the practice of most operating builders. However, the improved lot is also included in the price. In the conversion period following victory, the building of homes can be one of the most widespread and immediate forms of employment. Every effort must be made to put into effect the economies and improvements brought to the fore by our war housing experience.

To be realistic, we must use the tools at hand, and welcome all advancement and improvement that will produce better homes at lower cost. (Applause)

THE CHAIRMAN: Thank you, Mr. Bohannon.

Carrying on with the program, the next subject under discussion is the prefabrication of parts. Your speaker was to have been Mr. Russell G. Creviston, Director of Public Relations for the Crane Company. Mr. Tyler Stewart Rogers, Technical Director of the Owens Corning Fiber Glass Company, of Toledo, will be pinch-hitting for Mr. Creviston. By "pinch-hitting" we certainly do not mean to be apologizing because Mr. Rogers is more than able to handle the subject. Mr. Rogers also is Chairman of the Post-war Technical Committee of the Producers' Council and formerly Technical Editor of American Architect. It gives me great pleasure to introduce Mr. Tyler Stewart Rogers. (Applause)

MR. ROGERS: Thank you Mr. Boester. Ladies and Gentlemen: I thought this Panel might develop into something of a fight, but so far there seem to be no basic disagreements.

I am going to talk about the hen that laid the egg—or better, about the goose that laid the golden egg. My subject gets down to the origin of the building industry. I hope nobody will kill the goose that laid this golden egg.

The prefabrication of parts of buildings is the origin of the building industry as we know it today. It is what we have been doing since man left his cave and began to build his own dwelling. It is the basis of the evolution of the building industry.

If you will turn to the stock mill-catalog that any lumber yard can supply, you will find evidences of the prefabrications of parts and buildings that go back into years of building history. Most of you can remember when the carpenter brought his own molding planes to the job, and would run his own

moldings on the site. This practice began to appear when stock moldings became available. Not many years ago window sash was made at the mill, but the frame was built on the site and the glazing was also done on the job. (I understand that in some cities you still cannot do the glazing anywhere except at the building). A decade ago, the prefabrication of windows was carried to the point where a complete unit arrived at the job with sash and frame assembled and completely glazed, with hardware, trim and storm-sash all fitted, as part of a single package. That is one good example of the degree to which the industry long ago developed the prefabrication and preassembly of building elements.

There are many others. You can buy fireplaces built of steel around which to erect the chimney or stack, and you can buy a prefabricated mantel for the face. I do not need to detail many other things of this sort which have already been accomplished because so many of them are familiar to you.

I prefer to talk about the things that may come in the future, but on this point I can only go a little way because my imagination and my scope of knowledge are too limited. I do not even know where the dividing line exists between the prefabrication of parts as Mr. Taylor sees it (involving the prefabrication of parts suitable for any house) and Mr. Slipper's scheme for prefabricating and delivering a complete house. The dividing line is obscure at best.

Last evening the representative of a steel manufacturer told me that he is prepared to offer, after the war, a prefabricated steel staircase suitable for use as a basement stairway. The unit consists of two side rails and a set of safety treads to be bolted together by the local steel supply house and delivered to the site ready to be installed. A manufacturer anticipates that the local steel warehouse will be able to provide a staircase you need, fitted to the floor height of your house, at a retail price of around \$12.00.

This is an application where steel has an advantage of fire safety and appearance is not a matter for the architect or home-owner to fuss with a great deal. It would take quite a little ingenuity to build as good a staircase by hand methods on the job.

We have heard about bathroom units that can be delivered by truck as complete units. Mr. Kaiser mentioned one last evening that might be formed out of plastics as a whole unit. I am frankly skeptical about this idea because the problems of crating and shipping such a unit are very difficult to solve. Many hundred pounds of metal or plastic parts in a disassembled form can be put into a compact crate and shipped at a low freight rate or handled by one or two men without special rigging. If these parts are preassembled and are thus converted into a volume of several hundred cubic feet of space, they still must be crated or otherwise protected for handling purposes. Freight costs and trucking costs for such bulky goods are relatively high. If workmen have to slide a big unit off the truck and over the building site to its final position in the structure, the handling costs may exceed the cost of field assembly of the individual parts. Each new idea is likely to develop new problems and thus I remain skeptical about how far we will go in preassembling units in houses. I think that the knocked-down element is always going to be with us.

A more reasonable possibility deals with the prefabrication of partitions,

closets and similar elements, for use in houses that are specially designed to require no load-bearing partitions. The idea is to permit the owner to change his mind or even to change the lay-out of the interior of his home as his family includes more or fewer children.

One plumbing manufacturer states that he can offer a bathtub, lavatory and closet combined as a single element. The only thing we are trying to find out is "does the public want it; does the building industry see any advantage in such a combination?" No engineering problem is involved, the combination can be built.

Such combinations are already familiar in modern kitchens. First came the combined sink and laundry tray; later a combined sink, dish-washer and garbage disposal unit. Prefabricated kitchen cabinets of many types have long been available. This trend will go on indefinitely as long as the public demand such combinations or as the builder says to the manufacturer "I can buy such units from you cheaper than I can put them together some other way."

A more important phase of the subject deals with the question of what will facilitate such prefabrication of parts to make it more practical, more facile. Here I come into home territory. After some twenty years of effort—or, more properly, after several centuries of evolution—the industry has begun to realize that the coordination of dimensions of buildings is at the root of prefabrication and that it will be the basis upon which present trends in prefabrication can progress more readily. When I say several centuries of effort, I refer to the fact that the Greeks and Romans knew of the modular design system. For the last twenty years there have been proponents—one of them is sitting here in the audience—of a modernized application of modular dimension or dimensional coordination of building parts. He and his fellow enthusiasts have struggled with the idea, with their friends and with everybody in the field, but only recently has the opportunity arisen to make this movement practical. The opportunity has come out of the present war conditions.

Manufacturers who have converted their processing equipment to war needs know that they must re-tool for post-war production. They are perfectly willing to re-tool to a new size so long as the expense is equal. Thus the opportunity has come to suggest that the sizes and building elements be brought into a coordinated pattern. Details are being developed by Committee A-62 of the American Standards Association, under the joint sponsorship of the American Institute of Architects and the Producers Council. Gentlemen, the acceptance of that idea is one of the most gratifying evidences of progress in the building field.

Masonry manufacturers have taken the lead. They have already developed a solution to their intricate problems. Window manufacturers are actively interested and should shortly arrive at a dimensional coordination of their products with masonry units.

The next step will come in the vertical direction with floor to floor standards already tentatively established. With this achieved, we can begin to standardize our staircases, and to develop plumbing, stacks, chimneys, and

other vertical units which will vary from size to size only by a module of four inches or some multiple of that unit.

Under this system, there will be plenty of sizes and plenty of design freedom, but there will not be a gross multiplicity of odd sizes. People are going to adopt the new pattern simply because it will mean money in their pockets.

I do not think we can stop with the present degree of prefabrication of parts because every move that has been made so far in this industry has resulted in an advantage to the home-owner. Building costs have risen, not due to the industry itself, but due to outside forces, including inflationary trends. The use of engineering talents and of machine methods tends to off-set these enforced increases in costs. In my opinion owners are today getting more for their money than they obtained in buildings erected twenty or thirty years ago; I expect that after the war, we will be getting more for our money in buildings than we got just before Pearl Harbor.

Along with the coordination of dimensions, the Producers Council and other agencies are working toward the coordination of materials and methods. In a sense I represent at this talk the materials manufacturing wing of the building industry. I believe it is the manufacturers' responsibility to assist those who use their materials in knowing how to use them well and how to put them together with each other. I hope that the Producers Council will announce at its May meeting a practical plan for bringing about a better coordination of materials by bringing together the manufacturers who make different things used in combination. I like to use the example of the problem we all have of making a water-tight joint between a built-in bathtub and a plaster wall or any other wall. The manufacturer of bathtubs has given little consideration to this problem because he uses tile-work in his displays and finds it attractive and satisfactory. But builders do not want to use tile for every job. Plaster manufacturers have not assumed this problem as their responsibility nor have the lath manufacturers or anybody else. It remains a detail for the builder or for the architect to solve according to their own ingenuity; or else it remains for the owner to patch up the leaks every year or so with some kind of plastic caulking material. In place of this method, we hope to bring together the manufacturers of bathtubs and wall materials to work out practical details for the benefit of all architects, builders and home-owners. We hope to have a pattern or plan for this type of coordination of materials with each other as one of the out-growths of this cooperative effort during the war period.

A study is also being made of the methods of coordination of testing, a matter which Mr. Taylor has commented upon. It takes time to do these things, but we must know the properties that products should offer before we can improve our building codes. It is futile to ask for performance standards or specifications in building codes until the industry knows what these standards should be.

Mr. Howard Vermilya, Technical Director of the Federal Housing Administration, told me a story the other day that bears on this point. A manufacturer had developed a panel suitable as a load-bearing unit in prefabricated houses. It met every engineering requirement except the long established standards for minimum deflection under load. These standards have

been inserted in building codes for the purpose of preventing plaster cracks as the result of excessive deflection. The manufacturer sought approval for his panel which would be used without plaster. Mr. Vermilya said that the only way he satisfactorily could determine the acceptance of this unit was to inspect the loaded panel and then to push against it to see if it swayed or bulged too much. There was no standard for determining the permissible deflection where plaster is not involved. As Mr. Vermilya remarked, "That is not a scientific way of setting up code requirements." A great deal of work must be accomplished in establishing fundamental performance requirements.

What is going to determine the real extent to which the prefabrication of parts will develop, or settle the question as to the relative merits of site erection versus factory prefabrication of whole houses? In my opinion there are four influences:

The first and most important is the economic aspect. In the last analysis the method which costs the consumer least for the greatest value will earn the greatest following. I do not think any single system is going to exclude the others. Site conditions, volume, locality, the interest of capital in such enterprises, are all factors which will make all of them practical in all parts of the country. Shipping costs, of course, are an important economic factor in determining the degree to which prefabrication will extend beyond parts to embrace whole houses.

I am still skeptical about some of the economic aspects of complete prefabrication because every time you change raw material into a piece of merchandise you must add the cost of warehousing, distributing and selling that merchandise. While this is by no means a criticism that is unanswerable, I am aware of the fact that architects have always charged 6 per cent (or at least tried to get that per cent of the cost of the structure alone) as compensation for his talent as planner, coordinator, and supervisor, but the real estate broker has charged 5 per cent of the cost of the house and its land for merely selling the property. The salesman has received more compensation than the professional designer in many instances. Some method must be found to offset the high selling costs of prefabricated units.

The second major influence is the consumers' attitude. Do people want bathtubs combined with lavatories and closets? Do they want partition and storage closets or the exteriors of their homes in standardized types and materials? I think people will buy them if they get adequate value. They will realize that color and texture changes can make wonderful alterations of the appearance of otherwise similar elements.

The third factor is the builders' attitude, but since that is being discussed by others on this panel, I shall not develop it.

The fourth factor is the attitude of labor. I believe that labor is just like you and me and that anything that will advance the nation, that will advance the individual, that will advance labor, is going to be accepted by organized labor, just so long as the man who participates in that improvement shares in the advantages and economies that it brings.

Our job today, and for the immediate, but indefinite future, is to prepare to employ our returning service men and to keep our present employees on the payroll as well. That is our most important post-war job. We expect the

building industry to contribute greatly to the maintenance of a high level of employment. However, I think we must realize that prefabrication of buildings, except on the part of those companies that are already equipped with tooling and experience, is not going to be the immediate answer to the employment of large numbers of people during that theoretical gap from the end of the war until a full peace-time economy is established. The very essence of prefabrication involves tooling, dies, research, and the solution of merchandising problems and more than anything else, the solution of the problem of public acceptance.

These steps are going to introduce a delay in the large development of prefabrication which will prevent major reliance upon this phase of the building industry as a source of large-scale employment. That does not mean that we are going to have a hold-up in building activity. I think we are going to move so fast in traditional site erection methods and in the expansion of prefabrication, that I fully agree with Mr. Kaiser in his statement that there will be no post-war unemployment problem so long as the building industry does its part.

THE CHAIRMAN: Thanks much, Mr. Rogers.

Because the next subject happens to be the last one on the program is no reason whatsoever for its being any less important. The subject of the next discussion is "The Efficiency of the Small Builder." This was to have been handled by Mr. H. L. Godschalk. However, he could not be here, and we are very fortunate indeed to have Mr. Fred H. Ludwig handle the subject. He is President of the Merritt Lumber Yards at Reading, Pennsylvania, and is a member of the Construction and Civic Development Committee of the United States Chamber of Commerce. For twenty-five years Mr. Ludwig has been President of the Visiting Nurses' Association in his community and through work with the Association has come into close contact with the fundamental housing problems. It gives me a great deal of pleasure to present Mr. Ludwig. (Applause)

Mr. Chairman, Ladies and Gentlemen: I imagine that you will think I am an unusual lumberman when I tell you that I have been President of the Visiting Nurses' Association of my city for twenty-five years. As far as I know, I am the only male President of such an association anywhere in the country. I happened to become interested in this work because I wanted something to do in my off-moments when I was away from the lumber business.

My interest in general welfare work, therefore, makes me think of an old livery stable man by the name of Mr. Boyer in Reading who said that he would take his horses out of the omnibus and put them in the coupe to give them a rest. This may be the reason for my having become interested in health work.

Being a Pennsylvania Dutchman and living so close to the cradle of liberty, I might easily be criticized for the strong opinion that I have about the average American citizen. I do believe that he is of the opinion that it is his responsibility to take care of himself.

Before I get down to the address I have prepared, I want to tell you a story of a man whom I knew as a boy in the little town in which I lived. In

those days we called this particular type of professional man a "horse doctor." Today we call him a "veterinarian." Old Dr. Seitzinger in addition to his practice was quite a politician, and each evening would come to the grocery store in our town and tell us about the wonderful doctor he was. He pointed out his resourcefulness by telling us this story. On one occasion in those early days of the horse-driven vehicle, he said the snow had been falling for days. It finally got so deep that people no longer could travel. Near our town located on a hill was a church known as "Hains Church". It was one of those churches that predated the Revolutionary War, because on a plaque over the entrance of the church there is this sign, "All Who Go into This Church Shall Serve God and the King." Beyond the church on a small farm during this snow storm a farmer's horse got quite ill and the doctor had to make the journey to tend to this animal. Now, this is what he said, for it is the point I want to emphasize in connection with the resourcefulness of the American people, "The snow was so deep that I could not go forward and I could not go backward, so I turned around and went home." In America I believe that whatever the housing problem will be in the future, the builders of America will be resourceful enough to handle the situation.

Our friends, the fabricators, have pointed out to you the things they are doing. Certainly the smaller builder has no fault to find with their program. He is willing to use whatever is sound practice, but our problem today is to find out whether there is a place for him in this house building industry. We are certainly a nation opposed to too much regimentation. In our thinking—in fact, when we consider our friendless children, we feel sorry for them because they are obliged to wear uniform types of clothing. In recent years, we have given them individual styles of clothing so that the boys and girls get away from the institutional idea to which we are all opposed. It makes them, even though they are inmates of an institution, feel like real American boys and girls.

As we look at the ladies and their oncoming Easter bonnets, we too recognize the fact that there is still individuality in America. In fact, I do not believe we can find two neckties alike in this room which again indicates to me very definitely that in America from East to West and North to South there is still an abundance of the rugged individualist who likes to have what he wants and does not want someone else to tell him or direct him what to do.

This individualism is confirmed by our experience in a neighboring town. I do not want to speak disparagingly about public housing, but in this particular town 300 of our famous Public Houses were built similar to those that are now vacant in so many places. While there is at present a great need for housing in this particular community, these 300 houses, built as they were under contract, were completed about July of 1943. In this community the private builders have not been able to supply the needs of their customers and yet, in this 300 house project, only forty-two of the units were occupied leaving 258 of them still remaining available. If housing and shelter is still badly needed in this community, and I know this is the case, then there must be definitely some reason why the people refuse to occupy these public houses.

Apparently the American people do not want these properties, because they do not want to live in a regimented community. They want to select the hat

they will wear, the flowers for their garden and the necktie for their wardrobe.

With this background, I come now to my subject which is, "The Efficiency of the Small Builder in Relationship to Costs." In this conference this morning we are discussing production techniques in relation to costs. To me has been assigned the part the small builder plays in this program.

I feel rather fortunate in getting this assignment, because for the past thirty-eight years I have had the opportunity of observing the small home builder operate. Since 1906 I have been in the lumber and building material business. During this time I have watched this small builder come and go. I have seen him build many homes in all price ranges, and I am glad that I can say that a large percentage of these small home builders have made successes of their undertakings. Most of them have become very substantial business men in their own communities.

During the past sixteen years it has also been my privilege, as a mortgage loan broker for some of the largest insurance companies in America, to check the construction costs and workmanship not only of the small builder, but of the large operative or speculative builder as well.

It may be true that because of the varied designs of the houses he builds and the rather limited quantities in which he makes his purchases, the small builder may suffer by comparison with the large builder who buys his materials in carload quantities—often directly from the manufacturer. There are compensating factors, however, which, over a long period of time, have proven that the small builder puts into his house intrinsic values that only reveal themselves in after years when once the period of repair and replacement takes place. It is this hidden value that gives to the home owner over a period of years a net shelter cost that compares favorably with the lower priced original cost home that is built in what we call mass production.

What then do we consider to be the small builder? The small builder as I know him is the carpenter in most instances who has learned his trade and after some years of experience as a journeyman, has started in business for himself. He employs a very limited number of people. The average small builder will have from five to eight carpenters in his employ and he may build in the course of a year a total of twenty houses if his houses sell in the \$8,000 to \$10,000 bracket, from six to ten houses if he is operating in the \$12,000 to \$20,000 bracket, and a smaller number if he is operating in the bracket above \$20,000. If he should be building what is known in the East as the "row-type" house which sells from \$4,000 to \$6,000, then he may build as many as fifty houses in a year. Likewise, if he is building the small individual home under \$6,000, he may also build as many as fifty houses in a given year. It is this type of a builder that, for the purpose of this discussion, I shall call the small builder.

My exposure to builders during these many years convinces me that the small builder is dealing with the individual who wants to build his own home as contrasted with the operational builder who completes his houses and then offers them for sale. The small builder seldom builds two houses similar in design. The large builder builds most of his homes over one floor pattern with a slight variation in the exterior elevations. This type of construction where

design varies in itself becomes more costly and it does not allow workmen to duplicate or follow a standard pattern. In addition, the small builder frequently must incorporate in the homes he builds minor changes during construction and little refinements that will best fit not only the needs of the family who will occupy it, but their desires as well.

I also think of the small builder as the one who primarily caters to the American family that has developed some ideas of their own as to the type of house they want, and which family lives in a town of 100,000 or less, and which, because of background, travel or previous residence, may have specific ideas as to the type and design of the house it wants and what is to be incorporated in it.

When thinking of the large builder in contrast, I believe I am right when I assume that it is this builder who generally builds for sale. He operates in the lower sales price bracket and his purpose is to speed up construction, keep down his costs in order that his selling price might be competitive, and with an overall desire to take a certain development, lay it out in streets and gardens, build the houses, then dispose of them and move on to another location, possibly in another city or in another section of the same city.

The small builder starts out generally in the community in which he lives and does his building in a certain section of a fairly sizable city or better still, he may be the one home builder who does most of the residential building in his own community which may be and generally is a town of less than 5,000 people.

It is quite apparent that one builder, namely the small operator, living close to his development, must take pride in his accomplishment knowing that his customers will be his friends and possibly his neighbors for many years to come. He must of necessity, therefore, build the type of house that will give them overall satisfaction. It may be that considering the size of the house from a cubic foot or square foot basis, his price may be high, but since his average home reflects the personality of the people who occupy it, there are naturally additional costs accruing. The large operator duplicates designs, standardizes production and walks out of his development after his houses are sold and has little reason to be interested in the project thereafter. With this background, may we approach the costs and the efficiency of the small builder.

