

**AMERICAN PLANNING
AND CIVIC ANNUAL**



Cathedral Creek Fall, Tuolumne Canyon, Yosemite National Park
Photograph by Marjory Bridge Farquhar. Courtesy Sierra Club Bulletin

AMERICAN PLANNING AND CIVIC ANNUAL

A RECORD OF RECENT CIVIC ADVANCE INCLUDING
THE PROCEEDINGS OF THE CONFERENCE ON CITY
REGIONAL, STATE, AND NATIONAL PLANNING, HELD
AT CINCINNATI, OHIO, MAY 20-22, 1935, AND ADDRESSES
SELECTED FROM THE NATIONAL CONFERENCE ON
STATE PARKS, HELD AT SKYLAND, VA., JUNE 18-21, 1935

EDITED BY
HARLEAN JAMES

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AMERICAN PLANNING AND CIVIC ASSOCIATION

THE purposes of the Association include the promotion of public understanding and support of national, regional, state, and local planning for the best use of urban and rural land, water and other natural resources; the advancing of higher ideals of civic life and beauty in America; and the safeguarding and developing for the largest good to the people of natural wonders and scenic possessions and of national and other parks and recreational facilities.

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THE purpose of the Conference is to urge upon our governments, local, county, state, and national, the acquisition of additional land and water areas suitable for recreation, for the study of natural history, for the preservation of wild life, and for historical monuments leading to better understanding and appreciation of the history and development of our Nation and its several States, until there shall be public parks, forests, and preserves within easy access of all the citizens of every State and territory in the United States.

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PREFACE

A New Dedication to Service

By **FREDERIC A. DELANO**
President of the American Planning and Civic Association

ON JULY 1, 1935, the American Civic Association and the National Conference on City Planning became the American Planning and Civic Association, dedicated to the promotion of the understanding and support of national, regional, State, and local planning for the best use of urban and rural land, water, and other natural resources; the advancing of higher ideals of civic life and beauty in America; the safeguarding and developing for the largest good to the people of natural wonders and scenic possessions and of national and other parks and recreational facilities. The names of the Officers, Board of Directors, and Advisory Council appear on page X of this Annual.

To take effect on July 1, the National Conference on State Parks elected the Executive Secretary of the American Planning and Civic Association as its Secretary, thus centralizing in the headquarters office park as well as planning interests.

In the American Planning and Civic Annual for 1935, therefore, we present, in addition to the usual accounts of civic achievements in national, State, and local affairs, the proceedings of the Conference on City, Regional, State, and National Planning held in Cincinnati on May 20-22, 1935, by the American City Planning Institute, the (then) American Civic Association, the American Society of Planning Officials, and the (then) National Conference on City Planning. We also present addresses delivered at the National Conference on State Parks, held at Skyland, Va., June, 1935, and a selection from the discussions of a conference of State Park officials called by the National Park Service in February of 1935.

This year we have omitted the section on The Federal City, as, next year, on the occasion of the tenth anniversary of the creation of the National Capital Park and Planning Commission, it is our intention to present a résumé of accomplishment and a new program for the coming decade.

This year, also, because of the obvious difficulty in securing

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information concerning the entire joint membership, we have omitted the Who's Who in Civic Achievement.

It is our belief that many of the decisions by Government officials and private enterprise in the coming year will need to be based on existing conditions. While it is obviously impossible to include in the Annual anything like a complete and detailed account of what is being done, it is our hope that our readers may secure here a conception of what is actually going forward in planning, parks, housing, and civic improvement, and of how the different lines of action are interrelated. For those who wish to keep posted in such matters, for those who desire to inaugurate improvements in their own communities, and for those who intend to pursue some phases of the subject in greater detail, we hope that the American Planning and Civic Annual for 1935 may prove a useful introduction.

THE NATION

NATIONAL PLANNING

Why We Need a National Planning Board*

By HAROLD L. ICKES, Secretary of the Interior, Washington, D. C.

THE proposal for a National Planning Board in S. 2825 grows out of the experience of the Public Works Administration and the National Resources Board during the last two years. When I was entrusted with the administration of Public Works there was no plan on which we could proceed. We had to start from "scratch." In order that our successors might not be faced sometime in the future with a similar situation, I set up a National Planning Board as a part of the Public Works Administration. This Board was not designed to be an administrative agency, but was intended to consider long-range planning.

I selected three private citizens eminently qualified to advise in this field of national planning. Frederic A. Delano, on the basis of long experience as one of the fathers of the plan of Chicago, as well Chairman of Regional Plan of New York City, and for many years as Chairman of the National Capital Park and Planning Commission in Washington, in addition to his experience as an eminent engineer, railway president, and member of the Federal Reserve Board, contributed engineering and administrative judgment. Dr. Charles E. Merriam, of Chicago, drew upon a long training in the theory and practice of government. Dr. Wesley C. Mitchell, of New York City, as a world-known authority on business cycles, was obviously qualified to advise on a wide range of economic questions.

This Planning Board undertook to prepare two reports, one on the long-time planning of public works and another on a "Plan for National Planning." The latter report was completed first, and on its presentation to President Roosevelt he established the National Resources Board. I had the honor to be appointed as chairman of this Board, and associated with me were Secretaries Dern, Wallace, Roper, Perkins, and Relief Administrator Hopkins, in addition to the three above-mentioned members of the original Board. I may say in passing

*This statement of Secretary Ickes, made on June 13, 1935, before the Senate Committee on Commerce, presents the essential arguments for a National Planning Board as proposed in S. 2825.

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that the President made it perfectly clear that he intended under the term "National Resources" to include both natural and human resources.

By direction of the President, a report was prepared and submitted December 1, 1934, on land-use and water-use. In this report there was also included a discussion of long-time organization and administration of public works and of the organization and functions of a National Planning Board. I invite your attention to the concluding pages of this report, in which the subject of a National Planning Board was fully discussed.

In transmitting this report to Congress the President said, in a special message on January 24:

These documents constitute a remarkable foundation for what we hope will be a permanent policy of orderly development in every part of the United States. It is a large subject, but a great and inspiring subject. May I commend to each and every one of you who constitute the Congress of the United States a careful reading of these reports?

From my own experience as a member of the administration, I have appreciated keenly the value of such planning as has been done and the importance of broader and deeper planning for the future.

In the field of conservation, in which I have been especially interested for a quarter of a century and which lies closest to my heart, the meaning of forward-looking planning is particularly to be appreciated. When we take into account the necessity of looking forward and dealing with human resources, the need for intelligent planning is correspondingly greater. Beyond a doubt, America has the richest resources, both natural and human, of any country in the world.

We cannot escape the fact that in the last fifty years our national heritage has often been exploited by the few for their private advantage rather than for the welfare of the many who make up the American people. Sound and statesmanlike planning will prevent a repetition of such types of public plunder and make it possible to utilize the gains of our civilization for the improvement of the American standard of living. Even with the best of intentions, it has often proved impossible to overcome the unfair competition of unscrupulous competitors in such industries as coal, oil, and lumber. We have made great

progress through the adoption of conservation policies, but it is now time to take a step forward in the direction of comprehensive and better related national planning, supplemented, of course, with local planning.

If our American statesmanship can keep up with American science and American invention and technology, the coming generation will see marvels of human achievement. It is not our capacity to produce which is weak in America; it is our capacity to plan the wisest use of our dazzling wealth of materials and men. Land, water-power, minerals, blended race stocks, mechanical inventiveness, organizing experience and ability—these are American assets which forecast an amazing future provided only that we exercise our skill and judgment in sound planning for their wise development and prudent use.

I am not unmindful of the fact that there are and should be planning agencies in various departments and bureaus of the National Government, but our urgent problem is to coördinate these various planning agencies with each other and also to relate them to State planning, to city planning, and to county planning in order that sound national policies may be developed on a genuinely national basis.

One of the most solid among the many substantial services rendered by the National Resources Board has been its ability to use its good offices to bring together various departmental and bureau agencies for the analysis of a common problem, and for a unified program. This coöperation has been especially noteworthy in the development of a land-use program; in the unified study by a dozen agencies of the many uses of waterways and power; in the work of the minerals committee, and in the organization of studies of consumption and living costs.

It has been increasingly evident for some time that there is a strong need for what might be called a "General Staff" to advise the President on specific peace-time policies on such subjects as he may suggest or that the Staff may initiate. It cannot be too strongly emphasized that such a board would be wholly advisory in function, depending for its influence upon its intelligence and insight into American life. It would at all times be subordinate to those responsible representatives who are entrusted with making the laws and arriving at fundamental political decisions—the Congress and the President.

National Planning in Practice

By CHARLES E. MERRIAM, Member of National Resources Committee,
Chicago, Ill.

THE report of the President's National Resources Board brings together, for the first time in our history, exhaustive studies by highly competent inquirers into land-use, water-use, minerals, and related public works in their relation to each other and to national planning. The report lays the basis of a comprehensive long-range national policy for the conservation and development of our fabulous natural resources. If the recommendations are put into effect, it is believed that they will end the untold waste of our national domain now, and will measurably enrich and enlarge these national treasures as time goes on.

This program contained many detailed recommendations, but, speaking broadly, the following were perhaps the most important:

1. A land-purchase program providing for the retirement of some five million acres of submarginal land yearly for some fifteen years, with administration through a permanent land-planning section, cooperating with State and local boards and authorities (with many collateral recommendations).

2. A permanent water-planning section to proceed with detailed engineering, social, financial, and legal studies of seventeen major drainage basins, and the preparation of constructive programs for their development (with many collateral recommendations).

3. In mineral industries, permanent regulation of competition, adequate to control production, capacity, surplus stocks, and protection of the workers. Consideration of retirement of marginal mines was also indicated. Scientific research to foster mining technology was recommended. For all these purposes, a permanent mineral policy committee is suggested. A further report on this subject is in preparation, and also a report on hydroelectric power.

4. A permanent public works administration, preparing a six-year works program, operating through lump sum appropriations by Congress, and assuming the leadership in cooperation between national and local public works authorities.

5. Continued encouragement of and cooperation with State and regional planning boards.

6. Collection of basic data for planning, including a financial balance sheet for the Federal Government, a mid-decennial census of population and employment, completion of standard maps of the United States, basic scientific studies of land and water resources.

7. A permanent advisory national planning board to serve as a general staff for the President. It was suggested that this board consist of not more than five members appointed by and responsible to the President, with a rotating panel of consultants and a skeleton staff made up of Government personnel and others brought in for special inquiries.

In plans for planning, we find three outstanding considerations:

1. The necessity and value of coordinating our national and local policies instead of allowing them to drift apart or pull against each other, with disastrous effect;
2. The value of looking forward in national life, of considering in advance rather than afterward, of preventive measures as well as remedial;
3. The value of basing plans upon the most authentic collection and analysis of the facts.

Down to the turn of the nineteenth century, no country had done more extensive national planning than the United States. Our program, first of all, was based on the greatest heresy of the time, namely, that governmental arrangements or constitutions could be planned and made. The program included the abolition of hereditary government and the substitution of democracy, the adoption of the Federal system through the Constitution (itself a piece of economic-political planning), a land system reaching from the abolition of primogeniture and entail to the homestead act, and the American system of tariff. After the Civil War, the United States led in large-scale business planning through powerful industrial combinations.

It is an error to conclude that all planning involves regimentation of a deadening nature. I am not referring now to the objections of those who think of regimentation as an interference with their robber-baron privilege of private exploitation and oppression, but to those who sincerely believe that there is danger of sacrificing something that is valuable in civilization.

Wise planning makes provision for decentralization as well as for unification, for territorial and individual decentralization, for independent criticism, judgment, and initiative, for preserving and creating free areas of human activity. The zoning of power is as important in political as in economic organization. We may plan indeed, for fuller liberty—and indeed are now so planning.

Sound planning is not based on control of everything, but of certain strategic points in a working system, which holds the system in balance, reconciling order, justice, liberty. These points change from time to time, sometimes peacefully and sometimes violently.

At various times, political societies have found it necessary to deal with landowners, with slavery, with army authorities,

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with the church, with labor or industrial captains, with racial groups, readjusting the power system of the new interests and values of the new time. This is of the essence of political cohesion and function. The best planning will find these strategic points, shown by the social directives of the time, with least delay, and seize no more points than are necessary for the purpose in mind.

What often happens is:

1. Change is too long delayed;
2. The readjusters violently seize more than they need; and
3. Eventually the readjusters restore what they would not have taken if they had been wiser.

We cannot have freedom if men tamely submit to what they believe is dangerous and wrong. There can be no greater threat to liberty than absence of free and full discussion of opposing views, political, social, and economic.

I am not unmindful of the complexities and difficulties in the way, but dangers lie around as well as ahead, from non-action as well as action. We cannot proceed as if nothing had happened in recent years, or could ever happen again. Our doctrines of liberty, equality, and democracy are not to be regarded merely as legal phrases to be paraded on memorial occasions.

No modern social structure is secure that does not promise more to the body and soul of those who feel themselves disinherited by the present order of things.

Every man is entitled to his own opinion, and I have no desire to thrust my views on others, but perhaps I may be permitted to say quietly, as a student of government for a disgraceful number of years and not by nature an alarmist, that especially since returning from Europe last summer, I do not share the complaisance of those who look forward to a world but little changed. But the way is open for us to reconstruct a finer type of life, if we can pioneer our way through, over, and around difficulties as nobly as did our fathers.

It is important, accordingly, that the scientific developments of the present situation be fully and vividly portrayed, in order that mankind may be made aware of what lies ahead, assuming that adequate social engineering can be found and can be supported by the masses with whom the ultimate power of disposition lies.

A new world is well within our reach if we can organize and

act to obtain it. Men do not believe this; they do not see it; they do not heed, perhaps, even the words in which such a picture is developed before them.

If the coming generation can be equipped for the performance of its social function in the light of the opportunity in human organization, the future of the world is bright with rich possibilities. The obstacles that stand between us and the realization of men's dreams are those of social attitudes and social and political management. Of the great burdens of humanity, pestilence, poverty, war, and famine, two have been driven back into their caves. Poverty and Wars stalk abroad, resisting the nets thrown around them.

But there is no longer a valid excuse for poverty since the forces of nature have been subdued, and the brutality of war is a surviving witness reminding the human parvenu of his primitive origins. The stream of scientific invention will roll on, in all human probability, and if the devices of social invention are able to keep pace with the scientific organization of nature, the new world may be a fairyland of human achievement. The burdens of hunger, disease, toil, fear, may be lifted, the book of leisure may be opened, and treasures of human appreciation and enjoyment may be made available to the mass of mankind.

This is true not only of the mechanical contrivances which minister to our enjoyment of life in many ways, but also of the inner life of the personality, so long filled with vile broods of haunting fears and doubts and dreads. Science and social arrangement will conquer these jungles also, and open them to the sunlight of happiness, hitherto unattainable no matter what the mechanical device or the pecuniary success of an individual. Miracles have already been wrought, and others are on the way, beyond any question of doubt. Science will bring life and light and healing on its wings.

In moments of industrial insecurity and bitter distress, the possibility of an infinitely richer and finer life for the mass of mankind may seem a mocking mirage. But the continuance of ancient burdens is impossible if the faculty of social and political contrivance is utilized as it might be by a generation sophisticated in the modern world and prepared for entering into the kingdom. If there is affliction and bitter distress, it is because we will not reach out and take the gift of the gods in our day.

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There is food, shelter, clothing, adornment, relief from physical and mental disease, leisure for the appreciation, enjoyment, expression of the human personality in richest form, if we are ready to reach out the hand and take them, through the social, economic, political arrangements that condition them.

And to produce the will, the skills, the attitudes and aptitudes, adequate to the achievement of the promised land, is the supreme challenge of civic and social education.

If we can look the facts in the face and not deny what we do not like; if we can consult our fears less and our hopes more; if we can think more in terms of the present and future and less in terms of the past; if we can show inventive ability in social and industrial arrangements equal to that developed in technological advancement, we can realize the promise of American life more fully than even the prophets have ever dared to dream.

Land-Use Planning*

By HUGH R. POMEROY, Planning Consultant, Palo Alto, Calif.

LAND-USE PLANNING is emerging as a highly significant enterprise in the field of public control in the interest of the social and economic welfare of the Nation and its constituent regions and communities. In its broader aspects it has not come as an outgrowth of urban planning but primarily from the search for constructive policies in agriculture and forestry. Such county and regional planning as has heretofore been known has been essentially an amplification of urban planning.

The need for a planned agricultural economy, long evident through the developing national agricultural policy, indicated the necessity for a determination of the most effective utilization of land. Increasing per unit production as a result of scientific processes was being paralleled by uneconomic attempts at production in areas incapable of providing adequate return by reason of limitations of soil and other natural conditions or improper relation to transportation and markets. Public reclamation projects were being launched for the purpose of expanding producing areas or opening new areas to production without determining the relation of the results to the total agricultural

*Condensed from a paper delivered at the annual meeting of the California Planners' Institute, Bakersfield, June 2, 1934.

production or to the needs of the Nation, and frequently without an adequate cost evaluation of relative productivity.

Too little attention has been given to the protection of the soil-resources of the Nation. Inadequate control of grazing has led to the impairment of the possibilities for sustained grazing and has contributed to destructive erosion. An increase in tenant farming in various sections has tended to limit the interest of the farmer to the immediate productivity. The tendency has been to "mine the soil," exhausting its potentialities for sustained production. There was also a wholesale "mining of the forests" until the approaching exhaustion of the timber resources of the country forced a recognition of policies of conservation, first in the setting aside of the National Forests and now in the development of an adequate National Plan for American Forestry.

Frequently, uneconomic agricultural practices and uneconomic forestry practices meet in the same area, in attempts to use marginal and submarginal land for crop production in cut-over lands which should be used for timber production.

Secondary evils have followed in the train of soil-erosion and deforestation, in the resultant increase in floods, impairment of water supplies and of sources of hydroelectric and water power, and the destruction of wildlife.

These practices have led to the impairment of resources which no generation has a right to exhaust or destroy in any degree, but which must be husbanded by an attitude which recognizes a stewardship on the part of each generation for those which succeed it. *There is no such thing as the absolute ownership of land.* No person is entitled to more than that which his land will produce, in such a manner as to leave its productivity unimpaired for those who follow him.

The period of recognition in America is now under way, as detrimental results begin to be evident in the form of economic burdens. These burdens take the form of (a) the cost to communities of paying for the secondary group of evils, such as the cost of flood-control, the additional cost of providing water supplies, and the intangible losses suffered through the destruction of recreational opportunities in hunting, fishing, and the use of scenic and other recreation areas; (b) increase in the cost of forest products; (c) impairment of the structure of agricultural

economy owing to the drain resulting from the dead load of attempts to use marginal and submarginal land; (d) loss to the individual who attempts to run counter to principles of economic land-utilization; and (e) unjustified local governmental costs due to the extension of governmental services to areas not warranting human occupancy.

Cases have been noted in the Wisconsin studies of land-utilization in which the cost of providing education in isolated school districts has been, per pupil, ten times that of the State average, with similar disproportionate costs, per person served, for local service roads.

Conservation and sound utilization of forest and wildlife resources involve a multitude of controls, activities, and procedures, both public and private, with which there is general familiarity. Rather broad extensions of these are required if the necessary objectives are to be reached, and such are emerging. Similar is the prevention of soil-erosion and exhaustion, dependent in part on public control and public action and in part on voluntary practice, these also requiring extensions.

The methods of assuring sound utilization of resources have to do with land-use planning in that they are means of effectuating its implications. Land-use planning gets under and behind them in a determination of the various purposes for which respective areas of land can best be used: forestry, grazing, various forms of agriculture, watershed protection in a specific sense, recreation, wildlife preserves, mineral production, and urban occupancy.

There is needed a pitiless analysis of planning processes to assure that a somewhat pleasurable activity in a certain direction shall not stop there but shall drive through to a conclusive objective. Zoning which compromises at points of crucial testing is little better than no zoning at all, and is not nearly so honest. Roadside control which is content with doing half the job or which, for instance, can get only so far as to make billboards set back twenty feet, is largely wasted effort. The securing of 100-foot rights-of-way for highways is deserving of little credit. Planners in the horse-and-buggy days did as well. Super-highways do not exist by calling them such; they must be planned to be such—and we have none in the West.

A new day has brought new responsibilities and there is no

standing still or we retrogress. Even as the period of population reflow and of facing the results of unsound utilization of resources has brought the broader aspects of land-use planning to the front, so the motorization of individual transportation is requiring the extension of the application of specialized land-use planning to new areas, upon which impinge new forces. The impact of urban populations upon rural areas in the search for an escape from the clausturation of urban conditions requires some collective procedure to prevent both the impairment of the means of escape and injury to the satisfactory use and occupancy of the rural areas for their own purposes. The failure of cabin-site subdivisions to protect the conditions which make them possible and the despoliation of scenic and recreation areas by their own use are examples of the former. Impairment of the sound land-use and valuation structures of non-urban areas by the intrusion of conflicting uses and by excess subdivision are examples of the latter. Destruction of the seclusion and attractiveness of rural areas and the cluttering of roadsides with disorderly uses are examples of both.

As non-urban planning fits into broad land-utilization planning, so does urban planning itself. There is an intimate relationship between urban planning and non-urban planning which lies in the fact that there is no insularity possible for population centers. The village is merely the focal point of collective forces generated from the utilization of surrounding land and resources. While the larger the population center the more remote may be the origin of these forces and the more dominant may appear the reflex forces generated within the population center and, in turn, influencing surrounding land and resource utilization, yet cities are the creatures of fundamental forces which make for their existence and which determine their functions and size.

Whether operating in sweeping scale through broad land-utilization plans or finding detailed implementation for its implications in local town and neighborhood plans, land-use planning, together with related fundamental determinations, must provide a basis for all physical planning. It will influence national policies in forestry and agriculture, give direction to State planning programs, provide a foundation for county planning and give orientation and pattern to urban planning.

National Planning and Public Works

By HAROLD MERRILL, Assistant Executive Officer, National Resources Committee

THE growth of city and regional planning has been a conspicuous feature of the twentieth century in the United States. Systematic consideration of the physical plan for the efficient, orderly development of our communities has come to be commonly accepted until there have now been established more than 800 city planning boards and over 300 county and regional, including metropolitan, planning boards. The relationship of the planning of cities and regions to the States of which they are parts, as well as to national planning, presents major questions of planning policy and organization.

The possibility of increasing public works construction as a "stabilizer" to counteract business fluctuations has been discussed by economists for many years. This principle was endorsed by the President's Conference on Unemployment in 1921 and at various times since has been proposed in Congress as well as in several of the State Legislatures. The Federal Employment Stabilization Act of 1931 provided for "advance planning on a six-year basis and regulated construction of public works, for the stabilization of industry and for aiding in the prevention of unemployment during periods of business depression."

With the efforts of the Federal Government during the past two years to initiate expanded programs of non-Federal public works, there developed an entirely new conception of the place of public works in the national economy. As State and local governments were confronted with the task of finding quickly projects to relieve unemployment, they were obliged to compile hastily lists of possible projects many of which had never progressed beyond the stage of an "idea" or a "proposal." Most of the ordinary delays encountered could have been avoided through systematic advance planning of public works.

On the other hand and by way of contrast, Federal agencies were immediately ready with well-considered programs of needed construction projects. This was made possible by the provisions of the Act of 1931 creating the Federal Employment Stabilization Board, which require every Federal agency having construction or maintenance work to plan and program its needs six

years ahead, including preparation of detail construction plans. Furthermore, the law requires these agencies annually to revise their program and to extend it a year with the result that the Federal Government has always available for each agency a six-year program of construction and maintenance needs. It would have been a tremendous advantage to the national employment program if a similar system had been in operation in the State and local governments.

When the vast public works program was launched by the Federal Government in 1933 there was no coördinated program of Federal, State and local public works. Therefore, on July 20, 1933, the Public Works Administrator, Harold L. Ickes, with the approval of the President, appointed a National Planning Board of three members, Frederic A. Delano, Chairman, Charles E. Merriam, and Wesley C. Mitchell. The functions of the Board, as stated in the First Circular of the Public Works Administration, were to:

1. Advise and assist the Administrator in the preparation of the "Comprehensive program of public works" required by the Recovery Act, through
2. *The preparation, development, and maintenance* of comprehensive and coördinated plans for regional areas in coöperation with national, regional, State, and local agencies; based upon
3. *Surveys and research* . . . and through
4. The analysis of projects for coördination in location and sequence

These functions were transferred to the National Resources Board (now the National Resources Committee) when it was established by the President in July, 1934, to succeed the National Planning Board.

Accordingly, the National Resources Committee and its predecessors have continued as a primary responsibility the encouragement of State, regional, and local planning by lending technical consultants and otherwise coöperating with qualified State and inter-State planning agencies which made application for such assistance and met certain reasonable requirements. One of the suggestions made by the Board was that special attention should be given to developing long-range, six to ten-year public works programs, pointing out that State Planning Boards were in a position to render immediate aid to State and regional PWA and FERA officials in the formulation of works programs. Accordingly a number of State Planning Boards assembled essential data and formulated both preliminary long-

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term and immediate emergency programs of works projects which have been of material assistance to various Federal and State agencies in carrying out the Administration's program to provide employment on useful projects.

This experience suggested to the Advisory Committee of the National Resources Board the possibility of making a quick inventory of needed public improvements for the entire United States which would be valuable in formulating the national program of useful work relief, urged by the President in his message to Congress on January 4, 1935. Accordingly, upon recommendation of the Advisory Committee, the Chairman of the National Resources Board on January 10, 1935, requested the State Planning Boards and Consultants to cooperate in a "National Inventory of Works Projects" and suggested that they serve in an advisory capacity similar to the former PWA State Advisory Boards.

The aim was to obtain, before March 1, 1935, comprehensive lists of available projects which would combine opportunities for employment with planned State and local development.

Inventory returns were received from 21,200 reporting units, listing a total of 137,400 State and local projects estimated to cost in the aggregate approximately \$20,366,500,000. Of the total about 4 per cent, or \$1,066,000,000, represented cost for necessary purchases of land for projects.

Many of the State Planning Boards, in collaboration with the PWA State Engineers and State Relief Directors in some cases, have made special analyses and studies of data produced by this inventory, the results of which they have presented in significant reports containing tentatively proposed long-range public works programs.

This National inventory of works projects has provided the most complete information as to available projects in the States, counties, and municipalities of the Nation that has yet been assembled. With this beginning the Federal Government and the States are in a position of leadership toward establishing a permanent policy of long-range public works planning—through encouraging city, county, and regional planning as a basis for coordinating needed improvements into rational community development programs with sound financial policies.

FEDERAL LANDS

NATIONAL PARKS

New National Park Projects

By ARNO B. CAMMERER, Director, National Park Service, Department of the Interior

PROPOSED for admission to the system administered by the National Park Service in the near future is a group of five areas of such distinctive grandeur and incalculable value to the America of the future, as well as to the America of today, that it is difficult to imagine any division of public opinion as to their right to such inclusion. To enact legislation safeguarding these few remaining realms of superlative scenic charm, in order that we may pass them on unsullied to those who shall come after us, seems essentially the part of patriotism.

Even in the kingdom of exquisite beauty, familiarity seems prone to breed contempt, and, sometimes, those who have grown up in an environment of surpassing natural scenery appreciate its rarity far less than those who gaze for the first time upon its glory. Perhaps an apparently inexhaustible supply tends to a false sense of security, while the newcomer may realize that, unless an aroused public takes prompt steps for preservation, the few available wilderness areas may be lost.

The very status of a National Park connotes exceptional qualifications. Comparatively few new areas are left within the continental boundaries of the United States today meriting establishment in that category. Those few, however, rank not only as nationally outstanding, but as world champions in some degree of excellence. Two proposed parks, at opposite corners of the United States, unquestionably may claim to be without parallel in their scenic and biologic characteristics. They are Mount Olympus National Monument in Washington, and the Everglades of Florida. Three other important pending National Park projects are the Kings Canyon in California, the Big Bend country in Texas, and Isle Royale in Michigan.

Other unique and lovely areas in the United States deserving National Park or Monument status and protection include Yampa Canyon, Colorado; Wayne Wonderland, Utah; a section

of southern California where desert plants still flourish; and two other colorful regions in southern Arizona where grow in profusion desert cacti in great variety, and the native palms of the Kofa Mountains. Legislation already has been introduced for the enlargement of Grand Teton National Park.

Nowhere else on the known globe is there a region comparable to the Mount Olympus peninsula. Moist winds blowing from the ocean and the tempering effects of the Japanese current have produced in this northern latitude a forest almost semi-tropical in many of its characteristics. Luxuriant ferns carpet the forest floor. Thick mosses drape trees surpassed as to age, size, and magnificence only by California's sequoias. Beholding them one is inclined to paraphrase Joyce Kilmer's familiar lines and exclaim, "Only time can make a forest."