What do we find when we consider his costs? He has no overhead, for his wife or one of his children does his office work. His office is in his own home and he employs no one regularly to take care of his office for him. He will engage the services of an accountant who at night or over the weekend will keep his books, make up his payroll and prepare the government reports that a contractor must file under the present laws. His overhead, therefore, is reduced to a minimum. He also operates his own delivery unit and while some few small builders have their own trucks that do general hauling for them, this is the exception rather than the rule.

Operating as he does in a given territory, he soon determines who are his most dependable subcontractors. He invariably has one excavator who does all of this type work for him. He likewise employs the same stone or brick laying mason where masonry walls are used. He employs a small plumber and heating contractor, or he may have several whom he can call upon. These same

contractors are usually found on each one of his operations. He does not have sufficient work to keep an electrician employed full time. Therefore, he sublets his wiring to an independent contractor who may have several small builders whom he services. He may be large enough to have his own painters and paper hangers, but invariably he sublets this work to a painting contractor who, with his crew of three or four men, keeps himself busy throughout the entire year doing the work for several of the small home builders. All of these subcontractors operate on the same economical basis with practically no overhead.

Since the small builder very often works on his own development, he is in a position to check the workmanship as it proceeds in his building program and, thus, he is sure to get the best type of workmanship. In connection with his plastering as well as his roofing, I find that he operates in about the same manner. Sometimes, however, where asbestos shingles or wooden shingles are used, his own carpenters on his own payroll do the work. Instead of needing and employing a great many extra laborers, I have found the small builder employs a group of carpenters who are almost the equivalent of "jacks of all trades." They will do cement work, carpenter work, roofing, and in an emergency I have seen them do the grading where time and weather were factors. You will recognize that while we call this builder small inasmuch as he has so few men on his payroll, nevertheless practically all the men working and the subcontractors are part of his organization and he operates to all intents and purposes just the same as though he were a large builder.

The records in my office indicate that the cost of the carpenter work on an average masonry built two-story house in our part of the country that sells for \$7,500, and which contains three conventional bedrooms, a tile bathroom, a good sized living room, a fair dining room, good kitchen and complete basement, amounts to about \$550. When the carpenters apply the roof, this may be increased to \$625 or \$650. In recent years and particularly since Title VI has come into the FHA program, many small builders have undertaken to do a large development of 100 houses or more. They have found that the carpenter labor does not begin to show the saving nor does the overall construction cost reflect a saving proportionate to what this large sized operation means in comparison to the small building program they formerly followed. There may have been some savings as I have indicated brought about by mass purchasing, but they are limited. The small builder now operating in large volume no longer can do his own selling and, therefore, he now pays someone to handle his sales program for him. This item of additional cost alone will very likely absorb the saving affected by mass purchasing. As a small builder he closed his own sales in most instances, and had no expense in connection with this part of his building program.

I would also like to call to your attention the cost of adding to the house, that is built on a production line, the little changes and additions as well as refinements that many home buyers ultimately want to be part of the home they call their own. The original cost of this house plus these additions will develop a final overall cost to the home owner that will show very little difference between the cost of the product of the small and that of the large builder.

Our next consideration is the cost of the land used in the building pro-

gram. Here I know the large operative builder buys acreage, lays out his development and has an advantage in cost over the small builder who is obliged to buy the finished product in the form of a lot with all the improvements on it. This does not apply to all builders in the small group, for there are some whose volume is sufficiently large and whose resources are ample so that they too can buy acreage and develop it as their building programs progress. Generally speaking, however, the small builder is penalized when he comes to buy his land. I would say that he may pay as much as \$200 more on the average house and it may be running into figures higher than that on a better and larger development.

We cannot lose sight of the fact that many of the customers of the small builder own their own ground prior to the time that they begin thinking about building their own homes. Also, this individual for whom the small builder is working may have a certain section of the city or a particular location somewhere that he desires and the land costs, therefore, are governed by the strength of the desire on the part of the home owner. We cannot assess all of the increased costs of land, therefore, to the small builder. They are the product of the customer with whom he deals.

One of the major items of cost in connection with any building operation is the materials that are required. In my position, operating retail building material yards in both large and small cities, I am given the opportunity of observing the practices followed by both types of builders in the home building field.

I have been interested, and particularly so since FHA has become a factor in home financing, in checking specifications as well as the detail costs that make up the cost breakdown that must be submitted with every application for a loan with FHA insurance. As far back as 1927 I have had the opportunity of examining costs of both large and small housing operations where the conventional mortgage, which was taken by the large insurance company, was the means of providing the construction money. Here the costs had to be carefully analyzed and the construction continually checked. This is my observation. For some unknown reason, particularly in lumber and some few of the other heavy materials, the large operator believes he is saving money when he is buying his materials in carload quantities and has them shipped to the site often before excavations have been completed. I find this contractor using tradesmen at wage rates as high as \$1.50 per hour to carry lumber from one operation to another or from the place where it has been unloaded to the house where it ultimately will be installed. Taking all of the costs that go into that kind of an operation, I have allowed certain builders to build up their own costs and their own figures have convinced them in 90 per cent of the cases that their lumber would have cost them less installed in the building if they had purchased it in the normal manner, and had it delivered as it was required to the point nearest where the materials were to be used. As I said before, this not only applies to lumber, but to the stone for the foundation, the building blocks, the brick, the mason supplies and the bulky materials that go into the average house operation. I might say as a lumberman, and the records compiled by Dun and Bradstreet will prove my statement to be true, that the average builder can buy his lumber from the retail dealer and

have the retail dealer deliver it more economically than he can by going into the retail handling of lumber himself. In fact, yards making a business of handling only operative builders generally reflect the facts set forth in the statement by their audited reports that develop at the end of the year.

In the inspection of the average small builder's house, you will find his painting job to be excellent, his outside painting having been done under weather conditions that are conducive to a good lasting job and his specifications generally call for high-grade products. This is true also of his finish as well as many of the minor details in the house operation. I find that he pays slightly more for many of these small items, but they certainly do reflect in the finished operation. This is particularly true of his kitchen equipment, and in most instances, of his roof also.

During recent years the cost sections of FHA, who cover territory which includes both large cities and small towns, have established standard costs by which they appraise the houses submitted for mortgage insurance. It is this practice alone that, during the life of FHA, has done much to raise the standard of all construction. It has provided the right sizes of timbers and joists, it has called for proper bracing of buildings, it has set up certain heating and plumbing specifications, and by their periodical inspections, they have eliminated a large percentage of inferior construction which formerly we know was done by the "Jerry Builder." The fact that all construction, particularly of the house building industry, has improved and the standard has been raised has also affected the small builder. He has learned what is being done by the efficient builder and has followed him in those measures where economies could be effected. He had to do this to bring in line his selling price in order that the 80 per cent or 90 per cent mortgage, for which he had secured a commitment, would reflect the proper value to his buyer.

As I said before, there no longer is an advantage coming from large purchasing. Those of us whose volume runs into millions of dollars in building material have learned that we have no advantage over the dealer who purchases a single car. In fact, we have had the experience that the larger the demand and the bigger the order, the higher has been the price. This being the case, and particularly at the present time with OPA ceilings established, I believe that the small builder is getting his materials delivered to his operation at about the same price installed as is the large operator.

We might consider, in passing, the costs of financing the houses the various types of builders erect. Formerly the small builder was obliged to take a second lien or pay a high premium to someone for taking it. Under present day mortgage financing, with FHA in the picture, the small builder can secure a 90 per cent mortgage on the same terms as does the large builder. There may be sections of the country where the large builder can secure a premium for his mortgages, but where that condition exists, sooner or later it becomes a general practice and there is no advantage in it for anyone.

If the large builder should secure a premium for his mortgages, he quite often pays a premium likewise for his construction money. The small builder, having established himself in his community, I find, has a line of credit at the bank generally sufficient to take care of his construction money requirements, and for this service he pays no charge whatsoever except the interest.

It is easy to realize how little advantage, if we weigh everything, accrues to either one of the builders we have in mind, namely the large or small operator.

If I were to sum up for you my own opinion of the efficiency of the small builder, I would have to say that in recent years he has been able to give the individual buyer as much house as has the large builder. In addition, he has given him the little personal desires and betterments that his customers are looking for. As a property manager for a large institution, as a building and loan director and as a mortgage loan broker, I have also observed that the pride and the interest the small builder takes in each one of the houses he builds prompts him to put in to his product high quality and intrinsic value that, over a period of years, will develop a very low maintenance cost. It is my opinion, therefore, that the small builder operates equally as efficiently in relation to costs as does the large builder.

THE CHAIRMAN: Surely, the lid is now off. I think we can best handle the discussion in the following manner: To save time and to keep from running back and forth to this microphone, we have one on each table, one on my right and one on my left. I am not going to ask any of the participants any questions myself. That I feel is the feeling of my fellow moderator this morning. In answering your questions, I shall ask the participants in the panel discussion this morning to be as concise as they can be. If "yes" or "no" serves the purpose in answer to a question, will they use it? That way will permit more questions, and, therefore, greater satisfaction. So if I may ask Mr. Robert Dowling, President of City Investing Company, of New York to start the questions, taking them one at a time, and if I may help him by asking the fellow panel members here to answer them, I think we can get under way with the discussion. Mr. Dowling, please.

MR. DOWLING: Thank you, Mr. Boester.

I wonder if I might tell you a story before we ask questions. When Mr. Ludwig was introduced among the many things pointed out about his career was that he is President of the Visiting Nurses' Association. Last night, coming here on the train from New York, I happened to meet Will Hays, who, you know, has our morals in charge. It is he who tells us what we can see in the movies and what we can hear, so if this story seems just the least bit a question mark, you can feel sure it is all right to listen because Will Hays told it to me. (Laughter)

It concerns an Army sergeant's letter which came to Mr. Hays from one of the islands in the South Pacific, an island where there was very little but jungle and trouble and wounded men and suffering, and then after a long period came some American Army nurses. They were just the most wonderful things whom anybody could imagine—the work they did, the untiring efforts on behalf of the wounded. Everybody was just so devoted, so respectful, so appreciative, there were no words to explain how highly they were regarded. Then paraphrasing a phrase of Churchill's, the sergeant ended up by saying, "In addition to this great appreciation, I think I may also add that never have so few been chased by so many with so little result." (Laughter)

I think we have a great chance to accomplish results here. We have heard some very interesting papers, and I think that questions sometimes bring out

points which will help us all to understand these papers and to get the most from them.

The question that is asked me most often is, Can I buy a prefabricated house? When can I get it? How much will it cost? Can I get a mortgage on it? How long will the house last? Will it cost more or less than a house built by a local contractor? I do not want to try to introduce too many of those subjects, but starting perhaps with one of them, will someone here in our group tell us how the mail order house will compare with a local contractor-built house in price and how the mortgage lenders will feel about it?

THE CHAIRMAN: Mr. Slipher, please.

MR. SLIPHER: Mr. Dowling, to answer that question we will have to go back before the war, because to a very large extent prefabrication today is being sold to Uncle Sam for war use. Before the war there were a number of successful operators producing prefabricated houses for private sale. Those houses were in the majority of cases financed by FHA insured loans, both as to the maximum in percentage, that is, 90 per cent, and in the majority of cases over a twenty-five year period. That decision on the part of FHA was made after a thorough study of structural features of the house, its lasting qualities, etc. In a number of cases that I know of, there was an estimated life placed on those units of from fifty to fifty-five years, an economic life as they described it.

The question of whether a prefabricated house costs less than a conventional house is about like asking how long is a rope, because there are many factors which have to be taken into consideration. It is a known fact, however, that in the small community prefabrication can bring to the individual home buyer all of the advantages of volume building on one house, on one location. In the large city there may be a very close competitive situation at this time. Only the future can tell when we get into a situation of strong competition and large volume.

THE CHAIRMAN: Thank you. It there another question?

MR. DOWLING: This is purely a layman's question but I should like to know, if you have a prefabricated house and you do not like the location, can you pick it up and move it somewhere else?

THE CHAIRMAN: Mr. Taylor, please.

MR. TAYLOR: Yes, if you take enough trouble, you can move a brick house. (Laughter)

MR. DOWLING: How much will it cost?

MR. TAYLOR: The question of demountability or not is entirely dependent upon the method by which the panels are put together. If you nail them conventionally, you have a conventionally built house, but your local contractor, instead of using nails, can use bolts or double-headed nails and you can take the house down. It is just a question of whether you want to do it or not, and, after all, what is the advantage? Transportation is a most important item in the cost of a house, and bear in mind that when you build

a small house, you put approximately 4,000 ton miles of transportation into that house per room.

THE CHAIRMAN: He also asks what it costs to move it. Can you answer that question?

MR. TAYLOR: After your house is torn down, it costs you somewhere in the neighborhood of 12½ cents per room per mile.

THE CHAIRMAN: Now we are getting down to cost. Have you another question?

MR. DOWLING: That is perfectly wonderful. I don't know how anybody can do that. I am delighted to hear anyone who is so concise in answering. I think all of us would be interested in knowing how much it could cost annually to maintain a prefabricated house versus the normally constructed house. Is there any difference in maintenance?

THE CHAIRMAN: May I take the liberty of answering that question myself so far as research and studies of that kind are concerned. We have found that there is no difference in the annual maintenance cost of a prefabricated house or a site fabricated house, that is, it does not vary as much as ½ of 1 per cent. Each has its particular failings, but in the final analysis the dollar cost for maintenance is about the same.

MR. DOWLING: I think we ought to hear from the floor. I think it would be interesting.

THE CHAIRMAN: Just a minute, Mr. Dowling. Some of these fellows want to interrogate themselves and then we will get to the floor.

MR. DOWLING: I am sorry.

THE CHAIRMAN: Mr. Slipher, have you a question?

MR. SLIPHER: Well, I was very much interested in the advantages that the small builder has in buying small quantities of material at an equal price with large volume purchasers. That is a new economic fundamental that I did not learn. I should like to hear more about that.

THE CHAIRMAN: Mr. Ludwig, please.

MR. LUDWIG: A carload of lumber that is shipped from the South into any part of the country, particularly north of the Mason and Dixon Line, carries almost the same freight rate, in other words, as material shipped to the prefabricating plant. To convey that property from the prefabricating plant to the small dealer, of course, entails an additional cost. Talking about the materials that the small builder buys, the average builder who builds five houses at a time will use a carload of construction lumber. If, therefore, he wants to buy that lumber in carload quantities, he will get practically the same price as the large operator will get, because there is just one price on lumber, and today under OPA ceilings, the dealer can't sell a carload of lumber, if it is a carload, above a very definite price to whoever he is, whether he is large or small.

When he buys in less than carload quantities—and I have analyzed the

costs of some of these builders who have tried to do the operating work themselves and cover retail lumber yards—we find that the average cost of handling a thousand feet of lumber into the yard and out of the yard on the job will run on the average about \$6 per thousand. In larger quantities, direct from the car, naturally that might get down into the neighborhood of \$1 or \$1.50. But when he is buying his lumber, he gets it delivered direct to the operation most of the time, right in the front yard of the house; therefore, he does not have that cost on the job which accrues when a carload of lumber is dumped somewhere on the operation and then he must move it from there into the house.

THE CHAIRMAN: Mr. Taylor, have you a question?

MR. TAYLOR: No.

MR. BOHANNON: I should like to ask Mr. Ludwig what the carpenters' scale is where he comes from, where all the carpenter work on a \$7500 house is done for about \$550.

MR. LUDWIG: In the city of Reading, the scale for carpenters building houses is about 90 cents and for foremen it is \$1.10. In Allentown the rate is about \$1 and \$1.25. The union rate there is about \$1.25.

MR. BOHANNON: Thank you.

THE CHAIRMAN: Mr. Rogers, have you a question?

MR. ROGERS: No, sir.

THE CHAIRMAN: Mr. Ludwig, have you a question?

MR. LUDWIG: I should like to ask Mr. Taylor how far the large units in a prefabricated house can be hauled. What is the efficient distance that you can haul that kind of a unit, and when it gets to the job, can it just as easily be put on the job with as little labor as can a unit that is smaller?

MR. TAYLOR: The distance you can ship a part of a house is dependent upon a number of things. In the first place, your window and door units are the cause of your shoe department. That is where you get the size and shapes and thicknesses and widths. It is the factory in which you use the most elaborate machinery where you need the largest volume. You can ship those parts up to 600 or 650 miles. Your simpler and heavier parts, such as floor sections, wall sections, and things of that kind, from 250 to 300 miles.

THE CHAIRMAN: Mr. Rogers, do you have a question?

MR. ROGERS: I should like to ask the prefabricators what estimate they put on the cost of selling the house after it has been developed and offered to the builder. We have had the estimate that the material and labor cost is about half of the normal house and the rest of it is in distribution. Where are they going to cover the selling cost?

MR. SLIPHER: Well, I know of several operations where, above labor and material, the manufacturer of a prefabricated house has sold his product

at a markup of approximately 25 per cent, that is, an additional 25 per cent to cover overhead and selling expense. In several cases I know where selling expenses of a prefabricated house, including advertising and promotional work, have not exceeded 7 per cent.

THE CHAIRMAN: Mr. Dowling, have you another question before we throw it open to the floor?

MR. DOWLING: No, sir, Mr. Chairman.

THE CHAIRMAN: That being the case, then for the next fifteen or twenty minutes it is your privilege to interrogate the members of the panel, and we will entertain the questions.

MR. IRA S. ROBBINS: I have two questions and I might as well ask them both at once. As far as prefabrication is concerned, I am the man on the street, or I might characterize myself on the basis of the last few days and say I am the man in the hotel. The first question I want to ask is of Mr. Slipher. He mentioned that the prefabricators have to work out certain problems with the federal, state and municipal government. My question there is, What is the problem with the state governments?

My second question is I think to the man on the street there is the impression that prefabricated houses as such have a tendency to be compact, and have very desirable attributes, but in certain respects the compactness may be carried too far, and as a result, the type of prefabricated houses that we have now, or that we may get in the future, do not contain the elements of livability and amenities that we desire as minimum standards in housing. I wonder whether or not that impression is true, and the question is addressed to any of the men who are interested in prefabrication.

MR. SLIPHER: I will answer the question first about the question of state government regulation. The point I had in mind was primarily a question of regulation of transportation. At the present time, as most of us know, the various states have widely different regulations affecting truck transportation which are ridiculous in the extreme. Those are going to have to be reconciled. They have been to a considerable degree during the war, but that work must go on. It will affect prefabrication in the future from the transportation point of view. The other point is a part of this question of removing from the public consciousness the feeling that prefabrication is restricted to war housing, temporary or summer cottage type of thing. That is merely a reaction from the war housing picture to a large degree. I think there is not a single exception to the fact that prefabricators are anxious, willing and ready to produce as livable and as complete and as large a house as the public wants to buy and is capable of paying for.

THE CHAIRMAN: The next question, please.

MR. LEVENE: I should like to hear a little more in detail the advantages of prefabrication, second, about combatting the Frankenstein of the construction business, which is the elements or the weather, and third, the opportunity to give the buyer a home with the sense and feel of a predetermined product as against the abstract feel of working on drawings.

MR. SLIPHER: I think you answered your own question. As far as speed is concerned, there again it is a question of the degree of prefabrication. If the house is completely assembled as well as fabrication of the panels, the amount of work at the site is very limited. I know of some houses that are being delivered in the morning and occupied by the families in the afternoon and that is not idle talk. That is a fact. That is speed, as far as that is concerned, at the point of occupancy. Now so far as the other factors are concerned, I think you really said everything that I could say.

MR. WALTER WOOD: What, may I ask, is being done to give better design at lower cost, in view of the conventional or prefabricated type of construction?

MR. TAYLOR: There is no question but that the housing even in the last two or three years has been improved from the standpoint of design. After all, you take a four-room or a five-room house, there is not much you can do with it. Give a kid nine years old five blocks and he will show you all the combinations that you can use in putting them together, but we have had improvement from the standpoint of materials and design of lines, and I think the biggest improvement has come from the sense of mass design. In other words, the building of whole communities. A lot of us do not like all the war housing we have seen, but we must say that when these projects were designed as a whole, the result was much more pleasing than anybody expected, and I think that the land planners have come nearer proving their contention by what has been done with war housing than could have been done in any other way.

There is a lot of new equipment for homes. Better facilities for wiring have been designed. They are ready to go into use. We have better stoves in the blue print stage. All of those things I think you will see in the post-war housing, given a period for gradual transition.

THE CHAIRMAN: Mr. Rogers, can you add anything to that?

MR. ROGERS: In my opinion, the pre-war work of the fabrication field has made a great advance in the improvement of small house design. I think that the war housing, even bare of all detail, with no shutters, no trim around the front door, no steps or anything else, if given perhaps \$30 or \$40 worth of attention would turn out to be very charming, because the basic proportions of these small houses have been well considered and fundamentally they are mostly of good design.

THE CHAIRMAN: Have you a brief comment, Mr. Ludwig?

MR. LUDWIG: Last week I sat in a conference in New York, to answer Mr. Wood, on this question of planning kitchens alone. It was interesting to me to learn of the surveys that are being made now by McCall's and by the Ladies' Home Journal and by various kitchen cabinet manufacturers. It is interesting to know that 80 per cent of the women want white kitchens and practically 100 per cent of those who were interviewed want larger windows. I think that the builders of those products are going to canvass and determine

a lot of little things like that and in the post-war period they will be in a position to give them to the people.

THE CHAIRMAN: Dr. Faludi, have you a question? Dr. Faludi is from Canada.

DR. E. G. FALUDI (Toronto, Can.) May I ask one question? How can we build a house that the lower income class can afford? What is the difference in cost between a prefabricated house and a traditional type of house of the same size and number of rooms?

MR. SLIPHER: If it is a question of producing a house for the low income group from a private capital point of view, private industry, I think it can be factually stated that we can expect to have for individual sale after the war, in this country at least, very fine small homes for \$2,500, including the cost of the land and the utilities, and they will be of two-bedroom size, entirely adequate and acceptable for private sale, not for rental.

MR. GEO. H. HERROLD (City Planner, St. Paul, Minn.): Statistics show that of the houses built in 1938, something over 5,000 contractors built only one house each in the \$5,000 to \$6,000 class, and something over 3,500 builders built one house each in the \$6,000 to \$7,500 class. The assumption is that the builder made a profit and paid for his labor, and I am wondering just how much the purchaser got in the way of a house under that method of operation.

THE CHAIRMAN: Mr. Ludwig.

MR. LUDWIG: In that type of operation, the average contractor who builds the house is just building that house as a part of his program. He may be a general contractor doing a lot of mercantile or other work, and you will find that the man who has bought the only house that that contractor has built may have gotten just as much of value as though that builder had ten or fifteen houses under way. Generally that is the practice and that is what I have found in small towns.

THE CHAIRMAN: The next question.

MR. CAMPBELL (Practical Builder): Since prefabricators do not make a finished product in the sense that an automobile is a finished product, I should like to ask one of the gentlemen the provisions they are making or the plans they are making for developing the kind of competent personnel, dealerships or erectors in the local community to do the kind of job that is necessary to safeguard their trademark and reputation as manufacturers, and whether in their costs they are setting up a necessary item for taking care of consumer complaints, which in my opinion would seem to be more numerous and more serious than would go back directly to the manufacturer in the event the house is not a perfect item.

THE CHAIRMAN: I think Mr. Slipher can best answer inasmuch as he is the one here who has come the closest to producing the product as nearly finished as the product which you mention, that is, as the automobile is a complete automobile. He has in recent months been building what I believe

he likes to call the segment house, and the plumbing and the wiring and the furniture, the drapes, and the whole ball of wax is wrapped up into one parcel, so that he could come pretty close to answering that question.

MR. SLIPHER: In explanation of the segment house, I should say that it actually is a fact that those houses have been erected as complete houses within the plant, then divided into three parts to make for practical shipping size, and delivered to the job site, to the extent that less than 3 per cent of the final cost of the unit was at the job site.

Now this question of reserve for service expenses is of great interest and important in the question of distribution. Unquestionably the prefabricator is going to have to assume responsibility for his product. He can make out of that one of his greatest sales advantages, because it is traditional in the small home field that there never has been any responsibility behind it. In the case of complaint, the fellow who built it was always in some other city, and that is the thing that we are working very definitely to make a part of our cost and still be well under our competition. We recognize our responsibility and we expect to assume it.

Beyond that the question of trained personnel is again a question of the degree of prefabrication. If it is a segment type house, it is entirely practical to send trained men right with the house to put it up. In fact, even the transporting company might furnish those men or it might be a part of their service. I think Mr. Taylor might better answer the question where there is not such a high degree of prefabrication.

MR. TAYLOR: I do not think the picture is any different from what it is now. If you sell the contractor, he builds your house, and if he is a small contractor in the local community, he will look after it, and if he is a large contractor, a speculative builder, he will proceed as he has in the past. Of course, if he does not do a good job, he won't long stay a customer of the prefabricator.

While I am up here I just want to clear up two questions that have been asked that I want to answer. Mr. Bohannon talked about the thousand houses he could not get and Mr. Dowling wanted to know if he could get a prefabricated house. I will answer them this way: We will deliver one house or a thousand, with one room or twenty-five each, any place in the United States, if you will furnish us a priority order good enough to buy the material and prove to us that you have the money to pay for them.

MR. BOHANNON: All right, take out your pencil. I will give you an order now for a thousand houses, if the quotation and the quality of the house will compete with what I am about to build. I have to build those in the next few months, and it is no small job to get the material together. I will give you a good priority, and it is a deal.

MR. J. BYERS HAYES (Architect, Cleveland, Ohio): I should like further elucidation upon the naive viewpoint of one who will defend the proposal of selling prefabricated parts and yet questions the acceptance of the public of prefabricated houses.

MR. ROGERS: If I understand the question properly, it is whether people will accept the prefabricated part as against the prefabricated whole house.

MR. HAYES: You state that the prefabricated parts are acceptable to the public. Apparently the public has brought themselves around to the acceptance of that, and yet you also state that they will not accept the prefabricated house as a whole.

MR. ROGERS: I should like to get off of that hook quickly then, because I think they will accept the prefabricated house when it is to their advantage. That is, the charm, the size, the comfort and the price, the location and everything else is what they want. The public is going to learn, I am sure, that a prefabricated house is a very good house and so is the site-built house done by equally competent engineer, architect and builder. The individual parts we have learned to use the owner does not hear about. He does not even know whether they are prefabricated or not, because he is still getting a package and if he gets a staircase that is prefabricated, it is no different to him than a staircase that is built right on the site. So that is why there has been no public consciousness of the degree of prefabrication in the past. There is a sudden consciousness of the whole house being prefabricated and people are simply uneducated to its advantages today.

THE CHAIRMAN: Is Mr. Harry Steidle in the room? (Present) Mr. Dowling wishes to ask a question which I think you are probably the best qualified to answer. He wishes to know how many homes or how many houses can be produced by the present prefabricating companies in the first years after the war. As a mortgage man he is interested in that particular question. I might comment on it after you answer.

MR. HARRY H. STEIDLE (Manager, Prefabricated Home Manufacturers' Institute, Washington, D. C.): I wish very much that I could answer that question for Mr. Dowling, but this whole problem of who is a prefabricator and who is not a prefabricator is one that has worried me in the last four or five months because we have attempted to get them into the institute that was formed last summer. So far we have been unable actually to put our hands on the people who are prefabricators now and who are potential prefabricators, and thus far certainly we have been unable to make a survey of their capacity.

THE CHAIRMAN: Might we ask, is it public knowledge at this time of the total daily capacity of your member organizations?

MR. STEIDLE: I have not even had an opportunity to find out from our own members as to what their capacity is. I recognize the importance of that job, because we are constantly being asked the question of the Army, Lend-Lease, UNRRA and others, but we have not as yet had the opportunity of learning.

THE CHAIRMAN: The only qualification I can make in answer to the question is that from a research and investigation viewpoint, knowing who are in the business and who are talking about getting in the business and who are equipped to do the job, it would seem that Mr. Kaiser's estimate last night that for the first few years after the war about 5 per cent of the number of homes built will be prefabricated, or at least partially prefabricated, is correct, and that is as much as we can get on the subject.

MR. TED F. SILVEY (National CIO Office, Washington, D. C.) : I should like to raise a question more from the standpoint of the user of the finished product, since I am not expertly qualified in the construction and promotion business. The gentleman from Toledo spoke of the coordination of materials and procedures, the coordination of dimensions, and the coordination of testing. I should like to know what the prefabricators are doing toward the coordination of furnishings with that kind of house, because while I would feel very kindly about these things that he mentioned as a workman or as a potential tenant or occupant of the house I would own myself, I know very well my wife's first question would be about the dimensions of the furniture and the kind of curtain facilities and all of those things that housewives place primary consideration on. Will the prefabricated housing they are going to present to the public after the war require the prospective tenant or purchaser to make up his mind about the buying of it on the basis of fitting their traditional furniture into it, or will the houses be equipped with some furniture and it be expected that the tenant will have to buy a complete new set of furniture? Will there be not only the traditional ironing board that is let down from the basement wall or the kitchen wall, but also folding tables that disappear into the wall or rotary seating capacity that rotates into the cabinet wall under a clothes press that is half way above the wall and such things as that?

THE CHAIRMAN: I will ask two gentlemen to answer that question. The first one I will ask to comment on it has had some very practical experience recently, and he is Mr. Gilbert Rodier, Technical Director of the Public Housing Authority. He asks where furniture fits into the prefabricated house. Gil, have you a comment?

MR. GILBERT RODIER: As far as I can see and understand from what I have heard here today and from what I have discussed with other prefabricators, I see no reason in the world why the prefabricator should not provide a house that will take care of either the conventional furniture of which this gentleman speaks or should not provide for all of the known special conveniences like the ironing board and the folding table, or go still further as developments increase and get into all of the trick sort of gadgets which are very appealing and of which I think we will have a great many in the future. I do not speak, of course, as a prefabricator, but I know prefabricators very well, I think, and I think we have all agreed now that prefabrication as such does not place any limitation whatsoever upon what the consumer will ultimately get.

THE CHAIRMAN: Now before I ask Mr. Taylor to finish the answer to that question, I overheard him say that he disagreed with the 5 per cent estimate of the prefabricated house, and after he answers this question he might possibly like to make a prediction contrary to the 5 per cent.

MR. TAYLOR: I think you are correct in assuming that the men aren't going to have very much to say about the house or what is in it. At least that is the theory on which we work. We keep on our staff at least one woman who is a qualified architect who knows something about interior decorating. We

do not make a panel or we do not design a house basically and approve it until she has gone over it from the standpoint of draperies, the placing of furniture, and the kind of little things in a house that a woman looks for and wants and needs. I think as far as the equipment which you are talking about is concerned, the greatest change is going to come in the design by the manufacturers. Radios, refrigerators, stoves, cabinets have been designed as pieces of furniture, because the existing market was largely one of existing homes and no one individual or group controlled a sufficient demand to enable the manufacturers to design equipment for use exclusively for new construction. You paid \$250, approximately, for a radio with cabinet to go into your home, and you bought the same job for your car for \$50. There is no reason the refrigerator mechanism can't be off in a corner and have a box for your bottles with a lid which opens up as it should so that the Coca Cola isn't behind the milk, with another one for freezing ice, and another for your fruit and vegetables, and then when it wears out, you can replace the mechanical parts for \$40 or \$45 instead of buying a new box for \$150 or \$175. I think you will find that trend in radios and a great many other things in a house. I think it is the most marked change that is coming.

THE CHAIRMAN: Your prediction, please.

MR. TAYLOR: Oh, I just commented here that Mr. Kaiser said that 5 per cent of the houses would be entirely or partly prefabricated. I said that I am glad to know that Mr. Kaiser and I disagree on that question by only 95 per cent. (Laughter)

THE CHAIRMAN: Another question, please.

MR. EDW. L. McCONNELL (Philadelphia Savings Fund Society): Will the prefabricator finance these houses similarly to the way the automobile companies have financed cars through credit corporations or through private financing?

MR. TAYLOR: The financing of houses in the United States particularly is made up of two parts. The question of the permanent mortgage has been very well taken care of in the last ten years by our insurance companies, our mortgage institutions, building and loan associations, etc., with or without FHA guarantee. The financing of the construction money has not been so well done. The bankers do not like it and they do not work very well with the builders in most cases. I would say that as far as the permanent financing is concerned, the answer to your question is no. As far as the furnishings of construction funds by some workable method is concerned, the prefabricators are going to have to unless the banks and insurance companies or other lending institutions wake up to what constitutes a workable construction loan.

MR. JOHN J. McNAMARA (Buffalo Municipal Housing Authority): I have listened very attentively to the predictions of prefabrication of homes. I was wondering if any of the people at the table could tell us how long it is going to take to simplify the building codes of the forty-eight states, the five or six thousand counties, and the different towns and townships of this

country. Don't you think that is a very important matter, indeed, in the prefabrication of homes?

THE CHAIRMAN: I will ask Mr. Rogers to answer that question. I should like to comment on it myself to the extent of my knowledge of what the prefabricators are going to do sales-wise. They are going to cultivate the rural area intensively in order to demonstrate the soundness of their product, which will in turn materially affect the code problem of the urban areas.

Mr. Rogers, please.

MR. ROGERS: The question hits on a very vital spot, and I think the answer is that it will take just as long as it takes the individual towns and communities to get on the job of studying their own codes and finding out what has to be done to make them fit our present-day requirements. There is no agency that can do it for you. Every town and every community must study its own problem. The process is a complex one, but the best way to get the problem solved is to get started in our own town.

MR. R. C. DEWEY (R. C. Dewey Co., Buffalo, N. Y.): I should like to ask Mr. McNamara what is to be the attitude of labor as to the revision of these codes in the various communities throughout the nation.

THE CHAIRMAN: Briefly, Mr. McNamara, please.

MR. McNAMARA: Well, I believe, as the speaker said, that is a community question which will have to be answered by the prevailing rate of pay existing throughout the forty-eight states and matters of that kind. Certainly, we know that there are not going to be 130,000,000 homes, because we are not all going to move out of our homes. There are going to be, maybe, 15,000,000 or 20,000,000, and that is a matter in which labor is vitally interested because that purchasing power is in the hands of the working people and we are going to have something to say about it, I assure you.

MR. LUDWIG: I should just like to make this comment about building codes, and I think it ought to be taken home with you folks. I should like to have you think about the law in your own state that has to do with the changing of the building code. You may find that you have to advertise it, as I did in my own city, and I found out that it would cost me between \$5,000 and \$7,000 to advertise the code. We finally got the state to modify the present law so that we can now adopt a code by reference. I think that is being done in a great many states, and when you do that the opportunity for changing codes is going to be made a great deal more fluid.

THE CHAIRMAN: Mr. Dowling, have you another question or comment?

MR. DOWLING: No, thank you, Mr. Chairman.

THE CHAIRMAN: The meeting will be continued this afternoon sharply at two o'clock.

... The meeting recessed at twelve-fifty o'clock ...

FRIDAY AFTERNOON SESSION

MARCH 10, 1944

The meeting convened at two-thirty o'clock, Mr. Carl F. Boester presiding.

THE CHAIRMAN: Let's get started, please. Will you please come to order and be seated?

This afternoon's panel discussion concerns the prospects and effect of new materials. The program will be handled in much the same manner as it was handled this morning. We started out with a presentation of the various subjects under discussion. First of all the moderator of the program will make his remarks, and then the various subjects to be discussed will be given by the speakers assigned to the particular problem. After that there will be a brief period of interrogation by the panel of itself, and then, as we did this morning, the moderator will throw the discussion open to the floor, and it will be your privilege to ask questions of those participating in this afternoon's program. We won't waste any further time.

The moderator for the afternoon's discussion hardly needs any introduction. He is Mr. Raymond J. Ashton, President of the American Institute of Architects, Salt Lake City. He finds himself quite at home here in Chicago, as he is a former resident. For many years Mr. Ashton has been a member of the City Planning and Zoning Board of Salt Lake City. Mr. Ashton is also a member of the Advisory Board of the Producers' Council. Without any further delay, I take pleasure in introducing to you Mr. Raymond J. Ashton.

THE MODERATOR: Thank you, Mr. Boester. Ladies and Gentlemen: Your full panel is before you with the exception of one member. I think we will excuse him on account of the dining room service. I left the dining room some time ago and the service was very slow. So when he comes in later, please understand he is excused on that account.

Up to now in this conference you have had put squarely before you some of the problems that have to do with housing. This morning I listened with a good deal of interest to the pros and cons of prefabrication versus site fabrication. Both sides have their merits. This afternoon you will face the problem from another point of view. You will consider materials as they relate to the housing problem. We will start off this afternoon's discussion with a talk by Mr. Irving W. Clark. Mr. Clark is the Manager of the Better Homes Department of the Westinghouse Electric Company at Pittsburgh. He is a director and officer of the Producers' Council, and is a member of the Urban Redevelopment Planning Committee of the city of Pittsburgh and a member of the War Housing Committee of Mansfield. I give you with pleasure, Mr. Clark. (Applause)

MR. IRVING W. CLARK: Mr. Moderator, Ladies and Gentlemen: It is indeed, a privilege to be here and discuss housing with a group of this importance. It is appreciated both by my company and me personally.

That a huge need backlog of housing units exist today in these United States of ours is a well established fact. The annual rate of actual construction during the ten-year period immediately preceding our country's entrance into the war only filled approximately 40 per cent of our national new housing requirements, for net new families, replacements necessitated by loss from catastrophe—demolished for commercial and industrial expansion or untenable conditions.

To this accumulated housing deficiency must be added an even more rapid accumulation of unfilled new housing needs during the war years. With all due credit to the unprecedented accomplishments of the housing industry in erecting war shelter units to alleviate the most pressing requirements of huge population shifts to shipbuilding—aircraft—munition and war industrial centers, the fact that only a small part of this construction will in its present form and location meet our post-war requirements cannot be disregarded.

A million housing units annually for ten or more years after the war therefore appears to be a reasonable estimate of the nation's peace-time shelter *need* requirements, if housing is to hold its own with the balance of our living economy.

New housing, however, is only part of the story. When the war is over, at least fifteen years will have elapsed since there has been any important modernization or repair activity of national scope. A high percentage of America's thirty-two million existing residence units are crying for extensive modernization—major repairs—to preserve and maintain their equity. During the transition period and immediate post-war years, it is essential that major emphasis in the housing industry be placed upon modernization and repair. The dollars spent in this field can equal or exceed the dollar volume in new housing construction.

Far too often housing projections fail to include the important element of community facilities, as: streets, transportation, utilities, water systems, sewers, sewerage disposal plants, schools, parks, churches, theaters, and commercial buildings that are as much a part of any successful new housing development as the residential units themselves. At least an equal number of dollars must be invested in these facilities as in new housing. Much of this so-called "heavy construction" should precede the actual housing program.

It is these three phases which form the complete housing market upon which the construction industry must focus its plans—its efforts. Each part is related to the other two. Only by complete well balanced programs can the housing industry fulfill its obligation to its community.