The peaks of Mount Olympus rise above these wooded slopes, piercing the clouds. Snowfields, flower-filled meadows, canyons of savage grandeur, and glaciers, pronounced the most beautiful in this country, are contrasted with fertile flats clad in alder. With the exception of Alaska, this is America's last frontier forest. Yet these superb monarchs of Douglas fir, spruce, hemlock, and cedar, the like of which cannot be reproduced within 500 years, are menaced with destruction unless given the protection of National Park status. A policy of "sustained yield" is cold-bloodedly proposed, in order that commercial interests of a few short decades may be served at the expense of long generations of coming Americans.

Three times these short-sighted business policies have brought about reduction of the boundaries originally established when Theodore Roosevelt set aside Mount Olympus National Monument in 1909, to save the last remnants of the Roosevelt elk. Even this primary purpose has been partially defeated. Shrunken to half its original size, the Monument today does not support the elk herd which no longer finds adequate winter range in the fast-vanishing forests. Cumulatively, the entire biotic life of the Mount Olympus region is menaced, so interdependent upon one another are all the members of Mother Nature's family.

A few States distant, and in another Pacific Coast State, another region of surpassing beauty is imminently threatened. The territory in California extending from the Tehipite Valley



Tchipite Dome, Middle Fork of the Kings River Canyon
Photograph by Walter A. Starr. Courtesy *Sierra Club Bulletin*



A Pinnacle of Cathedral Peak, Yosemite National Park
Photograph by George Shochat. Courtesy Sierra Club *Bulletin*

to the Tule River is locally termed Kings Canyon region, because it contains the canyons of the South and Middle Forks of Kings River. It was some fifty years ago that public sentiment was aroused sufficiently to save the sections eventually established as Sequoia National Park and General Grant National Park, but not even the zeal of John Muir and other eminent naturalists prevailed to secure the inclusion of some of the most notable and inspiring examples of wild scenery to be found in America, if not in the entire world. Apprehensive of the inevitable day when a road would be built through the sequoia groves into the great canyon, John Muir wrote, "All of this wonderful Kings River region, together with the Kaweah and Tule sequoias should be comprehended in one grand national park." Toward this end the Sierra Club, one of the greatest exponents of the conservation of our national wonders, has tirelessly striven.

Geologically and biologically the features of this proposed park justify permanent protection, and, unless the development, which comes in the train of the entrance highway now under construction, conforms to a policy similar to that of the National Park Service, a knell will be sounded to some of the most superb wilderness grandeur left in the United States.

Still trekking southward and easterly, we come to the Big Bend country of Texas. It is an irregular triangle of some 5,500 square miles, projected into Mexico by the outline shaped by the Rio Grande, winding tortuously along the border. Economically the country has little value. Semi-arid in character, it offers little inducement to agriculturists or herdsmen. Only a few wagon-trails serve the scattered ranches and mining claims. The Chisos Range, southernmost spur of the Rockies, forms its higher altitudes. A varied and still virgin growth of Douglas fir, pine, juniper, oak, and hackberry gives sanctuary on the lower slopes to an abundance of game, including bear, panther, deer and fox. Through this wilderness the Rio Grande cuts its way, carving out three steep-walled canyons. Everywhere are the haunting mystery of the desert and the allure of unconquered mountain fastnesses. The land is replete with archeological interest and the latter-day drama of border warfare, outlaw raids, quests for buried treasure, with the violence and bloodshed that follow in Mammon's wake. Pictographs left by un-

known hands bear witness to the tenancy of these sun-steeped plains and deep-shadowed canyons, untold centuries ago, by prehistoric men.

All the romance of the old Mexican frontier lingers in this borderland. Its possibilities as an international park are unexampled. Big Bend, undoubtedly representing the finest scenic panoramas of the Lone Star State, is ardently desired by the native sons to be given such honor.

Isle Royale is the largest island in Lake Superior and is a part of the State of Michigan. Approximately 44 miles long by 5 miles wide, its estimated area is some 205 square miles, of which at least 12 are occupied by inland lakes. These are 24 in number and both scenically and biologically are distinctive and intriguing. Their presence on a forested terrain, left undisturbed for decades because of comparative inaccessibility, has created a wildlife sanctuary. Within Isle Royale's splendid cover of balsam, spruce and beech, birch, poplar and pine, hundreds of moose, beaver, and other wildlife find refuge. Until ten years ago the woodland caribou had its habitat within the confines of Isle Royale. Now, however, this interesting animal is no longer found on the island.

These waters are also considered among the greatest breeding-grounds in the Great Lakes for the herring gull.

Archeologically Isle Royale is amazing. Legions of Americans are unaware that here in two remote sections of the obscure island are ancient copper mines perhaps antedating those famous prehistoric workings of the ancient Britons. Crude stone steps of massive build lead down to the water's edge from a vicinity where literally thousands of open pits evidence that here, long before the coming of Columbus, was the center of a flourishing mining industry. Great piles of rough stone hammers and other stone implements have been uncovered already. Thus, scientifically and educationally, as well as scenically and in its recreational potentialities, Isle Royale presents outstanding opportunities for the establishment of another National Park in the East, now but meagerly represented in the Service.

Some 2,000 square miles of dense vegetation, lying in Dade, Monroe, and Collier counties, Florida, are familiarly known as the Everglades. This area is conceded to be the most truly tropical of the mainland of the United States. In the northeast

section is found the true prairie type of everglades—great tracts of saw grass, inundated seasonally: hummocks covered with dense tropical vegetation, mangroves, and cypress predominating. The name "Ten Thousand Islands," given to another section of the area, is a misnomer; 10,000 is too conservative an estimate by far for these seemingly unlimited islets. Most of them are mere clumps of mangrove trees. Except at low tide no soil shows above the water's edge.

Plant-life is rich and gorgeous, with species of palms, orchids, and ferns not found elsewhere. So also of the fauna. Bird-life is particularly remarkable and desperately in need of protection. Lawless and insatiable raids of plumage hunters have nearly exterminated some of the rarest species. The creation of a wild-life sanctuary, which in all cases automatically accompanies the establishment of a National Park, will preserve such exotic birds as the roseate spoonbill, the crane, ibis, egret, and flamingo.

At least 600 species of fish are found in the waters of this locality. Alligators and crocodiles have been much reduced by indiscriminate slaughter. The sea-cow, or manatee, is nearly extinct. But there are deer, bear, and panther in the impenetrable jungles. These are safely zoned, for even a mile inland the stranger would be hopelessly lost in the labyrinth of sluggish waterways, densely clogged by vegetation. Only from the air can their mysteries be comprehended as a whole.

Florida's Everglades are different in physical characteristics from any other section of the United States, possessing subtropical and tropical biota. The only other tropical features now existing in the National Park System are Hawaii's tree ferns. Moreover, except for Acadia National Park, Maine, the width of the continent away, there is no other National Park on the Atlantic or Gulf seaboard having a coast-line. Although policy would dictate the administration of the Everglades for the most part as a primitive wilderness, with the preservation of the bird-life a primary objective, recreational opportunities would be served also. The waters off or on the continent are teeming with aquatic life. Fishing would be of the best. To a certain extent penetration of restricted areas, by hydroplane and motor-boats, would provide a unique form of diversion.

Inspirationally, every one of these proposed park projects possesses beauty and natural phenomena so supreme and of

such rare quality that they impose upon us the holiest obligation to preserve them inviolate. They do not belong to a person, to a locality, not even to a State. They are a Nation's irreplaceable heritage. Posterity's stake in them is so incontrovertible that if we fail to live up to our solemn responsibility as trustees, generations following our own will be amply justified in reproving our stupidity and folly, and reviling the greed and shortsighted selfishness that permitted the special interests of a few to seize and despoil beauty irreplaceable and beyond price; national resources of measureless worth. But one safe policy may be followed in the administration of areas like these—the policy of the National Park Service, the first duty of which is to preserve in their natural conditions the areas entrusted to its charge. For whether expressed euphemistically in such misleading terms as water and power development; irrigation and mining promotion; sustained timber yield; or in the more open guise of rights-of-way and real estate development—when any of these practices is countenanced in Nature's sanctuaries, there can be but one eventual result. That result is irremediable disaster.

Public Works and National Parks

By A. E. DEMARAY, Associate Director, National Park Service

THE Public Works program in our National Park System, like a true appraisal of current history, will be better appreciated a generation hence than today. While the immediate results are patent to all who visit the National Parks, and have fulfilled economic expectations by furnishing employment to hundreds of thousands of our citizens in all groups, from unskilled to highly trained technicians, only the future can evaluate adequately the immense gains for conservation made possible through the generous appropriations for Public Works. This prophecy is based on the well-nigh axiomatic fact that every individual who visits our great "pleasuring grounds" automatically becomes a convert and an apostle for their perpetuation. Good roads have helped to effect these transformations. And good roads have played a major role in the Public Works program.

For the entire period included in the fiscal years between

1925 and 1934 the amount voted by Congress for funds specifically for construction of roads and trails in the National Parks and Monuments was \$39,514,500. Public Works allotments for roads and trails construction authorized for the two-year period of 1934-1935 approximated \$25,500,000, and for physical improvements \$11,000,000. These figures compress into a nutshell the immense details and the variety of projects carried on during the past two years. The availability of money and men brought into materialization plans dreamed of and blue-printed for years in the long-range planning of the National Park Service, but tacitly relegated for realization to a nebulous future.

Upon the Branch of Plans and Design and the Branch of Engineering devolved the duty of drawing up with maximum speed a blanket program for the entire area; a task made possible with dispatch and efficiency because of the six-year Master Plan Development which is one of the most important factors in the physical planning of the National Park Service. Policy considerations were not forgotten in arranging for this nationwide spread of work. Long ago Congress had ruled that, once established, these virgin wildernesses and prehistoric monuments must not be despoiled by the inroads of modern civilization. Priceless as they are today, they will be still more precious in the years to come, as expanding populations and commercial exploitation contract Nature's domain dangerously near to the vanishing point.

New roads within park boundaries have been held to a minimum for a long term of years, although in a number of instances connecting highways have satisfied inescapable obligations to the public, who are the real owners of the Nation's public lands. Conservationists and lovers of nature will rejoice to learn, however, that, according to the estimates of experts, not more than 10 per cent of the 23,825 square miles that make up the total of our National Parks and Monuments is made accessible by roads.

Their inner vistas of intimate loveliness, their spreading panoramas of grandeur and natural phenomena, have been made available to our citizens by hundreds of miles of bridle-paths and foot-trails. PWA funds financed many of these projects. Such appropriations have also wrought wonders in bringing up to date out-moded highways, considered the last

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word in engineering when put in decades ago by the Army Engineers, when horse-drawn vehicles and the tempo of the gay nineties were the accepted standards of locomotion. Brought up to date in gradient, alignment, and material, resurfaced and oiled, these reconditioned old roads are now reaping the benefits of their rejuvenation in a volume of travel that last year totaled some 6,000,000. Many of the roads have been relocated. Improved bridges, architecturally designed to blend with the native scenery, with an artistry and skill which must be seen in order to be appreciated fully, also have added to the convenience of the traveling public and the beauty of the parks. Tribute should be paid in this connection to the work of our CCC boys, who have checked soil-erosion along miles of roads by revegetating slopes, and who have assisted in landscaping camp and parking areas and the environs of administration headquarters, under the supervision of landscape architects of the National Park Service.

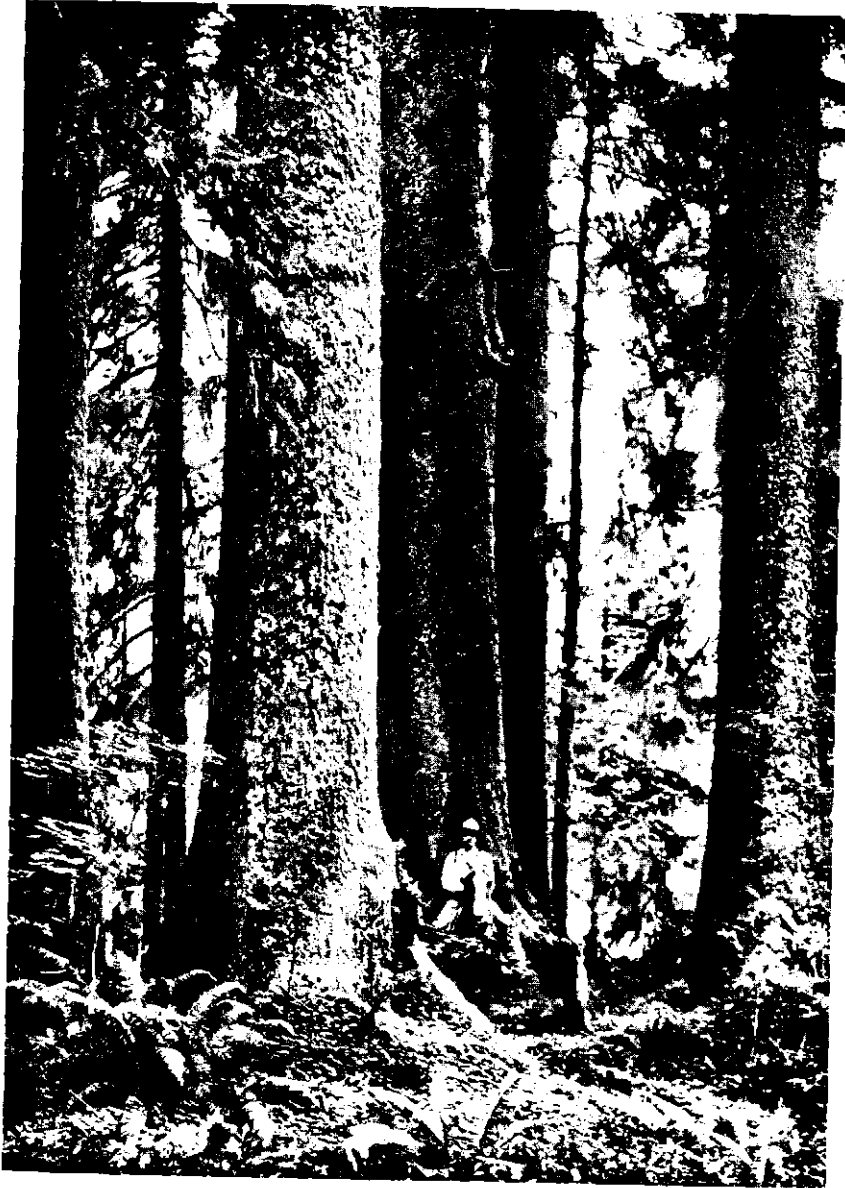
Throughout the National Parks, Monuments, and allied areas, sanitary facilities have been introduced, undreamed of a generation ago, but necessitated by the standards of modern sanitary engineering.

Contemporaneously with the releasing of Federal funds came the expansion of the National Park System by the transfer to it of all Federal Park activities, and military and historic sites.

In military parks physical improvements under PWA have included administration buildings, utility buildings, residences, comfort and entrance stations, installation of water, sewerage, electric and telephone systems. Landscaping and tree surgery also were provided where indicated.

At Colonial National Monument, Virginia, an important project was that designed to protect from further erosion by winds and tides the shores of the historic York River, and the banks of Jamestown Island, on the James River.

Restoration or reproduction of old landmarks and cherished shrines has been characteristic of the PWA programs carried on in the East and the Southwest. Local traditions have been followed closely, and painstaking research conducted so that the buildings themselves worthily reflect the culture of the period they represent, while a revival of interest has everywhere been stimulated in the worth-while things of the past.



Characteristic Forest in the Proposed Mount Olympus National Park
Photograph by Asabel Curtis



Courtesy Parks and Recreation

Moose at Rock Harbor, Isle Royale
Photograph by Herman D. Ellis, Battle Creek, Mich.

A special grant of several thousand dollars permitted continuance of the central administration of the survey of Historic American Buildings, the field-work of which was financed by ECW and FERA funds. A special allotment was made for the survey of the ancient Indian pueblo, "City in the Sky," at Acoma, New Mexico, which has been occupied continuously by this ancient tribe for one thousand years.

PWA funds have also made possible the establishment and expansion of park museums which disclose to the lay visitor in terms easily understood the scientific secrets of the national parks and monuments.

Museums in National Parks

By CARL P. RUSSELL, Chief, Eastern Museum Division, National Park Service

THE purpose of educational work in parks is to interpret the phenomena and history of the parks and engender a desire in the visitor to think, read, and talk about the park offerings both while he is in the park and after he has left. Those familiar with the behavior of the National Park visitor have believed that a variety of educational methods must be employed if the defined objectives are to be attained. Answering questions over an information desk will not suffice; lectures, although offered in the midst of inspiring surroundings, are not enough. The naturalist-conducted or historian-conducted field-trips make unique offerings, but they are not sufficient in themselves. All of these methods are required, but the museum-library is also important. In fact, some workers have been inclined to regard the museum as the main prop under the parks' educational program. Because public interest is focused on it and staff facilities are provided within it, the resources of the park educational organization hinge on it.

In 1921, Ansel Hall, now Chief of the Field Division of Education, established a small makeshift museum in a temporary building in Yosemite National Park. It served to demonstrate the possibilities of the museum presentation as an adjunct to the then very new phase of parks work called nature-guiding. About the same time, Yellowstone and Mesa Verde adopted the museum as a feature of educational work. The American Asso-

ciation of Museums took note of the new ventures and in 1924 investigated opportunities and developed plans to establish adequate museums in several of the larger parks. The Laura Spelman Rockefeller Memorial provided the funds with which the first trailside museums were built in Yosemite, Grand Canyon, Yellowstone, and Bear Mountain, a total of nine focal-point museums, each one designed to meet a special need, but all having one thing in common—provision of a *hook-up* between an object or spectacle, charged with dynamic information, and minds receptive to informational impulses.

In keeping with the new trend in museum work these park museums put behind them the old ideals of curios and scientific collections. They were dedicated to service. As Coleman says—“Service—on the one hand to learning, and on the other to the public. Service to learning is research; to the public, education.”

The park museums from the first were organized and oriented toward the elucidation and interpretation of historical and scientific truths. A number of years ago Dr. Goode of our National Museum described the modern science museum as a collection of labels illustrated by materials. We believe that the history museum may be developed in the same manner.

Simplicity in the process of translating the scholarship involved is a constant aim in park museum work. A certain Harvard geologist remarked while examining the geo-chemistry exhibits in the Norris Museum, Yellowstone, that the interpretations were “naive.” His comment was accepted as a compliment. The park museum curator should be scholarly, but he should not fail to see the difference between the public mind and his own. His graphic presentation of a story should be made with clarity and force but without technicalities.

While the last of the nine park museums built with Mr. Rockefeller's money was still in the making, experimental methods were brought into use to determine whether the public was being interested and informed by the earlier exhibits. Studies were made at Grand Canyon to determine the reactions to the Yavapai installations; at Yosemite the functioning of a central museum was investigated. Findings were encouraging, so favorable, in fact, that engineers, architects, and superintendents joined educational officers in endorsing the museum idea, and a few years ago the Government appropriated funds to add to the

number of museums in parks and monuments. Small museums, like those at Rocky Mountain National Park and Petrified Forest and Casa Grande National Monuments, were built with regular Park Service appropriations. Then came the emergency programs, ECW and PWA, and the National Park Service experienced something of a windfall of museum support. The number of museums in parks and monuments jumped from a dozen to thirty-nine. Fortunately, preparations had been made for the increased activity since western park problems had been studied, and dependable museum plans had been projected.

Nearly six million people visit the parks and monuments each year. What Rea wrote in 1920 of museums generally seems now to apply especially to National Park areas and park museums. He stated, "To our museums the opportunity is present of enriching the lives and inspiring the ideals of all classes of society, and in so far as they succeed in doing this, they will contribute to the realization of what we hope to make America express."

What do we hope to make America express? In answering that question it seems quite natural to turn to the National Parks. Today there are 129 Federal areas administered by the National Park Service. They are distributed from coast to coast and are to be found also in Alaska and Hawaii. From the standpoint of scope of stories they overlap until they constitute an expression of nearly everything that is essentially American.

In the field of geology we find that National Parks and Monuments constitute a very nearly ideal natural textbook. It is true that the pages of that text are widely separated and scattered, but the automobile and good roads have overcome the difficulties of distance, and many colleges and universities are today taking geology classes to these outdoor laboratories. The geological stories of the parks are being collected for presentation in a printed account for students and lay visitors. Park museums will translate that so that he who runs may read.

In the realm of American biology, National Park areas are not yet as comprehensive as might be desired, but many vital chapters of the story are found in parks. Among the resources of National Parks nothing is more important than the wildlife. Surveys are being made, policy defined, and publications produced.

Archeology and ethnology find remarkable representation in

the parks and monuments, especially in the areas of the Southwest where the exhibits run the gamut from the dwellings of a people who lived a thousand years ago to the camps and pueblos of the modern Indian. The stories of these peoples lend themselves especially well to museum presentation.

In the field of history is the most romantic appeal to the greatest number of people, perhaps, and the most readily recognized national value in the offerings of the Park Service. Within existing National Park areas the pageant of American History opens like a book. From the very earliest affairs of the Spanish, through our Colonial experiences, the French and Indian Wars, the Revolution, the War of 1812, the Western Movement, and the War between the States, nearly the entire story can be told in National Parks and Monuments. Certain significant sites still remain outside the fold but steps are being taken to obtain them.

The interpretation of these varied and important phases of the American Scene constitutes a program of enormous proportions. Here is a problem in education that has no exact parallel in the world.

The park museum and its adjuncts—exhibits in place, restorations, reconstructions, and labeled nature trails—provide a mechanism whereby an appealing and understandable picture of things American can be placed before the American people. We believe that we are not placing too high an appraisal upon the value of this equipment when we refer to it as "one of the most potent agencies in field education that has been conceived by any nation."

Wildlife of National Parks

By GEORGE M. WRIGHT, Chief, Wildlife Division, National Park Service

THE hapless condition of our wildlife of a few years ago, that called forth from the pen of Ding Darling the cartoon of a few miserable animals marooned by the gales of misfortune on a tiny island and gazing wild-eyed for improbable rescue, has, we hope, gone forever. The voices of the few advocates of help for our native wildlife have been heard, and the future of many hitherto vanishing species seems reasonably safe. Many



Courtesy American Forests

Castlone Peak in the Big Bend National Park Area, Texas
Photograph by Roger W. Toll



By Jay N. Darling

The Hapless Condition of Our Wildlife Depicted in This Cartoon is Being Remedied by the Establishment of Large Sanctuaries.

Permission of J. N. Darling

and large sanctuary "islands" have been established, and few if any of these are more important, as a class, than the system of National Parks.

Distributed as they are across the United States and its possessions, existing parks and monuments, and those it is hoped will be soon acquired, are important refuges for many species whose existence seemed doomed by the demands of industry and agriculture for the use of almost every important wilderness area.

The pileated woodpecker could not survive the elimination of large stands of primeval forest demanded by the establishment of managed commercial cropping of timber. In the National Parks it finds a refuge, for a primary policy of the National Park Service is that no cutting of timber will ever be allowed. Forests in the parks will reproduce, mature, and decay as in primitive times. The grizzly, because he could not understand that man's living meat supply was not for him, was certain to vanish with the opening of the last wilderness. Today, the future of this splendid mammal is assured by the existence of the parks of the northern Rocky Mountains. Continued survival of that most magnificent of all North American waterfowl, the trumpeter swan, was made possible by reason of protection of one of its principal nesting-grounds—in Yellowstone National Park—until other areas elsewhere could be reserved as refuges. Large predators, as the wolf and cougar, against which the curse of the stockman has been pronounced and which are in grave danger of being blasted from the continental United States, find "islands" of refuge in our western National Parks. One or more of these areas are also important in preserving the wild turkey, marten, otter, mountain goat, and wapiti.

Many other species, especially the large ruminants, while of sufficient economic importance to be assured of preservation, at least in many privately or State-owned forested areas, have resumed in many National Parks their original share in the faunal scene. In Yellowstone National Park, for instance, the naturalist and wildlife-minded public may see a herd of bison numbering a thousand animals, antelope in the hundreds, both black and grizzly bears, the last great herd of American wapiti, and a number of Rocky Mountain bighorn. Deer, both mule and blacktail, are numerous, and one of the finest wildlife ex-

hibits anywhere is the moose show at Willow Park. Here moose may be seen every day in the tourist season by passing motorists, and sometimes as many as ten are in sight at one time. The smaller mammals, and birds as well, are here in their prehistoric abundance.

The fauna of Yellowstone is, of course, only a superlative example of the value of the National Park System in restoring and preserving the original picture of the regional animal life. The life of the desert, so peculiarly developed to existence in a dry climate, may be seen in many of the numerous parks and monuments scattered through New Mexico, Arizona, Nevada, and Utah; and, with the addition of the proposed Big Bend National Park in southwestern Texas, the peccary, ocelot, and other semi-tropical animals will be included in the list. The proposed Everglades National Park in southern Florida will add to the system a completely new fauna typical of the tropics, such as the small Florida white-tailed deer, the nearly extinct manatee, almost the last of the eastern cougars or panthers, and such vanishing birds as the roseate spoonbill and flamingo. Under the protection to be given this area when the park is established, one of the great bird spectacles of the world will be developed—a screaming profusion of herons, egrets, pelicans, cormorants, and ducks.

While it is important that we are assured that these representatives of North American wildlife will not be washed off the "islands" of safety and into extinction by a rising sea of commercialization, it is also essential, so far as possible, that the fauna be preserved in its proper habitat and the various species in their original interrelationships. The National Park Service attempts to accomplish this and to make available to park or monument visitors a cross-section of the original scene. The most effective way to secure this result is by restoration of missing members of the fauna and then adhering wherever possible to a hands-off policy. Destruction of predators is never undertaken unless the complete annihilation of a prey-species is threatened. Artificial feeding, because it results in concentrations of animals with consequent weakening, destruction of natural range, spread of disease and attraction of predators, is avoided and in the few instances remaining is being gradually drawn to a close. The result is that the visitor sees normal

animals in normal (original) numbers in a wholly natural environment. It is hoped that in time it will not be necessary to warn visitors to Yellowstone or Glacier National Park, for instance, that bears are dangerous if fed from the hand, because the bears will be seen following their normal mode of existence, unmindful of the public and not crowding about camp garbage cans nor begging food from tourists.

In spite of much that has been accomplished, there are other species in need of assistance if they are to survive. The bighorn or mountain sheep is menaced by several enemies, among the most important of which are poachers, and seems to be decreasing throughout North America and especially in the Southwest. These and other animals, birds and plants will receive protection in new areas it is proposed to transfer from the public domain to the administration of the National Park Service.

Shenandoah-Great Smoky Mountains National Parkway

By STANLEY W. ABBOTT, Resident Landscape Architect, National
Park Service

THE first parkway of a national scope has been projected during the past year along the Appalachian Mountain Range in Virginia and North Carolina. Five hundred miles in length, the project is one of the longest to be planned as a single unit in American road-building history. It will also be the highest in the East, averaging 2,500 feet and climbing in some places to more than a mile above sea-level. The parkway will be a pioneer type by which the National Government seeks to meet on a broad scale of inter-State planning the increasing demands of the vacation tourist.

The program under the Public Works Administration is estimated to cost some twenty millions and will include the development of wayside recreation in addition to a scenic drive connecting the Shenandoah and Great Smoky Mountains National Parks. It is proposed not only to make these major areas more accessible by the new road, but to create the parkway in such a manner as to be in itself an alluring invitation to the vacationist. The location in rugged topography will not invite

the commercial traffic or the hurrying motorist. The towns and cities will be widely skirted. The project will thus serve in the fullest sense a recreation purpose.

The roadway location is being carefully studied to take best advantage of the scenic variety and interest of each region. Contrary to public opinion, the parkway is not to be an all *skyline* location. Sections of mountain top will be interspersed with sections of mountain side, mountain stream valley and, occasionally, the broad river valley. A desirable diversification of scenery as well as engineering requirements dictate this principle of a changing road position. The designers are aiming for a higher standard of grade and curvature than characterizes most mountain motorways. Safety and easy driving qualities are essential in order that the motorist may devote a larger share of his attention to the appreciation of the unfolding scenery.

Particular care will be given to the planning of the drive so that it will repose in the rugged topography with the least possible scar. By roadside grading and extensive planting of native trees and shrubs it is hoped to soften the evidences of machine construction. The parkway is being designed collaboratively by engineers of the U. S. Bureau of Public Roads and landscape architects of the National Park Service.

An interesting and perhaps the most important feature of the work is the coöperation of the States of Virginia and North Carolina, which are now buying broad parkway lands to be deeded to the United States. With additional protection in the form of scenic easements precluding billboards, unsightly buildings and the cutting of the forest stands, the elongated parkway will average 1,000 feet in width.

Concurrently with the parkway program the Government plans to develop at intervals opportunities for active recreation. In addition to the parkway strip being provided by State funds, Federal land programs have been directed toward the acquisition of outstanding scenic areas. These will preserve for public use whole mountains or groups of mountains as well as lesser acreages of historic interest. Since the parkway will be a road type to invite leisurely driving and frequent stops for hours or days, facilities will be provided in these parks for camping, hiking, horseback riding, fishing, and swimming.

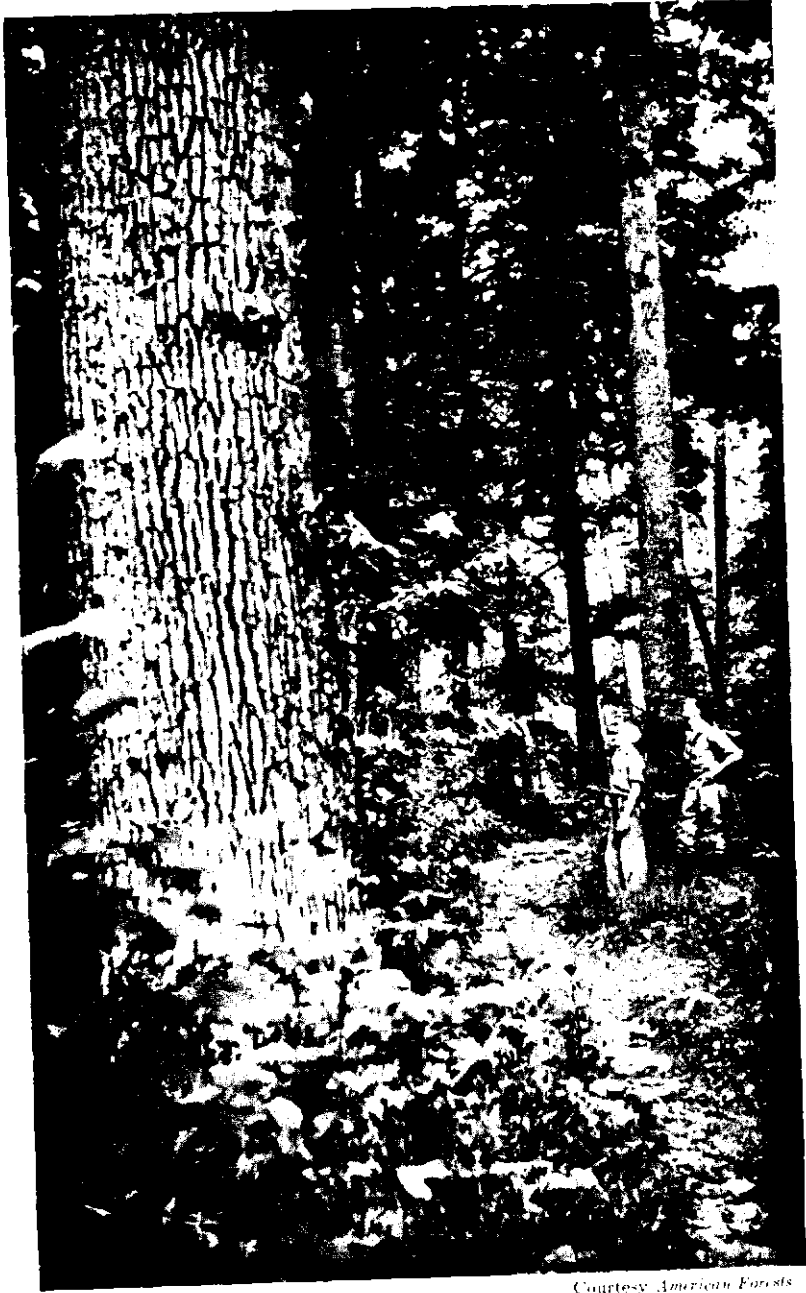
Readily accessible to the large population of the Atlantic



Courtesy American Forests

A Lacy Waterfall in the Great Smoky Mountains National Park

Photograph by Carlos C. Campbell



Courtesy American Forests

Giant Yellow Poplars in the Great Smokies
Photograph by Carlos C. Campbell

seaboard, the Appalachians, a region of recognized recreational value, seem an appropriate testing-ground for at least one type of the long-talked-of National Parkway. A recreation way has been proposed to traverse the Appalachians from Maine to Florida, as a part of a country-wide system connecting the National Parks and Monuments. The day of realization may be near, and, meanwhile, the Shenandoah to Great Smokies project may afford a valuable demonstration of a new parkway type.

History and Our National Parks

By VERNE E. CHATELAIN, Chief Historian, National Park Service

CONSERVATION, involving as it does, all acts of the individual or society to establish and maintain the best possible environment, is not usually undertaken in the early stages of colonization and settlement, but only after natural resources are in danger of being destroyed outright, or appropriated by individuals or small groups, thus precluding their general use by society. In the United States we have often realized too late the necessity of saving particular historical sites, and they have become entirely lost or so completely modified as to be impossible of perpetuation in the original form.

Quite fortunately, however, many of the early and primitive sites still remain unchanged, except for such slight and subtle influences as Nature is constantly bringing to bear upon all environment. But in the last forty or fifty years, man with his machine and his modernizing techniques has produced a cataclysmic revolution in the physical appearance of the land, and original environmental conditions are now being threatened. With this change in the American environment, the extinction of primitive historic areas, such as many in the Southwest, seems certain, if plans are not made to save them.

Then there is the problem of the earliest colonial history of the white man. The case of Tidewater Virginia is typical, where, after two centuries of splendid energy, a grand civilization, having successfully planted English ideals and culture on this continent, was passing into the shade of forgotten things. By 1830 it was barely holding its own, although bravely keeping up appearances and fighting a struggle in which defeat was inevit-

able. Then came the war of 1861-65, many of the engagements of which took place in this region. That great conflict, with its ghastly wounds, left the Tidewater apparently a lifeless corpse. People abandoned this stricken land almost overnight, and so Tidewater Virginia became a shadowy country of myth.

There followed what might be called the *Dark Ages*, which lasted, possibly, up to the Great War. Magazine articles of the 1880's and 1890's relate sadly the neglected state of once grand Virginia homes like Westover, Shirley, and Carter's Grove. But every age has its end, and so it was with the Tidewater's *Dark Ages*. The World War brought attention again to this region. Military and naval activities, like those at Quantico, Hopewell, Camp Lee, and Newport News, directed public attention to historical sites which long since had passed into oblivion.

After the war came extensive activities in the development of good roads. The *Renaissance* period had arrived. With increasing automobiles, historic sites, which for years had been protected from desecration by their very isolation, came into contact with the touring American, who became interested in the fascinating background of his own country's colonial period.

As if from some devilish plot, however, the ruins of proud and stately Virginia homes were turned into tearooms and dance halls of thoughtless and roving young America, or were razed with little compunction, to be replaced by filling stations and other modern buildings. Civil War fortifications, covered over with pine needles and protected for decades in deep forests, came suddenly to the glare of sunlight, as steam graders and other diabolical road-construction machines tore cruel gaps in them, thereby destroying them for all time. Such occurrences were common in many parts of the country.

It seemed ironical that we rediscovered historic treasures, like those in the Tidewater, for a fleeting moment only to lose them forever. Certain patriotic groups, like the Society for the Preservation of Virginia Antiquities and the Mount Vernon Ladies Association, saw that it was imperative to stop the machines of destruction. The work of private associations and individuals in preserving Williamsburg, Kenmore, and the Monroe Law Office at Fredericksburg, Gadsby's Tavern, Pohick and Christ Church, as well as the celebrated Mount Vernon and Hanover Court House, is outstanding.

Experience is proving that the Government must aid in financial resources and in wise national planning. Otherwise the great traditions and hallowed scenes of the American Nation may be lost forever. Fortunately, a beginning has been made.

Under the reorganization of Executive Departments and agencies in 1933, all historic sites and the responsibility for historic policy were placed in the Department of the Interior under the National Park Service. Thus, for the first time in American history, the problem of historical conservation and planning has been centralized in an agency of the Federal Government. National legislation has been drafted which it is expected will, when passed, along with the Antiquities Act of 1906 and the National Park Act of 1916, be the Magna Carta in the program for the preservation of historic sites.

One by one some of the outstanding historic sites of the Nation are being reached in this program. In Virginia, Jamestown, Yorktown, and George Washington's Birthplace have already been taken over by the National Park Service, as well as the battlefields of Fredericksburg, Petersburg, and Appomattox. It is proposed to save in this same fashion Green Springs, White House, Rosewell, Carter's Grove, and Warner Hill. Among the Civil War sites also are included Richmond and Manassas Battlefields. Thus, too, in other States, the Federal Government has taken steps to preserve the famous Spanish forts of San Marco and Matanzas at St. Augustine, Florida, and in Arizona, the Spanish mission at Tumacacori, associated with the early colonization period. Acadia National Park in Maine, where French colonization activities occurred, and Fort Necessity, where Washington started the French and English conflict in 1754, can be mentioned in this connection. From the Revolutionary period the Jockey Hollow area and the Washington Headquarters at Morristown, New Jersey, Guilford Court House, King's Mountain, and Cowpens, are included in the national program. And so on through the various stages of American history.

At the present time there are approximately eighty areas under the jurisdiction of the National Park Service, the chief interest in which lies in the realms of the human story, that is, in the fields of prehistory and history. These areas, where some of the greatest events in all the period of prehistory and history

have occurred, contain sites representing typical stages or epochs of our history and many records of these events.

The historic site is the arena in which man has performed his activities. It is the place in which man and Nature have conspired to bring about events of significance to the human race. At present the National Park Service, through its historical program, is engaged in the development of technique for the proper understanding and interpretation of these places. Each historic site presents different problems, which must be studied with a discriminating and appreciative attitude of mind; but all are alike in that they constitute important source materials of history.

The appeal to the average person in the historical site depends on its realism—on whether it contains the objective elements that make for a thorough understanding of what happened there. The conception which underlies the whole policy of the National Park Service in connection with these sites is that of using the uniquely graphic qualities which inhere in any area where stirring and significant events have taken place to drive home to the visitor the meaning of those events, showing not only their importance in themselves but their integral relationship to the whole history of American development. The task is to breathe the breath of life into American history for those to whom it has heretofore been a dull recital of meaningless facts—to re-create for the average citizen something of the color, the pageantry, and the dignity of our national past.

IT IS sometimes forgotten that while the first scenic National Park was set aside more than sixty years ago, the National Park Service was created barely twenty years ago. In the two decades since 1916, National Park standards and policies have been developed. In the next decade all remaining areas which belong in the National Park System should be definitely placed under the jurisdiction of the National Park Service.

PROTECTION OF WILDLIFE

Wildlife Areas and National Land Planning

By JAY N. DARLING, Chief, Bureau of Biological Survey,
U. S. Dept. of Agriculture

ONLY a few months ago all those who lived between the Mississippi River and the Atlantic Coast suddenly saw in the heavens a great sign, the like of which was unknown to their ancestors. A tremendous cloud of dust came out of the West, so extensive and so dense that it darkened the skies on the eastern seaboard half-way across the continent from its origin. I happened to be in New York on the day that the great dust-storm from the western plains passed over that region. The sun was not visible through its murky depths. The lights in the office buildings and on the streets were turned on and gave the appearance of twilight. I watched this strange phenomenon in company with a man who had spent much time in archeological research in the Gobi Desert, and as he looked he said, "Isn't it astonishing that in America it should take just one generation to reduce its prolific nature to a condition like the Gobi Desert, which was a million years in the making?"

That dust-storm was a sign of the destructive element of our generation. The destruction of millions of acres of our best land was a human and national tragedy; perhaps it was the fulfillment of prophecy. We have seen it with our own eyes, and it is time to pause and soberly consider the methods of recovery.

That dust-storm denuded the top soil of a vast area where our wheat and corn must grow. The stories coming out of that region are tragic. The situation is the result of folly. We, in our heedlessness, have directly contributed to the causes, and we have done so in the period of what we like to call the most intelligent civilization that has ever existed.

We human beings have thus been dealing foolishly with ourselves. But not only with ourselves. We have also been rather stupid in our dealings with wildlife. And we are suffering ourselves from the very things that have made life well nigh impossible for thousands of the creatures that once helped us in maintaining and enriching our lives on this good earth. Lands that produce dust-storms are not the homes for wildlife. Drain

marshlands, and the waterfowl and the muskrats disappear too. Strip the hillsides of trees, and the forest wildlife is merely a story for your children.

Fortunately, I am not the only one who feels this way. As a people we Americans generally have come at last to the place where we begin to realize that a treasure has been slipping from our careless hands—a vital resource comparable in magnitude to any of the other great natural gifts with which our land was endowed. The chief benefits we may receive from an abundant supply of wildlife are not pecuniary, although in one way or another the annual revenue from these sources amounts to a half billion dollars. Rather, these assets of the outdoors are to be identified with the things that make for better and happier living, and more and more, as the pressure of modern civilization increases, we shall have need of natural wilderness areas where we can find refuge from our own inventions and conventions.

But each year it has become gradually more difficult for the average American to find unspoiled natural areas. Too many of the streams and waters we knew years ago are dry now, or mud-choked, or foul with pollution. Fish can no longer live in them. Woods, too, have disappeared, leaving great areas of countryside nearly barren of any of the evidences of a green and productive nature. These barren landscapes that we see so frequently are not merely so many lost opportunities to enjoy the outdoors. They also are ominous signs to warn us of the wide-spread disaster that will follow if we continue the wasteful, careless, and unprofitable exploitation of our land and its resources.

Now, it is a fact that the conditions that favor wildlife and promote wilderness areas are identical with those which alleviate the effects of drought, provide flood-control, prevent soil-erosion, and provide for the preservation of our fertile soil. The correctives for these evils include measures to fasten the loose soil in place by planting trees, shrubs, grasses, and other suitable vegetation to nullify wind-action, conserve moisture, and reduce the runoff of water from rainfall and melting snow. These are wildlife conservation measures, too. Each year hundreds of millions of tons of soil are washed down our streams and blown away by high winds. No country on earth can endure such frightful losses indefinitely, and the recommendations of wildlife conservationists point the way to one method of avoiding them.

The land-utilization program is, in fact, based on the fundamental principle that in the United States there is land enough to meet generously every national need and every requirement of agriculture, industry, and recreation. The program contemplates nothing more than the redistribution of lands to provide for these needs and to correct the unprofitable, uneconomical chaos that has resulted from the lack of such policy in the years when the country was being settled. It is possible to have our wildlife, our forest and wilderness areas, and our natural water reservoirs, and still attain vastly higher levels of food-crop production than any we have known in the past.

In carrying out that part of the land-utilization program which has been assigned to it, the Biological Survey has thus within the year acquired or has in process of acquisition some 660,000 acres of land known to be more profitable for use in the production of wildlife and for erosion and flood-control than for any other human purpose.

The one great need for wildlife is land on which game may have its home. You cannot have wildlife without land. The Biological Survey, therefore, during the past year made a strenuous effort to see that wildlife was represented in the plans being made for national land recovery. It obtained 8½ million dollars, and with these funds, plus CCC camps and relief labor, 29 entirely new migratory waterfowl refuges have been created and others have been added to and improved.

Every one of these refuges would provide an interesting and significant story. There is Lake Mattamuskeet down in Hyde County, North Carolina, for instance. It was originally a body of shallow water about 12 miles long and 7 miles wide—a place intended by Nature for swans, geese, and ducks and an ideal area for these waterfowl. Man, however, thought that he could improve on Nature's scheme. He started drainage operations to turn it into farmland, and, at the headquarters of the project, those in charge hung a big bronze plaque that said: "This plant is dedicated to the spirit of coöperation which has here transformed a great lake into dry land and so created a new and fertile principality for the use and possession of man." Fifteen years later, transforming a great lake into dry land didn't seem such a noble enterprise. No one had profited, and the waterfowl had suffered severely. Now the Biological Survey is correcting

the harm done by misguided drainage enterprise. We have purchased the lake-bed; the lake is restored to Nature; and the waterfowl are coming into their own again on this area.

Across the continent, in Oregon, the Bureau has acquired the famous P-Ranch on the Donner und Blitzen River—about 65,000 acres of wildlife habitat that man took from Nature and made into grazing-lands. With this area we obtained also the water of the Blitzen River with which to reflood Lake Malheur and restore the greatest duck area in the Far West.

In Montana we have established the Red Rock Lakes Migratory Waterfowl Refuge by acquiring lands mistakenly devoted to agriculture and settlement. Twenty-five miles from the nearest railroad or telephone and 7,000 feet above sea-level, this marsh and lake area was never intended by Nature for human settlement. Submarginal for agriculture and unsuited for the maintenance of an American standard of living, the area is an ideal place for wildlife restoration. In addition to ducks and geese, two varieties of swans are at home on the Red Rock Lakes. The area is the only breeding-place of the trumpeter swan in the United States outside of Yellowstone Park.

Mattamuskeet, P-Ranch, Red Rock Lakes—the stories of these areas epitomize the Biological Survey's accomplishments in its restoration program: The Bureau has been giving back to wildlife the areas that should never have been devoted to other uses. This, precisely, is what land planning should be. And everyone is better off. The wildlife species have their homes. The hunters will have their sport. The nature-lover will have his esthetic thrill. The student will have his subject. And you can be sure that no dust-storms are going to start on an area that is a sanctuary for wildlife.

Value of Wildlife Conservation

By W. C. HENDERSON, Associate Chief, Bureau of Biological Survey

A CENTURY and a half ago, game animals for food and fur-bearers for garments and trade were commonplace in the pioneer's life; wildlife constituted a large part of the heritage received from Nature. Today, with many species depleted and dwindling, we are aroused. Conservationists, seeking added

support, have demonstrated that our North American wildlife is of immense monetary and social value.

Wildlife is worth far more than it costs. Fur and game animals, waterfowl and other birds, and the fishes of the streams are valuable and important natural resources. Their conservation is also part of farming and of forestry, and potentially profitable. Fur and game species in forestry may be treated as a crop, and revenue may be derived from shooting rights in new forestry operations while trees are growing but not being sold.

The resource represented by fur-bearers is an example of our problems and possible rewards. The supply of American raw furs is in jeopardy, though some species persist in spite of almost overwhelming forces that tend toward their extermination. The total annual catch of fur animals in the United States used to be conservatively valued at \$65,000,000. Financial conditions and continued decrease in the natural supply have reduced the value of the annual catch to \$20,000,000.

Laws for the protection and conservation of fur animals have frequently been made without considering the biological and economic problems involved. The length of trapping seasons has been established upon the supposition that fur is at its best during extremely cold weather. A correlation between prime-fur periods and molt cycles, on one hand, and breeding and gestation periods, on the other, is necessary if fur is to be produced of fine quality and still permit sufficient breeding stock to remain in the covers for future generations.

The beaver, once our most important fur animal, hardly occurs in commercial quantities in any part of its original range. Since a considerable part of this range is now under cultivation, it would be as unwise as it is impossible to restore these fur animals to all their former haunts. There are still many localities, however, where they could be introduced without harm, and where, through storing water in their reservoirs along mountain streams, they would do much good—in helping prevent floods and extensive erosion, in increasing stream-flow in dry weather, and in improving the value of streams and lakes for fishing. In such areas they would not only enrich forests and parks with a unique and interesting form of wildlife, but also would add much to the decreasing supply of valuable fur.

NATIONAL FORESTS

The Place of Forestry in National Planning

By F. A. SILCOX, Chief, U. S. Forest Service, Dept. of Agriculture

WHETHER the one-third of the United States that is forest land is to support sound and stable communities, whether one-third of the United States is to contribute its share to the economic and social progress of the Nation, or whether it is to become eventually a vast backwoods slum and a national liability, depends in the long run upon whether we manage our forest lands as a continuously productive resource or whether we allow the processes of rapid liquidation and shortsighted destruction to go on.

Thus I would state at the outset the basic issue involved in the question of forestry is national planning. And that forestry must have a large and important place in national planning is evident when it is considered that by far the larger part of the approximately one-third of the land area of continental United States that is forest land is better suited to forest use than to any other use that can be foreseen.

We can see plenty of evidence of what has resulted from *lack* of planning in every forest region. Abandoned shacks and sawdust piles, empty, windowless schoolhouses, "ghost towns," mark the trail of forest destruction, of the cut-out-and-get-out system of forest exploitation, from coast to coast. The records of the U. S. Forest Service contain scores of "case histories" of such boom-and-bust communities—such records, for instance, as that of a Louisiana town which lived its history from birth to economic death in sixteen short years; which a few years ago was a thriving community of nearly 3,000 people drawing on the resources of a virgin forest, and today is a community of less than 100 inhabitants, most of them on relief rolls, and surrounded by miles of stripped and wasted land.

Lack of planning is evidenced in the 75,000,000 acres of forest land that has become tax delinquent, in the millions of acres of potentially productive forest land that are now producing nothing, but are wasting by erosion, and contributing to the flood menace and silt-clogging of streams. It is evidenced in scores of bankrupt counties.



Engraving from *Exploiter's Engineer*

The Museum Division of the National Park Service Has Selected This Picturesque Old Grist Mill, in Cades Cove, Tenn., in the Southwestern End of the Great Smoky Mountains National Park, to be Restored and Preserved as a Part of the Pioneer Culture of the Region.

Photograph by John M. Jones



Engraving from *Intercontinental Travel*

Scene on Newfound Gap Highway along the Oconaluftee River, on the North Carolina Side of the Great Smoky Park.

Photograph by Carlos C. Campbell



Eastern National Forests Offer Recreational Possibilities for Campers *Courtesy American Forests*

No deep study of economics is necessary for us to realize that a community must have something back of it. A community comes into being as the result of a local resource that feeds its industries, furnishes employment, and provides the economic basis for a sound community life. The resource back of the community may be mineral wealth; it may be productive agricultural land; it may be forest. But only so long as this basic resource is maintained can the community continue in healthy life.

In nearly one-third of the United States the forest is the most important basic resource upon which local communities can be developed and maintained.

National planning, as it affects the forest regions of our country, must take into consideration the fact that forests, like other crops, are susceptible of renewal and management. It is both possible and practicable to keep forest lands productive and to manage forest resources on sustained yield bases.

Forestry in its broader sense—and it is in its broad sense that I use the term here—involves more than growing trees. It means the management of forest lands for the full development and continuous maintenance of all their economic and social services. We have in the United States a large-scale, successful demonstration of such planned management of forest lands. For more than thirty years the United States Forest Service has administered the National Forests, now aggregating more than 160,000,000 acres, or an area almost as large as the State of Texas, under a planned system of land-use. It has managed these lands by what it calls a "multiple use" system, in which timber production, recreation, wildlife production, watershed protection, livestock grazing and other uses are all coördinated, with the ultimate objective of providing permanently and continuously the maximum in benefits to local and national welfare.

But the National Forests represent only a fraction of our total forest area. Of the 495 million acres of so-called commercial forest land in the United States—that is, land capable of producing timber of commercial value—four-fifths is in private ownership. It is this privately owned forest land that is the crux of our forest problem. Ninety-five per cent of all privately owned commercial forest land still lacks adequate forest management that gives any assurance of the permanence of the resource.

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The public has a stake in all forest lands whether publicly or privately owned. The public interest is involved because upon how the forest lands are managed depends the permanence and stability of communities, and in no small measure the economic and social welfare of whole counties, whole regions. Upon the protection and maintenance of the forests depends much of our investments in water supplies and power developments, the regular flow of our most important streams.

The beneficial results of proper management of a forest area or the harmful effects of its devastation or misuse are not limited by the boundary lines of ownership. They do not stop at county or State lines. Thus the problems of right use of our forest lands call for constructive planning on a scale and over areas beyond the scope of local governments. They call for concerted action on the part of private and public interests, local, State, and national.

The Forest Service, in its report to the Congress in response to Senate Resolution No. 175, 72nd Congress (The "Copeland Report"), and in its reports to the National Resources Board, has recommended a national program for American forestry which is designed to meet the problems of right use of our forest lands. It calls for a large extension of public forest land ownership where critical watershed protection needs must be met, and where private ownership seems not to offer such stability as will meet the country's social and economic needs. The Federal Government, the States, and local government units should share in such public ownership and in the burden of carrying long-time investments in restoration and protection of forest values and orderly management of the resources involved.

The program also calls for public aid to private forest owners in making the switch from a suicidal system to one of planned protection, reconstruction, improvement, and harvesting of forest resources on a basis of sustained or continuous yield.

The forest resources of our country have suffered mightily from a century of destructive exploitation. The one-third of the United States that is forest land is by no means all productive forest land today. Millions of devastated acres present a huge problem of rehabilitation if these lands are to contribute their share to future welfare.

This huge task of forest rebuilding, together with that of

protecting forests not yet exploited, presents within itself a means to aid in bringing about necessary social readjustment through the opportunities for employment it affords. It offers large-scale opportunities for employment now, at a time when unemployment is a most acute social problem. And it is non-competitive employment, that does not take the place of regular forest work or normal employment in the forest industries. It is work essentially in the nature of a public investment.

Last year the National Forests furnished 26,000,000 man-days of such work—constructing fire-protection improvements, thinning and improving existing timber-stands, planting new forests, developing recreational opportunities, controlling erosion. And these Federally owned lands alone stand ready to provide jobs for nearly a million men today. Other forest lands multiply these work possibilities.

Through such work of rehabilitation, through a change in the ratio of public and private ownership that will more adequately protect the public's stake in forest lands, through coöperation with all forest owners and users, and if coöperation fails, through public regulation, our forest lands must be brought to a system of planned management for sustained yield. Forestry in national planning must envision the substitution of security and stability for insecurity and impermanence in the management of our forest lands.

The Forests as Playgrounds

By L. F. KNEIPP, Assistant Forester, U. S. Forest Service

MILLIONS of American citizens find in our forests exactly the elements and qualities through which they may best enjoy their vacations. Within the forests there are beauty and absorbing manifestations of Nature's laws, and opportunities for recreation. To many, the processes of timber utilization, the smell of sawdust and the whine of the saw, afford enjoyment; the interest and pleasure of others is accentuated by the sight of herds of grazing sheep or cattle. While power or irrigation reservoirs are regarded as destructive of park values, thousands find in the fishing or boating they afford just the kind of outdoor recreation they most desire.

These observations are confirmed by the growth of recreational use of the National Forests. The first estimate of such use was made in 1916 and showed 3,160,000 persons as sharing in some degree the recreational opportunities which so abundantly exist in the National Forests. With road construction and increased motoring, the public use of the National Forests increased. In the year 1933 it aggregated 552,685 summer-home residents and guests; 1,037,096 hotel and resort guests; 2,219,804 campers; 4,355,936 picnickers; 5,221,622 motorists, horsemen, and pedestrians who entered the National Forests primarily to enjoy their scenery and natural interest; and 21,284,982 motorists who passed through the National Forests to other destinations, but who in passing derived pleasure from forest scenery and charm. In all, there was a grand total of 34,672,000 visitors, though some of these persons visited more than one forest, or visited the same forest more than once.

The approximately 3,000 public National Forest campgrounds now at least partially equipped with essential facilities testify by their abundant summer use to the wide popularity of the National Forests as public playgrounds, where simple forms of outdoor recreation may be enjoyed without charge. The more than 10,000 summer-home permits now outstanding offer similar testimony, as do the more than 1,000 resorts, hotels, and outdoor camps operated under permit on National Forest land. Forest lands dedicated primarily to economic purposes may also furnish abundant recreational opportunity without either a heavy outlay of public funds or any sacrifice of resources important to industrial life and economic progress.

In any planned program of land-use, or of agricultural or forest economy, two major factors demand attention. The first is the potential capacity of farms and forests, without conflict with their major functions, to provide the public with land areas for outdoor recreation. The second is the importance of that potentiality in the development of farm and forest economy. The need of large areas and great natural resources exclusively for outdoor recreation, and the intensive development and supervision of such areas, must be considered in terms of financial cost and of consequences to farm and forest programs.

RURAL LAND PROBLEMS

EDITOR'S NOTE

PERHAPS no policies which have been put into practice since 1933 have been more vigorously defended or more bitterly attacked than those related to rural lands and agriculture. Since these policies have been determined by the Federal Government, it has seemed desirable in the *AMERICAN PLANNING AND CIVIC ANNUAL* this year to present, not only the policies which are in effect and those which it is planned to adopt, but to include the arguments of those responsible for them. It is very seldom that new policies of any sort prove entirely feasible in the first form in which they are applied; it may be that some of the policies will have to be discarded altogether because they do not work or abandoned because of changing conditions. At any rate, the policies themselves and the arguments of their proponents are a part of the history of the past few years and should be interesting to the readers of current affairs who are seeking information as to what is actually going on and to those future readers who will be students of the kaleidoscopic changes of these dramatic years.