PROBLEMS AND CONTRIBUTIONS

But how can this great need potential be converted into actual houses? What is this major problem upon which the housing industry must focus its attention—that is so essential to the proper conversion of this huge need market into actual fact? What single contribution will pinnacle to greater importance over all others? The problems of the housing industry in approaching a market of the magnitude previously outlined are many, and the problems of the industry are the problems of the material and equipment producers. It

is essential however, that all of these problems be carefully analyzed in a search for the major problem and to establish the proper evaluation of each factor to the major problem. Once established, it is then a necessity for the industry to raise its sights and focus them on the major problem, rather than upon the many partial problems that far too often are overemphasized as to their importance.

Will it be re-conversion? No! As great as this problem is, with all of its ramifications from materials to retraining of personnel, from production to distribution, it actually is only a part of the problem.

At the conclusion of the war, it will be essential that industry re-convert in the shortest possible period and with a minimum of unemployment. This means that the consumer goods manufacturers must get back into the production of the things that they were making when the clouds of war descended. The *tools*, the *techniques*, new materials, the production lines can be more easily converted to 1942 products than to wait for new tools, new techniques, new materials that entirely new products would require. It is, therefore, only sound, sensible thinking to anticipate that *most* equipment and materials will be the same or similar to those with which we built in 1942. To be sure, these may carry a new dress, but fundamentally, 1942 products should be anticipated for the immediate post-war period.

Please do not misunderstand me—nor classify these remarks as reactionary. I believe that many of the elements and materials and products which we have seen displayed across the pages of our forward-thinking publications and have heard expounded from the stage and press, as "Items of Tomorrow" will eventually become a fact.

Product and equipment history, however, has been one of organized improvement year after year, through research and development—step by step. New materials require new techniques, new machinery, and reasonable periods of testing before the reputable manufacturer is prepared to place them on the market for consumer use, and this evolutionary process applies to housing as well. You may be sure, however, that the period immediately following the war will be one of greatly accelerated development of all products and materials—both old and new.

Will it be the re-building, the re-vamping of distribution? Again, the answer must be—no. Any changes in this important field will take place in an orderly fashion, step by step, in an evolutionary manner, over a period of years—in tune with other developments.

Will it be the development of new materials—new equipment—supplies and appliances? Important as the contributions of new materials and new products will be, it is only one of the contributing factors. Here one should anticipate the continuation of an evolutionary process that has been going on ever since the development of water power inspired man to greater mechanical developments—ever since the Yankee peddler realized that in the development of new items, the improvement to his existing meager lines of early implements—lay a golden opportunity. Year after year, decade after decade, century after century this evolutionary process has consistently brought new or improved commodities to our door. Through boom periods and depressions—through periods of peace and periods of war, history establishes that this

process of new developments—new materials—new products—has been continuous but that it has always been accelerated by the necessities of war. Necessity has, and always will be, the “mother of invention!”

And World War II and the years that follow will be no exception to this time-honored fundamental. No! Our answer does not rest within the process of invention and development alone. Actually, as a nation, only partial use has been made of the vast array of products—materials—equipment and techniques in existence in 1941 in the housing field. The public accepts new items, new things, major changes, slowly. Proper mind conditioning of the public to new commodities—new techniques—changes with which they are not familiar—through carefully planned educational programs, is a “must” to the goal of public acceptance—the true measure of success.

Again, is it a better financing plan—lower interest rates—longer terms of amortization?

Much has been accomplished in this field—sound progress has been made—further progress should be anticipated, but here again, careful analysis indicates that this is not the major problem. As vital and as complex as the foregoing major questions are, they are only part of the one major problem of the producers of housing materials and equipment. Savings in cash—government bonds and credit potential in the hands of the consuming public will be at an all time high at the conclusion of the war. Never before has the consumer purchasing power reached such astronomical proportions. Never in history has such a pent-up desire to buy consumer capital goods and luxuries spiraled to such heights.

Here are two important elements of free enterprise—the *desire to purchase* supported by the *power to purchase* in the form of cash or credit straining at the leash, waiting for the relinquishment and removal of necessary wartime limitation orders when the *life blood* of free enterprise—*fair competition*—can again flow through the veins of private industry—when the normal flow of capital and consumers’ goods will bring a higher standard of living not only to America but to the world.

Here also lies the housing industry’s greatest problem. As with all industry—fair competition is the life blood of the housing industry—not competition within the industry itself—but with other industries that will vie with might and main for a larger share of the consumer dollar. The ability of the housing industry to compete successfully with the automobile—the fur coat—jewelry—delayed vacations, etc., for a fair share of the consumer dollar is its greatest problem and in its solution rests the industry’s greatest contributions to society—social and economic. Its solution is a must! American housing is to hold its own with the balance of our living economy.

May I repeat—the housing industry’s greatest problem in the post-war era will be its ability to *compete* successfully with the automobile—the fur coat—jewelry—delayed vacations, and so forth for a fair share of the consumer dollar and in its solution rests the industry’s opportunity for its greatest contribution to society—social and economic.

All of the questions raised earlier in this presentation and many others are contributing elements to this problem—each must be solved within the framework of the major problem.

What is "housing"? Far too often housing is considered as shelter only—to many it is structure and a minimum space of land. To others—structure—land—and certain specific equipment. All of these conceptions fall far short of the broad scope of the major problems. Actually, housing is the shelter for the heart of the family unit, the home, and the home of 194X must be a *Complete Living Unit* to meet competitive requirements.

It is therefore only sound, sensible thinking for the industry to meet its major problem by developing a *complete package of living* with ample land and trees to meet its occupants' social, economic and artistic requirements—with a structure that gives maximum protection from the elements at minimum maintenance expense and maximum architectural appeal — with sufficient equipment to insure heat—light—sanitation—cooking—food preservation and laundry facilities at minimum operating costs—located on streets free from through traffic and convenient to schools, churches, theaters, parks, stores, commercial buildings and easily accessible to industry. Again, it must develop a series of living packages for the various economic and social levels that can be merchandised at a fair profit and at a price within the means of each major income bracket. A fair rental will amortize the mortgage and maintain the investment at maximum satisfaction to its occupants. It is this "Living Package" that will be a real competitor for a fair share of the consumer dollar. It is the cooperative part that building material and equipment producers will play in developing this competitive package that will form the basis of their greatest contribution.

A LONG-RANGE PROBLEM

It is on this broad, long-range pattern of Better Living that the housing industry must train its sights—must program its efforts—if American housing is to keep pace with the balance of our living economy. Many of you will say this is not a new approach—it is being done already. Others will question the industry's ability to accomplish a program of this scope. To you who are already working to produce a complete living package we recommend that you intensify your efforts. But *how* can this ideal complete living package become a fact? What steps must be taken? A careful study of the outlined specification will reveal the following:

(1) That there is not one single new or unknown item in the specification that was not available when the war descended upon us. The land—the structural materials—the equipment—the public service facilities—the construction personnel—the financial support—the know-how—were and are all available.

(2) That the outlined specification however will require longer range planning, more complete coordination — and the full cooperation of every branch—every individual of the housing industry.

(3) To the material and equipment producer it will mean effective studies of the better relationship between various types of material, many pieces of equipment both old and new, used in construction—a complete integration with standard dimensions and completely organized sub-assemblies—the continuous development and production of new items—new techniques—at reasonable capital costs and minimum operating and maintenance expense.

(4) To the architect—the engineer—the builder—the contractor, a closer cooperation with the suppliers of materials and equipment in an effort to better coordinate design—facilities—fabrication and to eliminate waste.

(5) To the City Planner—the realtor—the promoter, the better utilization of land—the integration of each subdivision as a part of an overall county plan.

(6) To the banker—the insurance company—the financial institutions, the development of better yardsticks of appraisal—of greater appreciation of maintenance, as a fundamental to sounder investment.

(7) To the Social Worker, an ever increasing effort to help our less fortunate by developing techniques to encourage a gradual improvement in their economic existence.

(8) To the housing industry the opportunity to carry its full share of the post-war economic program of full employment by producing year after year better complete living units—to build stronger, better—finer American communities—to raising the standards of American living.

Thank you. (Applause)

THE MODERATOR: Last night we heard the statement made that 8 per cent of industry is the building industry. Today you are noticing the unfolding of that industry to a much higher percentage. I believe truthfully we are rated as the second industry in the United States. Now I speak of the building industry as it is with its allies, the manufacturers of durable goods. During this war period some of us as architects have had novel experiences. We have been required by the War Production Board to use materials we had not thought of, although, as the speaker has just said, they were in existence.

One of the strangest things we had to do on one project was to manufacture two thousand cement—concrete—bath tubs. Then the War Production Board told us we could not buy taps and drains. We turned to plastics. Now I give you with pleasure an authority on plastics, a consultant on the subject from Chicago, Mr. Elmer C. Maywald. (Applause)

MR. ELMER C. MAYWALD: Mr. Chairman, Ladies and Gentlemen: Your Director, Mr. Toedtman, asked me to talk about "Have Plastics Been Over-Rated for the House of the Future?" That posed quite a question, inasmuch as I have been unable to get an assurance as to what "the house of the future" might be like. I have reason to presume however, that women will continue to over-ride vetoes on the choice of homes and their notions of what a house should be like are bound to prevail—influenced, of course, by the movies—the gentlemen of the fourth estate—radio and the other media that mold style. The ten years prior to the war, in my opinion, saw the building of the greatest group of "jerry" built homes in our history. Frankly, it's hard to believe that many of these houses will outlast the mortgages.

Now to get on to plastics—what are plastics? The average G. I. Joe, and this applies to architects and builders as well, are confused by some of the stuff that has been written about plastics in the Sunday supplements, etc. Words like phenol formaldehyde—cellulose acetate, polystyrene, methylemethacrylate, vinylidene chloride, or even the trade names such as Durez,

Resinox, Bakelite, Tenite, Lucite, Lumarith and Saran are rarely connected with the materials you know as your telephone, toothbrush, parts of your automobile or the seat you sit on when you take the bus to the office. Briefly I'll try to leave with you a thumbnail sketch of some of these plastics.

Some smart fellow recently described plastics as materials derived from nature. Fundamentally, they are all organic matter derived from carbon, combined with chemicals like hydrogen, oxygen, nitrogen and then mixed with cellulose from wood or cotton or proteins such as skim milk, corn or soy-bean leftovers. In other words, by twisting nature's tail with heat and pressure and mixing basic elements and chemicals we create new characteristics. As the name plastic infers, all of these synthetic materials at some stage in their processing soften like molasses or hot tar and are hardened or set up by chemical reaction into the desired shape by applying heat and pressure. Plastics are classified largely by the method used in producing the finished product. Those poured in liquid form and baked are called cast plastics. Some are delivered to the processor as powder—pellets—flakes or sheets of treated papers or cloth—these are formed in molds by applying heat and pressure—resulting in an infusible, inert mass that will not soften again by applying heat. These are the thermo-setting plastics.

Some others, rigid at room temperature, can be reheated and reshaped at their softening temperature. These are called thermo-plastics. Laminates—which are layers of plastic resin impregnated wood, paper or cloth are pressed together and heat applied and come out sheets or shapes used for gears, table tops, aeroplane wing tips—floors for Flying Fortresses and hundreds of other uses. Laminates as well as thermo-plastic and thermo-setting materials are also produced in rods and tubes.

Just a few words now about how the use of plastics has increased in the last decade. In 1933 the total production of synthetic resins did not reach 50,000,000 pounds—last year 1943 the production was somewhere between 750,000,000 and 800,000,000 pounds. About 85 per cent of these products went to war in some form or other. Prior to World War II a great many plastic items were gadgets or "what nots"—sometimes more "not" than "what." The War brought on a sobering change and the rigid Army and Navy specifications—due to the climatic conditions of global and sky warfare made it necessary for the plastics industry to develop and improve techniques that would not have been possible in twenty years of peace.

The Higgins boats and the British Mosquito bombers are illustrative of the progress that has been made. Every combat plane has over 200 separate plastic parts and every battlewagon of the Navy uses around 1,000 plastic items—many of these plastic parts are made to extremely close tolerance and must stay in their place pitching, come what will. Schickelgruber's and Tojo's boys are getting acquainted with phenol formaldehyde the hard way—some of them no doubt made hasty exits to their ancestors by getting hit with a chunk of the stuff from an M52 Fuze or a Canadian No. 69 hand grenade—both made of plastic.

What has all this got to do with the house of the future? To get back on the track—a big "if" must be hurdled: If Henry Kaiser or some several like him determine to manufacture a line of prefabricated homes—if Phil Murray

and Bill Green can be made to hold still the prefabricated house may emerge as a post-war reality. If this happens plastics will be a factor in this house, evidenced by plywoods and laminates, foamed insulators and in dozens of other places where they fit.

An interesting account on this type of a house appeared in the December issue of *Plastics*, published in London, under the title, "Specific Gravity and Housing." The writer, R. V. Boughton, scores several interesting revelations—let me quote: "Apart from the many equipmental items of a building, there is the range of sheet finishing and decorative plastics, and what is of extreme importance, the laminated resin-bonded materials, which include structural plywoods, are creating considerable opportunities in permitting houses to be designed and constructed in accordance with the best modern codes of practice." Further, he points out that the traditional house weighs about 125 tons and that a post-war house of equal cube and livability incorporating plastic-bonded plywoods could be built to weigh only 40 tons—the lesser weight—85 tons representing a saving of £85,000,000 (pounds sterling) in transportation costs on 4,000,000 homes expected to be built in England immediately after the close of hostilities.

In this same issue appeared the summary of a lecture titled "Plastics in Building" given before the Incorporated Association of Architects and Surveyors by H. H. Lusty of Bakelite, Ltd. He pointed out some of the exaggerated views on the possibilities of plastics and stressed the danger in over-rating them. He mentioned quite a list of possible sound plastic applications for house accessories.

Because so much "twiddle twaddle" has been voiced and printed about plastics, I asked about a dozen of the top executives of plastic material manufacturers for their frank opinion on the part plastics might play in the House of the Future. Here are some of their answers.

EXCERPTS FROM TOP EXECUTIVES OF LEADING MATERIAL MANUFACTURERS:

"We are somewhat confused regarding the so-called 'House of the Future.' There seem to be two general schools of thought on this matter: The first is that the house will be prefabricated and run off on production line basis and composed of standardized shapes, and the other, the existing home will be taken as a shell and completely re-equipped with all manner of modern labor-saving devices.

If the former is followed, there should be a reasonable demand exhibited for synthetic adhesives of the bonding of wood and also for the surfacing of inexpensive stocks. The mass production of such units presupposes a standardization of interior units, that is, wire outlets, lighting, kitchens, etc. That being the case, it would seem that volume of similar or identical units to equip these houses would be sufficiently great to warrant a wider use of plastics in the home than heretofore experienced. I have in mind standardized lighting and lamps, standardized table tops, drain boards, kitchen cabinets, shower stalls, window sills, window frames, and hardware. These prefabricated houses will require some means of giving them character, that is, to differen-

tiate them in the mind of the owner from that of his neighbor's. Color might conceivably be the means used.

If the second phase occurs that is, the rehabilitation of existing houses, there naturally will be more plastics used, but only because plastics are now feasible and satisfactory for a wider series of uses. In this instance, they will have to stand on their own feet as component parts of individual pieces."

* * *

"I certainly could not start off by telling you the answer to the query form of your title, because it depends on who did the rating. Unquestionably, some people have badly over-rated the possibilities of plastics, while others have very sensibly planned to use them in places where they get advantageous performance from them.

I don't wonder that architects get annoyed at the various predictions by non-architects. I suppose they have found, like the rest of us, that the public have difficulty in differentiating between those who just write for a living and those who create the houses to live in.

We never have wanted to sell plastics where they would be badly applied, but I must confess that as a so-called 'salesman' I have failed on all too many occasions to sell them where they should have been used. You can do some good for the builders and architects as well as for us, if you can help dispel the lethargy and inertia that result in failures to investigate the possibilities of plastics."

* * *

"In general, I would say that plastics have been distinctly over-rated for the house of the future, and that for household construction and decoration the use of plastics should only be considered in the light of the fact that the plastic parts would have to have a useful, long life and that few plastics were made long enough ago to prove their utility over a long period of time.

Some functional parts such as plumbing fixtures, faucet handles and plastic piping would undoubtedly be satisfactory provided they could be supplied at a price competitive with the materials which they replace. Plastics for surfacing mediums which would not be expected to have a very long, useful life, such as changes in decorations, etc., presumably can be considered favorably."

* * *

"I'd say the answer was Yes and No, but that doesn't help you.

Very generally plastics are being over-rated except by those of us who work with the materials. There is no doubt but that plastics have caught the public's eye and attracted their imagination. We recently had a letter from a very reputable concern in which they asked: 'We would like to know if you will have available after the war a plastic from which a complete house may be poured?'

Before we conclude just what future plastics have in home building, let's agree that there has been considerable over-rating as to what the house of the future may look like regardless of materials.

You may have seen some of the imaginative buildings that have been

shown in Seagram's advertising. I don't think we're going to see building like that immediately—they may come in time. From the practical standpoint of plastics, they can bring many advanced accessories to the future home and can improve phases of construction. Outstanding will be the phenolic resin-bonded plywood for exterior construction and possibly for structural supporting parts. Auditoriums have been supported by such structural sections.

"Of course, houses built of resin-bonded plywood are not particularly new. A very beautiful \$50,000 home was built in Portland, Oregon, in 1940. This was a Mediterranean type with a blue tile roof, on a hillside setting. It was 160' x 38' and required more than 33,000 square feet of plywood. The walls, interior walls, ceilings, roof, sheathing, sub-flooring, were all of plywood. A less pretentious but still very attractive home was built in '39, using resin-bonded plywood. This house was built on the toughest spot that could be found on the West Coast—overlooking the sea. The design was very modernistic.

The Federal Distributing Company, who handle Sunset products, built a whole chain of gasoline stations of the resin-bonded plywood, saving about \$1,000 a station over the type of construction previously used. They were able to add a modern note to the stations through plywood's ability to be bent for curved surfaces.

Now, of course, these homes and stations are no more plastic homes and stations than is the airplane made from plywood a 'plastic' plane—but they do definitely involve the use of plastics, both in construction and where oil soluble resins have been used in paints and enamels.

There is some work being done on wall construction materials that would be self-insulating and strong enough to have supporting values. These will involve phenolic resins. Resin is used in glass wool for insulating purposes.

Molded chairs have actually come. Co-Ro-Lite, a product of Columbian Rope Company, involving sisal fiber and phenolic resin, has been formed into chairs by Vidal Products and are now on display at New York Furniture Exchange. The seat and back are of one-piece, made from laminated wood bonded with phenolic resin. The complete unit comprises three separate pieces. Raymond Loewy has designed furniture that can be made on a production basis—chairs and small coffee tables out of one piece of resin-bonded plywood.

Let's not treat these industrial designers too lightly. Remember that Raymond Loewy created metal chairs for ocean liners. The order was so large that he managed to get a manufacturer to go into the business; and the chairs so successful that the manufacturer had difficulty in keeping up with the demand. His ideas for lighting fixtures for buses were so successful that they led to the use of similar lighting in different types of construction.

Plastics will make heat-and-water-resistant and alcohol-proof tops for tables and desks. Daystrom Corporation, at Olean, New York, are making such table tops. It is not improbable that in time bathroom and kitchen units, completely integrating all functions of the varied types of equipment now used may be molded or formed from such materials.

The Navy is successfully using dishes made of plastics. This will ultimately have an effect upon homes. Possibly fabrics and upholstery are beyond the

scope of things that you want to cover, but you know the part that plastics have played in that field.

Supporting the reasoning that plastics will be more extensively used for home (as everywhere else) is the questionnaire of INDUSTRIAL EQUIPMENT NEWS, asking 3,600 manufacturers what they were doing about the post-war. Of those replying, approximately 30 per cent said they have now designed new and improved products; 11 per cent that they are now ready with new and improved products for the post-war; 12½ per cent that they are looking for new and improved products; 13½ per cent that they are ready with a new industrial product and one entirely new to their former lines. A total of 84 per cent have definite post-war product plans made or in the making.

Now we have to remember that war has a way of pulling things loose from their moorings, and it is safe to say that a number of homes of the future will be without dining rooms. One expert has even predicted homes without kitchens as we know kitchens today. Certain food will be sent to homes by pneumatic delivery tubes, the food cooked and ready to serve. Well, they seem entirely ridiculous. With air transportation it is not improbable that the famous restaurants will do a catering business so that you can secure, on short order, in places at a great distance, those dishes for which they are famous.

But housing: If the war ended tomorrow, the United States Chamber of Commerce says there would be unleashed a pent-up purchasing power of fifteen billion dollars within six months; and surveys made by General Electric, Westinghouse, and the Government check almost perfectly as to the need of a million new homes a year for a decade following the war. Most of these will be low-priced homes with tremendous possibilities for plastic hardware, electrical equipment and fixtures. It may be possible to make refrigerators less expensively through the use of plastics and resin-bonded plywood. Several concerns have experimented with plywood bathtubs. These would not be suitable for the \$50,000 homes, but might be very acceptable for low-priced homes and the millions of homes in the country today without running water or any thought of bathtubs."

* * *

"We do not manufacture plastics as such but do manufacture structural board products of a plastic or semi-plastic nature. These are used intensively in house construction and some of them have been used for this purpose for a great many years. We anticipate a considerable field in home construction in the future for our materials, including some newer developments of a plastic or semi-plastic nature which will be furnished in board form. These items enter not only into the actual construction of the building for both interior and exterior exposure but also in the construction of various pieces of furniture, including ice boxes, kitchen cabinets and the like."

* * *

"The subject which you have been asked to cover at the National Committee on Housing has so many ramifications that it is hard to know where to begin and where to end. It, of course, would be very easy to drool on the

uses plastics will be put to in housing after the war. I say 'drool' advisedly, because I have just come back from a meeting where one prominent architect discussed how he thought plastics would be used after the war. He arrived at the conclusion that we are ready to replace brick and tile and mortar, and that a complete all-plastic house is a certainty and all that we have to do is to put the plan into action. Of course, you heard what another architect had to say on the subject at the SPI meeting. He had plastic walls and plastic carpets and rambled on the subject ad absurdum. As yet, nobody really has rationalized and arrived at a point of view which would tell builders and architects what plastics are and just how they will function in post-war housing and planning.

Having talked to many architects and builders myself, I find first of all that they are completely ignorant of what plastics are, what their properties are, and how they can best be applied to architecture and building.

Certainly low pressure molding and post forming may have applications in that field. But it should be carefully explained to them that the material has not yet reached the point of where it can compete with 5 cents a pound steel, 15 cents a pound copper, or several of the cheaper metallic materials. Leave them with the thought that plastics will do a job in their specific industry after the war, but that it is neither a cure-all nor a panacea, that it must be used only where it is functional and where it comes under the heading of sound application, and that the economics of the situation must justify the usage of the material. Of course, it may be a negative point of view, but certainly I would consider it important that you tell them not to expect plastics to replace the low cost and good materials that they have been accustomed to using over the years and which have provided mankind with a roof over its head for centuries.

I know that you are just as familiar as I am with every aspect of the plastics industry, but I do make the point that let's be sensible and let's rationalize and let's debunk and let's get away from every emphasis of the glamour of plastics and present it as a sound material which is not something that has been discovered during the war, but something which has been useful for many years, but which has just come to the attention of the public as something new and sensational, although it really is not. It is like any other sound engineering material. It has its advantages and limitations, and if properly used, it will do a job. If not, then it should not be considered, because it would be a misapplication. The blame is on the fellow who uses it and not on the material or the industry."

* * *

"We feel that the building industry of the future offers a very substantial outlet for the products of our industry; not, however, along the lines indicated by a good many Sunday supplements, and I do not believe that there will be any substantial progress made along the lines of using plastics to replace structural building materials such as steel, wood, brick, concrete, etc. I believe that our line of development will follow more extensively along the lines of the use of plastics in hardware, light fixtures, electrical articles, strip moldings for decorative applications and kick plates, strip moldings for use as weather stripping, in the manufacture of venetian blinds, use of plastics in plumbing

fixtures and plumbing accessories, and possibly even the use of plastic molded tiles to replace the ceramic tiles now used. In a less conspicuous sense, plastics will undoubtedly be used to a very large extent in home building, in the use of resin adhesives for the manufacture of plywood and in turn in the use of resin-impregnated papers for surfaces of resin-bonded plywood, which, in turn, will be used for the manufacture of stall showers, cabinets, and even for outside panels. I expect a substantial increase in the use of coated fabrics for upholstery, shower curtains, drapes, table cloths and wall coverings. A possibility obviously exists, in view of the work which has been done during the past two years, to utilize plastics to replace corrosive metals on water lines for specialized applications. I would, however, be extremely hesitant to recommend the use of plastic tubing to replace the existing steam lines in homes.

A new ad which we are going to carry in an architectural magazine in the near future covers a new application for plastics that has been suggested by one of our cooperating designers. This is a molded staircase made out of plywood resin, resin for bonding, and resin impregnate for surfacing. A departure from the conventional along lines that this would suggest appears to me to be practical and capable of successful development.

Frankly, I feel that if you can help in stopping crackpot ideas that can only result in giving the industry a black eye, you will have rendered our industry a service of inestimable value. In expressing this feeling, I realize of course the necessity for vision; the necessity of embarking and following through on new ideas, but in so doing an architect or designer must at all times avail himself of sound technical knowledge and advice to the end that those properties of plastics which have enabled these synthetic materials to grow during the past two decades and that have contributed so markedly to the progress of our military forces should best be utilized in the furtherance of our standard of living. With these reservations, we as a company, believe that plastics can and will contribute in a very large measure to the home of the future."

* * *

"In the first place, it depends to a great extent upon your definition of the word 'plastics.' If you are willing to broaden it to include such things as resin glued flat or molded plywood, furniture containing resin glue, and floor coverings containing resins, you can practically build the house.

My own feeling is that the plastic industry has suffered from too much amateur publicity, but I do feel that housing presents one of the largest possible outlets.

Of those materials which would be classed as plastics under any definition, you have such things as wiring devices, lighting fixtures, kitchen door hardware, which become a definite part of the house. In addition, there are a host of component parts which are as necessary as the house itself. For example, washing machine agitators, clock cases, stove and refrigerator hardware, and Lord knows what else.

If you go on into plywood you have all the possibilities of siding, flooring and panelling, and molded plywood should certainly play a part in interiors at least. Furniture will be better because of use of resin glues; and while this

may be resisted because of cost differential, I believe that furniture manufacturers will be forced to use resin glues.

It is also possible that plastics will find a place in house insulation, if again you are willing to stretch the definition of the word to its elastic limit.

I know that I do not need to tell you why I think that plastics are going to play this part in housing, as you know too well the old stories as to permanence, surface, economy in volume production, and so forth."

* * *

"In my opinion there are very sound applications of plastics to houses, but observe that these are no more than applications, not the complete house as apparently much of the public has been led to believe. When intelligently planned and applied, there is little doubt in my mind that plastic materials have an important future in the building trade and industry. In our locale there are important steps being taken in this direction, and we feel that if the right type of information is publicized, there will be many benefits realized from it.

Frankly, there has not been too much of an authoritative nature written on the part which plastics may be expected to play in the home of the future, although I believe it is generally felt in the industry that they will be used to an increasing extent for decorative and utility accessories in the home. As to the extent to which they may be used in structural parts, this seems to be open to considerable argument in view of the indicated great availability of low-cost metals, wood and ceramics which have long been the conventional materials in the building field.

Probably one of the greatest drawbacks to the use of plastics in structural and functional plumbing parts would be from the building contractors who have a natural reluctance to work with a material with which they are unfamiliar. Cost also doubtless is a consideration, since I believe that in piping, for example, the cost of the plastic would run somewhat higher than for comparable metal parts and it would not, of course, withstand the heat and shock as with metal. On the other hand, it has the advantage of corrosion resistance which, under certain conditions, might fully offset its disadvantages."

* * *

So there you have it—pro and con.

Plastics will be used for certain, in whatever form the house of the future may be—how much or where is yet to be determined. It's going to be the job of the plastics industry to tell the architect and builder how—where and when to use plastics. The society of the Plastics Industry—the Plastics Consultant will be glad to help you on any plastics problem you may be confronted with. (Applause)

THE MODERATOR: Our next speaker is a pinch-hitter, and in talking to him a short time this morning, I can easily understand why he was brought into the pinch. You will next hear from Mr. Franklin Hardinge. He is the Executive Secretary of the Residential Appraisers and Manager of Publica-

tions of the U. S. Savings and Loan League. He is a member of the Advisory Council of the Chicago Planning Commission. Mr. Hardinge. (Applause)

MR. FRANKLIN HARDINGE: Mr. Moderator, Ladies and Gentlemen: At eleven o'clock last night I was sitting at the bar having an enjoyable time when Carl Boester came up to me and said, "How drunk are you?" I said I was not as yet. He said, "I cannot wait any longer to tell you, you are on the program tomorrow afternoon." When I protested he said, "Remember that I spoke for you on a program one time last fall." So I tell you, and I remind him, that I gave him at least thirty days' notice and not twelve hours, part of which I intended to use for sleeping.

I want to start out by protesting that I am not a financier nor do I represent people who are. The mortgage lenders really aren't the type of men that they are so often depicted, men with top hats, with ten dollar bills bulging from their pockets, and usually with one or two glass eyes, but actually you will find that they are perfectly human. There are a number of mortgage lenders in this room. They, after all, are trustees of other people's money and they view that trust very sincerely. They have the function of accumulating small sums of money from a lot of people into larger sums, to be made available to those who wish to borrow that money to buy and to build homes. I can speak first-hand for the savings and loan business with which I am most intimately connected and for mortgage bankers and commercial bankers and insurance company men with whom I have had contact with the Society of Residential Appraisers. I can assure you that as a group they are just as much interested in progress in the building field as are those who have expressed their opinions on it so far.

We want better housing for lower and lower income groups. We think very strongly that private enterprise can do a job and maybe even a better job than it has. We believe in new materials whenever they can accomplish better housing. So I am particularly glad that after beating around the bush yesterday and telling how cities ought to run their business and mortgage lenders ought to run theirs, we are getting around to the subject of talking about how we can produce better housing for lower costs.

I cannot refrain from emphasizing, too, that the mortgage lenders are not very different from the public or the builders when it comes to new building materials. We are very much interested in learning about them, what they will do and what their limitations are, so that we can act more intelligently when specifications are brought to our attention in connection with construction loans that are being applied for. We need to have the same factual information that must be in the hands of the builders who decide to incorporate new materials into their building plans and must be known by the owners who accept the contractors' recommendations. The financial people should be kept educated all along the way, and we want to be educated and we want to help in the whole process of education. Because we put up 80 to 90 per cent of the building cost of homes, you can rest assured that a big segment of our borrowers know that we are more interested financially in their houses than they are, and as a result they rely on us with some justification with the knowledge that in protecting our own investment we protect

them. Frequently where houses have turned out faulty in some respects, the borrowers have come back to the lenders before they have gone to the contractors or to anybody else seeking redress.

What do lenders really want to know about new building production? Whatever they want to know is based entirely upon the affect of new materials on the ability and the willingness of the borrower to repay money which has been loaned to him. First certainly should be a consideration of the new product's durability. We are being asked to make long-term loans which we are doing. But certainly if we are going to make longer and longer term loans—and we have some thoughts on that which I won't discuss—we want to be sure that the new building product will last as long as or longer than our loan term. Secondly, we are interested in how much it is going to cost to keep that new product in service, no matter whether it be just an individual piece of plastic or a glass brick or a refrigerator or whatever it might be, because if there are high maintenance costs, it is going to be difficult for the borrower to repay his contractual obligations.

Also we are primarily interested in how the public is going to accept the new materials. If a person does buy a house and then finds that there are some features in it which are not acceptable to the mass of the public, he will find that he is going to be in for disappointment when he tries to resell. I cannot help but think of some of the houses that Carl Boester has developed down in Purdue. From an engineering standpoint, they are perfectly sound and strong and tight and we know it and you men know it, but suppose that some builder put them up and some lender financed them and some other builders built conventional houses and other financial institutions financed them, we would face the problem of some smart salesmen creating doubts about the unconventional house in order to sell the conventional ones, by putting an unwarranted taboo on the houses which would make persons dissatisfied with what they had purchased. So we have to make certain that the new product will be able to withstand any attack from a competitive standpoint.

How can we assure ourselves that the new products that are brought onto the market measure up to these three standards? For instance, the United States Savings and Loan League as a part of its post-war planning has set up a special committee to study prefabrication. I have been rather interested in that subject myself as a staff member assigned to that committee and I think it is probably one of the reasons that Mr. Boester called on me to do this pinch-hitting. But it is an evidence of a group of mortgage lenders trying to look ahead a little bit at new developments in the building field.

There have been suggestions from time to time from some of our members that we set up a testing laboratory. Well, that seems to us to be a duplication of existing testing facilities and it has some bad features in that it would take a tremendous amount of money really to do a good job of testing all of the thousands of building materials that are in the field. In addition if we did set up the laboratory there are still going to be some controversies about which is the best insulation and which is the best of this or that type of product and we have no way of backing up our opinions on whether a building product is good or bad.

We are a little different from the FHA Technical Committee because, after all, when they approve a piece of property they also insure a loan, which means that if the borrower gets dissatisfied with any part of the structure and refuses to pay and the mortgagee has to take over the property, the FHA will find it back on its hands, as you know. On the other hand, FHA has had its troubles operating a technical staff. Of course, we have the Bureau of Standards. Personally, I think their findings have been too vague and uncertain to be of a lot of practical use to mortgage lenders. There has been a noticeable change recently and it seems to me that they have been more specific in their findings, but they still have a long ways to go.

The Producers' Council has done a splendid job, as Mr. Rogers told you this morning, in its research. I understand that other organizations have been gathering money for research and testing of materials. All of that is good, and I cannot emphasize too strongly what Mr. Slipper has said the prefabricated people are going to do. They are preparing to stand behind their product, and I think that every manufacturer of any building product, new or old for that matter, ought to be prepared to stand behind it.

It all sums up that we, the mortgage lenders, are interested in any device by which new materials can be tested, the results of which tests to be made known to those of us who are going to have to make some decisions about those new materials.

So mortgage lenders, for the most part, are ready with funds to finance any building program that gets under way in the post-war period. Speaking particularly for savings and loan associations, again with which I am most familiar, we are currently trying to learn the identity of those who are going to build their own homes in the post-war period. We are seeing that they are building up their equity payments either in the form of bonds or in savings accounts, and we are setting our sights so that we can give the best possible service to those who are going to build their own homes.

I cannot help but state that just a week ago today, in this room, from this platform, the mortgage bankers were discussing how they were going to make construction loans in the post-war period. We have an increasing number of institutions in our savings and loan business that are setting up displays of building materials in their lobbies. They have set up those displays of conventional materials, and they would welcome an opportunity to display and help to educate the public on new building materials that are brought into the field.

Therefore, we are in a position to help in this big building program in the post-war period. We have lowered our rates, may I remind you, substantially over what they were a number of years ago. We have improved our services, and we are ready to finance the houses that are going to be built in a private enterprise way. (Applause)

THE MODERATOR: Now we come to another phase of the problem, not having to do with materials but having to do with a major factor in the equation. Approximately one-third of the site and building cost is represented in labor. I haven't the figures before me, but I would hazard a guess that if you moved down the line and included fabrication costs, 80 per cent of the

building cost is represented in labor. I give you now with pleasure, Mr. Hedges, of the Electrical Construction League, who will tell labor's side of the story. Mr. Hedges is Director of Research of the International Brotherhood of Electrical Workers of the A. F. of L., Washington, and he is Co-Chairman of the Labor-Management Committee of the Electrical Construction Industry. Mr. Hedges. (Applause)

MR. M. H. HEDGES: Ladies and Gentlemen: A man and his wife were going home from a dinner the other evening and he felt that he had been pretty good at that dinner, but he felt also that his wife was impatient. When they got home and they had pulled down the blinds, she turned to him and said, "Jasper, I am disgusted."

He said, "What is the matter, Honey? Didn't I do all right?"

She said, "I am ashamed of you, Jasper. You were the only man there who didn't have a post-war plan." (Laughter)

Well, I do not want to belittle planning, God knows. I was one of the founders of the National Planning Association ten years ago, but I left my master plan at home this afternoon and I am not going to unfold it to you.

I am often asked, What is it that labor wants, and the questioner usually says, "Isn't it true that when you come down to the last analysis that labor wants hours, working conditions and wages?"

My answer runs something like this, "Yes, that is what labor talks about as wanting, but I think from an experience of twenty-five years that labor wants two other important things. First labor wants to belong to the show. If you recall the drama that Eugene O'Neil wrote called 'The Hairy Ape,' the hero was a stoker down in the bowels of the ship, a strange fellow, a hairy ape, but he had his pride. He felt contempt for the sissies who walked the decks above him and lived in luxurious cabins, and as the drama unfolded it developed what the hairy ape wanted, and the thing that made him a rebel was that he did not belong. He was down doing the work of the world. He was down in the cabin shoveling the coal and sweating, but he never belonged. He never set his foot on the upper deck."

Labor wants to belong and labor wants, secondly, a kind of dignity in its life, an intangible, to be sure, but we all want it. We want our professional status, and labor wants a kind of new professional status, a recognition by the community that it makes a great contribution to any operation. I said I did not bring my master plan and I didn't. What I have tried to do—and I am doing it briefly—is to visualize just what the question is in respect to the new technology in building and labor and what labor should do perhaps and must do about it to meet these conditions, what is the *modus operandi* of handling technological changes.

The subject I am to treat this afternoon poses a general problem for the construction industry, and for all industries for that matter, which should be faced frankly. How should technological changes be handled? To put this question in the concrete for the construction industry, we may ask, how shall one-tenth of the industry be converted from a decentralized handicraft industry seeking to preserve manual skills into a highly centralized mass production industry, tending to do away with handicraft? Naturally no such change

can be made without tugs and strains, differences of opinion and some conflict. Viewed in the large, there are three types of companies which deal in some type of prefabrication:

1. Mail order houses operating on the older type of marketing.
2. Out-and-out mass production type — building houses on the assembly line principle.
3. Companies acting as syndicates and operating through branch manufacturing units.

It is the last type that will usher into the industry revolutionary types of doing business. Under this system the marketing plan would involve local dealers as branches of the headquarter's plans in the community. In this branch there would be a sales organization, architect's office, a residential contractor, a sub-contractor, a financing agency, sub-material supplies office, and a real estate dealer. These groups would have to reach a pitch of utmost cooperation and teamwork. The working force under this branch office would also have to attain considerable harmony, action and teamplay. The employees would be expected to work full-time to assemble houses on the site, and when not at work assembling houses, be back in the branch plant working as manufacturing groups.

It is plain that if these branch factories should deal with the building trades unions, they would have to reach an understanding before any agreements were signed that would preclude jurisdictional disputes, because jurisdictional disputes would quickly throw out of gear a highly organized distribution system. There would always be a tendency to build the labor force on an industrial rather than on craft lines, but it is my opinion that this would not be an unsurmountable difficulty because building trade unions have long learned to work together in what they call building trades councils with one single business manager. These councils can function with as much unanimity as an industrial union, without loss of craft value.

Under such a set-up I do not foresee that wages would be a stumbling block. Here I am speaking largely for the electrical workers. The electrical construction industry is now undertaking to pass to an annual wage basis. If this project is successful, there will be very little difficulty in permitting electrical workers through their contractor to sign up with the local factory branch. Prefabricators believe that they will have an economic distribution system that will make great economies of distribution to the end the consumer will get a better house at a lower cost, without penalty to wages.