Many of the studies on which prevailing policies have been based were made during the past decade; some of the policies have been advocated for years by the agricultural economists and scientists. For weal or for woe, there is a consciously directed effort to apply land-planning principles to our agricultural policies. The next steps will undoubtedly in large measure be based on what is now being done. Some policies will be changed; others modified; others developed.

Perhaps in future years the emphasis will be shifted from highly centralized Federal control to a broader basis of coöperation between State and Federal Government. There is evidence of present effort along this line. This has been the policy of Federal agricultural leaders in normal times. It is advocated by the National Resources Committee in all its planning activities. But for this particular year the principal source of immediate and accurate information concerning what is going on in the States is found in the Federal agencies in Washington.

Land Planning and Farm Adjustment

By HENRY A. WALLACE, Secretary of Agriculture, Washington, D. C.

IN A continuing agricultural policy, a policy which can be maintained no matter who is in power, the principal need is a unified, consistent land-use program. Such a policy must deal both with land in farms and with land not in farms.

In the Agricultural Adjustment Act we have machinery for influencing land-use within farms, for promoting a good balance among different farm enterprises, and for adjusting farm practice to economic and physical conditions. The emergency contracts were an adjustment chiefly to market conditions. To some extent they prevented desirable adjustments to physical and climatic conditions. In planning production control on a more permanent basis, it will be necessary to put more emphasis on soil-conservation, balanced farming, and sound farm management. Ideally, production control should harmonize with the preservation of soil-fertility, the control of erosion, and a correct regional distribution of crops. The aim should be to control production and at the same time to conserve productivity. This aim the Agricultural Adjustment Act may do much to promote.

It cannot, however, do everything necessary. Some aspects of our land problem require action of a different kind, particularly with land that should not be farmed. Land not suited to farming should be taken out of cultivation, and similar land should be kept out. This calls for a carefully coördinated program. Without a unified, consistent land policy, wise action in one direction may be offset by unwise action in another.

The National Resources Board recommended a 15-year program for the Federal purchase of about 75,000,000 acres of submarginal farmland, including more than 20,000,000 acres now in crops. It would not be effective, from a national standpoint, to carry forward this program without taking steps to discourage the farming of poor lands not now in farms. In like manner, the acquisition of land for reforestation should be coördinated with so-called subsistence farming projects.

That Government agencies should simultaneously acquire similar tracts of land for conflicting purposes is obviously wrong. Yet to prevent such a conflict of purposes calls for a comprehen-

sive and detailed land classification, and for the most painstaking and elaborate coördination of administrative plans.

One of our greatest land problems, that of preventing soil-erosion, requires action on both land in farms and land not in farms. It requires the coöperation of the farmer, the grazer, the forester, the lumberman, the wildlife conservationist, the flood-control specialist, the engineer, and the land-retirement agency. The fight against erosion is both private and public. On farms and ranches it requires vegetative and engineering methods, proper crop rotations, controlled grazing, and other efficient practices. On land not in farms, and on land that should not be, it requires a difficult combination of soil, forest, and water conservation with general land-use planning.

That an effective agricultural adjustment demands a national land-use policy, as well as crop-control on farms, is a concept of long standing in the United States Department of Agriculture. It found expression while the American public was still unaware that its traditional land-use methods threatened the country with disaster. Over large areas the American record of land-misuse is worse than that of China. We have permitted stockmen to over-graze the public domain, farmers to plow up grasslands and expose them to terrific wind-erosion, lumbermen to clear out stand after stand of virgin timber, without leaving seed trees, and land settlement companies to promote land settlement under conditions involving terrific destruction of natural wealth. Land economists in the Department uttered warning after warning. Their protests were not without avail; for the country is now grappling energetically with the whole tremendous problem.

Federal funds are now available for soil-conservation, increased acquisition of forest lands, retirement of areas submarginal for farming, the restoration to wildlife of areas suited best to that purpose, research and action with farmers and with State agencies to prevent erosion, the better control of grazing, and the coördination of irrigation farming with other phases of land-use. Coördination of numerous public agencies interested in the question is moving forward. One single evidence was the report of the Land Planning Committee of the National Resources Board, which included material and recommendations from a dozen or more Federal agencies.

Federal-State coöperation is essential in carrying out a national land policy because so much of the initiative can come, as it ought to in a democracy, from the governmental units nearest the problem. What has already been done in New York State and Wisconsin,* to name only two of the ten or twelve outstanding examples, illustrates the point. In those States a carefully planned program of land-use research has helped arouse popular support for a definite course of action. The New York studies throw a clear light on the whole land-use problem, not only in submarginal areas but in supermarginal areas. One of the most recent studies, of Tompkins County, New York, recently came to my attention. In this study, as in others in New York, the investigators have classified the land according to economic utilization, Class I being poorest for farming, Class V best. In most cases Class I and II lands belong in trees and grass in public ownership, rather than in cash farm crops. Thus, in Tompkins County, about one-third of all the land in the county is classified in the two lower brackets, and is destined for public ownership. The Federal Government, of course, cannot bring about such zoning except on its own public domain, but it can help States and counties with research, and it can focus national public opinion on the desirability of similar action the country over. More directly, the Federal Government can provide guidance in land settlement in many areas, just as it is helping to finance relocation of stranded populations now.

In all of these many activities, whether of local, State, or Federal origin, we are of necessity proceeding under a handicap; we do not yet know the answer to one fundamental question. We do not know whether our agriculture and our industry are to move toward nationalistic self-sufficiency, toward internationalism, or to some planned middle course. America has not yet chosen. The efforts of the Agricultural Adjustment Administration are an attempt to hold the fort for agriculture until some decision is made by the people themselves. If consumers and processors dislike the motive power of the Adjustment Act, the processing tax, are they ready to admit imports from abroad in sufficient quantities to restore the foreign purchasing power for our farm product exports?

*County zoning in Wisconsin is described in *American Civic Annual*, vol. v, page 121. Reference is made in this volume on pages 204 to 207.

Until the answer to that question comes clear and loud, agriculture cannot say for sure whether it needs 325,000,000 or 375,000,000 acres in cultivation. No one expects that sub-marginal land purchases alone will keep farm production in balance with supply, but these purchases in conjunction with other elements in a national land program can be determining over a period of years. Pending this fundamental choice, we can advance a good distance in a land program, as we are advancing now, but we should realize how tentative all our plans must continue to be until America makes up its mind which way it prefers to go.

Agriculture's Democratic Program Planning

By H. R. TOLLEY, Assistant Administrator, Agricultural Adjustment Administration

A DICTATED kind of planning is not going on in this country. That kind of planning would be useless. It is at variance with American institutions, which are built on the will of the majority, and there are no indications that a majority of people, whether farmers, laborers, merchants, or industrialists, want to give some central authority *carte blanche* to regulate their economic lives.

Planning in a democracy is a method by which the people themselves, through the public leaders they have chosen and the public agencies they have set up, use foresight in progressing toward more desirable conditions of living. The people choose the leaders; the people pass judgment on the plans which the leaders present to them; and if they are not satisfied with the plans, the people can turn down both plans and leaders.

The approach of democratic leadership to planning for the public welfare should be the scientific approach. Briefly, that approach involves the inspection of a problem, the development of hypotheses, that is, the outlining of possible solutions to the problem, and lastly, the verification of these hypotheses under actual working conditions. This experimental scientific approach should hold, generally, for social as well as for mechanical or biological problems. There should be the same realistic facing of facts, the same tireless compilation of data, the same ingenuity in working out possible solutions, and the same open-mindedness

in judging the success or failure with which the solutions prove out.

Such scientific planning in a democracy is also democratic planning, for there are certain limits within which the function of planning by public agencies can properly operate in a democracy. Such agencies can survey the various aspects of a problem which arises in society, review the plans formulated by different groups to solve the problem, and in this critical review they can bring to bear a broader point of view than any one group is likely to have. Further, they can contribute the special knowledge they have gained for the benefit of lawmakers and be of invaluable service to administrative authorities in developing actual procedure.

After a plan has been put into operation, there should be a further opportunity for assessing the opinion of the people affected as to the results of the plan and their desire for its continuation. This is the final test of the plan.

Through such a series of operations as this, planning takes its place in the process of economic democracy. It must be geared directly with action. Through this linking of planning and action, the centralizing power of government can provide effective machinery for dealing with new economic problems before which a planless government would be paralyzed.

The need for such centralized planning machinery has been greater for agricultural groups than for most other groups. The great number of farmers, operating individually, under widely divergent conditions and circumstances, with little or no control over the supply of products which they produce, and with prices for many of the products subject to world marketing conditions, have faced a peculiar disadvantage as against the highly protected and increasingly coordinated position of other economic groups. In 1929, when 25 per cent of the gainfully employed population was in agriculture, farmers, according to past relationships, should have had something like 13 per cent of the national income. Actually they had only 10 per cent, and this declined to 7 per cent in 1932—reduced as that national total was. Without centralizing agencies many farmers sought to meet their fixed charges by increasing production, which served only to shrink their incomes still more.

Farmers, during the last two years, have demonstrated a com-

mon desire to utilize the centralizing power of their Government for attaining a better coördination of their activities. The Agricultural Adjustment Administration, organized early in 1933, was an expression of this. As the short-time emergency goals of this organization no longer fill so much of the picture, agricultural planning agencies need to draw up a chart of longer-view guides and goals which may help to guide agriculture's course toward a better position in a generally improved national economic life.

These longer-time guides and goals fall naturally into three classes, necessarily interrelated. There are, first, the considerations connected with supply; that is, land resources, production methods and adjustment, and all the factors which make up the national agricultural plant. There are, second, the considerations related to demand, which include domestic and foreign consumption in their present and future possibilities. There are, finally, the considerations related to the people on the land, the standard of living, housing, modern improvement, community interests, education, local government, sanitation and health services, and all the physical and cultural circumstances of rural life. None of these things can be treated separately, for they are all interdependent.

The adjustment program has been concerned primarily with the first group of factors, those relating to the agricultural plant, and of these factors it has dealt chiefly with the one factor of production adjustment. Obviously, in the face of price-depressing surpluses, this has been the necessary immediate approach. There seems no question that adjustment has been effective and little doubt that continuation of an adjustment program will be necessary, if a balanced agriculture is to be maintained and the upward trend continued.

Production adjustment is only one factor in the large view of a balanced agriculture in the future. An appraisal of the demand for different commodities and planning ways to increase that demand are of equal importance with adjustment of supply. This approach raises many questions. How much of each commodity will farmers as a group produce? On what lands shall these commodities be produced? How much land, in total, will be needed? What would be the total number of farmers participating in this production, and how may the others provide for

themselves? What additional national and State legislation would be needed?

The answers to these queries involve a number of variable factors. The amounts of the different commodities that need to be produced depend on foreign and domestic demand. This demand depends on dietary habits, the income of consumers, the conditions of production abroad, and on the relations of international trade.

The program of Government acquisition of submarginal land will aid in controlling the size of this plant. But land of the type being acquired is of low productivity, and most of the people occupying it are not engaged primarily in commercial production. Therefore this program cannot be considered as a principal means of production adjustment. There is also the imperative necessity of providing an escape for families who are unable to support themselves on poor land. Much of this land, although submarginal for farming, is suited to such social uses as forest reserves, wildlife refuges, and recreation areas.

Accompanying the long-time, land-planning program is the task of planning for human needs. What proportion of our national population will live on the land and make a living from farming and what proportion will live by other occupations?

Probably none of the plans being developed will prove to be more far-reaching in their ultimate effects than those in connection with the rural-industrial communities, which are giving stranded farm and city families opportunity to make a new start toward satisfactory livelihood. But the problem is a large one, and none other presents more of a challenge to planning agencies.

THE economic summary in the book "What About the Year 2000?", issued in 1929 by a joint committee sponsored by the American Civic Association, was a pioneer interpretation of the studies conducted by the U. S. Department of Agriculture and others.

Some Problems of Land Policy

By L. C. GRAY, Acting Director, Division of Land Planning and
Development, Resettlement Administration

FROM more than one standpoint, our earlier policy of private acquisition and exploitation of land was admirably adapted to the Nation's needs down to the latter part of the nineteenth century. Certainly it stimulated a national expansion of unparalleled rapidity, promoted the rapid development of agriculture, mining, and lumbering, and contributed to the building up of huge fortunes in our large cities. Yet these achievements were made at heavy social costs. It is very clear now that our earlier land policies failed to provide adequately for the general welfare, and in many cases not even the welfare of the people who obtained the land or who now hold it. The new land policy embodies a fresh viewpoint toward land-utilization in that it assumes that the occupancy, use, and settlement of land must be shaped for the general good.

We had made considerable progress in this direction before the advent of the present administration. The large reservations of forest land in the West and the beginning of a National Forest purchase program in the East were long steps forward. We have reason to be grateful for the foresight that created our magnificent system of National Parks, which provided for our migratory bird-refuges, as well as for the withdrawals of mineral lands in the public domain and the separation of surface and subsurface rights in our most recent homestead legislation. We have done much toward harnessing our rivers and making our water resources useful rather than destructive. Many of the States have also made considerable progress in the establishment of public forests and parks. All of these policies need to be further extended, with a view to a better geographic distribution and a broader expansion of areas reserved for public use.

The need for a more far-reaching land policy, however, is indicated by the host of factors entering into the mosaic of our contemporary land problem. Among the more important of them are those of soil-conservation, farm-tenancy, submarginal agricultural lands, and the resettlement problem. The establishment of a sound national land policy in each of these fields demands a clear decision concerning the functions of Federal

and State governments in (1) encouraging the proper use of land in private hands, and (2) the public acquisition of land for the purpose of achieving specific land-use programs.

One of our most serious land problems is soil-depletion. The usefulness for farming of 35 million acres has already been destroyed by erosion. Besides depleting soil-fertility, erosion silts up canals, reservoirs, and navigable streams, and deposits infertile material over good soils. During the past few years, wind-erosion has ravaged the Great Plains, destroying thousands of acres of soil and rendering a vast area almost unlivable. There are also heavy losses through removal of plant-food by unscientific crop systems.

The Federal and the State governments should acquire and protect the most highly erosive lands on which control measures under private ownership do not appear feasible. To conserve millions of additional acres, the Government is experimenting with various methods of erosion control, and by demonstrations is endeavoring to show landowners how to protect their farms. Frequently erosion can be controlled by adopting suitable cropping systems. In many cases, however, the less erosive types of crops are not profitable in the particular locality, or many farms are too small to permit the widespread use of such crops on a profitable basis. In such cases, extensive readjustments in type of farming or size of farms will have to be brought about. These systems must be developed not merely to achieve maximum profits to the farmer but, perhaps, with greater consideration for various social objectives, including erosion.

The problem of soil-conservation is intimately associated with the problem of tenancy. In a large part of the country the tenancy system provides little encouragement to the tenant to concern himself with conservation of the soil. Half of our farmed land is now operated by tenants, although it is less than two generations since the height of the homestead movement which aimed at dividing our land into family-sized farms operated by their owners.

Tenancy is not necessarily unwholesome in itself, but the American system of farm tenancy has many unwholesome and anti-social characteristics. It encourages instability of occupancy, contributes to depletion of soil-fertility, and fails to develop a well-knit social life. It seems to me that it will be

next to impossible for America to develop a rural civilization which affords security, opportunity, and a fully abundant life for our rural people unless we act to convert those of our tenants who are capable of land ownership into owners, and to develop for the tenants who lack the essential qualities to become owners, a system of tenancy that will be benevolent instead of exploitive. It is evident that, if this problem is to be met fully, the Government will have to take even more positive steps than the extension of liberal credit.

Interest in the problem of submarginal land, that is, land which is too poor to make possible successful commercial agriculture, even at normal price levels and under good management, arises both from the direct economic effects of the production of surplus crops on poor land, and from the social aspects of submarginal farm communities. A surprisingly large proportion of American agriculture is based on the use of poor land. If crop-curtailment should be necessary for a number of years to come, as indicated in the Report of the Land Section of the National Resources Board, the inefficient lands should be the first to be retired from production. This policy is also justified on other grounds. The use of poor land for farming is but part of the general problem of making a right use of lands now devoted to uses not justified by natural or economic and social conditions.

Fiscal economy is one of the important objectives in such a readjustment of land-use. A recent study in 14 northern Minnesota counties showed that by expending \$4,636,000 for the purchase of about 5,000 scattered farms on poor land, it would be possible to effect an *annual* saving to local taxpayers of \$778,000, which represented the cost of schools, roads, townships, government and fire-fighting incurred because of these isolated farms which yielded little or no tax revenue. The enactment of county zoning ordinances, to prevent further settlement in areas now unoccupied and unsuitable for farming, will prevent approximately 12 million acres in that State from becoming a burden on local taxpayers or contributing to the over-production of farm commodities.

The problem of handling submarginal land is twofold. Land unsuited to agriculture must be diverted to forestry, recreation, grazing, and other uses to which it is physically adapted. Fam-

ilies now living on such lands must be aided in removing to communities where economic opportunities are more promising. Substantial progress has been made in this direction through the operations of the land program recently included in the responsibilities of the Resettlement Administration. Recognizing that the magnitude of the task demands the active participation in this work of the Federal Government, the National Resources Board has recommended the gradual retirement of 75 million acres of submarginal land over a period of 15 years.

The resettlement of families whose submarginal farms are purchased by the Government presents a considerable problem, especially in view of the restricted opportunities for industrial employment. The need for public aid and direction to land-settlement, however, is broader than the resettlement of the occupants of poor land. It is doubtful whether employment will pick up enough during the next several years to take care of the still rapidly expanding farm population. Numerous families are stranded in decadent rural industrial areas. Finally, we must care for various groups of persons who would not fit into a regimented system of urban industrial employment but who can be expected to do fairly well on small land-holdings, if they have some part-time rural industrial employment.

A wise settlement program should not encourage the movement of large numbers of urban unemployed to commercial agriculture; however, the establishment of homes for workers in non-agricultural occupations where they may provide part of their own living appears to be sound national policy.

Organized land-settlement projects, with their many human variables, present a host of social problems as yet unsolved to tax our ingenuity at establishing satisfactory human relations. In comparison with these the purely economic problems seem simple. Yet the first step in the formulation of a sound settlement policy is to provide for the integration of such plans with the broad policies of land-utilization.

The Land Development Program

By MAURICE M. KELSO, Senior Agricultural Economist,
Resettlement Administration

FOR approximately one year, five different agencies of the Federal Government have coöperated in a land-purchase and development program of far-reaching significance. On July 18, 1934, \$25,000,000 was allocated by the Public Works Administration to the Federal Emergency Relief Administration in order to carry out its series of land-development projects. A special section of the Relief Administration, which took the name of The Land Program, was established to coördinate the activities of the four technical agencies coöperating in the field-work and planning of the program, and to supervise the expenditure of funds. The duties of The Land Program of the Federal Emergency Relief Administration were transferred to the Resettlement Administration on May 1, 1935.

The Land Policy Section of the Agricultural Adjustment Administration, the National Park Service, the Bureau of Biological Survey, and the Office of Indian Affairs have carried out the field-work of the land program. Their activities have penetrated into 467 counties. Over 250 land-purchase projects have been initiated. Approximately 400,000 acres of land have been actually purchased for the Government, while options on a total of 8,000,000 acres have been obtained. The acquisition and optioning of this acreage in less than a year's time are particularly noteworthy in view of the fact that all purchase negotiations have been carried out on a completely voluntary basis. No condemnation proceedings have been resorted to in order to force landowners to sell their farms.

The land-program development includes a large and varied list of projects. In planning them, no attempt was made to decide in Washington which lands should be retired from cultivation, or devoted to forest or recreational use. Studies for this purpose were carried out in the field. Regional Directors and their assistants discussed local conditions with county agents, with representatives of the State agricultural colleges and experiment stations, with State planning boards, and with other local authorities in order to draw upon their intimate knowledge of economic and social problems.

In Meade County, Kentucky, which borders the Ohio River, there is a large stretch of poor farmland typical of much of the eroded, unfertile area which lines the river on both sides. The local population in the vicinity of Otter Creek, around which field studies were centered, had formerly been supported by the river traffic that is now practically gone, and by the lumbering and wood-working operations which also disappeared with the exhaustion of near-by forest resources. For many years now, the inhabitants of Otter Creek have had to depend upon the soil for their existence.

Nature, however, had not fitted this rolling topography for cultivation. When turned by the plow, the loose earth rapidly eroded. Never very fertile, it quickly became impoverished and incapable of adequately supporting farms. Many of the people in the area moved away to seek better opportunities elsewhere. Others, however, were not so fortunate as to find a means of disposing of their poor land, and, with all the uncertainties which during recent years have faced the job-hunter in industry, they were unwilling to leave their homes and farms, poor though they might be.

At Otter Creek the taxes collected in the area do not by any means cover the amounts which the county is forced to spend each year in supplying roads and schools to the inhabitants. The county yearly spends in this area about \$1,800 more than it collects in taxes, the great part of this amount being for schools.

By the purchase of more than 2,000 acres of land in the Otter Creek area, three things are being achieved: (1) the present inhabitants of the area will be assisted in obtaining better farms elsewhere, (2) the county is relieved of the necessity of spending \$1,800 to educate the families of Otter Creek and give them roads, (3) public ownership will make possible the conservation and better use of the land.

In this particular case, the land to be purchased will be developed by the National Park Service as a recreation area. Within 50 miles of the project there are several hundred thousand people in need of outdoor playgrounds and camping-sites. Proper steps will be taken to stop and prevent soil-erosion, by the reforestation of steep slopes and the application of other control methods. Furthermore, the development of the recre-

ational area will not only provide immediate jobs in the locality, but will also offer to the community the opportunity of trading with the large numbers of campers and picnickers who may be expected to visit Otter Creek.

The land development program should serve a valuable public purpose in demonstrating just how the government, both local and national, may take steps to restore to the people the full heritage of the land and its human values.

Land Settlement — A Permanent Policy

By JOHN B. BENNETT, Resettlement Administration

DURING recent years we have had set before us two highly contrasting prospectuses of our future civilization. One is presented by the physical scientists. It is based on the full possibilities of scientific achievement as indicated by present knowledge, and envisions a completely electrified, mechanized, and air-conditioned Garden of Eden in which an hour or two of light labor a day will produce such an abundance of goods and services that they will cease to have value in the current economic sense. The other is presented by those who believe that even the present state of mechanized civilization is over-complicated or morally subversive. It pictures a retreat toward the simpler mode of life of a century ago, under which a greater proportion of the people would live on and secure their livelihood directly from the land, attaining a considerable degree of self-sufficiency and to that extent becoming independent of our present economic order.

The first prospectus can be dismissed as impossible for the near future. The painter of one of these pictures of a synthetic paradise himself sets forth an array of obstacles to its early attainment.* Summed up, his obstacles amount to the fact that man has made much greater progress toward mastering his physical environment than his economic and social organization; that his greatest difficulty is still in learning to live in peace and harmony with his fellow men. Mass ignorance, greed, inertia, inefficiency, and other human weaknesses act as an

*Bernal, J. D. If Industry Gave Science a Chance. *Harpers Magazine*, Vol. 170, February, 1935, pp. 257-268.

effective brake on the establishment of an economic and social order which would permit science to develop fully our resources for the benefit of the whole population.

The second prospectus, which is based on the conviction that man is unable to cope with even our present state of civilization, is not so easily dismissed. It represents a course which is widely advocated, both by industrialists who wish to escape the responsibility of reabsorbing the great army of workers thrown out of employment during the depression, and which they would like to see relegated to what they call subsistence farms, and by romanticists who in their imaginations re-create the self-sufficing farms of the past, tilled by independent, self-reliant farm families free from the vicissitudes, the worries, and the temptations of urban civilization and enjoying what has been described as a "rude abundance" of wholesome food, fresh air, and bright sunshine.

Since this philosophy may have its influence on public policy, it appears desirable to inquire into its bearing on the formulation and effectuation of a sound land program and upon the general economic and social structure. With no radical change in our capitalistic structure in immediate prospect, the inquiry should be in the light of our present economic organization.

Assuming for the moment that it would be possible for a substantial proportion of the population to revert to the self-sufficing status of a century ago, what would be the effect on the self-sufficing farmers and on other industries? In the first place, in spite of their "rude abundance" of certain material things, the self-sufficing farmers would be woefully short of certain other materials and services which all modern farmers, except those in the most blighted areas, have come to consider essential. A really self-sufficing agriculture would produce no cash beyond that required to buy absolute essentials. There would be little money to provide for local government services and institutions—no money for public health services, no provision for schools except, perhaps, the one-room schoolhouse for simple instruction in the three R's, no roads except those which the farmers could build for themselves.

The farmers would produce all of their own food except a few specialties, most or all of their fuel, and practically all of their clothing. Their homes would be built largely of hewn

timbers and lumber from home-produced logs milled at a local sawmill. They would purchase a few tools, some simple horse-drawn farm implements, now and then a bit of cloth or ribbon, and a few odds and ends. They would be out of the market for automobiles, tractors, heavy farm machinery, radios, electric equipment, commercial fertilizers, and a host of other industrial products, of which commercial farmers are large buyers. The decline in markets for such products would create additional industrial unemployment and lead to agitation for a further movement of unemployed to the land. Thus a vicious spiral toward the standards of living of a hundred years ago would tend to be set in motion and the obviously prevalent notion among the industrialists who advocate the "back-to-the farm" movement that a self-sufficing peasantry and a highly developed urban industrial system could exist side by side would prove to be fallacious.

But there is little likelihood that any substantial development of really self-sufficing farming could be accomplished in this country. It would require the revival of crafts which are lost arts among the greater portion of our rural people and the prevalence of a pioneer spirit which has largely disappeared. It would be difficult to isolate self-sufficient communities from the attractions of urban civilization, and the migration to the cities from such communities would be rapid whenever urban industry offered the slightest hope of expanding employment. Those who remained in the self-sufficing communities would demand roads, schools, and other public services from the State and the Federal governments, the same as the farmers in many of the inferior agricultural areas of the country have demanded these services (and to that extent become public charges).

There is little danger, then, of a development of self-sufficing agriculture so widespread as to lower standards of living generally. There is danger, however, of ill-advised organized efforts to establish self-sufficing communities which will result disastrously for a few hundred or a few thousand settlers in such communities and prove to be a source of continued embarrassment to the agencies which promoted these communities.

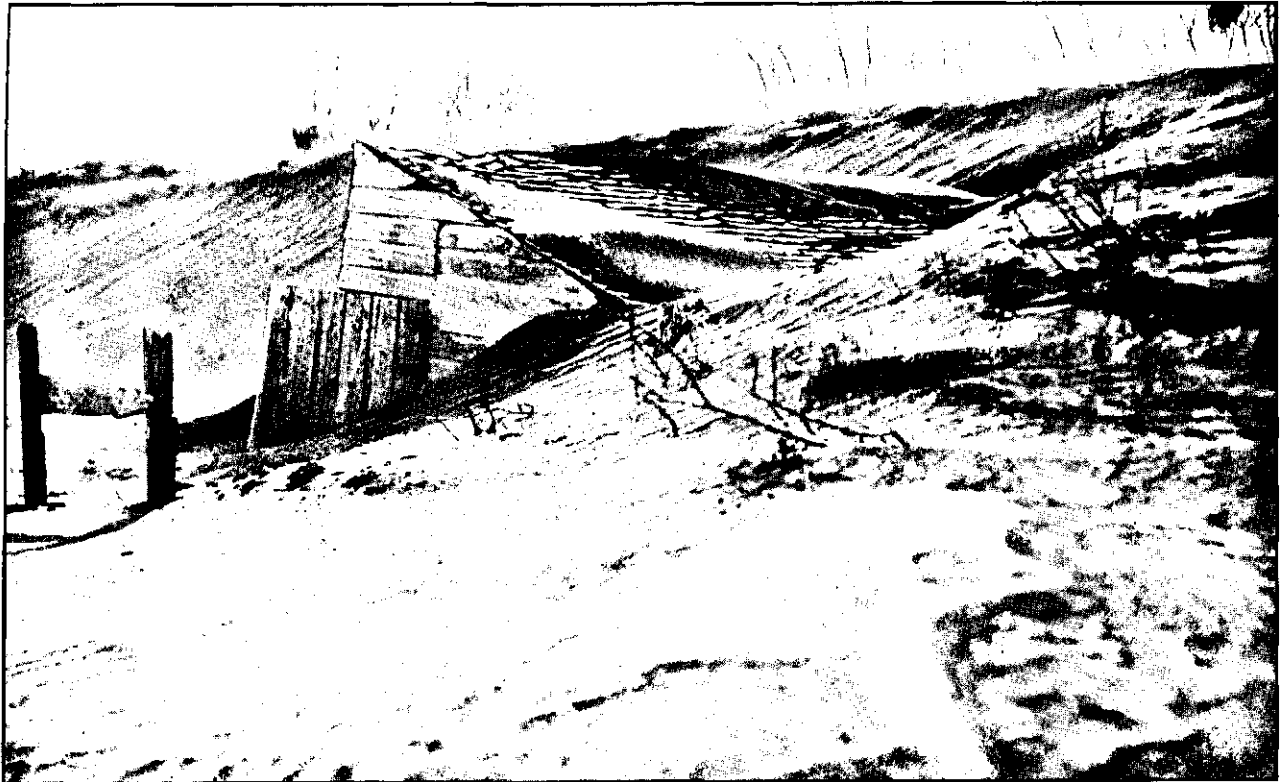
It was with this danger in mind that the Land Planning Committee of the National Resources Board in its recent report urged that "no substantial movement of unemployed people

from urban areas into agriculture be publicly encouraged. It is imperative that the problem of industrial unemployment be solved in other ways than by trying to make farmers of the urban unemployed. . . . This implies that we should alleviate the major volume of unemployment by temporary relief measures, including make-work programs, while taking proper steps to restore normal functioning."