To be sure the ultimate arbiter in this drive by prefabricators for a share in the consumer's dollar will not be the union but will be the home owner. The consumer will have to say whether he wants the kind of house envisioned by the prefabricators at the price at which they can sell it. If the home owner decides he wants this kind of house, we will certainly see a great advance in this direction.

Frequently unions have been accused of halting or obstructing technological change. The International Brotherhood of Electrical Workers has never halted or obstructed technological change. It has had a policy of cooperating in change for more than a quarter of a century. But the electrical workers, along with other unions, believe that technological change should not be ush-

ered in as a whim of the moment—willy-nilly, without discussion, conference and agreement with the union, and while we are stressing problems in this conference, the relationship of the machine to the human family I think is, after all, the major problem of our generation. Inasmuch as technological change affects all industry and all social life, it certainly should be the subject of industry policy and that is why the International Brotherhood of Electrical Workers has been a constant advocate of all industry conferences where such problems can be discussed and where such policies can be formulated.

The union and the contractor have been struggling with the problem of the annual wage and have tried to determine on a statistical basis what should be the differential in the hourly wage. The union and the contractor have about reached the conclusion that the hourly wage on an annual basis would be about thirty per cent less than the hourly wage on an open market basis.

I cannot close these brief remarks without saying that I believe the United States has come to that point where it cannot operate industry without relinquishing hold on backstairs policy maneuverings, flank attacks, and unfrankness. I believe that there is no problem, however grave or however pervasive, which cannot be solved by conference, free discussion, the play of mind and scientific method over perplexing riddles. We could reach a point of all-out use of the conference method. Prefabrication or any other technological innovation can be handled with dispatch and for the good of the industry and the consumer. (Applause)

THE MODERATOR: In Mr. Maywald's talk on plastics he did much I believe to disillusion us of some fairy-tale dreaming. Now we have Mr. Robert L. Davison, Director of Research of the John B. Pierce Foundation, New York, who will continue another phase of that subject and tell us of his notion of the future of processed materials. I give you Mr. Davison. (Applause)

MR. ROBERT L. DAVISON: There is no basic difference in the finished house between most so-called "prefabricated houses" and so-called contractor built houses. Such differences as exist are primarily in the place and method of assembling the materials which are frequently identical. In traditional methods the framing, sheathing, siding, interior wall finishes and windows are assembled in a vertical plane on the foundation while in "prefab houses" these are assembled in a horizontal position on jigs, generally under cover. On large jobs under both methods power saws and other mechanical labor saving devices are used.

Current prefabrication is, generally speaking, an attempt to do the old job better, not to do a new job. Prefab houses are being built faster, in larger quantity, and with a number of improvements, but they are essentially the same old house. Most of the redesigning that has been done has been in the interest of fitting the house for a changeover from handicraft assembly to quantity production assembly. It is evolutionary and it is progress, but it is not necessarily scientific. Let me give an illustration of the difference between the evolutionary and scientific approach. By evolutionary methods you could keep on breeding horses till the cows come home; you might get faster and faster transportation by horse and buggy, but you would never get an

automobile. This, to put it roughly, is the difference between the current "prefab" house and the scientifically engineered home of the future.

From the scientific standpoint there may be said to be two basic starting points in the design of dwelling units. The first is concerned with the family for whom the dwelling is to be designed. The second is concerned with structural problems involving materials and methods. Naturally space requirements for a dwelling vary with differences in family size and composition, but we felt it highly desirable to establish a scientifically sound "norm." In the past a great deal of attention has been given to minimal standards which would protect the life and health of the individual. We decided to approach the problem from the standpoint of minimal standards which would not kill the family. The first slide (5.8 family) illustrates the average family that must be provided for to prevent the ultimate death of families. The data is based on population studies which indicate that *for families having children* they must average 3.75 to maintain a stable population. In our design work we assume 4 children and 2 parents. The practical significance of this scientific approach should be obvious when we recall that the two-bedroom house is the present norm for most housing developments.

Theoretically speaking, the space enclosure and equipment for this family will consist of various types of atomic structure. I do not believe we will get a real answer to the housing problem until we at least get the attitude of the pure research approach to this problem. On my last trip to England an architect suggested that I see J. D. Bernal, a physicist, who was approaching the housing problem from the standpoint of pure research. He asked himself—what atomic molecular structure would make an ideal exterior wall? (Slide) That is putting the question in terms not of opportunism but of science. Among the qualities set up was a crystalline structure that would not have cleavage planes between atoms, leading to fracture would be "transparent" to high temperature radiation from the sun—letting its warmth through; would be "opaque" to heat from comparatively low temperature sources—holding in the heat generated inside the building. Further qualities considered desirable were light weight, tensile strength, elasticity, and many others. Let me quote:

"The aerogels which are found in certain plant products, notably the pith of bamboo, can now be made in the laboratory as hard solids several times lighter than cork and practically perfect insulators against heat. They also have the incidental advantage of being completely fireproof. If such material could be produced on a large scale, then walls and partitions could be made from slabs weighing about one pound per square foot."

Present walls weigh about ten pounds per square foot for wood frame; up to 150 pounds or more for masonry.

Looking for dwelling materials by studying molecular structures, or trying to extract a dwelling wall from the "silicified pith of bamboo" seems like a fantastic procedure and going the long way round; but in science these long ways round are often the shortest way home.

I regret to say that we have only used this approach to a very limited extent, but where we have used it, it has led to practical results in improving quality and reducing cost. The main purpose in speaking of it at this time is

to try to get across the idea that real progress in housing will come through use of the scientific approach.

(Slide 3) The next slide illustrates the difference between evolution and research. The drawing on the left shows a section through a brick wall. Through evolution the brick wall has been reduced in thickness until it is now so thin that in order to keep out the rain it is necessary to add a waterproof coating or membrane to the inside. To have a desirable insulating value it is necessary to add insulating material. Its load-bearing function, carrying floor and roof loads—has in skyscraper construction been taken over by the steel skeleton which not only supports the floors but carries the brick walls as well. The primary function of a brick wall in this case becomes that of serving as a fireproof surface and support for the weatherproofing membrane and for the insulation, when insulation is used.

The drawing on the right is of a section of a wall designed to meet these functional requirements; that is, a wall of weatherproof insulation which is supported by a skeleton structure.

The evolutionary approach gave us, in order of importance, a bearing wall which is waterproofed and insulated. The research approach, based on qualities desired, reverses this order and we get an insulating material which is waterproofed and supported.

(Slide 4) There are three ways in which the wall area between columns and floors may be enclosed. The first is to use a sheet of material extending from floor to floor and from column to column. The second uses panels (generally 4' wide and 8' high) from floor to floor; and the third, which is the method we use in both single-and-multi-story construction, is panels running from window head to window sill and from column to column, the space between being filled with filler panels and windows as desired.

(Slide 5) The next slide illustrates the difference in appearance between a house constructed with vertical panels and one constructed with horizontal panels. Personally we believe that not only does the horizontal panel give a more pleasing architectural effect, as the joints come at natural design lines such as window heads and window sills, but it has certain practical advantages from the standpoint of structure, weatherproofing the joints, and flexibility of window arrangement.

(Slide 6) This slide shows one of the houses constructed at Baltimore for employees of the Glenn Martin bomber factory. The walls of this house are composed of a sandwich of processed material consisting of $1\frac{1}{2}$ " of rigid insulation between two layers of weather-resisting cement asbestos board. These wall units are attached to a load-bearing skeleton frame, as will be seen in the following construction photographs.

(Slide 7) This photo shows the foundation for a one-story house. You will note that the house is carried on piers—12' centers—connected by grade beams.

(Slide 8) The floor is then laid on grade beams, and columns—12' centers, are erected.

(Slide 9) Continuous window sills and window heads are attached to columns; the window head at front and rear being the tension member of a plywood girder that carries the roof trusses.

(Slide 10) Four men carrying the 4x12' wall units for the first course from the delivery point to the house where by a simple hook two men raise it to position (Slide 11) and two men nail it to the columns and sill. The entire operation of carrying the slab from delivery pile to house and nailing in place generally averages about five minutes for four men.

(Slide 12) Window sections complete with screens are then inserted as desired and (Slide 13) blank panels nailed in place. (Slide 14) Roof trusses are placed and (Slide 15) large sheets of processed insulated roofing complete the enclosure of the house. Interior partitions of similar processed material are installed with a mold at floor and ceiling to hold them in place.

(Slide 16) This illustration is of a two-story six-family building as erected at Baltimore. This two-story construction has also been used extensively in other locations including the dormitories built by the P. B. A. in Washington, D. C.

I have always felt that the most promising field for the introduction of new materials and new construction methods—particularly for processed units—lay in the multi-story building. There are many reasons for this, one of which is that in multi-story construction, due to need of fire safety and other factors, the costs of traditional methods which one has to beat are at least twice the cost of acceptable, though not always satisfactory single-family construction.

(Slide 17) This illustration shows what a four-story apartment house built with the Pierce Foundation horizontal construction method might look like; the processed wall units from window head to window sill extending from column to column. The space between may be all window or blank panels inserted where windows are not desired. Some people do not like modern design. I seldom argue the point. My answer is that the builder should find out what people want and will pay for.

(Slide 18) The builder might have two elevations prepared one showing the most efficient design that could be developed, and another showing the same structure with some popular traditional style bolted on. In this case Real Estate Tudor. After figuring the cost of the applied architecture the builder could offer to rent apartments for X dollars unadorned, or XX 2 or 3 dollars to cover cost of bolting on the Tudor. Joking aside, the horizontal effect which comes from alternate bands of unbroken wall and broad windows has been widely used and accepted not only by architects but tenants.

(Slide 19) This photo of the Beaux Arts apartments in New York City is only one of many.

(Slide 20) We have here a cost comparison of an apartment wall such as the Beaux Arts, and a processed wall. Since the 4" thick processed wall we are considering would have a heat loss of only .11 B.t.u.'s, we selected an apartment building having similar over-all heat loss. You will note that our cost estimates show that the new wall would cost considerably less than half the cost of the traditional wall, and we believe it would have qualities superior to the traditional wall.

(Slides 21-22-23) The next few slides show some of the structural tests which we have conducted on our horizontal truss design. The first test failed at six times the design load. This was a greater safety factor than needed and

we re-designed and with a new truss form got a factor of safety of five which is ample.

(Slide 24) Following these tests we built an experimental unit which consisted of one apartment of a four-story building. In many ways this experimental unit was entirely satisfactory but we did not have at that time a sufficiently permanent light-weight insulating material for walls. We have since then done a very considerable amount of research and testing of two fireproof insulating materials which look extremely promising.

(Sample) I have here an illustration of what a processed wall might look like. This particular sample consists of a 4-inch thick piece of Cellular Glass which has an exterior face of metal. This exterior might consist of ordinary steel with a non-corrosive facing of plastic or stainless steel; it might be enameled steel, copper, or aluminum. The interior face of this sample has a thin sheet of Compreg wood (resin impregnated plywood highly compressed) although metal or other materials might be used. A unit such as this, if used merely as a curtain wall, would weigh 7 or 8 pounds per square foot as against 130 and up for a brick wall. It should reduce wall costs by not less than 50 per cent and at the same time improve the quality of the building by eliminating leaking walls and improving thermal conditions.

(Sample) Here is a sample of Cellular Glass without a facing. It weighs 11 pounds per cubic foot. It is the only insulating material which of itself—without any protection—is 100 per cent vapor or waterproof.

(Sample) Another material we are working with is Microporite, a material formed by indurating finely ground sand and lime with the addition of a small amount of asbestos fiber. It can be made in densities varying from 11 pounds per cubic foot and under, to 30 or more, depending on the intended use.

By proper use of one or both of these materials in combination with a truss, structural laminate or pre-stressed forms, we believe it will be possible to develop forms of processed building units which will greatly improve and at the same time reduce the cost of multi-story apartments and, eventually, all types of dwelling construction.

We have not yet progressed to the point where these new construction methods are commercially practical, but I feel confident that through research it will be possible to greatly improve the quality of multi-story buildings and reduce the total cost by 50 per cent. . . .

THE MODERATOR: Thank you, Mr. Davison and the rest of you. I want to express appreciation for the papers you have given.

We have next, as printed on the program, a summation by Mr. Miles L. Colean. Mr. Colean has found it impossible to get here. We will, therefore, ask Mr. Boester if he will present the summation of today's discussion.

THE CHAIRMAN: Thank you, Mr. Ashton. I think we had best handle it this way, that is, as we did this morning. Surely, there are some of the members of the panel who wish to interrogate the other members, and then, as we promised, you must have some questions of your own you would like to ask. We can devote a little time to that. We might start the discussion by first

asking Mr. Clark if he would like to interrogate one of the panel members on some question that may be on his mind.

MR. CLARK: I have no question.

THE CHAIRMAN: Don't you want to start it with a question, Irving? Well, then, Mr. Hardinge, what about you? Have you a question?

MR. HARDINGE: I should just like to ask Mr. Davison how soon he thinks houses will be available in the price class of about \$2,500 and if that actually will be a possibility.

MR. DAVISON: I thought you were going to ask me how soon prefabrication would really go to town. I have an answer that I have been giving to that question for twenty years. My answer for twenty years has been within five years it will be a greater volume than by the old methods. Now as to the \$2,500 house, there are some that are available now, and I think that after the war without question you will see some pretty good \$2,500 houses in terms of the 1940 dollar. I don't know just what the dollar is going to be after the war.

THE CHAIRMAN: Mr. Maywald, probably you have a question or so you would like to address to one of your fellow members.

MR. MAYWALD: No.

THE CHAIRMAN: What is the matter? You guys aren't as talkative as the morning boys were. Well, it looks like we would like to turn off on the other side. How about you, Mr. Hedges? Surely, you have a comment to make.

MR. HEDGES: I should like to ask Mr. Clark this question or anybody who will take me on. What is the construction industry? What is its definition? What is its boundaries? I think that is essential. Then after he has answered that question, I want him to answer this question. Does he think that we have to become a public utility to do the job which has been outlined at this conference?

THE CHAIRMAN: Mr. Clark, that question was directed to you. You may sure have it.

MR. CLARK: Answering the second part of the question first, I do not think we have to become a public utility. In fact, I do not believe that the construction industry will ever function on that basis, for the simple reason that the construction industry is a local institution.

Answering the first question, the construction industry is made up, in my opinion and thinking and planning, not only of the contractor, the builder, the architect and the engineer, but of the suppliers of materials and equipment, the banker, in fact of all phases or persons having to do with the planning, with the amassing of the materials and equipment, with the fabrication, with the promotion and sale of the completed package, and when you look at the construction industry from that angle, you can see why it is the second largest industry in this country.

THE CHAIRMAN: That seems to be a \$64 question and there seems to be three or four people who are eager to answer it. I see one or two in the audience whom I am going to tackle. Mr. Davison thinks he can run it up to at least \$16 for a while. Well, try it for a while, Bob.

MR. DAVISON: I think the erection is a local industry, but I do not think that the construction industry can be regarded as a local industry. Let's take a few of the items that it is probably not economical to produce locally. Plate glass or ordinary flat glass, plumbing, electrical insulation boards, lumber, etc. Of course, brick and cement can be produced locally. But I think you have two factors in the construction industry. The erection which might very well be local, but the production materials I believe are going to be more and more a centralized proposition.

THE CHAIRMAN: I think we ought to have Mr. Farrier at least make a comment on that question. Will you do that, Clarence? Mr. Farrier is the Technical Director of the National Housing Agency.

MR. CLARENCE FARRIER: I think in his summation of the building industry Mr. Clark left out one very important element, that is, the labor part of the industry. I do not think that I can add much more to the make-up of the industry in answering that question. I think otherwise it is pretty well summed up.

THE CHAIRMAN: What about you, Mr. Hugh Potter?

MR. POTTER: Oh, you don't want to hear me talk any more.

THE CHAIRMAN: Just a comment on it.

MR. POTTER: I cannot improve on it.

THE CHAIRMAN: Mr. Ashton, what about you in that regard?

THE MODERATOR: I don't know how you are going to answer it, if you are going to pin it down to a detailed list of all the parts that make up the building industry, but the overall picture, as it appears to me, includes the men and the organizers who handle the men for the fabrication of all the building materials and building equipment. I am not necessarily including in that the manufacturers of some items of furnishings which have no utilitarian value but are purely decorative items. Other than that I should say the whole building industry must be as wide in its scope as will be necessary to include them all.

THE CHAIRMAN: Do other members of the panel have questions they would like to ask? In that case, we will entertain some questions from the floor.

MR. HEDGES: Just a moment, please, Mr. Chairman. I should like to know what industries now will be left out when we become a public utility.

MRS. ROSENMAN: We ought to have Mr. Ruml here.

MR. POTTER: I have an idea that the asker of this question has an answer that he wants to tell us.

THE CHAIRMAN: That suits me.

MR. HEDGES: No, this is the result of the very enjoyable and brilliant address that we had last night and the rather far-reaching proposal that Mr. Ruml made. When I first got that proposal from Mr. Ruml seven or eight months ago by letter, it came as a complete shock because I thought he was an exponent of free enterprise and private initiative, and I could not see how his drive to centralize and control the highly decentralized industry fitted into the idea of private enterprise initiative, so I was trying to ask leading questions that would flash different points of view upon this very vital question because I know Beardsley Ruml. I believe he is going to have us in the public utility field within a very short time.

THE CHAIRMAN: Well, that is an interesting question. However, it does not directly deal with the subject-matter, the prospects and effects of new materials, to which we sort of have to confine ourselves. However, I see one gentleman grinning from ear to ear back there. Apparently, he has some comment on it, so Mr. Horace Russell, if you will give us your answer to it, please, sir, we would like to have it.

MR. HORACE RUSSELL: What is the question, Mr. Chairman?

THE CHAIRMAN: Mr. Hedges, will you repeat it?

MR. HEDGES: Will this widespread industry that has been defined as the focal point of all modern technology, practically every industry contributing something to construction—will this wide-flung industry become a public utility, and should it, if we are to do the job as builders that we have to do?

MR. RUSSELL: Well, I would define the building industry as being composed of all of those elements which contribute to the building of buildings and other improvements of real estate, and I do not think that business is or ought to be a public utility. A public utility is what we have been accustomed to think of as the business infected with the public interest, which necessarily must be regulated by government, I believe. If that is a fair definition of a public utility, then we inquire whether the building industry, affecting everybody from the men who do the work in the building industry to those who finance it and organize it all the way through, must be regulated. I cannot see why it is necessary for the government to undertake the regulation of such an industry. So my answer is that it is not a public utility, that it ought not to be considered a public utility, that it can't fairly be considered a public utility in American life, as we have known it up to now, and that if we seek to make it a public utility we are going in the direction of complete government control of all of us, which I think leads to slavery, and I hope that we are not going in that direction.

THE CHAIRMAN: Mr. Potter has decided that he wants to speak after all on this question, so he has the floor.

MR. POTTER: I think that I have awakened to what the scope of the question may be. I am afraid that we are going to have to submit to government regulation in the construction industry because it affects the social welfare of the people to such an extent. In fact, we have already done it. The land planners had to submit to zoning, and the contractors had to submit to building codes. Those are local types of government control or regulation I should say. I expect that we will have to submit to others unless we do a better job than even the most optimistic of us believe we will do, but the difference between that kind of control and a public utility, is that in public utility operation there is no competition and it is necessary for the control to be very rigid as to rates, return, character of service, etc. Whereas the building industry or the construction industry is over-ridden with competition. (Laughter)

THE CHAIRMAN: That is enough of that question. Let's stick to the panel for a few more minutes. Mr. Sloan, how about you? Have you some questions? You are dealing in new materials, etc.

MR. HOWARD SLOAN: (Libbey-Owens-Ford Glass Co.): Well, there is one question I should like to ask our friend from the Westinghouse. What we have for our homes, after the war we know we can have. I am interested in better lighting.

THE CHAIRMAN: Mr. Clark, will you repeat the question from your mike and answer it if you please or can?

MR. CLARK: As I understand the question, you are asking what we are going to have in the way of better lighting.

MR. SLOAN: Such as cathode or what will you have in the way of new products?

MR. CLARK: There has been a great deal of work done with various types of fluorescent lighting. Unquestionably the years following the war will see these laboratory experiments brought out in practical application. You are going to see this, we feel quite certain, happen in the home, due to the fact that such a large percentage of our population who are now engaged in war work where new intensities of light have been employed and where people are becoming accustomed to working under footcandles of from 30 to 50 footcandles and in the post-war period they are going to require a much higher intensity of general lighting in their homes and it is the thinking that that will be provided. Whether there will be a broader use of fluorescent, whether it is cathode or not, I think it is too early to project, but lighting will be a very important factor. It will be used more for decoration than it has been in the past and intensities will be much higher. The 300 watts that we think of as the top now may be increased very considerably as the years go on.

THE CHAIRMAN: Thank you. Mr. Maywald, may I ask a question? Can you specifically tell us the names of organizations, that is, of the fabricators, the processors of plastics, that have some definite ideas of the materials that they intend to incorporate into homes after the war? My mind is running for the moment to, say, the matter of millwork and trim in the home, something

that can be washed down and wiped down rather than painted quite frequently. Do you know of anyone, for example, that is going to extrude the trim around the sash, doors, etc.?

MR. MAYWALD: As a matter of fact, that is being done currently. All kinds of trim is being extruded for aircraft and for boats, for the Shipping Board and for the Maritime Commission. The materials are being tried and used. However, these materials have certain limitations that must be borne in mind. Some of these materials extrude in the most beautiful pastel shades, but unless you get a most perfectly insulated gas stove and insulated piping, they will warp off the wall or away from the paneling if they get too warm. That must be borne in mind.

However, someone here mentioned light. Some of the plastics have a light transmitting factor of better than 90 per cent.

THE CHAIRMAN: What about the plastic papers? I am thinking, for example, of the type of fiber impregnated material that will be laminated, say, to other materials like plywood. What will be their weathering characteristics, their resistance to change, in colors, etc.?

MR. MAYWALD: Most of the laminates are laminated with phenolics, and that limits the amount of color that you can put into it. The phenolic colors are rather dark and drab. However, that does not stop you from using a surface, such as a fine metal sheet. There are a great many that we call bonding processes out now by which they laminate entirely different materials together. In part of the construction of one of our combat planes they laminate wood, rubber, linen, bronze and aluminum, all in one unit.

THE CHAIRMAN: Mr. Taylor, you have had some experience in stresses, and you probably have a question.

MR. TAYLOR: Regarding the new materials that are being put on the market, will the public and the architects be overwhelmed with this new material that is to be used and after a few years of service will it be found to be unusable or unsatisfactory? It has been that way in the past with some of the insulation material that has been installed for several years, and after it has been proven unsuccessful it has been succeeded by other materials. I believe that if an agency were established to make a thorough investigation of this material before it is put into the hands or use of the public or in specifications, we would save a lot of disappointments and we would save some of the troubles that we have where we are encountering building conditions or building codes or building inspectors with their simple refusal by saying, "Well, we have never seen it" or "We have never heard of it and we want it to be proven."

I think that there should be something like that before this material is put on the market or is specified, that is, a testing laboratory should have made a thorough investigation or test of it and have recommended it and the test should then be accepted by the various building authorities.

THE CHAIRMAN: Bob, will you handle that one?

MR. DAVISON: We are trying to do that with the various materials with which we are working. One engineer whom we have had twelve years with the Port Authority in New York, passing on new materials for the Port Authority for bridges, etc., and he has had a good deal of experience in that field. Then when it comes to the particular use that we are studying of the materials, such as cellular glass, the man whom we have as development engineer with the Pittsburgh Corning Glass Company for four years while they were developing this material and he is now with us. He has been working about two years on this material from the standpoint of facing and running tests on it. Incidentally, we have no commercial connection whatsoever with Pittsburgh Corning. We think more of their material than they do themselves.

THE CHAIRMAN: Mr. Gerholz is President of the National Home Builders, and I wonder if he hasn't a question about some of these new materials.

MR. ROBERT P. GERHOLZ: I am very happy to have had a chance to attend this very interesting conference, and I am sorry that I have to be excused now.

MR. SLOAN: Mr. Boester, I want to make a comment and then to ask a question. From the comments that have been made, it seems to me that a great many of the people have come here hoping for some clarification of the very important question as to what conveniences the post-war house might be expected to contain. The discussions have been about practically everything about the house except the house itself. Now the question I want to ask is whether almost everyone who came here is not going to go back with the idea that whatever idea he had about the post-war house is not 100 per cent right?

THE CHAIRMAN: Mr. Clark.

MR CLARK: I feel as though that question was possibly directed at the entire audience here. If you are referring to the equipment, I do not think there is any question but that the equipment is going to play an ever-increasing part in the home of the future. Today the equipment represents probably 25 to 30 per cent of the total cost of the home, that is, all types of equipment. Each year or each five-year period you will see an increasing percentage of the total cost of the structure, whatever that may be, represented in equipment because it is the equipment that makes the home click. It is the thing that makes labor-saving and brings new comforts and conveniences to the home and the future home buyer is going to insist that equipment be a part of the structure.

THE CHAIRMAN: I do not think we need to fear too much about what is going to be available. I think the one weakness that we all have is that we won't tell the other guy what we are doing and what we are thinking about. There is a tremendous lack of cooperation. Personally I happen to be in a very unique position in that I have nothing to peddle, and the net result is that there are hundreds of people visiting our organization and they let

their hair down and tell us what is going on. It is a wonderful story. I should really like to tell it, but I am pledged to keep my mouth shut about what this one is doing and that one is doing or I will never hear about it any more, but I can say that I do not think we have to have any fear about this matter of materials and equipment. That particular problem is being taken care of in a lot of places.

MR. FRED W. KELLER (President, Whitcomb & Keller, South Bend, Ind.): I noticed that Mr. Davison showed quite a number of pictures of the material used in the Glenn Martin project. I had the opportunity of visiting that project last summer and it looked to me as though that is a very good material. I am wondering, though, in just how small a project it might be practical to use it, that is, whether it would be practical to use it in the Middle West in a project, say, of 50 houses.

MR. DAVISON: I think you could use that in a very small project. If you had a prefabricator using that method, he might ship out one or two houses at a time. As research people, though, we are always striving to get better and better houses, and as soon as we have a material that is beginning to be used, we go to something else. I hope that within the next few years, we will have gone far beyond where we were there, although I think that has proved to be a very satisfactory method.

DR. FALUDI: I realize that there are two types of prefabricated houses, one type in which the panel covers the structure and the curtain material and the other which Mr. Davison shows us in which the framework is independent from the curtain material. What is the reason the John Pierce Foundation prefers the second system whereas commercial prefabricators advertise and believe in the first one?

MR. DAVISON: Well, if you approach the problem of holding up a roof you can do it easier with columns and with less material than you can with a continuous bearing wall. Take these steel buildings. They have columns spaced, say, every twenty feet, and then they put sheet steel in between these columns, and it has been found that it is more economical to support a roof or to support a floor with column construction than with a bearing wall. If it is a multi-story building or if it is merely a one-story building, if you carry the roof by columns, it pays you to use insulating materials for the wall. Generally speaking of insulating materials, the better they are the less value they have as a bearing wall because the less the material weighs as a general principle the better insulation it is, and when you get the weight down to a material like this, it isn't suitable to use as a bearing wall. By having columns with 12-foot centers or 20-foot centers, we are enabled to use the better wall material and to carry the floor more economically.

We know that in skyscraper construction the skeleton has been used, and I believe that we are gradually going in that direction in dwelling construction.

DR. FALUDI: The commercial prefabricators do not know it. They are selling something different and they believe that their system is the right one. They cannot understand how it is possible that an enormous organization in

West Moline using a building system which they believe is scientific is not using the system which you believe is the right one.

MR. DAVISON: Well, I think that if I were in the prefabricated business to make money I would use a bearing wall. The point is that we are looking further into the future. We do not have to make money this year or last year, and we are working toward the ultimate. You could not go out today and build a building with cellular glass and sell it. Celotex, the glass that is being made to use for low temperature refrigeration, is priced too high for residential construction, but in spite of the fact that it isn't commercially practical today, we think that the theory is sound and that eventually it will be not only theoretically sound but commercially sound.

THE CHAIRMAN: I will recognize one or two men who wish to ask questions, but for the past two days the conference has been presided over by the fair sex. There seem to be a number of them here. They are experts on the subjects like the men on the panel. Miss Livingston, for example, haven't you a question?

MISS LIVINGSTON: No, I just came to listen this time, Mr. Boester.

THE CHAIRMAN: How about you, Miss Lasker?

MISS LASKER: I came to learn in this particular field.

THE CHAIRMAN: Do any of the ladies care to ask questions? The gentleman in the third row there.

MEMBER: I think the thing that most people here are interested in is the \$2,500 prefabricated house. I should like to know what we are going to have in the prefabricated house in the way of equipment and in the way of plastics. So far all I have heard about going into the house is wood.

THE CHAIRMAN: That is going to be a pretty hard question. If Mr. Bohannon had been able to get Mr. Dahlberg here we might have had an answer. Incidentally, we tried to get Mr. Dahlberg up here for a little while this afternoon, but he had another appointment and could not be here to take care of this particular part of it. So, Bob, unless you want to answer that question briefly, we may have to pass it up.

MR. DAVISON: I think it is very likely that you may have both the interior and possibly the exterior surface of the insulating materials covered with plastic-impregnated paper. That is one thing. You are going to have new types of insulating materials I believe, cellular glass and Microporite being two examples. You are probably going to have radiant heating. I do not believe you will have it immediately after the war but that in my opinion is certainly coming. You are going to have different thermal characteristics in buildings. We built in our experimental laboratory two rooms each 12 by 15 feet in floor area, with 8-foot ceilings, and one was 16-inch brick wall and the other was 8½ inch cellular glass. They both had an overall heat loss of .26 I think it was, but the brick wall had 100 times the heat capacity of the cellular glass wall. That is going to affect heating economy and will have a

relation to radiant heat and there are things of that sort that we and other people are studying that are going to alter the comfort factors of shelter as well as the equipment.

MRS. ROSENMAN: May I ask a question? When you speak of the \$2,500 prefabricated house what are you talking about? Are you talking about the total house with the land and the servicing of the land or are you talking about just the shell of the house or about the shell of the house plus the full heating equipment?

THE CHAIRMAN: This morning the figure of \$2,500 came up in a question to Mr. Slipper, and he said that he thought, including the land and the utilities, it would represent a \$2,500 package. Dave, are you here? (Absent) I guess he isn't. It is only my guess from observation of the work of Mr. Slipper and others that they will be able to give a good house, complete with the wiring, the plumbing and some form of very simple heating system. The present house that they use has the equivalent of a floor furnace or a stove in it for comfort. The house that they are building is one that is far from being a trailer type. It has some 700-odd square feet of floor area. It is a two-bedroom house. It follows very definitely the principle I tried to lay down this morning, that is, to use less and less materials more intelligently for greater strength and durability. The weight is a fraction of the weight of the average house of that same cubic or floor area.

Now when you take out the quantities of materials that they have been able to take out in that design, you are certainly making a marked contribution to reduced costs, and when they do all of the work in the shop they are doing on that particular job, including the complete installation of the electric wiring system with the complete support and interest of labor in that regard, they are doing so under controlled conditions. The job is engineered in such a way that there is not a lot of fumbling around, so that they have a marked reduction in labor costs per complete unit, and it seems reasonable to expect that a house of the kind that Mr. Slipper and Mr. Dahlberg and the others are talking about is a possibility after the war, particularly so if we have the industrial genius of Mr. Kaiser competing with them.

Mr. Ashton wishes to ask a question.

THE MODERATOR: We have said a good deal here today about the prefabricated house and about building materials, the panel type and what not, what I choose to call the shell of the house. The elements work very slowly in tearing at the shell. I think it would be well if someone—possibly Mr. Davison would be glad to do it—would discuss what has been done to create a shell which will resist the weather. I am not talking about heat loss because he has covered that very adequately. I am thinking of the slow breaking open of joints that comes about by constant shrinking and expanding due to temperature changes. I am thinking of the wear and tear that comes by children being in the home. I am thinking of the wear and tear that comes from vandalism, and I am also thinking of the slow change in surface materials that comes from simple atmospheric reactions. I am sure all of the materials

discussed here today must have taken those factors into account and it would be well to have something said on them.

THE CHAIRMAN: I will ask Mr. Davison to answer that question. I want to state here that I will recognize two more questions and then we will go on with the rest of the program. Bob, will you answer that question?

MR. DAVISON: On this question of surface materials that will stand wear and tear, the wood that we have used on the inside here is plywood impregnated with resin, compressed to about half its original volume and it will wear much better than oak. I think that face there would stand an awful lot of abuse without much damage. Now there is another approach to it. Some of you know the Weltex plywood which has a striated base. That is the material that Donald Deskey described as growing old gracefully. I think that is something that has to be taken into consideration. We are giving some thought to it—a surface which, even if marred, does not look bad. I think one of the troubles of modern architecture has been that it looks swell when it is first done but it mars too easily. You get a little mar on a good, slick modern surface and it looks pretty bad, but we are making some study of a surface treatment that has enough variation in it, enough texture so that it can be damaged without showing up too much.

A material like Weltex might be used on the outside, or you might use a stainless steel or you might use copper or you might use a resin-impregnated plywood or resin-surfaced metal on the outside. I feel that all of these materials would stand up better than many of our present materials, such as wood shingles or asbestos shingles. I am sure that this plywood impregnated with resin would stand up much better than many of the materials that we are now using.

THE CHAIRMAN: Will you say a word about the shock that comes from vandalism, Mr. Davison, please?

MR. DAVISON: Well, asbestos shingles on the outside of a building are very easily broken, and so are wood shingles. It is a general custom to require better quality in new material than you have in an old one. From the standpoint of vandalism, brick, of course, will stand up better than most of the materials that we have, but there are plenty of houses today that vandals can injure, and I think they can injure more easily than they can a material like stainless steel, and I think if you put some varied texture into the surface, it would look better after an attack by vandals than some of our traditional materials look after an attack by vandals.

THE CHAIRMAN: Mr. Potter, you are one of the two to ask questions.

MR. POTTER: At the risk of saying too much but feeling that it would be unfortunate if the conference came to a close without something more being said about this post-war \$2,500 house and not wishing to oppose my views with those who know more about it, a question was asked this morning and as I understood the answer by Mr. Slipper it does not include the land. Mr. Davison did not get to it this afternoon. It looked as though he was going to say some-

thing more about it, but he didn't. Now Mrs. Rosenman has raised the question. It cannot be that Mr. Slipher meant that \$2,500 houses would be available with surfaced land after the war, unless there goes along with that the explanation that a limited amount of the cost must be applied to the land, because for a number of reasons it is utterly impossible for anyone to produce a suitable site for a sum of money which added to the necessary cost of the structure would give the whole job for \$2,500. It can't be done, and unless a definition of the location of the house and the importance of the site which was discussed in one of the papers this morning is added to that comment, it might leave the impression, which would be a very unfortunate one, that a man who has an income, or a family who has an income of \$1,250 in the post-war period is going to be able to buy a home without any aid of any sort. That would certainly annihilate public housing.

THE CHAIRMAN: Mr. Bohannon, are you in the room?

MR. BOHANNON: Will you repeat the question, please?

MR. POTTER: Dave, when the \$2,500 house is bought by the post-war, ambitious husband is he going to get a good house in a good neighborhood for that amount of money?

MR. BOHANNON: No. (Laughter)

THE CHAIRMAN: There are all kinds of arguments, when it comes down to what constitutes a good house.

MRS. ROSENMAN: May I ask, as part of the same question, how much it costs to service raw land for a two-bedroom or a three-bedroom house.

MR. SLOAN: I have been wanting to ask this question, because I put in a few thousand feet of water mains, 6-inch, a few thousand feet of sewer pipe and paved a few thousand feet of road. I do not see how you are going to get a lot for \$500 and a \$2,000 house for \$2,500. It is not in the cards for a man who cuts up land like I do.

THE CHAIRMAN: Well, Mr. Dahlberg is sitting here with \$1,800 for the house and \$700 for the land and that makes \$2,500.

MR. POTTER: Mr. Chairman, in some places in this country, no matter what the ingenuity of the developer is or the price of the land is to start with, it costs \$2,500 a net acre to put it in shape for good neighborhood usage.

THE CHAIRMAN: I will agree with that. How many would you put on an acre?

MR. POTTER: Well, some people put ten. I put two. (Laughter)

MR. SLOAN: It costs me \$2.60 to \$2.70 a running foot for the water main, the same for sewers and about \$6 for roads. There is \$10 a running foot right there.

THE CHAIRMAN: Mrs. Rosenman, do you want to carry on for a while?

MRS. ROSENMAN: If the audience has patience, I think it is a very important question and one that meets more than the eye, because I think if we could get to the bottom of some of this cost we would know a little more about it.

THE CHAIRMAN: Is it your pleasure to continue this a little while? (Agreed)

MR. LEVENE: I do not think that I am doing a disservice to the fabrication industry by bringing out a couple of points here. I think there is a misconception of prefabrication as far as costs are concerned. Take an orthodox house for about \$4,000 or \$5,000. As some of the speakers brought out, there is a labor cost of \$550. Now the men who put up the house have no overhead. If you produce that in a factory you must pay yourself an overhead. If the factory overhead is to equal that \$550 cost, the actual production labor on that house will have to come down to about \$275 to give you 100 per cent labor overhead. Then besides that you will have to be sure that you have constant production over an extended period; otherwise, your overhead may run much more than that.

As far as the material is concerned, the material entering into the ordinary house as compared with prefabrication is about the same cost, and the only saving you can get in prefabrication is that when you buy a carload of lumber at a carload price you can possibly absorb the labor cost in with that difference between the carload and the less carload lot which you have to buy at a lumber yard. The savings in prefabrication come along entirely different lines. On the prefabrication you can reduce the size of your house and get the utility and efficiency that you could not possibly get in a larger house. The reduced volume of that house means an efficiency in the material and labor and, therefore, a reduction in cost. That is the first point. Secondly, the big savings in prefabrication is delay and the overhead on that delay on the job due to weather conditions. When a builder builds a house he must figure that maybe he can work only two or three days a week. He can't lay off his men; otherwise, he won't be able to get them back, so they are kept busy, but they lose time just the same. In other words, they are not efficient. A certain portion of that cost goes to protect him against those rainy and cold days. A prefabricator in putting up a house can close it in the first day; therefore, he does not have to figure for those lost costs.

So your saving in prefabrication comes because of simplified methods, because of less lost time because of inclement weather, and also because of reduced size, and the most you can expect, volume for volume in area, is a saving of possibly 5 per cent.

MR. DAVISON: That \$2,500 house is an awfully mean problem. I think there are some prefabricators who, after the war, with 1940 dollars, can sell a house erected, complete with heating, plumbing and wiring for \$2,000. They may have a \$27.50 space heater, coal-burning. We ran some tests on one of that cost and it did a good job. We put one in a low-cost house that we were experimenting with, and you have to do an awful lot of cutting corners, but I think it can be done. However, it won't be a good house of the type that

Mr. Slipher regards as good, and if I were a real estate man I would not build it. Dublin Lake is good enough for that sort of house, but a real estate man couldn't sell it and I would hate to be a real estate man trying to sell a house with a space heater.