There is a large group of urban "unemployables," augmented by the depression, some of whom probably could be rehabilitated on farms. While the majority of the persons in this group should be frankly recognized as public charges and provided for accordingly, some of them, although not capable of commercial farming, might be cared for most economically if placed on small acreages, where they could provide a portion of their own living to supplement old-age pensions or other relief payments.

There is at present no shortage of farmland to produce the necessary food and fiber for the Nation, nor does it appear likely that there ever will be any necessity for a tremendous increase in the farm acreage to provide for the needs of the Nation's maximum population. No more farmers are needed; in fact, there are too many already, and the farm population still is increasing rapidly, in spite of a declining birth-rate. A rational approach to this problem would be to maintain an economic order which would insure the shifting of the excess farm workers to industries in which they could produce goods and services which would raise the level of living of all of the people, rather than to back them up on farms, where they either will produce more food and fiber than can be used or so reduce the per-man production of agriculture as to keep the level of living of farmers generally low.

There is fairly general agreement, however, that urban industry will not absorb all of the farm population increase during the next few years. It is an effort to cope with this situation and to locate some of the workers in non-agricultural industries on small tracts of land where they may obtain a portion of their subsistence which is responsible for most of the recent Government activity in land settlement. There is no Government settlement agency whose purpose is the wholesale removal of urban unemployed either to self-sufficing or to commercial farms.



Wind-blown Soil Material Has All But Buried This Farm Building in the Wake of a Dust-storm

Photograph by Rosebud Photo Co., Gregory, S. D.



Kansas Wheat-field Terraced on the Contour to Prevent Erosion

Courtesy Soil Conservation Service

National Significance of Recent Trends in Farm Population

By R. G. TUGWELL, Under-Secretary of Agriculture

WHATEVER the precise estimate may be as to the future population of the United States, there is at least general agreement that the period of rapid national increase is nearly over, that we are gradually approaching equilibrium, and that within the total group extremely diverse forces are at work. If we wish, we can continue to permit those of least means and opportunity to provide a larger and larger proportion of our population, but it would strike me as somewhat more sensible to undertake the enlargement of both the means and the opportunities of this highly important group. Certainly the potential power and influence of the excessively fertile group must not be underestimated. Lorimer and Osborn have noted that some large groups are reproducing at so low a rate that the surviving children from an equal number of women of child-bearing age in the first groups will be twice as numerous as the surviving children in those groups whose reproductive rate is low. If this differential continues for three generations, the descendants of the first group would be sixteen times as numerous as the descendants of the second group.

We do not need to wait until three generations have come and gone to realize what this would mean. The process goes on today, under our noses, and has much to do with innumerable contemporary problems. If nothing is done to provide our underprivileged but highly fertile groups with economic opportunities, we know that the future citizenry of America will include progressively larger proportions of poorly equipped human beings—individuals who have never had a chance, economically or culturally, individuals totally incapable of adjusting themselves to the requirements of an increasingly complex civilization. I have never believed that the people of America wish to sit idly by while this sort of trend proceeds along its tragic way.

Yet it is impossible to avoid the conclusion that the dominant forces in American life in the decade following the World War were set unconsciously, unintentionally, in the direction of

undermining the economic independence of our agricultural population—with consequent impoverishment of the only group in America still characterized by a tendency toward effective reproduction. The Agricultural Adjustment program, imperfect as it may be, is an attempt—the first serious attempt—to meet the fundamental issues in this situation.

Recognizing the peculiar vulnerability of agriculture in our economic system, traceable to the relatively inelastic demand for agricultural products, and recognizing the special importance of a healthy, prosperous agricultural population in the developing life of the Nation, one of the first principles in our national economy should be the safeguarding of the conditions of rural life. In view of the limited demand for agricultural products, some limitation of agricultural production is essential to the practical realization of this ideal. This is coming to be generally recognized. The further corollary, however, although logically inevitable, is less generally recognized. If individual agricultural workers are to operate at high level of productivity, if at the same time agricultural production is to be limited to the effective demand for agricultural products, there must be a very appreciable reduction in proportion of American workers engaged in commercial agriculture—preferably by the gradual transference of some farm laborers and tenants who are now operating at a low level of productivity, with low incomes, and some farm operators who are working on submarginal lands, into at least part-time production of goods and services for which there is a more elastic demand. Part of these goods and services may be directed toward retaining the population remaining in agriculture, resulting in better housing for rural families, better schools for rural children, more nurses, doctors, telephones, books, and clothes, and more adequate diets both for farm families and for city families. The hope for the future expansion of American industry lies in a rise in the standards of living of the whole American people. One phase of this development must be continued increase in the productivity of the individual farm worker, combined with some control of total agricultural output. If this involves fewer commercial farmers, it still does not mean that the traditional advantages to families and to the Nation of rural surroundings cannot be kept and even enlarged.

But this line of development for agriculture can only be

worked out step by step as other lines of productive activity are developed and expanded. It would be rash to encourage a large number of people to move away immediately from submarginal land during a period of depression when there was no effective demand for their employment elsewhere. Conversely, any attempt to establish people permanently in new communities must rest on some assurance of an adequate economic basis. A sound agricultural program, a sound program for the use of our national resources, and a sound program of industrial development cannot be established in a day. But the importance of acting in accordance with well-formulated long-range plans is becoming increasingly apparent.

The goal is nothing less than that of raising the standards of living in those areas where population already presses hard upon resources. The methods chosen to accomplish this end will have to be as various as the areas themselves and the people living there. Certainly, no one can be dogmatic about how best to proceed, or unduly optimistic about the probable rate of progress. He can only keep at the task persistently, patiently, and as wisely as possible, always conscious of American ways of effecting fundamental changes, and always clinging to a characteristically American faith in his fellow man.

How Population Distribution Affects Agricultural Planning

By O. E. BAKER, Bureau of Agricultural Economics

WHO would have guessed in 1929 that within three years the century-long trend of migration from the farms to the cities would be reversed, and that within five years the farm population would reach the highest point in the Nation's history, with several million youth not needed in agriculture backed up on farms, and with perhaps 10 million people in the cities seeking work and unable to find it? The next five years may bring as great surprises, but this seems unlikely. It appears more likely that the Nation is settling down, and again going about its business with millions unemployed. A new epoch is developing, in which it appears probable there will be less internal migration

as well as less immigration from abroad than before the depression, but with the differential in birth-rates between rural and urban populations persisting (though both birth-rates doubtless will continue to decline), and with most of the increase of population occurring in the rural areas.

Increasing Farm and Stationary Urban Population. Between 1930 and 1935 the number of farms has increased fully 500,000, or by more than 8 per cent, according to the Census, and the farm population has increased nearly 9 per cent, according to estimates of the Bureau of Agricultural Economics. What has happened in the cities is less fully known, but a Census taken in Chicago in 1938 revealed a decline in the population of that city of over 100,000 since 1930, while the decline in deaths in New York City suggests an even greater decrease in population than that which occurred in Chicago. An apparently accurate Census of Massachusetts taken in 1934 revealed that the population of Boston was about the same as in 1930, and that this was true also of most other cities of the State.

Decrease in Children and Increase in Aged. Very significant was the decline shown in number of children in Massachusetts. The 1930 Federal Census counted 65,034 children under one year of age, the 1934 Census only 47,291. This is a decline of 27 per cent in the four years. Of children one year old the decline was 18 per cent; of those two years of age, 10 per cent; of three-year-old children, 9 per cent; and of four-year-old children, 8 per cent. The statistics of births indicate a similar decline in young children in most parts of the Nation, but at less rapid rate. This is to be expected, for young people are being backed up on farms, and many are marrying and starting homes. Moreover, some young people left the cities during the depression, seeking shelter and sustenance with relatives or friends in rural regions, while the old people mostly remained in the cities, for few of them had relatives or friends living to whom they could go.

Between 1920 and 1930 the number of people over 65 years of age in the urban population increased 50 per cent. In the Nation as a whole the increase was 34 per cent. A similar increase must continue for several decades, for both the number of middle-aged people who are living now and the number who will die each year can be estimated closely. The cities are growing older rapidly, and the rural regions are now growing younger. This

will continue unless migration from the farms and villages to the cities is resumed in almost pre-depression numbers. The cities, where the birth-rate for many years has been only about half that on farms, may soon learn the truth of Ruskin's statement, "There is no wealth but life." In the large cities (those over 100,000 population) there are now only about two-thirds enough children to maintain their population permanently stationary without accessions from outside.

The Nation as a whole is growing older. During the last ten years the decline in births has exceeded 20 per cent—from about 2,900,000 in 1924 to 2,300,000 in 1934. The decline in number of children under ten years of age has been about 10 per cent. Enrollment in the lower grades of the public schools is rapidly declining in the cities, and this decline will gradually extend into the upper grades. Later, ten to twenty years hence, marriages will start to decline, and this doubtless will be reflected eventually in a lessening need for houses.

But for twenty years to come a larger proportion of the population will be in the productive ages (15 to 65 let us say) than previously or, in all probability, thereafter. The number of dependent children will be greatly reduced and time will not yet have brought the full harvest of the aged.

Location of Increase in Farm Population. The increase in farm population has been greatest in the southern Appalachian Mountains, in the Ozarks, and in other areas of poor soils or hilly surface, largely because in such areas the birth-rate is highest. There has also been heavy increase around the large cities, doubtless mostly of part-time farmers. This increase has been much larger around the cities where the soil is generally poor and cheap—Pittsburgh, Cleveland, Cincinnati, St. Louis, Birmingham, for example—than around the cities where the soil is rich and expensive—Chicago, Des Moines, Omaha, for example.

The increase in farms and farm population has been small, in general, in areas of dominantly commercial agriculture. Very few Corn Belt counties report a decline in number of farms, but in the Cotton Belt, despite the high birth-rate, there has been a heavy decrease in the richest cotton-producing areas, notably in the Black Prairie of Texas, in the Yazoo Delta of Mississippi, where tractors are being introduced and pickers hired only when

needed, and in the heaviest cotton-producing counties of Georgia and South Carolina. There may have been no decline in population in these Cotton Belt areas.

Population Locally Pressing on Land Resources. The backing up on farms of a surplus population, particularly in areas of poor soils or hilly surface, has raised very acute economic and social problems. In some of the counties in the southern Appalachians half to two-thirds of all families are on relief, and in much of the rural South a fourth or more of the families are receiving relief or rehabilitation aid. Even were work available in the cities, these poor areas with a high birth-rate would not have sufficient funds to educate their children adequately for skilled occupations in the cities, and it is skilled rather than unskilled labor that is needed in the cities. State educational aid to poor counties cannot meet the need adequately in most of the South, for the ratio of children to adults is much larger and the per capita wealth is much smaller than in the North. The great rural population problem of the Nation—a surplus-youth problem—is in the South; and the great urban population problem—a child-deficiency problem—is in the North. The cities will doubtless again need vigorous rural youth, educated for urban employment, and the farming regions, particularly in the South, must have help in order to educate them adequately. If the farmers and their wives feed and clothe them without any material compensation, it would seem that the cities should at least help to educate them.

The Alternatives. In conclusion, let us consider the alternatives with reference to rural-urban migration:

If migration from the farms to the cities is not resumed, there will soon be a stationary and later decreasing urban population (unless urban births or immigrants increase) and a rapidly increasing farm population. This probably means, first, a decreasing commercial and increasing non-commercial consumption of farm products within a decade or two, for aggregate consumption per person of farm products has been practically stationary for at least a third of a century, and exports of farm products appear to have reached a new and lower level. It means, secondly, a continued increase in number of farms and probable decrease in acreage per farm and in agricultural production per worker. It means, thirdly, a lower standard of living for many farmers,

unless they produce themselves more of the things they have been accustomed to buy, or unless a planned national program of agricultural production is maintained.

If migration from the farms to the cities is resumed, as seems likely, though in smaller numbers than before the depression, it will hasten the decline in the national population, and in resultant requirements for farm products. It will merely postpone the inevitable adjustment in the economic activities and social ideals of the farming people. These adjustments probably could be made less difficult and damaging by taking thought for the future and developing national, State, and local plans of land-utilization, farm-management, and social organization.

The depression is not an episode, but the beginning of an epoch. Urban life has changed the ideals of the people.

Getting a Million Families Off Relief

By J. PHIL CAMPBELL, Chief, Agricultural Rehabilitation Section,
Agricultural Adjustment Administration

ABOUT a million farm families, unable to make a living at the farm business, are now supported by the American public. The FERA organized a Rural Rehabilitation Division a year ago to start these destitute families on the road to recovery. Details were left to the various State Relief Administrations, which set up laboratories for experimenting with the problem. This work has now been transferred from the Relief Administration to the new Resettlement Administration, headed by Rexford G. Tugwell, Under-Secretary of Agriculture.

Around 300,000 farm families, roughly a million and a half people, have been accepted as rehabilitants by the various States. Few of these families had any economic resources to begin with.

They will not be made completely self-sustaining in a year, maybe not for several years. In the States which began their program in the spring or early last summer, a few hundred families have gotten completely on their feet and are on the road to self-support. Most of the other families accepted last year have begun to produce a considerable part of their food. But food amounts to no more than one-half to two-thirds of the

living requirements, and there are now some items of food that cannot be produced at home. The remaining large portion of the living requirements must be secured with cash which the rehabilitant earns for himself, possibly in some sort of coöperative industrial plant.

A survey of several thousand farm families, negro and white, covering a large part of the State of Georgia and made some years ago, revealed that the least a farm family could get along with was about \$300 worth of goods that could not be grown on the home farm. A survey of a group of these relief families in North Carolina revealed that members of the families had an average farm experience of more than thirteen years. That was their job. They had learned no other. Their average income for the year covered by this survey was \$28.46 per capita, or \$162 per family, 42 cents per family per day. A small part of this, \$26 per family per year, was from the Relief Administration.*

These families must find a means of increasing this income by at least \$100 a year. No one can seriously consider continuance of a system under which hundreds of thousands of families are forced to exist on 35 cents a day, plus 7 cents a day from the Relief Administration. Without allowing for clothing, medical care, education or recreation, but limiting the cash to food alone, \$100 is the minimum amount needed by the average farm family to secure the barest food necessities, even though they have grown all they could. Where this cash is not available, serious cases of undernourishment appear.

There is no reason to believe that a return to the production of cotton, wheat, and other cash crops will solve the problem. Instead of absorbing again these families which it has discarded, cash-crop farming may discard still more of those whom until now it has supported. Unless there is a revival of world trade, the way out for the displaced families must be found elsewhere than in a return to commercial farming.

Many leaders think that the solution of the problem lies in a combination of farming and industry. I do not mean an elaborate set-up in which large factories will be moved to the country or new ones established there. Maybe that will come. The safe policy is to put rehabilitants on a sound basis of subsistence

*These figures are based on 131 families out of the group mentioned above, 90 negroes and 41 whites.

farming at the outset, so they will draw as much support from the farm as possible, then encourage the establishment by them, or among them, of modest industrial activities. These will help the situation a little from the outset, and may be expanded through sound, long-time development. The troubles of displaced farmers have not come about suddenly, and they will need plenty of time for their cure.

We may not put these people into industrial activities on short notice, but we can look with some confidence on their finding industrial work eventually, because there is a potential market for a much greater amount of manufactured goods than we are at present producing. Eighty-five per cent of American farm products are useful for food purposes only, and we can eat only a limited amount of food. But we can use an unlimited amount of other things, if we have the money to buy them from the man who can make them, or if we have the means of making them for ourselves. Just at present we are using much less of manufactured products than we were in 1929. Even back in 1926, which is taken as a normal, basic year, our factories were turning out goods in volume much greater than at present. Much of the falling off is due to a reduction in our own home consumption, because we have not had the money to buy. We can use, and we would like to use, even more than we consumed in the boom days.

Of the one million farm families on relief, some 20 per cent have been started on the road to economic independence. They have been helped to produce their own subsistence from gardens and livestock and to process and put away their food for the winter. They are now moving into the second stage in which they must find the means of securing the other necessities of living, either from production of agricultural commodities for sale or from supplementary employment in agriculture or industry.

Soil-Erosion

By H. H. BENNETT, Chief, Soil Conservation Service

AGRICULTURAL development in America has been dominated by a pioneer psychology based on an illusion of never-ending land abundance that had its beginning in the day when early settlers found a continent of virgin soil stretching even beyond the limits of imagination. The very extent of land resources, the certain availability of new fields to replace those worn out, prevented the growth among our farmers of that soil-frugality which sustains the ageless agriculture of smaller nations. Indeed, it has encouraged a soil-prodigality, the consequences of which we have but recently begun to understand.

One aspect of those consequences was brought home to the Nation with shocking force by recent dust-storms in the Middle West. Gigantic clouds of top soil, stripped from drought-ridden fields of Kansas and Oklahoma, swept half-way across the continent in a mighty demonstration of the force of wind-erosion, and people everywhere awoke to a realization that agriculture faced a new crisis, of moment not only to the Midwest but to the Nation as a whole.

Wind-erosion is far less prevalent in this country than erosion of the soil by rainwater. The damage caused by soil blowing is but a fraction of the damage caused by soil washing on sloping fields. But where the one is spectacular and sudden, the other is insidious and constant. The public, naturally, has come erroneously to regard dust-storms as the symbol of all soil-erosion.

In the summer of 1934, the Soil Erosion Service, then an agency of the Department of the Interior and since transferred to the Department of Agriculture under the name of Soil Conservation Service, undertook to canvass for the first time the effects of man-induced soil-erosion on the land resources of the United States. Erosion specialists went into every county in every State to chart the condition of the soil. The survey was conducted on a reconnaissance basis, and the results therefore represent only a broad picture of prevailing conditions; but they are disturbing none the less.

They show nearly three-fourths of the land in the country to be suffering from erosion, in degrees ranging from slight damage to complete destruction. At least 50,000,000 acres of

formerly cultivated land have been ruined as far as practical agricultural usage is concerned. Another 150,000,000 acres are verging on the submarginal due to loss of top soil. And the astounding total of 857,000,000 acres have felt the effects of erosion to some extent.

These figures, it should be noted, deal only with accelerated erosion, which means erosion induced by man's use of the land. They do not take into account the natural geological processes which are constantly wearing away the surfaces of the earth but which are compensated by nature's soil-building.

The inroads of erosion on our national land resources have been recognized for more than a decade. But until two years ago the approach to the problem was largely experimental. It was not until the fall of 1933 that the Federal Government launched a national program designed eventually to effect actual control on a large scale.

Obviously, it would have been futile for any agency, however large, to undertake directly the task of curbing a process as widespread as soil-erosion. The approach to the problem, therefore, was through the medium of demonstration. The Soil Conservation Service, as it now is known, set about educating the farmers of the country to the fact that protection of their fields from wind and rain is both possible and practicable.

As a nucleus for this national program, the Service has established forty demonstration projects in major agricultural regions throughout the country. In these selected areas, each of which covers a complete watershed, the Service is carrying out fully rounded programs of erosion-control as a concrete illustration for the farmers of each region.

Each of these areas was selected with due consideration of the varied problems it presented, the adaptability of the land to a unified, effective demonstration program, and the willingness of farmers and landowners to cooperate and help carry on the work.

Comprehensive, practical plans were then worked out for the control of erosion and the reduction of floods and silting over all the lands within the watershed areas selected for the demonstration. These plans are based on the physical and chemical characteristics of the soils involved, the topography, climate, vegetation, and the agricultural practices peculiar to the area.

When plans were in shape, the Government entered into voluntary five-year agreements with the farmers of the demonstration area, under which the latter agreed to carry out land-use practices advocated by the Soil Conservation Service and to contribute a fair share of the labor and materials necessary for completion of the work on their farms.

In return, the Government agreed to lay out the work, to provide supplementary labor and material, and to furnish seed and other materials which the farmer was unable to supply.

Upon the completion of each agreement, inexpensive and practical erosion control measures were put into operation on each farm within the area, not as distinct methods, but in a carefully synchronized program in which they were used to support one another as the needs of each parcel of land might dictate.

This program of demonstration seems to have borne results in awakening farmer-interest in the protection of their soil. In slightly more than a year, it is estimated, upwards of 2,000,000 farmers have inspected the erosion control work being done by the Service in its widely scattered demonstration areas throughout the country. Other evidences of increased cognizance of the problem can be found in the editorial comment of the press in nearly every section, and in the steadily increasing demand by local organizations, counties and other units, political and private, for the establishment of similar demonstrations in regions not now served.

Elements in Rural Land Planning

LYNN R. EDMINSTER ON FOREIGN TRADE AND AGRICULTURAL PLANNING:

By 1932 sustained production in the face of greatly curtailed foreign outlets had piled up enormous surpluses of our important export commodities. Excessive stocks of cotton, wheat, and tobacco hanging over the market had driven prices down to a level which meant bankruptcy for producers. Pork products which formerly had been shipped abroad were backed up on the domestic market and were moving into consumption at ruinously low prices.

The only practicable immediate solution to the problem was a reduction of the output of our principal export commodities by organized acreage restriction on the part of farmers aided by the Government. The reductions of acreage which were actually made in 1933 and 1934 were such as to increase materially the prices which farmers received and to effect some reduction of surplus stocks.

The drought resulted in further, and unanticipated, reductions in supplies. In the case of wheat it brought stocks down to normal levels in an unexpectedly short time without, however, causing any real shortage of supplies. In the case of corn and hogs, a real shortage developed, but this was due to entirely unprecedented weather conditions.

It is now desirable to concentrate our attention on planning and executing a long-range policy which will operate so as to avoid the necessity for violent adjustments in the future.

F. F. ELLIOTT AND O. V. WELLS ON DOMESTIC CONSUMPTION AND FOREIGN TRADE:

About 285,000,000 to 290,000,000 acres of harvested crop land of average quality would be required to supply our present population of about 126,500,000 people with the same per capita consumption of food as prevailed in 1925-29. The average per capita consumption of the non-food products, of which cotton, wool, tobacco, and flax are especially important, is much more variable than the average consumption of food. The depression in 1930-33 resulted in a decline of 20 per cent in tobacco, and of 40 per cent in flaxseed as compared with consumption in 1925-29. To supply our present population with non-food products at the 1930-33 level would require about 20,000,000, and at the 1925-29 level about 25,000,000, harvested acres of average crop land, assuming that such products as rubber and carpet wool are imported. Estimating 30,000,000 to 40,000,000 acres for exports, we can see a need for products from 335,000,000 to 355,000,000 acres, whereas the actual acreage of land harvested for the period 1928-32 averaged 360,000,000 to 365,000,000 acres. As a result, this country is faced with an excess acreage equivalent to 10,000,000 to 25,000,000 harvested acres of crop land, at average yields, provided the land is left idle. A shift of 20,000,000 to 40,000,000 acres would be required if intensive crops were replaced by hay and pasture and no land left idle. If the adjustment is effected by retiring submarginal crop land, an acreage equally as large or larger would be required.

MORDECAI EZEKIEL ON ADJUSTMENT PROBLEMS OF THE FUTURE:

Now that the greater part of the extensive surpluses has been eliminated, the problem of the AAA is to work out the most effective means of seeing that the production of each major product is in reasonably close adjustment to current ability of consumers here and abroad to buy that product. There are rough waters ahead with respect to livestock and livestock products. Cattle and hog numbers have been greatly reduced, and even a moderate crop of feed-grains and roughages this year is likely to produce low prices for feed-grains and hay. At the same time, prices of meat animals will probably be relatively high. Under these conditions, it will require all the statesmanship and foresight farmers and farm leaders can supply successfully to prevent over-expansion in production as a consequence of this situation.

A land-withdrawal program on an effective basis will gradually reduce the need for restriction of total output as a feature of agricultural adjustment.

JAMES G. MADDOX ON TENANCY AND LAND PLANNING:

According to the 1930 census, 42 per cent of all farmers in the United States were tenants, renting all of the land they operated. Approximately 432,000,000 acres, or 44 per cent, of the total farm land is operated under lease. Since tenancy is closely correlated with commercialized crop-production, and is usually most prevalent in one-crop areas of farming, it is closely associated with erosion and the heavy depletion of soil-fertility.

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Of the several bills introduced into the 74th Congress aimed at alleviating the evils of American farm tenancy, some proposed to make loans possible to tenant farmers for purchase of land on liberal terms and at low interest rates. On June 3, the President signed the Farm Credit Act of 1935, which contained a provision enabling the Land Bank Commissioner to make loans for purchase of land. This Act should be of substantial aid to tenants in obtaining farms of their own. Senator John H. Bankhead, of Alabama, and Representative Marvin Jones, of Texas, cooperated in drafting a measure which would make it possible to promote the ownership of family-sized, owner-operated farms. The measure might have far-reaching influence in (a) insuring reasonable stability of occupancy among farm tenants; (b) eliminating excessive and irresponsible absentee-ownership of farmlands; (c) promoting the progress to ownership of competent and worthy farm tenants; (d) creating conditions of occupancy and land-use favorable to soil-maintenance and improvements; and (e) stimulating a fuller identification of farm laborers and tenants with community life and cooperative activity.

DONALD JACKSON ON TAX-DELINQUENCY AND AGRICULTURAL PLANNING:

Studies made in the States show that the rural area in which taxes were in any way delinquent increased three- or four-fold between 1928 and 1932. Undoubtedly an adequate agricultural plan will encompass a significant amount of public ownership, in an attempt to utilize profitably for society land which individuals have been unable to operate to advantage. But tax-delinquency, even general tax-delinquency, is a wholly inadequate criterion for public-land acquisition. To hold scattered tax-delinquent parcels in public ownership would require a tremendous organization for adequate supervision and operation. On the other hand, to consolidate such holdings into solid blocks of an economical size for public supervision and operation might require the acquisition of far more "good" than "poor" land.

A plan for agriculture must be based largely on other criteria than tax-delinquency, but whenever the appropriate program of utilization and ownership has been determined for areas containing delinquent lands, the delinquency procedure may well be utilized as a *method* of acquiring the necessary control of these lands and modifying their uses.

C. W. WARBURTON ON HOW EXTENSION HELPS IN AGRICULTURAL PLANNING:

The part the Extension Service plays in collective agricultural planning can best be told by the story of its activities during the past three years. When the production-control programs were started to stimulate the absorption of surpluses and to increase farm income, the Extension Service was assigned by Secretary Wallace to explain the program to the public and to assist with the organization work. In thousands of meetings all over the United States, extension workers explained the reasons for adjustment, details of the various programs, and the benefits to be derived. They were aided by thousands of unpaid trained local leaders who, in turn, held meetings among their neighbors to discuss the program. County agents and State extension specialists helped farmers organize their own committees and county production-control associations to administer the program locally. Thousands of county associations elected the county agent secretary. National policies with respect to agriculture have been given a large place in the teaching program of the Extension Service in an effort to enable farmers to adjust agricultural production to existing demand, to develop a public policy for the utilization of land resources, establish equitable systems of taxation and to plan ahead to meet economic problems as they arise.