On this question of land, I am glad that this man has a figure of \$10 a front foot for developing land. I have been using that figure for years. I have said if it costs \$10 a front foot to develop your land, even if your land costs you nothing you cannot afford over a 50-foot lot, and probably your land is going to cost you something, so you figure on about a 40-foot lot. If you are going to have a 40-foot lot for single houses, you will be better off with semi-detached housing or group housing or garden apartment type housing in most cases. That is one reason I have done a good deal of studying of multi-family houses, because I think for the man with a low income, in many places, under many circumstances, the semi-detached house is going to be more economical, when you consider taxes and land costs and public utilities. On the other hand, you have one factor in here which isn't economical but which exists. There are lots of lots in many cities that can now be bought for less than the cost of development. We have in most cities about 50 per cent more lots, that is, only two-thirds of the lots have buildings on them, and many of these vacant lots can be bought for less than the cost of developing land. So individual home owners can't on a big scale, but in some cases they can pick up lots at less than cost of development and get a \$2,000 cost house for an overall cost of \$2,500.

MRS. ROSENMAN: You just said you cannot do it on a big scale but you are going to do it on a small scale and you cannot support a prefabricating industry on a small scale.

MR. DAVISON: There may be a lot of houses that this prefabricator will sell over the \$2,000 house. He might have a line running from \$2,000 to \$4,000, and I was just indicating that there is some possibility of some people getting a \$2,000 house from the prefabricator and getting an overall cost of \$2,500. Of course, they can do that in the country where they use a cesspool. They can get by with a \$2,500 overall cost.

THE CHAIRMAN: Let's sum the thing up this way: There isn't a prefabricator on the panel here this afternoon; therefore, there is no one really qualified to do the job. We are all doing to a marked degree a job of second guessing, and when the question of codes in the urban areas came up in this morning's panel discussion, the comment was made that the prefabricators were going to make their initial drive in the very definitely rural areas to get away from the pressure and resistance of codes, etc. That puts an entirely different complexion on this land picture from the viewpoint of paved roads and gas and water extended to the site, and sewers, etc. So maybe they are talking about a piece of ground in Podunkville that does not have the type of utilities and 40-foot wide streets that Mr. Potter puts into his subdivision. So it is a matter of degree and a matter of a meeting of minds on it. I do not think we are going to settle the question without the specific definition of those who are concerned with doing the job.

Before we begin the matter of summarizing, I should like to entertain just

one question from the press over here. They have been swell in covering this conference. They have done a swell job of interrogation of many of the people in attendance here. Mr. Chandler, representing the press there, have you any particular question in mind, or have your associates there? Let's make it brief, but if you have a question we should like to give you a chance to say something.

MR. CHANDLER: I don't have. Thanks very much. I am interested in this development and in how we are going to get a \$2,500 house, but I would rather just listen. I think you are doing fine.

THE CHAIRMAN: Does that go for the rest of you?

MR. ROME RIEBETH (Minneapolis, Minn.): In Minneapolis we have four houses in a desirable neighborhood that were built for \$2,900 in a pre-fabrication experiment. They are now renting for \$40 a month, but nobody will buy them.

THE CHAIRMAN: What is the floor area, roughly?

MR. RIEBETH: I do not know the floor area. They are two-bedroom houses, heated with oil heaters, with no basements, and in Minnesota you have to have a basement.

THE CHAIRMAN: Well, thanks again.

MR. LUDWIG: Might I say just this: Wouldn't it be wrong for this conference to adjourn, in the face of all the statements that have been made about the materials that are not going to be available that are pictured in Seagram's ads and in various ads that we see in magazines, without our determining to go back to our people and tell those who are going to think about buying houses in the immediate post-war period that these products are not going to be available for some time? I am afraid that if we do not do that and we leave them under the impression that all of these new things are going to be available for them, we will have a valley in this buying period right after the war that may be rather hard for us to get out of.

THE CHAIRMAN: Mr. Ludwig, I subscribe to that entirely. Let's express it this way: This conference has been primarily for our own benefit, to wash our own linen, to find out what our own problems are. It is not a question of taking back to our own communities a new philosophy or doctrine or a new way of doing this nor in our own way publicizing them.

Speaking from my own experience with materials, etc., I sincerely feel that it will take three to five years for the new materials manufacturers to get into production and to get consumer acceptance, and consumer acceptance by the way of consumer tests, so that it is going to be a very intelligent and orderly evolution into some of the newer things. One of the big bottlenecks, as I tried to express this morning, is the matter of people trained with the know-how to do things differently. The know-how resides for the moment in the minds and in the organizations of very few people and until that information is broadly disseminated and means of education are set up to convey

that know-how there is little chance of having any wild dreams such as some of the advertisements have carried.

I see no harm, however, in those advertisements, because if they do nothing more than to stimulate our own thinking on the job and give us a new viewpoint of the problem, we may well meet the problem half-way and do a better job than we have in the past. So I do not think we have to have too much concern about some of these flights of imagination that have been taken in the past, because, after all, the public is pretty well able to reason for themselves just what it takes to do the job.

I am not going to do the final honors of the afternoon of summing up this conference, because I am not particularly qualified to do so. However, I should like to make a couple of comments that are by way of observation from today's program. This morning, for example, Mr. Taylor of American Homes spoke on the subject of research. As he said, it is quite true that there is research in just about three places, the Bureau of Standards, the universities and foundations and the manufacturers themselves. Now for political reasons the Bureau of Standards have been more or less obliged to keep things pretty quiet, because the vested interests, the man who has materials that are already available, seems to be in the saddle.

Speaking at least for the foundation that I represent in the matter of research, that foundation was created solely for the purpose of teaching building and not for the purpose of playing big brother to the building industry. We get no support from the building industry directly or indirectly. I have never heard of Mr. Taylor's organization or of any other organization's banging on my door and saying, "Here's a chunk of dough. Let's get to work on this problem." So we have from the university or foundation viewpoint no particular obligation just to get careless with the information. We have never, on the other hand, refused to help anybody, and I am sure Bob Davison feels the same way about it. Any time anybody wants any information he is quite free to come down and talk the problem over, but we have no funds for broadcast distribution of pamphlets on the subject. We have no way of disseminating the information because the building industry as such does not support that particular effort, and finally you cannot blame the various research organizations within the industry—I am now speaking of the material manufacturer—because his business is one of making money, and if he goes around telling the world what he has and how he is going to do it and when he is going to do it, he has lost that particular advantage as far as competition is concerned.

It seems to me that organizations such as the Urban Land Institute, the National Association of Home Builders and some of the federal agencies could engage directly in research and set up some kind of an organization for the dissemination of information. In other words, the Lord helps those who help themselves and I don't see very many people who are trying to do anything about getting information. We all give lip service to it but we don't support it very well.

Going on to just two more points, I could not help but comment on Mr. Hardinge's remark about the trick salesman and some of the tactics he uses regarding new processes or new materials and new methods of fabrication

in housing, whether prefabrication or site fabrication. There is always the unscrupulous person, but we cannot hold back on the new ideas because he exists. Take the matter of insulation for example. I heard the story this morning of a manufacturer of insulation. He has a low-grade insulation on which he puts a blow-torch and it has a very high melting point. On the other hand, he takes one of his competitor's products which has had years of research and really does, from a heat transfer value, a much better job of insulating than this product, and he puts the blow-torch on his competitor's insulation and it melts down. The fact that it melts down under a blow-torch has nothing at all to do with its transfer value.

We must have some means of policing our own particular industry and our own methods of doing business and we cannot stop new developments just because somebody shoots an angle. If you push on a wall and it flexes a little, that does not mean that the wall is going to cave in on your kids. Frankly, from the research standpoint, I do not know how long it will be before there will be nothing more between us than maybe a thin sheet of aluminum or copper or plastic or glass or something like that. We do not need the multi-material, heavy load-bearing structures that we have had in the past, but the good house is a combination of materials and it takes a tremendous amount of thought and research. You cannot just go hogwild either on plastics or metals or on plywood or cement or anything else. You have got to balance it out very carefully.

I do not think that we should hold back on any new developments simply because certain sales problems are insurmountable.

Just one other thought that I have and that is this: I honestly believe that there is a real shortage in this business of manpower to do the job after the war. Sure, we are going to have millions of people free, but very few of them have been taught how to do the job in the field of housing, and from the mortgage aspect it raises a real problem in this direction. What happens is this: If we have in a given small town, for sake of illustration, a demand, say, for 500 homes and we have ten contractors in business who have the crews and the warehouses and the materials, dealer supply connections, etc., ready to do the job, which of those 500 people are going to get in there first? There ought to be now some kind of a system established whereby those who first signify a willingness to build a house should have some means of exercising priority over the available labor supply, because if there is not, there will be a mad scramble for jobs and one builder will pick up an extra hundred dollars by doing Jim Jones' house first instead of mine and starts bidding up the cost of houses and offsetting all of the technical advantages in new materials and new fabrication and begins an inflation of housing costs that is a real risk first of all as far as the mortgages are concerned, and, secondly, it dries up the market because it raises the cost beyond the ability of the people to pay.

So I think that we should seriously, through our building organizations and through our mortgage organizations, set up now some kind of commitment as far as future home owners are concerned, so that we do not create an artificial inflation as a result of the lack, for the moment, of the know-how to do the job.

It seems to me I have talked entirely too long as far as this program is concerned. I want personally to extend my thanks for your patience and your interest in coming here. I think the job of summarizing can be most adequately done by the Chairman of the National Committee on Housing, who, as far as I am concerned and for my money, knows as much or more about the problem than any of us, and I am going to ask Mrs. Dorothy Rosenman to bring the meeting to a close. Thanks much. (Applause)

MRS. ROSENMAN: I am very good at bringing meetings to a close, but I cannot summarize today's proceedings because unfortunately I found myself out of the room more than I was in the room. That was my very great misfortune, because I was particularly interested in hearing the discussions today. I find that the lot of a chairman of a national conference is not a particularly simple one and that there are a great many pulls out of the room to balance the pulls that are in the room. I do want, though to express a great deal of appreciation for the intense interest of you all in coming here from every state in the Union. I was amazed to find a number of people here from Denver, a number of people here from Los Angeles, people from Albuquerque, New Mexico and from Alabama and Georgia. We have a real delegation from Texas. People have come from every part of the United States, and, Mr. Hedges, if you want to find out what the construction industry is, you should read our registration of 589 people and you will find that every possible interest is represented there.

The fact that we have kept a sort of middle-of-the-road ground in this field is testified by the fact that, strangely enough, the representation from each of the various fields seems to be proportionate, although the invitations were not meted out in that way.

I want to say that the conference has achieved its purpose in bringing a forum of discussion, that it has achieved its purpose I think is testified not only by your interest, but by the fact that, as I have been upstairs there trying to talk to this person or that person, I have been interrupted by people who came and said, "When is the next conference," and one of the reporters had quite a battle with me this morning because I refused to announce the date of the next conference. Now we held a conference at the beginning of the war in Washington, because we felt there was a need, a very distinct need, for marshaling forces to meet the problem and then we waited three years before we had this conference and we felt that the time was ripe, that there had to be a straightening of the way again. I do not know how long it will be before things will change again, before we will know a good deal more and be ready to evaluate that, but I do want to assure you that the very time that comes, whether it is in two months or six months or a year, there will be another pull for a conference of this sort, and I am hoping that everyone who is here this time will come back again.

I want to tell you that it was most gratifying to find that almost 600 people did come. We set our goal at 200. I hope we are going to be able to meet that goal in all of our future endeavors as well as we have in this conference.

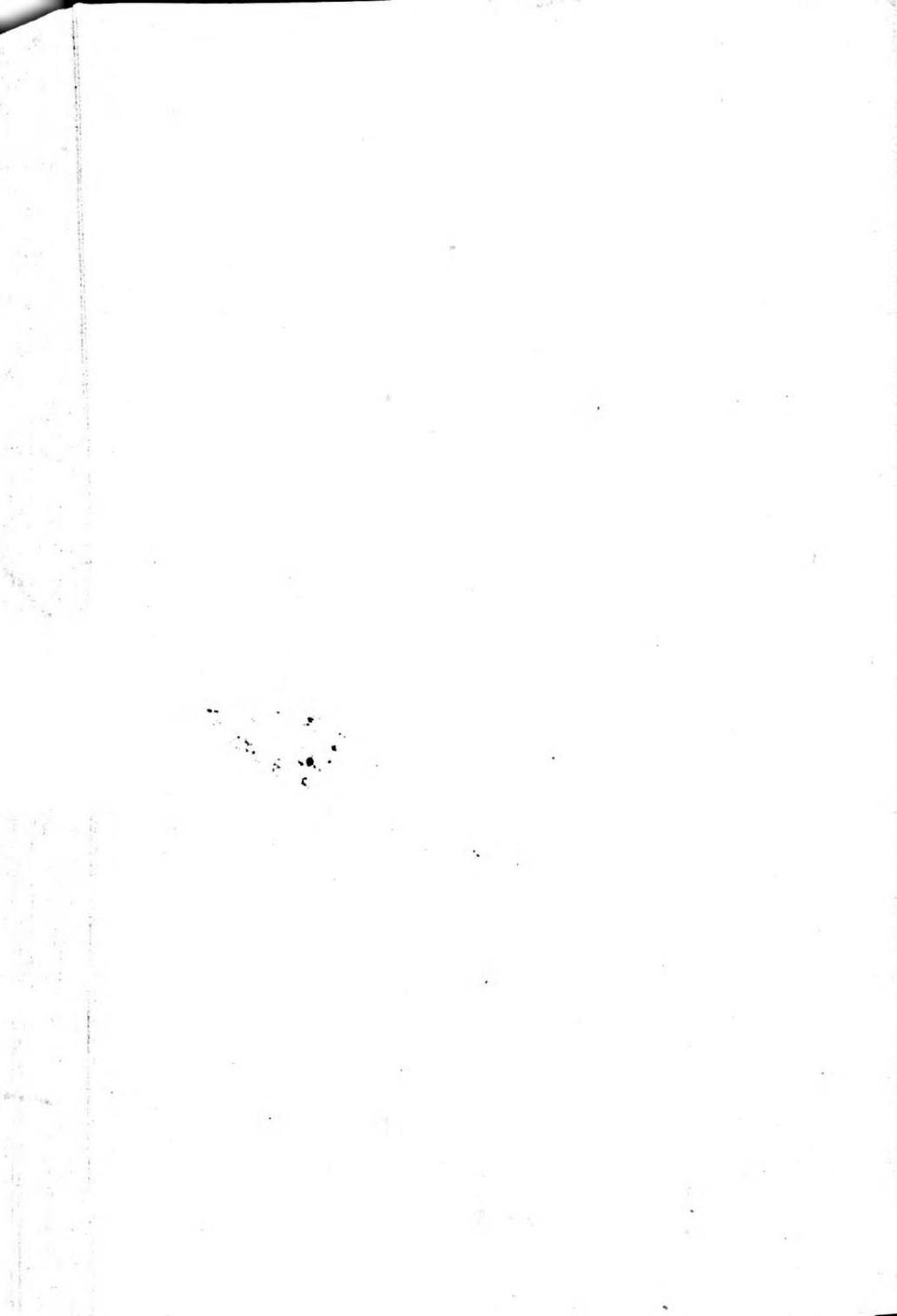
I want to say that a committee will be appointed to study the proceedings,

to summarize them and to pull together the meat of this conference and whatever recommendations and conclusions can be found from it. That committee will be appointed and will represent the various interests that have appeared here these three days.

I do not think that I have anything else to state except one other thing. So many people have asked whether they can have the papers. We haven't the papers of many of the speakers, but there has been a very diligent and patient Stenotypist here during the whole proceedings. I know she will get the minutes to us very quickly. We will do our best with the cooperation of the printers and speakers who will have to verify them and we will try to get the proceedings printed as quickly as possible. All of the people registered at the conference will get the proceedings without charge, and those who did not register at the conference will be sent the proceedings when they send us a check and we will tell them how much it will be. We will figure it out.

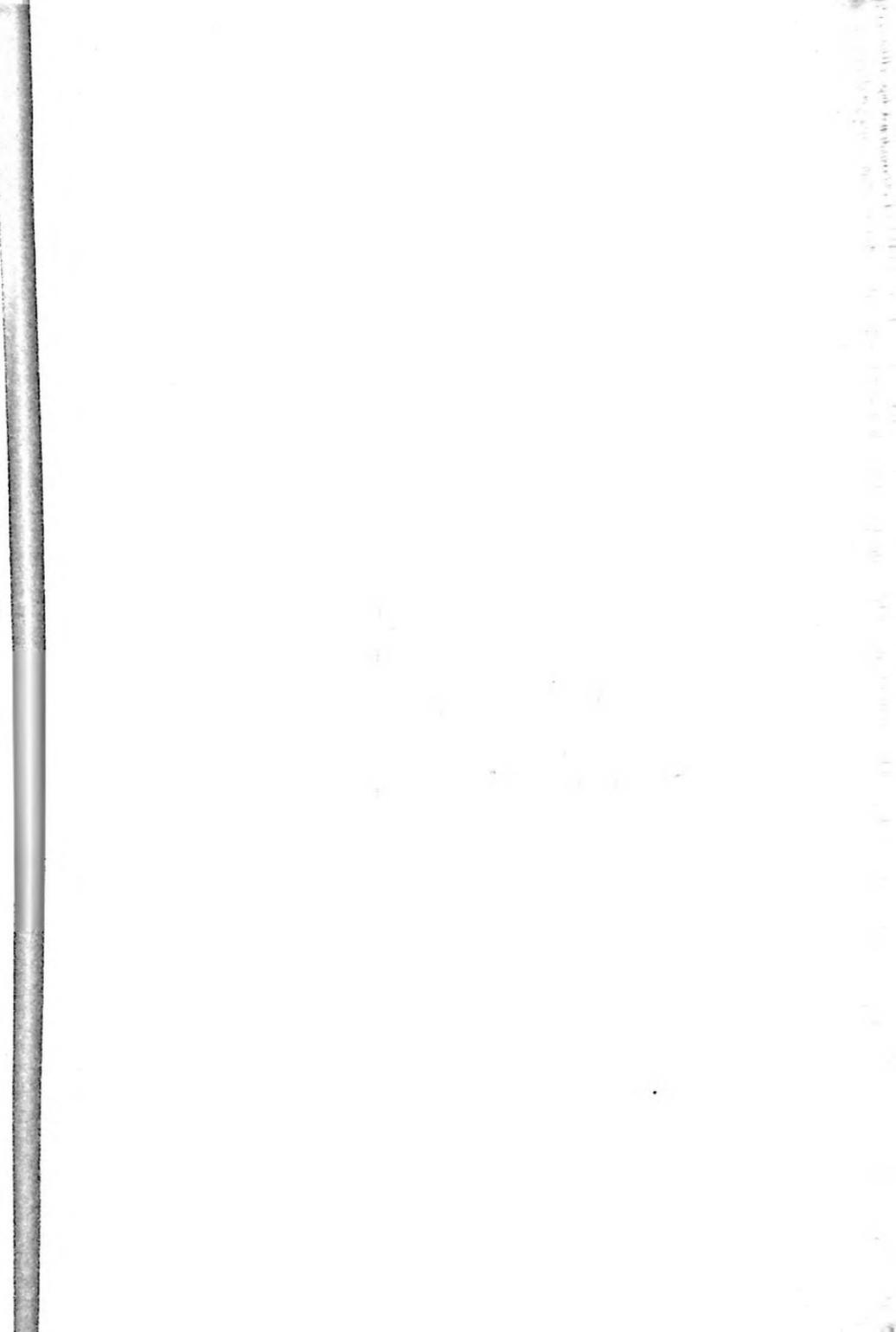
I want to make just one more announcement before I say a final "thank you" to you all, that is that the members of the Board who haven't caught trains East or West will meet in Parlor B at seven-thirty this evening. Thank you all most heartily.

. . . The meeting adjourned at five-thirty o'clock . . .



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