HOUSING AND LIVING CONDITIONS

EDITOR'S NOTE.—The Federal Government of the United States has entered the housing field. Almost all of the traditional schools of thought have some exponents in the various Federal housing agencies. It would be unfair to compare the short experience of the U. S. Government in housing with the experience of some of the European countries, where, after many more years of neglect than in the United States, experiments are still being made. But we do need to take stock of what the Federal Government is doing that we may know how far its program is consistent within itself and to what degree it is offering improvements in housing and living conditions. With the idea of rendering a service along these lines, in April of 1935, the President of the then American Civic Association called together representatives of fourteen agencies of the Federal Government and eighteen private organizations dealing with housing. Growing out of this and a second conference in June, there has been organized a voluntary coöperation between the Federal agencies, and the private organizations agreed to sponsor a Joint National Conference on Housing, held in Washington, October 16, 17, and 18, 1935, with a program related to the housing program of the Federal Government. Since it is too early to evaluate activities covering so many phases of public and private housing, we present in the ANNUAL a brief outline of the plans and accomplishments of the principal Federal housing agencies.

Government and Housing

By HAROLD L. ICKES, Secretary of the Interior and Public Works
Administrator

An address delivered at the Conference on Planning, Cincinnati, May 24, 1935

THE Housing Division, with the enthusiastic help of that fine citizen of Cincinnati, Col. Henry M. Waite, was set up under PWA. Our object was to build decent housing at a price that would make it possible to rent apartments and houses to those in the lowest income groups for what they might be able to pay. It was our ambition to make this new Government housing self-liquidating in the belief that the taxpayers of the country would more enthusiastically support it if they could be assured that they would get their money back. We wanted to be able to rent at approximately \$5.00 a room if we could possibly do so. But we soon found ourselves in difficulties. Even figuring in the 30 per cent grant which PWA has been allowing on non-Federal public projects and taking into account a low interest rate and a long period of amortization, how could we possibly get rents down to a point within the ability to pay of that class of our fellow citizens whom we sought to benefit? After all, slum-clearance meant, or at any rate was regarded as

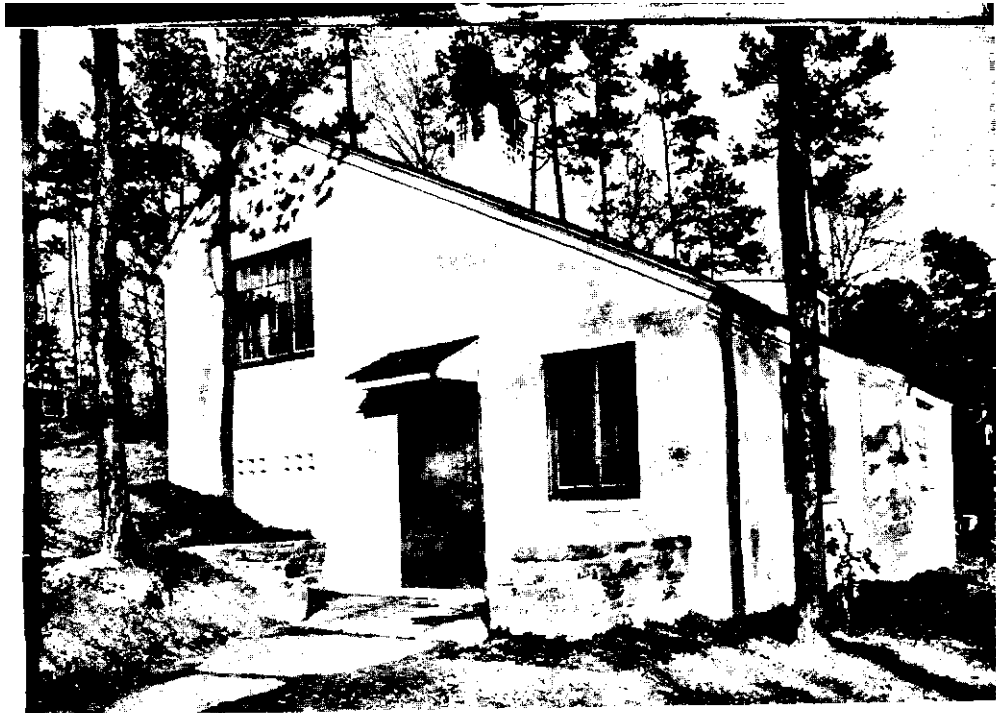
meaning, the demolition of the human kennels that exist in practically all of our cities and the building on the sites thus cleared of our low-rent housing projects.

It did not take us long to discover that, aside from the legal difficulty of acquiring title to the parcels of land comprising the sites on which we wished to build, the prices asked for the land and the pitiful buildings occupying it were sometimes excessively high, added to which the additional high costs for labor and materials created an almost insuperable task. We found out that adequate housing constructed on a profit basis could not compete in the price field with obsolete fire-traps or the shacks of shanty town. But there must be some way out and we sought to discover it.

The word subsidy has always been an objectionable one to me, but dodge the issue as I might, I finally could not avoid the conclusion that if we were to build housing for those who most needed it, Government would have to provide a subsidy. Perhaps the lexicographers, after the good old American fashion, might discover or invent a term which, while meaning subsidy, would have the appearance of being something else, but there is nothing to be gained from trying to fool either ourselves or the people. Speaking for myself, and with no slight intimation even that I am committing the National Administration to a policy on housing, I am prepared for my part to accept the issue, and frankly avow my belief that Government should subsidize low-rent housing to the extent necessary to make it available for those in the lowest income groups.

Wittingly or unwittingly, we have been stupidly subsidizing objectionable slums. Why not, then, execute a right-about-face and subsidize slum-clearance instead? No reasonable human being, knowing the facts, would continue to support a policy of government which, while denying financial aid to slum-clearance, would, year after year, continue to dip into the treasury in order to help maintain slums which are a mark of dishonor to our American civilization.

In 1933 the *Illinois Housing Commission* made a cost analysis of a square mile in *Chicago*, covering an area of moderate blight that was predominantly residential. The Commission used 1930 cost and income figures for specific reasons: first, we were then only entering the depression, and, second, tax collections three



A TVA House of Simple, Straightforward Design,
Well Suited to the Locality

One of the Basic Types of Plans for TVA Houses





A Small, Cinder-block House. One of TVA's Significant Contributions to Low-cost Housing

An Example of a Norris House of Frame Construction



years after the date of levy could be expected to be reasonably complete.

This analysis showed that the city of Chicago paid out approximately \$3,200,000 to provide routine municipal services for this area—that is, for schools, police and fire protection, street maintenance, garbage removal, and the like. On the other hand, the taxes levied in this area could have returned only \$1,191,352.28 but, three years after the due date, had been collected only to the extent of \$586,061.23. To service this area cost the city two and one-half times the potential tax income, while actual tax receipts, after three years, amounted to no more than one-sixth of the sum paid out.

In *Boston*, the City Planning Board made an exhaustive survey along the same lines, but based on the more spectacular figures of 1934. The cost and income statements of six typical districts were compiled under various analyses. These were designated as follows: business district, industrial district, high rental district, suburban residential district, miscellaneous residential district, and low-rental residential district. For the purposes of this discussion I shall confine myself to the facts relating to the last two districts.

The miscellaneous area contained average urban housing without extremes of good or bad. The low rental area was a slum, composed of buildings of a type so familiar that I forebear to reiterate the description of them. To service the miscellaneous area, the city paid out \$469,178 and received in taxes \$816,400. To service the slum area, the city paid out \$310,624 and in return received \$44,800. In other words, while the city made a profit of approximately 70 per cent on the miscellaneous area, its loss on the slum was seven times the income.

The comparison of cost per capita between these two districts is of interest. In the miscellaneous area this cost was \$65.10; in the slum it amounted to \$92.30. A final comparison is found in the net deficits per capita for the whole city and for the slum. The city lost \$3.40 per capita on its services to the whole city. Yet each slum dweller cost the taxpayers \$79.00.

These are not isolated instances. In *Minneapolis*, it was found that the average cost to the city for a fire-run was \$800. At this rate the cost of fire protection for an area we had under consideration for a housing project totaled \$70,000 in 1932, for

runs alone. Compared to this, the total taxes assessed against all properties in the neighborhood in 1932 amounted to \$30,835 and in 1933 to \$28,937. The conclusion is obvious.

The same results were found in *Cleveland*. In one area surveyed, municipal expenditures amounted to \$1,357,000 annually, with tax returns yielding \$225,000, leaving a debit balance of \$1,132,000 for the other taxpayers to foot. Analysis of the figures showed that each family living in that section was subsidized \$333 annually out of tax and private funds.

From a purely esthetic standpoint, the elimination of slums would be an asset to our cities. Yet I am constantly amazed at the apparently exclusive importance this consideration assumes in cities that have filed applications with the Public Works Administration for projects. Applicants from a large percentage of cities have based their pleas for funds almost entirely on the argument that the slums are an "eyesore," ignoring entirely the financial factors involved. Yet it is to be hoped that this valid, although inconclusive argument for slum renovation may be met to the satisfaction of those whose eyes, if not their hearts or pocketbooks, are affected by the continued presence of misery.

Nor is the cost of a slum area to a city confined to the extra expense involved in servicing that area. There are indirect financial, as well as social and moral costs, which in the aggregate far exceed such differences between taxes collected and cost of services as I have recited. The slums offer a fertile field for communicable diseases, and, by the same token, due to a lack of adequate sunshine, fresh air, and open spaces for normal recreation, those living in the slums have such a lowered resistance, as compared with people who dwell in healthier surroundings, that their ability to combat disease is distinctly subnormal. Our slum areas are natural breeding-grounds for vice and crime and every anti-social tendency and activity. People reared in the slums are not able to pull their weight in the boat, thus throwing an undue burden upon their fellows who are required to lay to with extra strength. These intangible costs may vary but their total is large when reckoned as part of the aggregate subsidy for which society is charging itself in order to maintain slum areas that, from the point of view of esthetics and humanitarianism, ought to be abolished even if they were capable of earning a money profit.

Having considered the heavy indirect subsidy that we are blithely paying to maintain these areas, let us now look at the other side of the ledger and frankly consider the question of a direct subsidy, open-mindedly and deliberately paid, in order to make it possible to eradicate the social festers that we know as the slums.

A study by our Housing Division of a slum-clearance project in a large city shows that 3 per cent interest, an amortization period of 44 years for the building and no amortization for the land, plus a 30 per cent grant on construction costs, would apparently make it possible to provide decent quarters at a rent of \$9.91 per room per month with, or \$6.97 per room per month without, services. The same project, without interest, with an amortization period of 50 years for both land and building and without a grant, would rent for \$8.37 per room per month with, and \$5.43 without, services.

The rooms for which these rents would be charged would be of ample size, arranged for that privacy which is now not known in our slum areas, and with a maximum of light and air. The interior walls would be plastered and the apartments equipped with bathrooms, sinks, electric stoves, and refrigerators. The services referred to would comprise hot and cold running water, steam heat and electricity for lighting, cooking and refrigeration.

Compare these figures with those now paid by citizens condemned by an unheeding social order to live in the slums. For the services for which we would charge \$2.94 per room per month, the slum tenant, if he had them, would have to pay in the average northern city approximately \$3.58 or an excess cost of 64 cents. Slum tenants in such cities now pay approximately \$5.00 per room per month for badly planned, poorly lighted and fetid dwellings without any open spaces except streets and area ways. This rent cost, plus the \$3.58 per month they would pay for adequate services, makes a total of \$8.58 a room. Under a plan to amortize the cost of land and construction, without interest, over a period of 50 years, we could furnish decent accommodations and services for \$8.37 a room. But, in addition to dwellings and services, we would furnish, without extra cost, ample natural light, plenty of air and open spaces because according to our plans for slum-clearance projects, the area to be covered by buildings would not exceed 30 per cent of the total

land. Under present slum conditions, the built-over area is often as much as 70 per cent of the total.

There are respectable European precedents for a Government subsidy for housing.

England has had a housing policy for some 70 years. There a public works loan board advances money to municipalities at from 4 to 5 per cent interest, the money to be amortized over a term of 60 years. In addition to this, there is an annual grant on rent from the Government at the discretion of Parliament which is conditioned upon a further rent grant from the municipalities. This total grant varies in amount from year to year, depending on local and national economic conditions. At times it has amounted to as much as one-third of the rent necessary to make a project self-liquidating under the general financial policy.

In *Germany* money is advanced by the Government on a second mortgage at 1 per cent interest. The fund out of which this loan money comes is maintained from a special tax on old and outworn housing. First mortgages at a higher rate of interest are secured from semi-public bodies and private agencies. The actual work is done by municipalities or semi-public organizations. It should be noted that in Germany, as distinguished from England and the United States, the cities own a tremendous amount of land on which housing is built without figuring in land costs. Berlin, for example, possesses a total area, including that owned outside of the city limits, equal to one-third of its total holdings within the city limits. Thus in Germany there is a combination of land subsidy and interest subsidy to help out private capital.

In *France* and *Belgium* special funds have been set up to subsidize interest at varying rates on housing projects. Social insurance funds that have been earmarked for housing purposes have been in existence for more than 45 years. In *Vienna* low-cost housing is built by the city itself. It is paid for out of taxes so that there is no question of amortization or of rents necessary to meet amortization.

While the Federal Government, as part of its recovery program, is not only willing, but glad to carry through its present plans for slum-clearance projects which will soon be rising in all parts of the country, it would be unreasonable to expect us to carry this burden for an indefinite length of time or for an indefinite amount of money to be expended. States and cities and even private organizations of citizens should and must do their part. We are willing to point the way and we might even be willing to continue in this most worth-while social enterprise on a coöperative basis. At the moment we are not only interested in the social benefits of the program; we are concerned about putting men to work. To encourage our continued interest, it

would be well for States and municipalities to show a willingness to fall in line with the Federal Government in order to carry on the program after this depression is a thing of the past. I should like to see a national housing conference called to which the governor of every State and the mayor of every city would be invited, this conference to pay serious attention to this most pressing social and economic problem, with a view to adopting a program that would have as its ultimate aim the clearance of every slum area in every part of the United States.

In the meanwhile, the cities should coöperate with the Federal Government because the present program is primarily for the benefit of the cities where it is proposed to build slum-clearance projects. They should approach this question not only from the point of view of the social good that will result from cleaning out their slum areas, but having in mind the actual financial profit that will follow the discontinuance of the indirect subsidy that they have been paying for slum maintenance.

The cities can help materially in this movement by establishing and maintaining small parks and playgrounds, by providing adequate school facilities and by aiding in the solution of the important and pressing problem of utility facilities so that we may be assured of gas, water, electricity, and sewage services at rates which will make it possible for us to accomplish our objective of providing dwellings for those in the lowest income groups.

A sympathetic and actively coöperative local attitude is absolutely essential if we are to make conspicuous headway. I should like to cite as an outstanding example of such coöperation, the case of *Cincinnati*. I wish that other municipalities could show the same tangible appreciation of our program. I am aware that many cities are hard pressed at the moment and can offer little in the way of substantial financial participation. But there is much that they can and should do at little cost to aid in this work. The vacation of streets, the waiving of fees, the establishment and maintenance of community and recreational facilities, the enforcement of building and zoning ordinances (a corollary activity that is essential to a check of slum-growth) are among the inexpensive yet vital contributions which every city can and must make if this movement is to be successful.

Activities of the Federal Home Loan Bank Board

By ORMOND E. LOOMIS, Assistant to the Chairman, Federal Home Loan
Bank Board

FOUR INSTITUTIONS

THE work of the Federal Home Loan Bank Board involves the administration of four distinct institutions of major importance in the field of urban home finance. These four agencies and their respective functions are:

The Federal Home Loan Bank System, now the largest mortgage credit reserve structure in the world, occupies much the same function in mortgage finance which the Federal Reserve System serves in commercial banking. It was designed in answer to a need which had been apparent for many decades, to expand and stabilize the loanable resources of private home-financing institutions, including building and loan associations, mutual savings banks, and life insurance companies, and was created by Congress on July 22, 1932.

The Home Owners' Loan Corporation is an emergency organization established by Congress on June 13, 1933, for the relief of widespread home-loan distress. The Corporation operates to prevent foreclosures by refinancing distressed home-owners by means of fifteen-year amortized loans bearing interest at the low rate of 5 per cent per annum. The original mortgagee receives the bonds of the Corporation, guaranteed principal and interest by the United States Government, in exchange for the defaulted mortgage. The Corporation is restricted to the relief of distressed home-owners. It has no operating connection with the other three agencies supervised by the Board. It is the only one of the four institutions which makes direct loans to home-owners, and the only agency of the Board which is temporary in character. Its authorized bond-issuing power is \$4,750,000,000, and by law its lending operations will terminate June 13, 1936.

The Federal Savings and Loan System comprises Federally chartered, privately managed, mutual thrift and home-financing institutions of the building and loan type, as provided in Sections 5 and 6 of the Home Owners' Loan Act of June 13, 1933, as amended. It is designed to furnish a sounder type of long-term

savings agency and more economical private home-loan facilities through these local, private institutions. Every Federal association must by law become a member of the Federal Home Loan Bank System and must, by law, become insured under the Federal Savings and Loan Insurance Corporation.

The Federal Savings and Loan Insurance Corporation, a Corporation wholly owned by the United States Government, was created June 27, 1934, for the purpose of insuring up to \$5,000 the safety of every investor's holdings in any insured institution, and was designed to increase private savings available for home loans by supplying strong safeguards to such investors. All Federal savings and loan associations must by law be insured, while insurance is wholly optional for State-chartered institutions of the building and loan type.

PUBLIC IMPORTANCE

The Home Owners' Loan Corporation, by reason of its urgent emergency character and the steps which it has already taken in saving 900,000 home-owners from the loss of their dwellings by foreclosure, is at present the best known of the four agencies operating under the Federal Home Loan Bank Board. However, the public value of the other, more permanent agencies will probably prove considerably greater in the long run.

The HOLC deals with approximately one million home-owners who have been in acute financial difficulty, whereas one or more of the other three agencies may be of direct or indirect benefit to most of the nine million other home-owners throughout the United States who are in no distress whatever, but who would naturally gain by the success of these permanent agencies in achieving the four general objectives of the Federal Home Loan Bank Board, which are as follows:

1. To develop and extend the practice of long-term amortized mortgage loans by banks, insurance companies, building and loan associations, and other private lending agencies, replacing the hazardous short-term type of home loan which has been the principal form of home finance in the United States in the past, and which has been primarily responsible for widespread home-loan distress in every prolonged period of economic depression.

2. Through the establishment of a credit reserve, and by encouraging private saving through home-financing institutions, to make an abundance of long-term private credit available to home-owners, at reasonable rates.

3. To insure the safety of savings held by millions of salaried workers and wage-earners in thrift institutions of the building and loan type, which invest most of their resources in home mortgage loans.

4. To make available to people who buy or build their homes a dependable supervisory service which will assure the selection of sound, economical materials, proper architectural standards and intelligent neighborhood planning, thus assuring greater durability of value in the construction and location of their properties.

A YEAR OF PROGRESS

Without exception, the four agencies administered by the Federal Home Loan Bank Board have made substantial progress during the past year, as measured in terms of growth or increased public service.

Membership in the Federal Home Loan Bank System since July 2, 1934, has increased from 2,579 member building and loan associations, mutual savings banks, and insurance companies to 3,344 members on August 1, 1935. During the same period, the Federal Home Loan Bank Board has successively reduced the authorized interest rates on loans made by the Banks to these member institutions. At the present time, a minimum rate of 3 per cent annually has been authorized for short- and long-term loans as contrasted with minimum rates of 4 and 4½ per cent in August, 1934. The inevitable result of such reduction of lending rates by the banks has been to stimulate lending operations by the member institutions, with their \$3,250,000,000 of resources and, incidentally, to make mortgage loans available to home-owners upon more liberal terms.

On July 1, 1934, the Home Owners' Loan Corporation had granted 341,162 refinancing loans for the relief of home-loan distress in the amount of \$1,027,991,565. As of July 25, 1935, 891,955 loans had been closed, in the amount of \$2,693,547,209. With this accomplishment, the great bulk of home-loan distress has been definitely taken care of, and it appears that the lending activities of the Corporation may be completed within the next six months.

On June 30, 1934, only 370 Federal savings and loan associations, with \$47,610,000 of resources, were in operation. As of August 1, 1935, there were 894 of these associations with resources of \$365,806,568, located in forty-one States and Hawaii, and 330 of these associations represented conversions of old, established, State-chartered building and loan associations. On the latter date, applications for charters were pending from 255 additional groups, including 247 associations originally

under State charter. Assuming that these applications will be approved and charters granted, there will be in operation within the next few months 1,149 Federal savings and loan associations with assets of \$651,029,846, representing the savings of approximately one million investors.

The Federal Savings and Loan Insurance Corporation, established only fourteen months ago, had insured no institutions whatever on August 1, 1934, whereas on August 3, 1935, 899 building and loan associations had been approved for insurance, representing resources in excess of \$450,000,000, thus protecting against loss up to \$5,000 more than 700,000 investors whose savings are held in the approved institutions. Applications for insurance have been received from 1,133 associations with total assets of \$772,379,785, the figures including the 899 associations already insured.

CONCLUSION

It is apparent that the relief of acute home-loan distress by the Home Owners' Loan Corporation has now been largely accomplished. Home real-estate values throughout the United States have been stabilized and, in the main, rentals and home property values have been rising steadily for the past several months, reversing the long downward trend which had begun in 1926, and reached its crisis in the spring of 1933.

Through the large present membership and tremendous reserve resources of the Federal Home Loan Bank System, an ample volume of mortgage credit facilities is available on reasonable terms to home-owners seeking loans for the purchase, building, refinancing, or modernization of their properties.

Through the rapid growth of the Federal savings and loan associations, the confidence of the investing public toward Federally chartered institutions of the building and loan type has been greatly broadened in the past year, as evidenced not only by the far greater number of associations now in operation but, likewise, by the increasing amount of savings attracted to Federal savings and loan associations on the part of old and new investors.

The program of protecting the savings of people of small and moderate means in Federally or State-chartered institutions of the savings and loan type has been carried far toward its

objective in the operations of the Federal Savings and Loan Insurance Corporation during the past year. Recent legislation has reduced the cost of insurance and has substantially stimulated the number of applications for insurance received from eligible institutions. Such insurance of savings is regarded as one of the paramount features of the entire task of making mortgage loans widely available at economical cost to home-owners by assuring a large and stable source of capital through investments made in thousands of local thrift and home-financing institutions.

Steps by which an architectural supervisory service can be supplied to home-owners through their local home-financing institutions have only recently been put under way. Within the next few months, a comprehensive plan, embodying specifications, construction cost schedules, architectural recommendations, and detailed suggestions for the guidance of home-owners will be completed and put at the disposal of the public through all member institutions of the Federal Home Loan Bank System.

Housing by the TVA

By EARLE S. DRAPER, Director of Land Planning and Housing, TVA

IN CONSIDERING the problem of housing the thousands of workers employed in the building of new dams, the Tennessee Valley Authority faced these alternatives. One solution—and the easiest—was to throw together long ranges of barracks with a cook-shack and commissary stuck in somewhere, and call it a construction camp.

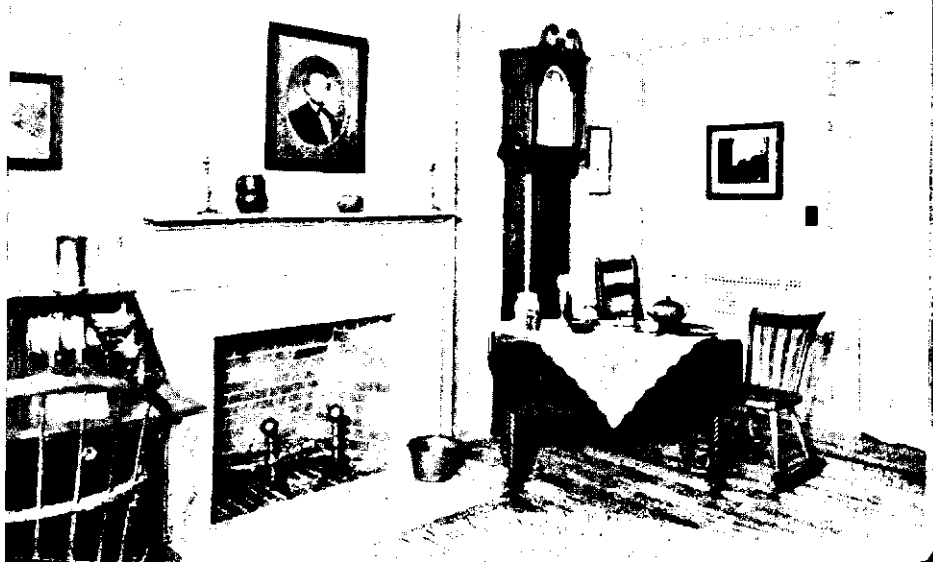
Without foresight, TVA communities would be just that and nothing more. But even flimsy, haphazard construction camps to care for thousands of men cost money, and a lot of it. And if even rudimentary precaution is taken to prevent discomfort, dissatisfaction, and disease among the workers, then it is necessary to provide for at least the essential welfare and hygiene of the camp.

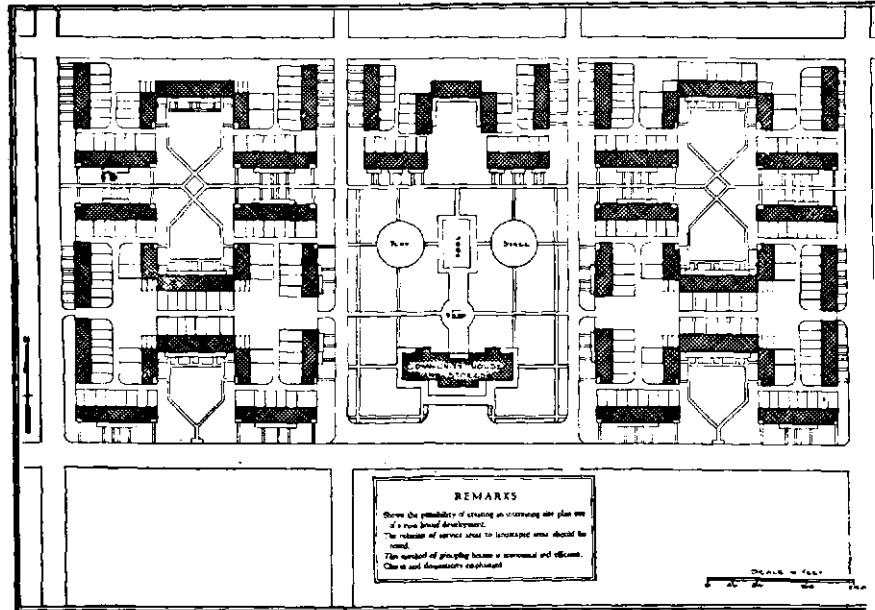
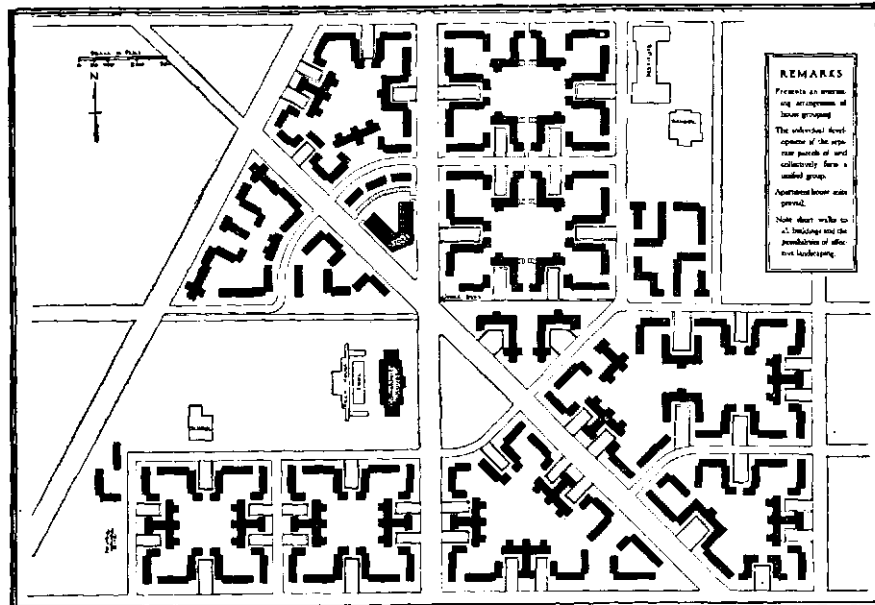
To accomplish this result requires something better than tar-paper shacks and open drains. But if adequate water-supply and sewerage systems be installed, good temporary living quarters built, and some provision made for the spare-time



An Electrically Equipped Kitchen in a TVA House

The Mingling of the Old with the New is Exemplified in This TVA Living-room, with Its Wood-burning Open Fireplace and the Built-in Electric Heater of the Latest Type.





Courtesy American City

Site Plans for Low-rent Housing Projects by the PWA Housing Division

activities of the workers, then the investment becomes quite formidable; and when the major construction job is completed, the camp becomes just so much junk with slight, if any, salvage value.

On the other hand, the expenditure of a moderate additional amount of money will serve to put the buildings and improvements on a permanent basis so that the original cost is not sacrificed within a few years, but may even be enhanced in the future.

So it was decided by the Authority that, within reasonable limits, the new communities should be conceived as permanent modern places for comfortable living, rather than mere shack-towns—here today and gone tomorrow.

Since the late fall of 1933, when work on Norris was first begun, the TVA has completed three entirely new communities, providing housing for several thousand single workers, and homes for more than five hundred families of TVA employees. And this doesn't mean merely the throwing together of rows of gaunt barracks and even more meager shacks, but pleasant, homelike communities which give full consideration to the amenities of decent, comfortable living.

There is nothing fancy—or fanciful—about a TVA community. They are designed simply as small rural communities that for the time being are to serve the purpose of construction camps.

More than forty different basic types of house plans have been developed, ranging from completely electrified, fully insulated, steel casemented two-story houses of six or seven rooms, to compact three-room cottages of very simple but durable construction. It, of course, stands to reason that in any community, however simple, there must be distinctions in the size and the accommodations offered by its dwellings. This is partly a matter of personal choice or family requirements, partly a reflection of differences of income and proportionate ability to pay rent. There are no great differences in the earnings of the various TVA employees, but such as they are must be considered when it comes to budgeting household expenses.

In no case, however, is there any essential difference in the hygienic standards or the adequacy of TVA houses, whether large or small. In fact, the plans for some of the very small

houses received more intensive study by the designers than did the larger ones. So, invariably, the rooms receive abundant light and air from two—sometimes three—sides; every house has a well-equipped bathroom and a conveniently arranged kitchen, and all have ample yard-space—in no case have the standards of any house been lowered so that it might constitute an outpost of a potential slum.

The new TVA communities at Wheeler and Pickwick Landing dams are, in general, similar to the town of Norris which was described in last year's ANNUAL. Norris was the first housing operation undertaken by the TVA, and up to the present time is the largest one. Norris has therefore become more familiar to people throughout the country than have the two later and smaller communities.

Like Norris, the communities at Wheeler and Pickwick Landing approach the definition of a garden city as a place designed for healthy living and industry; affording a full measure of community life; surrounded by a rural belt, and so on. These TVA communities do not pretend to be garden cities, but they do fulfil the requirements of the definition.

In each case the communities have been designed to meet the functional requirements of community life. Complete water and sewer systems, and electric and telephone services have been installed, serviceable roads and pathways built, and educational and recreational activities fostered. Housing in these communities is not only represented by the homes and the buildings for single workers, but includes many factors both tangible and intangible. Recreational buildings, and outdoor areas, schools and hospitals, pure water and good roads, libraries and training projects—all these and many other factors the Authority considers important, in fact vital, to the functioning of a well-rounded life in the American community of today and tomorrow.

One of the inheritances of the TVA at Muscle Shoals consisted of more than 200 houses built by the Government during the World War period. In the meantime all but a few of these houses had been unoccupied, and the weather and termites had had their will with them. Therefore it was necessary for the Authority to undertake their extensive repair to make them habitable for its workers employed in that area.

A number of existing farmhouses on TVA property have also been repaired and modernized, and put in use as homes for employees. These farmhouses, of course, also serve as demonstration projects offering inspiration and suggestions to the farm-owners throughout the neighborhood.

The communities which the TVA is building in connection with its construction of new dams have fourfold implications: (1) their immediate primary purpose is to provide housing for workers employed on the current large-scale construction projects such as TVA dams; (2) they serve as practical, working demonstrations of planning for improved ways of living—both from the standpoint of the individual in search of ideas to be embodied in his own home, and the people or groups interested in the community aspects of large-scale housing, whether from a social or economic viewpoint; (3) they offer opportunity for research work and the testing of means and methods related to low-cost housing; (4) they form the nuclei for permanent communities of the future, with justification for believing that they may become important centers of well-rounded—and well-grounded—agricultural and industrial activities.

The Service of the Federal Housing Administration

By PAUL FITZPATRICK, Director of Division of Information, FHA

THE operation of the Federal Housing Administration under the National Housing Act during the past year cannot be accurately reviewed without citing the part it has played in working out reforms in the mortgage business. By the development of a unique system of real property appraisal, it has outmoded the old system of guessing with its high percentage of errors. In rejecting the old method, whereby the values were established as a result of income or replacement cost, the Housing Administration brought into being factors that never before have been considered in judging the worth of land or structures. These include relation of neighborhood to property, trend of city growth, type of structure, suitability to climate, sufficiency of public utilities, level of taxes and special assessments, ade-

quacy of transportation and protection against adverse influences.

The study of the "anatomy" of cities for the purpose of obtaining this information has been one of the major activities of the Division of Economics and Statistics. This Division has conducted an extensive survey in a large group of cities to determine conditions of this nature. Breakdown maps show the percentage of owner-occupied residences, rented residences, average rental per block, condition of homes, need of major and minor repairs, and those unfit for occupancy.

In making mortgages, insurable by the Federal Housing Administration, the lending agency is provided with a great deal of information about the property and the borrower. The degree of risk involved in the mortgage should determine the value of the investment over a period of years.

It is evident that the National Housing Act has made great progress in developing the long-term, fully amortized insured mortgage and thus has placed within easy reach of the average wage-earner a chance to own his own home.

Apart from this the reformation of the mortgage business under the operation of the National Housing Act is eliminating what has been one of the greatest ills in home financing—the second mortgage, which has amounted almost to a racket. Its passing will be regarded as one of the healthiest developments in the real estate business.

Until the Housing Act was passed short-term mortgages were the rule rather than the exception and invariably resulted in the building up of an unwieldy real estate debt structure. Now, however, with the Federal Housing Administration mortgage plan only five or six months old, private companies are advertising mortgages that run as long as twenty-five years.

It is possible for an individual now to make direct investment in mortgages insured under the National Housing Act through utilization of an appropriate trust instrument, and forms of trust instruments are available at all Housing Administration's offices, tentatively setting forth an approved procedure. One form is designed to cover a situation where individuals desire to invest in an individual mortgage and contains provisions for servicing the mortgage satisfactory to the Federal Housing Administration. This document, it was explained, can be used in

such a manner that it is, in effect, no more than a servicing contract. Another form covers situations where individuals desire to turn over to a lending institution holding a Federal Housing Administration insurance contract a larger amount of money to be held in living trust with power to invest in one or more insured mortgages. This instrument also contains provisions for servicing that are satisfactory to the Federal Housing Administration.

Although reforms in the banking business come infrequently and develop slowly, thousands of financial institutions are awake to the sound banking principle embodied in the National Housing Act and are making character loans—a form of lending of which banks never before had wholly approved. Prior to the enactment of the Housing Act, less than 150 financial institutions in the United States made such loans. Now there are thousands. Moreover, character loans remain among the soundest investments. Statistics prove that even in the most depressing times less than 3 per cent of such loans result in losses.

How well the Housing Administration has succeeded in educating the public to reap available advantages under the Housing Act is seen in a recent report.

At the close of business on July 31 insured notes for modernization and repair and mortgages selected for appraisal with fees paid totaled \$235,590,353, all private capital advanced by private financial institutions. Broken down into groups, the results since the beginning of operations show modernization and repair notes insured to be \$113,071,642, while home mortgages selected for appraisal with fees paid totaled \$122,518,711. July produced the greatest single-day totals in both groups as well as the greatest month totals. July 31 was the highest day with \$3,387,065 of which \$2,144,710 was for modernization and repair notes and \$1,242,355 in mortgages selected with fees paid.

July was further distinguished in the record by producing the greatest volume of this business of any month since the Housing Act was passed. Modernization and repair notes insured total \$21,084,565, while mortgages selected for appraisal with fees paid amounted to \$32,712,769—all private capital.

Substantial increase in the modernization and repair business may be logically expected as a result of the passage of the amend-

ment to the Housing Act extending the amount insurable for this purpose to \$50,000 maximum.

Amendments to the National Housing Act passed by Congress and signed by the President during this session are:

An amendment authorizing the Administrator to make a premium charge in the event of the prepayment of a mortgage before its maturity.

An amendment permitting mortgagees to receive as a part of their debentures, interest from the date institution of foreclosure proceedings was commenced. The absence of this provision from the original Act made it practically impossible for the Administration to get any of the big lending institutions into the program because of the long periods of foreclosures and laws in many of the States.

The Act was amended reducing the capital stock of National Mortgage Associations from \$5,000,000 to \$2,000,000 and to permit National Mortgage Associations to increase the amount of debentures they could issue from ten times their capital to twelve times their capital.

Increase of limitation from \$2,000 to \$50,000 on Title I and liberalizing the provisions as to equipment and machinery.

It is significant that notes for amounts in excess of \$2,000 are not included in the totals through July, merely because industrial modernization possible under the \$50,000 extension has had insufficient time to gain any great headway.

Facts that substantiate the belief that residential construction throughout the entire country is increasing include the check which shows 41 per cent of the value of all mortgages taken by private lending institutions and accepted for insurance by the Housing Administration is for new home construction. They also include the figures released by the Bureau of Labor Statistics on July 18 showing an increase in residential building for June, 1935, of 288 per cent over June, 1934.

This is unquestionably due to the growing belief that the Federal Government is in a position to provide a service to prospective home-owners obtainable from no other agency or institution. If the potential builder of a home is induced to finance through an insured mortgage, he is even more enthusiastic over the fact that the Government literally will use every facility at its command to see that his home is sound, and that

it is well built. The lending agency, too, will know that the property itself probably will stand the test of time as an investment, having passed under the microscope of the Federal Housing Administration's Underwriting Division before the mortgage was insured.

Under the Modernization Credit Plan there are more than 13,000 financial institutions with contracts of insurance. Under the Mutual Mortgage Insurance Plan there are 6,500 institutions approved as mortgagees of which more than 5,200 have been and are making loans.

The operations of the Housing Administration are those of an insuring agency. It cannot, therefore, and does not, lend or grant any money. All capital is supplied by private lending institutions. It thus provides the Government's offer to private enterprise and private capital to become again an active and vital factor in the providing of housing in this country.

Since the beginning of operations, 8,483 communities have appointed better housing program chairmen; 7,176 programs have been organized and are under way, while 4,542 house-to-house canvasses have been made.

Up to the present time 62 insuring offices have been established and are functioning in as many key cities throughout the country. Additional insuring offices have been established in the insular possessions and Alaska. These offices are manned by a trained personnel.

Housing Achievements of the PWA

By A. R. CLAS, Director of Housing, PWA, Washington, D. C.

EARLY in the summer of 1934, the work of the Housing Division of the Public Works Administration was re-oriented to accomplish more expeditiously the aims for which it had been created: the provision of employment and the raising of American housing standards. With this shift in emphasis, the American program of low-rent housing was given a new impetus.

There had been over 500 limited dividend housing projects submitted to the Housing Division when its original policy of aiding limited dividend corporations was announced. Of these,

seven merited and were given approval. By the end of November, 1935, all of these projects will be completed and occupied, in Alta Vista, Va., Euclid, Ohio, Philadelphia, St. Louis, Raleigh, N. C., and in the boroughs of Bronx and Queens in New York.

Shortly after the policy of aiding limited dividend housing corporations was abandoned, the functions of the Public Works Emergency Housing Corporation, originally created to undertake direct construction of low-rent housing, were assumed by the Housing Division. Steps were taken to dissolve the Public Works Emergency Housing Corporation.

Under the Housing Division, Public Works Administration, there are now seven projects in various stages of construction. Techwood, in Atlanta, will provide living quarters for 604 families, while the other Atlanta project, University, will furnish 675 living units. In Cleveland, the Cedar Central project is designed to furnish comfortable, sanitary dwelling for 654 families, in an area formerly covered by slum shacks. The second Cleveland project, Outhwaite, also well under way, will furnish decent homes to 635 families at low rentals in a former slum area.

In Montgomery, Ala., the Thurman Street and Bell Street projects will furnish 258 new living units for white and colored families at rents comparable to those formerly paid for substandard housing. The Community Housing project in Indianapolis, now under construction, will supply 1,044 new living units, in a former slum area, to colored workers.

The demonstration program of the Public Works Administration, Housing Division, contemplates construction of more than eighty low-rent housing projects in more than sixty cities. These it will construct, operate, and manage until such a time as definite procedures may be established for the assumption of these functions by competent local public agencies.

In establishing standards for its demonstration program of low-rent housing, the Housing Division, Public Works Administration, has not attempted to impose upon local communities types of construction either climatically or geographically unsuitable. Basic plans were evolved to solve the fundamental problem of joining interlocking units, adaptable to any site plan, the exteriors of which could conform to local usage. The scope of these standards extended to sanitation—each living unit to be provided with hot and cold running water and a

private toilet; to comfort—each living unit to have cross-ventilation and adequate sunlight; to convenience—each unit to be free from long halls, its rooms to be so centered and placed that bedrooms might be entered without crossing other occupied rooms, that kitchens might be easily accessible; and to economy.

Economy dictated the elimination of long hallways, that the total of rentable space might be increased. But in considering site plans, the traditional economy that jammed the maximum number of multi-family units on the minimum area was discarded. Rather than create new slum areas by such crowding, the standards adopted by the Housing Division called for a building coverage of no more than 30 per cent of the site. The remainder of each site is developed as recreational area, planted in grass and trees, with wading-pools for children, play areas, and similar facilities.

As initiated, the policy of the Housing Division was to create such areas in city interiors; to acquire slum land, demolish the ramshackle, tax-draining buildings on it, and replace them with modern quarters available to the former residents at no more than they had formerly paid in rents. To acquire this land, often held by many owners, it was necessary to resort to condemnation. This procedure, utilized to expedite the acquisition of land at fair prices, was blocked by an adverse decision on the Louisville case by the United States Circuit Court of Appeals, at Cincinnati, on July 12.

Commenting on this decision, Administrator Harold L. Ickes said: "We are fully prepared to continue our low-rent housing program within the limits set by the decision. We have laid the groundwork for proceeding without condemnation, and in a good many cities we have already selected alternate vacant land sites, where ownership usually is confined to one or to a few persons. We are not going to stop this work merely because of restriction of condemnation power. We will have to modify the form somewhat, but we shall proceed with the program."

Certain States have already assigned the power of eminent domain to public bodies created by their cities for the express purposes of clearing slums and building low-rent housing. Thus, New York City, with a duly constituted housing authority, aided in acquiring land for the Williamsburg project under these powers; title to the area was then proffered the Federal

Government. States granting municipalities similar powers include: Alabama, California, Colorado, Delaware, Illinois, Kentucky, Maryland, Massachusetts, Michigan, Montana, Nebraska, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee (restricted to the City of Memphis), and West Virginia.

Where this method of land-acquisition cannot be used, direct purchase by the agents of the Housing Division is resorted to; for this reason preference was given to large areas held among single or few owners. In some cases, where housing projects are to be built on vacant outlying areas, cities have pledged demolition of deteriorated living units equal to the number of units to be available in the new project.

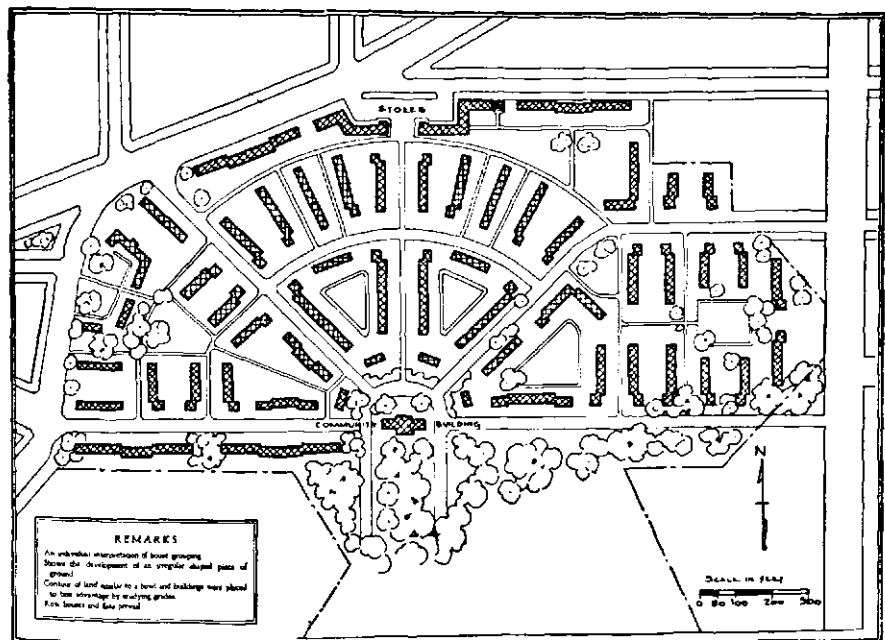
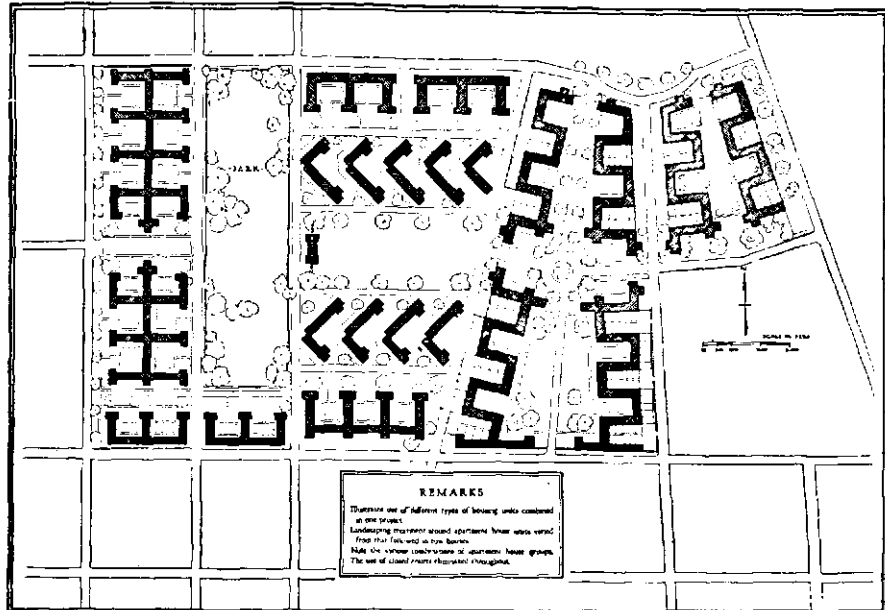
With the announcement of new and more favorable terms for low-rent housing projects by the Administrator on July 8, the American program of low-rent housing was further strengthened. The grant established under the original Public Works order was 30 per cent of the cost of labor and materials; under the new terms, this was increased to 45 per cent of the total cost of the project. Interest charges have been reduced to 3 per cent, and amortization lengthened to sixty years. There is no amortization of the land-cost; 55 per cent of this cost bears a 3 per cent interest charge.

Under these terms, the demonstration program of low-rent housing originally undertaken by the Housing Division of the Public Works Administration will be largely completed by 1937. With its inauguration, a new social concept was introduced in the United States; with its completion, a new standard for American housing will have been established.

The Rural Housing Survey

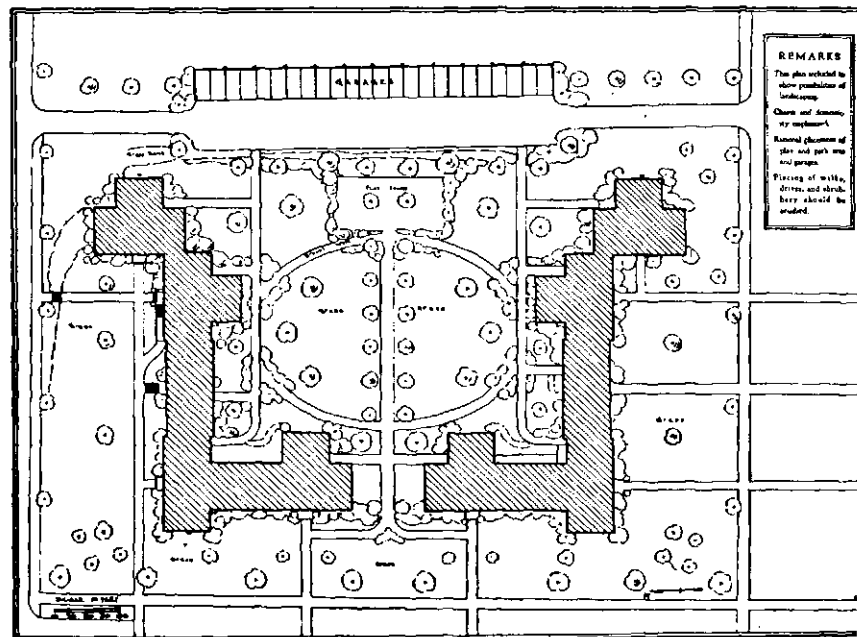
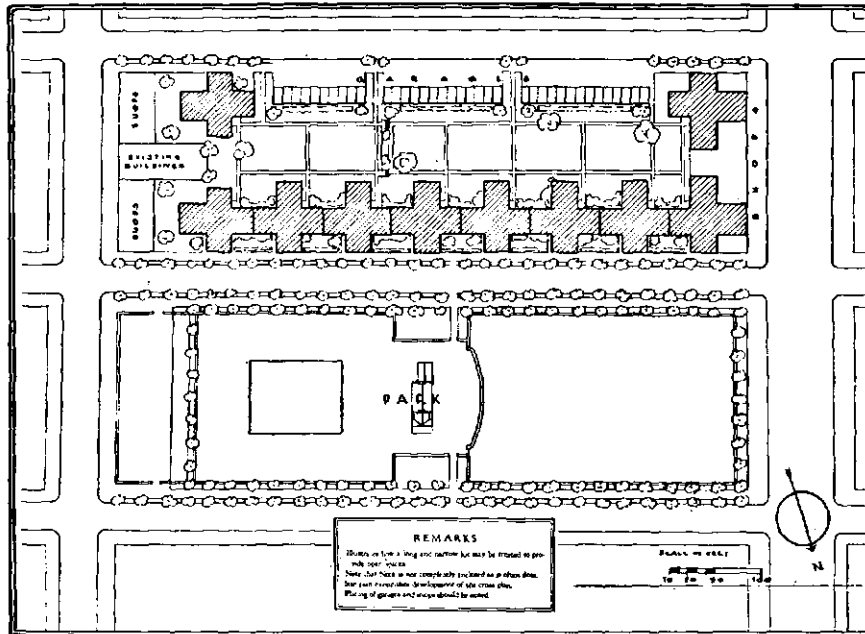
By LOUISE STANLEY, Chief of the Bureau of Home Economics,
U. S. Dept. of Agriculture

ECONOMIC conditions on the farms of this country have brought about a housing situation little realized except by those who are closest to it. In better times the tendency was too often to put earnings back into the farm, thereby increasing production, rather than the comforts and satisfactions of farm life. Then the returns from expanded production fell off, and



Courtesy American City

Plans Vary According to the Size and Shape of the Plots



Courtesy American City

Two Plans Showing Building Groups Adjoining Large Open Areas

even the repairs necessary to keep the farmhouse warm and weathertight often became impossible. Few families could afford such improvements as repainting, water in the house, or electricity, to make the home more convenient and livable.

Such a picture of rural housing conditions is obtained from the farm housing survey made by agencies of the U. S. Department of Agriculture as a Civil Works project during 1934. This study was proposed in order to get information as to the physical condition of farm homes which could be used in planning for rural housing as a part of the recovery program. It was believed also that definite knowledge of the actual conditions would focus attention on this problem in such a way as to make possible more intelligent planning for improvement.

The first plan was to make a survey of all rural homes. The estimates of the labor required showed this to be impossible, so as a compromise it was proposed that a 10 per cent sample be taken. The collection of the data in the States was handled through the extension service and a State committee was appointed with representatives of farm management, home economics, extension work, and other interests at the State college to determine the counties which should be studied in order to get a comprehensive picture for the State. In case a whole county was not studied, the area selected was a definite political subdivision, making possible a comparison with census data. More than 600,000 main schedules and 25,000 supplementary engineering schedules were completed.

A group of workers from the States was called to Washington to work with those responsible for the survey in deciding upon the items to be checked and the form of the survey blanks. The final schedule contained 300 items and was set up in such simple form that it could be used in the field by untrained workers with a minimum of direction. This was a new venture but was remarkably successful. In order to use as much human labor as possible, plans were made for tabulating the data in the field, employing clerks available there. Special tabulation sheets were provided by the Washington office and sent out with detailed directions for editing and compiling the data from the original schedules. County and State summaries were prepared in the States and sent to Washington for checking and final tabulation.

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A sufficient number of the original schedules was sent in from each State to make possible sample checks of the accuracy of the tabulations. The errors were in most cases one per cent or less. Those having as much as 3 per cent error were discarded and not used in the final tabulation.

The schedules and copies of the county and State summaries have been left in the State for use in planning local programs. Two States, Arkansas and Iowa, have analyzed the data and published State bulletins embodying results and recommendations, and other States are now planning such reports.

Ninety of the most significant and clear-cut items have been summarized on a percentage basis for 43 States. The average figure given for the State is a straight numerical average of the results from the counties studied; it is unweighted and not in all cases representative of the State as a whole. It is hoped that a further analysis of the figures can be made in the near future. In the meantime the State reports on the county basis have been of value in planning extension programs on home improvement and have been useful to State and regional planning groups as well as to commercial agencies.

What the Survey Shows. Briefly, the survey indicates that probably 50 per cent of our rural homes are in good structural condition. Fifteen per cent need replacement of foundations; between 15 and 20 per cent replacement of roofs; 10 to 15 per cent replacement of floors; and about 10 per cent need extensive repairs or replacements of exterior walls.

Between the extremes of houses in good condition and those needing complete replacement of some part or all of the house is a large group needing extensive repairs of some kind, including much interior refinishing. Renewal of paint seems to be most generally needed. Estimated upon the basis of the survey made by the engineers, the cost of the repair work would amount to about \$3,500,000,000. This averages \$575 per house; and on this basis does not seem unreasonable.

The majority of rural houses are of frame construction. In the South and the West one-story houses predominate. In New England most of the houses have more than one story and to a less degree the same is true in the north central and middle western States. In general, there are more rooms per person in rural homes than in urban areas, though wide variation in this

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is found both in different sections of the country and in communities within States.

There is a wide variation among the States in the availability of electricity. The southern States are lowest and the New England and west coast States highest. In general, it is found that where electricity is available the other conveniences follow.

The following table summarizes the facts disclosed by the Survey:

Total number of houses studied	622,413
Under 10 years old	15.6%
Over 50 years old	18.6%
Preponderant type, frame	93.0%
One story	57.0%
Average number of rooms	5.8%
Average number occupants per room8%
Water-supply in house:	
Hand-pump	13.2%
Running water	17.0%
Bath-tub	11.5%
Kitchen sink with drain	27.2%
Electricity:	
Home plant	3.9%
Power line	14.1%
Central heat:	
Pipeless	2.5%
Piped	5.6%
Refrigeration:	
Ice	25.0%
Mechanical	2.5%
Stoves (other than wood or coal)	23.7%
Power washing machine	20.6%

Planning the Farm Home. Planning the farm home is, in most cases, an individual problem. It was realized from the beginning that any effort to reach individual farms must be made through the Extension Service and must be backed up by a basic research and educational program. A part of the project was planned with the idea of setting up standards for farm homes. To accomplish this, unemployed architects, agricultural engineers, and home economists were made available to some 17 State colleges that wished to cooperate in the study. These architects worked with the college specialists in drawing up plans for farmhouses adapted to their agricultural area, and to meet the farm needs both inside and out. Special attention was paid to planning the kitchens and the work areas.

In order to check more in detail the needs of rural houses, particularly those small details which make for convenience of living, Maud Wilson of the Oregon State Experiment Station was loaned to the Survey to direct a study similar to one she had made of the needs of the farmhouses in the Willamette Valley. The Nation-wide study is not yet completed. On the basis of information obtained from questionnaires sent to home demonstration agents and leading farm women, checked by farm-management experts, the country has been charted in 12 areas within which home needs are similar. These areas were determined on the basis of climatic and topographic differences, combined with the demands made on the house by the prevailing agricultural crop. The data will be studied by areas.

With many other important points in rural housing, the questionnaires furnish detailed information as to household storage requirements. Upon this basis Miss Wilson drew up designs for storage space adapted to different needs and these designs have been published by the Bureau of Home Economics in a mimeographed bulletin entitled "Closets and other storage arrangements for the farm home." With storage space well planned, the arrangement of the kitchen and other work areas will be simplified. In so far as possible, the ideas obtained from the questionnaires have been incorporated also in "Farmhouse plans," published by the U. S. Department of Agriculture as Farmers' Bulletin No. 1738.

Buildings and Utilities for Better Farm Living

By S. H. McCrory, Chief, Bureau of Agricultural Engineering,
Dept. of Agriculture

JUST what portion of the farm asset the buildings and utilities comprise is not easily estimated. The valuation of a farmhouse as an asset may be viewed in terms of sales value, but more properly it represents a measure of achievement to enjoyable living conditions. The value of other farm buildings depends upon their utility and efficiency. The buildings should provide the required production conditions at reasonable cost.

Many farmers now need to make alterations in their service

buildings to meet changes in their businesses. Making the efficiency of the buildings suitable to the present farm business will pay dividends either in savings effected or in production improvement.

According to reports, rural building is definitely on the increase this year in areas not affected adversely by the drought of 1934. Construction work is in evidence on many more farms than usual, and dealers are reported as optimistic over new business, much of which is supported by farmers with cash in hand.

Based on the recent rural housing survey, made by the engineers of the State Agricultural Colleges cooperating with the U. S. Bureaus of Home Economics and Agricultural Engineering, the estimated amount which farmers of the country would be willing to borrow for housing is \$576,000,000. Housing in this instance means new homes, repairs and remodeling, and all modern improvements. This amount is approximately 8 per cent of the \$7,083,536,000 valuation of farmhouses in the United States made by the Bureau of the Census as of 1930. Valuation of all farm buildings, including dwellings, is listed at \$12,949,993,000 by the Census Bureau. Usually 4 per cent of the valuation is considered a normal rate for replacement and for new buildings on the farm.

No doubt a considerable portion of the estimated outlay for buildings and repairs or an additional sum would be spent by farmers on electrical service. Such service would enhance the value of farm buildings and farm production. It certainly would make life on the farm more attractive.

Farm families generally want electric energy. However, something more is needed than to show that electricity will perform an operation at reasonable cost. The farmer must be shown how that operation can be fitted into his management plan advantageously.

Prior to the World War, few farmers in the United States had electric service from central station. However, a genuine interest in the use of electricity was evidenced by their purchases of farm lighting plants. In 1917 there were more than 160 manufacturers of such plants in the country and the number was increasing. With the war, the manufacture practically stopped. Since the war, there has been a greater demand for

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central station service and the opportunities for the use of larger power units which it affords. The use of high-line service has increased gradually where farmers could use a sufficient load to warrant the expense of installation and distribution.

For the ten-year period, 1923-1933, the percentage of the 6,288,648 farms in the United States receiving central station service increased from 2.8 to 11.3 per cent. There are still more than seven times as many farms without service as with it.

In farm electrification, lower rates are usually dependent upon greater use as is demonstrated in consumption figures on the Pacific Coast, where the power load that farmers use consists mostly of pumping for irrigation and drainage, with some load also in heat and power for fruit and nut dehydration and dairy and poultry appliances.

In 1930, in California and Arizona, the average annual power consumption per farm was 14,792 kwh. at a cost of about 1.45 cents a kwh. In the west south central, mountain and Pacific States, the average annual consumption was 7,080 kwh., costing approximately 1.75 cents a kwh. and the average for the remainder of the United States was only 746 kwh. per year per farm, and the cost about 8.17 cents a kwh. These figures give a good idea of the relation of large use to low unit costs.

On the Pacific Coast, service has been extended to farms largely because of the farm use for power, mainly for pumping for irrigation, and independent of other industries. This irrigation load is a most effective stimulant to rural service. It is an income-producing use for the farmer, insures a load worth building a line to serve and permits lower rates which are attractive to the user.

In the East, the farmers in the north Atlantic States are heavy users of electricity. The eastern development is influenced by the availability of high line services, and the many profitable uses which farmers in this region have found for electricity.

Many of the farming areas throughout the South which might be served electrically are engaged in intensive cultivation such as truck and berry growing, poultry raising and dairying. The trend of the agriculture in such regions will probably depend considerably upon the industrial development. New industries with increasing population always improve local markets and stimulate a shift to more intensive types of farming

in which electricity may be used for income purposes. This increases its availability at low cost for home uses.

Outside of the irrigation regions of the West, household electric devices are and will continue to be important in creating a desire for electric service in rural areas. By far the vast majority of farms having service use it for lighting, radios, domestic appliances, and possibly automatic water systems.

The obvious problems of applying electrical energy to agriculture such as pumping water, grinding feed, filling silos, hoisting hay, and sawing wood have been solved. Most of the difficult ones are still ahead. Much research is being carried on to find more uses for electricity on the farm and for better design of equipment, but more is needed. Many farmers who do not have electricity now would have it if the costs were lower or if they knew how to use the energy to increase the returns from their farming operations.

Refrigeration on farms, which includes the cooling of perishable products such as milk, fruit, truck produce, and eggs, is still in the early stage of development. A future picture of refrigeration in rural sections might show practically all the supply of whole milk for urban consumption cooled by use of electricity, storage plants for fruits and vegetables, refrigeration for eggs and other poultry products. Such developments will in some cases greatly improve the quality of the products.

In humid regions, there is a growing tendency for irrigation with water pumped from lakes, streams, and wells by electrical energy for small truck and fruit farms. This type of irrigation may extend to pastures and to large truck and fruit areas.

The uses for electrical energy seem to be without end. The problem is to fit them into farm business so that profitable uses for the farmer may be developed.

Electricity in heating water, in incubation, in brooding, in soil heating, and in soil sterilization is giving satisfaction. The greatest opportunities for the utilization of electric energy in agriculture, those of field and tractive operations and insect and disease control, are just beginning to be explored. Although electricity has found many unique uses in medicine and surgery and in industry, its application to the complex problems of plant and animal growth and bacterial life has scarcely appeared in the programs of agricultural research.

The D. C. Alley Dwelling Authority

By JOHN IHLDER, Executive Officer, Alley Dwelling Authority,
Washington, D. C.

THE Alley Dwelling Authority was created in October, 1934 by an Executive Order of President Roosevelt in accordance with the Alley Dwelling Act which he had approved the preceding June. The Authority was organized in accordance with the recommendations of an advisory committee appointed by the President soon after he signed the Act.* The first money for the work of the Authority, an allocation by the PWA, was made available in November. A program was promptly drafted and approved. This is divided between short-time and long-time items; the short-time items deal with squares whose redevelopment involves no city planning or other community problems outside their own borders; the long-time items do or should affect areas outside their own borders.†

The Alley Dwelling Act was first drafted in 1929-30. It frankly recognizes that one cannot serve two masters—or give equal allegiance to two causes—even when those causes have a common purpose. It, therefore, is definitely and clearly a slum reclamation measure. Provision of low-cost or low-rental housing is incidental to its main purpose of ridding the city of rot spots.

With this one purpose in view, the Alley Dwelling Authority is authorized to acquire by gift, purchase, or condemnation such property as is required for the effective redevelopment of squares that contain inhabited alleys. There are approximately 200 such squares in the District of Columbia. It may then replat

*The members of the committee were: Canon Anson Phelps Stokes, Chairman, representing the Washington Committee on Housing; Honorable Melvin C. Hazen, Vice-Chairman, representing the Commissioners of the District of Columbia; Mr. Thomas S. Settle, Secretary, representing the National Capital Park and Planning Commission; Mr. Horace W. Peaslee, representing the Public Works Administration; and Mr. John Ihlder, representing the Washington Committee on Housing. Alternates were: Mr. John Nolen, Jr., National Capital Park and Planning Commission; Mr. Clarence Phelps Dodge, Washington Committee on Housing; and Captain Howard F. Clark, Commissioners of the District of Columbia.

†The members of the Authority are: the president of the Board of Commissioners, District of Columbia, the Executive Officer of the National Capital Park and Planning Commission, and the Director of Housing, PWA. These three appointed John Ihlder to be executive officer of the Authority.

‡The inhabited alleys of Washington are a kind of slum peculiar to the National Capital. The exceptionally large blocks or squares formed by the L'Enfant street plan created a problem in the utilization of the block or square interiors. The first attempt to solve this problem was by building little communities inside the squares, completely hidden from the streets by the row houses that border the streets. Some of these "hidden communities" have as many as fifty or sixty houses and two or three neighborhood stores. The second attempt to solve the problem was by forbidding the use of alley dwellings as dwellings. This proved ineffective. The third attempt is that of the Alley Dwelling Authority.



Courtesy Alley Dwelling Authority

Alley Conditions in Washington, D. C., Soon to be Remedied



Courtesy American Forests

**Coon Valley, in West-Central Wisconsin, Where an Erosion Project is Attempting
to Combat Flood Problems of the Mississippi at Their Source**

Photograph by Soil Conservation Service

a square to fit it for a new use that will benefit the neighborhood or the city, and it may sell or lease, or itself continue to manage the property. The new use may be recreational, or commercial, or industrial. Or it may be residential of any type—except that there may be no more alley dwellings.

With this charter and with a half million dollars to start on, the Alley Dwelling Authority began its work. During the first eight months it has secured title to all the land required in four squares. It has options on land in eight squares and is negotiating with owners in several other squares. Carrying through the program approved for this year will require some 3½ million dollars. If that amount cannot be secured this year, the program will be slowed down to a speed consonant with using over and over again the half million now on hand.

Better Homes in America Demonstrations

By KATHERINE MORROW LISTON, New York City

THE fourteenth annual campaign for home-improvement conducted by Better Homes in America, Inc., culminated in National Better Homes Week, April 29 to May 5, 1935. It was observed by over eight thousand local volunteer committees representing every State in the Union. Once again it succeeded in coördinating the efforts of a large number of civic and educational groups in practical programs of home-improvement contests, lectures, discussions, demonstrations, exhibits, and tours to homes that had made some outstanding improvement during the preceding year.

Notable in the 1935 campaign was the effective reorganization of the Tennessee State Better Homes Committee, under Mrs. Geneva Flanery as Chairman and Miss Lillian Keller as State Secretary. They organized to reach as effectively as possible every community in the State. Seventy-two counties were organized, and the number of homes improved during the campaign numbered 29,440. Their list, compiled from detailed reports received, comprises such details as the repairing of 11,861 fences, the tearing down of 3,641 dilapidated outbuildings, the cleaning of 9,214 vacant lots, the planting of shrubbery about 9,201 homes, improved yards and lawns for 12,758 homes,

improved foundations for 5,173 houses, creation of 1,252 play-yards, installation of 5,256 new sanitary toilets, repair of 4,681 porch-floors, new roofs for 3,088 houses, and additional rooms for 1,791 homes. In addition to these, furniture was refinished in 3,826 homes; 6,392 living-rooms were improved and 7,383 kitchens, with running water installed in 1,508. Community playgrounds were established by 570 communities; improved schoolgrounds by 789; and highway improvement by 220.

Although the above list covers only a small part of the items in the Tennessee report, it is sufficient to display the fervor and practicality with which problems of home and community improvement have been faced by our Better Homes Committees throughout America. Thus, in Arkansas, under the direction of Mrs. William F. Lake, Chairman, and Miss Connie Bonslagel, Vice-Chairman, hundreds of miles of highways have been improved and beautified, county and district Better Homes schools have been held, and thousands of home and community improvements made by the committees each year.

State-wide radio programs and efficient lecture services, made available for many months of the year by the State Committees of Massachusetts, Wisconsin, Iowa, Arkansas, and elsewhere, have served to apply the best thought and judgment of specialists to the problems of housing and home life throughout the State and have stimulated hundreds of well-conceived projects of home and community improvement.

Outstanding among urban campaigns was that of New York City, which through "America's Little House" at Park Avenue and 39th Street, demonstrated a high quality of architecture and construction, an efficient kitchen, clothy, and nursery, skilfully selected and budgeted furnishings, and a garden beautifully landscaped on a five-year plan. Radio programs over the Columbia Network were made available two or three times a week throughout the year through the generous coöperation of the Columbia Broadcasting System, and national programs included as speakers Herbert Hoover, Mrs. William Brown Meloney, Chairman of the New York Committee, Dr. Ray Lyman Wilbur, Congresswoman Isabella Greenway, James Ford, and many other distinguished personalities.

In Boston, backyard and garden contests and the demonstration of the Model Procedure House were notable. The Massa-

chusetts Committee, under the direction of Mrs. James J. Storrow and Miss Mary Driscoll, stimulated demonstrations of special merit in Swampscott, Salem, and elsewhere, as well as State-wide contests for home and ground improvement. In Philadelphia, under Dr. James Anders, significant remodeling contests were held and a series of lectures and radio talks was conducted. In Ames, Iowa, under the direction of Miss Joanne Hansen, several new low-cost detached houses were demonstrated. The Kohler, Wisconsin, demonstration, directed by Miss Marie Kohler, comprised not only a low-cost house with carefully budgeted furnishings, but also exhibits of articles made for the home in manual training classes. The demonstration house was visited on May 29 by a delegation of leading architects from the Convention of the American Institute of Architects.

Scores of county campaigns like those of Lee and Saline Counties in Arkansas, and Davidson and Dickson Counties in Tennessee, conducted many extensive tours to homes, each of which was selected because of some outstanding improvement. Whole communities turned out to participate in betterment projects, whether for highways, the grounds of public buildings, or the reconditioning of some home selected for demonstration.

The annual Better Homes Small House Architectural Competition this year was judged by a committee appointed by the President of the American Institute of Architects, of which Dean Richard Hudnut of Columbia University served as Chairman. The Gold Medal and two Honorable Mentions were awarded to Richard J. Neutra, Los Angeles architect, for houses constructed of prefabricated units, and in modern design, ranging in price from \$3,500 to under \$5,000. Several small houses of traditional architecture were likewise premiated, as was also the group housing of Chatham Village in Pittsburgh. The *Architectural Forum* cooperated with Better Homes in America in jointly sponsoring this competition and published the winning designs in its April issue.

To facilitate the continuance of its organization of local volunteer committees and home-improvement and information service, Better Homes in America, Inc., has for several years been seeking the perfect affiliation and auspices. These have at last been found in the newly organized Purdue Housing Re-

search Project at Purdue University, West Lafayette, Ind. With the coöperation of President Edward C. Elliott, arrangements for the transfer of these activities are in process at the time of this writing and the Better Homes in America Campaign will be continued in future years under the newly appointed Housing Director of the Purdue Research Foundation, Frank Watson. This fortunate transfer will make possible to our committees the assistance of the faculty of Purdue University in the handling of requests for information and the improvement of any detail of house and grounds, and special researches upon details of construction, arrangement and equipment of homes. It will thus mobilize scientific data for the use of the consumer public, who may be reached by the civic leaders who serve as local Better Homes Chairmen.

A Proving-Grounds for the Study of Better Living

By FRANK WATSON, Purdue Research Foundation, Lafayette, Ind.

WHEN the history of the world is again rewritten a thousand years hence, in all probability the automobile will be designated as one of the marvels of the ages. Not that we may not have more wonderful things in the future which may greatly change the nature of our existence, but because it marks the first time an entire civilization has been radically and rapidly modified by the creation of a new instrument for man's use. Little more than a generation ago it was an almost unknown thing. The vast majority of our people were literally anchored to the locality in which they lived. Today the great middle class of the country thinks nothing of traveling from coast to coast over smooth and surfaced highways at rates of speed ranging from ten to twenty times that of the horse-drawn vehicles of the generation before.

In consequence, a whole manner of living has been changed. New industries have been created, family relationships have been altered, religion and education have acquired new aspects, life is different. In short, with the advent of the automobile, our civilization has changed from interdependence in a slowly increasing state to integration of a highly complex character.

In many ways, too, we have not even followed uniformly in the development of the other physical things which we use concurrently in modern living along with the automobile. Especially is this true in the field of housing. Some of us have had as many as a dozen different cars in the last thirty years. Most of us are now burning up the roads in our second or third one. Yet the vast majority of us still live in houses constructed long before the automobile ever became a usable commodity for the average individual. In another way the contrast is even more startling. Even those of us who live in houses constructed ten years ago or five years ago or possibly last year, find those dwellings involving but moderate changes from the dwellings of a score of years before. How little the automobile of last year resembles its counterpart of 1920!

How was this marvelous development of the automobile accomplished and why did the home fail to undergo a similar development? Organization is the answer most frequently given. But that is speaking in terms of effect rather than cause, for it leads immediately to the question of why there has not been a similar degree of organization in the housing field. Undoubtedly, in housing there has not appeared as feasible the same possibility of profit through organization.

Perhaps the answer lies in the laboratories and the proving-grounds which the automobile industry has developed and used consistently through every step of its development. But again, to be honest, we must recognize that these have been but partly a cause and partly a result. Out of them came the proof of the economies and advantages of greater organization, but the question still remains of why extensive laboratories and modern proving-grounds were developed for the automobile while no comparable growth has appeared in housing.

The problem therefore goes back to a matter of simple economics. In the automobile the first creative mechanic was able to see immediately the benefits of some organization. The organization thus created was able to see the need for further research and so the chain progressed into the development of the present gigantic and complexly organized industry with its extensive laboratories and proving-grounds.

In contrast, the house-builder does not see that first tremendous step of organization advantage. He sees but few

advantages in organization, not enough to enable him as the operative builder to eliminate completely the competition of the individual contractor. In building materials as distinguished from actual dwelling construction, the progress has been a little faster. New materials have been developed and rather extensive organizations created to produce and market them. Here research and the laboratory in a small way have been developed. But what that research could create has not to date revealed the possibilities inherent in the creation of a whole house as an industrial product. By that, of course, we mean a revelation sufficiently strong to attract the capital and incite the organization needed to bring about production.

In other words, the step-by-step process of lifting through research and mass production and still greater research and still greater mass production which was inherent in the automobile industry has not been a natural characteristic of housing. Apparently one has been able to grow while the other one has remained unborn through its inability to be able to spring into existence, if not fully grown, at least on the verge of maturity.

The analysis of the situation thus presents the problem involved: to reveal by research the possibilities of producing better and cheaper homes, more livable, more in keeping with modern conditions; to show the way for organization if research reveals the advantages of greater organization.

It is particularly appropriate that Purdue University, having already distinguished itself in railroad matters and electrical engineering, in research in concrete and road-building, and having tried and succeeded in the experiment of working in coöperation with industry to produce practical research as distinguished from pure research, should enter this field of housing.

On June 1, 1935, at the invitation of Purdue, more than one hundred leading industrialists, all vitally interested in housing and related problems, met at Purdue University. There the project was announced, and the enthusiastic attitude with which it was received marked it immediately as filling a long-felt need on the part of industry.

As was there announced, two major physical plants are contemplated for the carrying out of this work: one, an all-weather laboratory, a laboratory in which not only materials may be tested as they are now tested in many private laboratories

throughout the country but in which materials may be tested in combination with each other in the form of a completed house, a laboratory in which completed houses may be tested under all kinds of weather conditions artificially created and controlled for testing purposes. The other, a model or experimental community, virtually a proving-grounds, in which various types of houses may be built and actually lived in for testing under true living conditions. Here not only houses may be studied, but land-planning, essential utilities, playgrounds, community living in all of its phases, may be studied also. For the first time the country will have that which is a common part of automotive development, a proving-grounds for better living.

One restriction only is self-imposed on the Purdue project. The studies will be confined to housing and to living designed to be available to the great mass of the people. In the words of Mr. Owen D. Young, uttered in his memorable address before the group gathered for the June 1 meeting:

The problem is not merely to make something useful and beautiful. It is to combine the arts and crafts with such ingenuity and efficiency as to bring a new, useful, and beautiful home within the reach of all reasonably productive people. If we accept as a standard what most research organizations have recognized—that a man can afford a home, which means the building and the land, if it costs no more than his normal earning power for two years—we can see at once the limits within which we have to work as to costs if our objective truly be to house this nation suitably from the standpoint of health, convenience, comfort, and beauty.

When we examine annual incomes as shown by the Bureau of Internal Revenue, we find that, of the incomes in the United States, one-third are below \$1,200 and one-third between \$1,200 and \$2,000. It follows that two-thirds of the people in the United States cannot afford to buy a house costing more than \$4,000, inclusive of land.

It is not enough to make great advances in the sciences and the arts. We must bring them to the service of the masses. To fail to do so merely widens the chasm between those who have much and those who have less, and instead of contributing peace and happiness to the people it invites its own reprisal. It is a striking and on the whole a very satisfactory thing that the price-range in motor cars is being compressed into relatively narrow limits. I should not be sorry to see that same result with homes. I hope, Mr. President, a way may be found to make a home for one-half our earlier costs which is more beautiful and more comfortable and more efficient than any house now built, no matter what its design or cost. Then we shall be on the way not only to recovery from our economic disease, but from our political infections and our social discontents, which more than anything else threaten that independence which is the very life-blood of free men.

The National Association of Housing Officials*

By EDMOND H. HOBEN, Assistant Director

THE Association was organized to help local, State, and Federal housing officials develop adequate housing programs for both rural and urban America. It is privately supported and non-political. Activities aimed to achieve this purpose are of two main types: the maintenance of a clearing house for information, and the provision of consultant's services in the field.

The past year has been marked by increased activity along all lines undertaken previously by the National Association of Housing Officials. This activity included further consultation with local housing groups regarding legislation and effective procedures for organization and survey work. The Association continued to issue frequent bulletins on subjects of special interest to housing officials. It also published "The Housing Officials Year Book for 1935" and distributed to its membership valuable documents published by public and other private agencies of both this and foreign countries.

In addition to its usual work the Association undertook a number of special activities. In the fall of 1934 it brought to this country Sir Raymond Unwin, formerly Chief Technical Officer for Housing and Town Planning of the British Ministry of Health, Miss Alice J. Samuel, Manager of the Housing Estates of the Bebington Urban District Council, and Ernst Kahn, formerly Manager of Public Housing Projects at Frankfurt-am-Main, all leaders in European housing. Through arrangements made by the Association the European housing experts, accompanied by Henry Wright, F. A. I. A., of New York, planner and designer of pioneer low-cost housing projects, and Ernest J. Bohn, President of the Association, were enabled to hold helpful conferences with the Federal housing agencies and with local sponsors and officials in fourteen cities where programs of public housing were farthest advanced. The conclusions reached from these numerous conferences were included in a report, the summary of which was discussed paragraph by

*For organization and officers, see AM. CIVIC ANNUAL, Vol. V, p. 101. Coleman Woodbury is now director.

paragraph, criticised and modified during four days of meetings at Baltimore by a group of some of the foremost housing leaders of the country. The report was then put in final form and issued by the Association under the title "A Housing Program for the United States." A critical analysis of the housing situation in the United States prior to the issuance of this report and of the situation at the present moment will disclose that this report has had a remarkable influence on the development of our public housing policy.

In June, 1934, the Association sponsored a conference in Washington on the subject of relocating families displaced by large-scale slum-clearance projects. Stimulated by this conference the Housing Division of the Public Works Administration developed a procedure which has been successfully used on its various projects.

The Director of the Association and several of its consultants attended the housing conferences held in Europe during the summer of 1935 in order to interpret for the Europeans the American Housing Program and in order that the Association membership might be given full advantage of the discussions and conclusions reached in these conferences.

Members of the staff or Executive Committee have participated in most of the important conferences dealing with housing during the past year. Shortly after the creation of the Resettlement Administration, Administrator Rexford G. Tugwell called a conference at Buck Hill Falls on "The Social Responsibilities of Management in Government-Aided Rehousing and Resettlement Projects." The President of the Association presided at the conference. Among other important meetings in which representatives of the Association actively participated were those called by the National Conference of Social Work, the National Public Housing Conference, the National Conference on City Planning, and the National Association of Real Estate Boards.

The most recent undertaking of the Association is setting up of a school for housing managers. Plans are well under way for the opening of the school in Washington shortly after the first of October. The school is intended to supply a nucleus of trained personnel to assume responsibility in the first of the projects to be completed either by or with the aid of Federal housing

agencies. Though the school will be the venture of the National Association of Housing Officials, it will be conducted in close coöperation with the Housing Division of the Public Works Administration, the Resettlement Administration, and the Federal Housing Administration. The heads of those agencies as well as the several local housing Authorities and committees have indicated that in appointment to management posts they will give preference to those who have been certified by the Association as having satisfactorily completed the course of training. The set-up of the school is very definitely the result of one of the recommendations contained in the "Housing Program for the United States."

EDITOR'S NOTE.—The activities of the Resettlement Administration in regard to Rural Rehabilitation and Purchase of Submarginal Lands have been described in the Section on Rural Land Problems (pages 47-78). In the housing field, in addition to the complement of a selected group of subsistence homestead projects begun by the Department of the Interior, in the revised Resettlement Administration program we find an allocation of \$30,000,000 for suburban communities of group and multiple housing near four or five industrial centers where there are opportunities for employment of possible occupants.

IN THE STATES

INTER-STATE REGIONS

The Mississippi Valley Report

By the MISSISSIPPI VALLEY COMMITTEE, Morris L. Cooke, Chairman
Condensed from the Report to FEAPW, October 1, 1934

I. LAND, WATER, AND PEOPLE. The time has passed when isolated or unrelated plans were adequate to American needs. When one strand in the interwoven web of our national fabric is touched every other strand vibrates. Land, water, and people go together. The people cannot reach the highest standard of well-being unless there is the wisest use of the land and water.

II. WATER IN MOTION. A drainage basin, big or little, is a region through which water moves. No act of man can permanently halt this flow of power, nor even diminish it to an appreciable degree. The water must come down—we could not stop it if we would. We can, however, figuratively as well as literally, canalize it so that it will do what we want it to do.

The Problem of Control. The ideal river, which would have a uniform flow, does not exist in nature. Something usually has to be done, to equalize the flow or to take advantage of variations in flow, if the stream is to resemble even remotely an ideal river. But before this stage can be reached the question has to be answered, For what or for whom is the river to be ideal? The problem of control involves not only the physical nature of the stream, but the often conflicting claims of various uses and various users. Scientific planning requires a use pattern for each community, district, or region, as well as a geographical pattern which will reflect as fairly as possible the dominant needs of each locality.

Floods pay no attention to political jurisdictions. Any coördinated system of control will demand the coöperation of neighboring States with each other as well as the coöperation of States with the Federal Government. Obviously, the Federal Government should bear its share of the costs and the responsibility. Obviously, too, the States should do the same. To make this easily possible we need uniform State flood-control laws, Federal legislation to expedite inter-State compacts, and a permanent policy of Federal participation based on accurate estimates of the benefits to be derived. In each instance there

should be responsible and legally constituted local agencies with which the Government could deal.

The same principles that are applied to flood-control may be applied to low-water control. Since pollution, by sewage or industrial waste, is a common accompaniment of low-stream stages in closely settled regions it is reasonable to ask that local authorities and industrial interests shall control this element as a preliminary to Federal participation. The Federal Government, manifestly, should not be asked to police local streams.

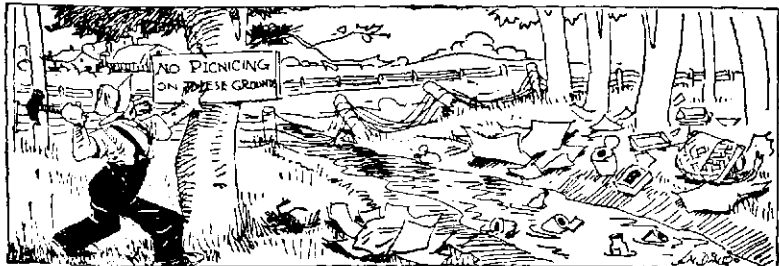
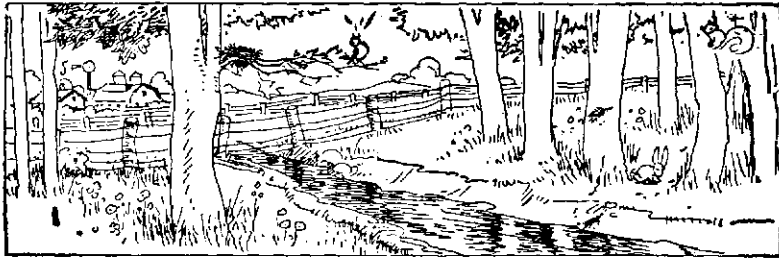
Navigation. Inland waterways in the United States fixed the lines which the first westward migrations were to follow. As highways, canals, and finally railroads were thrust westward from the Atlantic Coast, waterways lost their supreme significance. Nevertheless they have continued to play a part in the national life. Down to the end of 1932 the United States Government had spent a little less than two billion dollars on river and harbor improvements, of which 94 per cent was expended after 1882, 74 per cent after 1906, and 46 per cent after 1920. Of this amount about a billion and a half dollars were chargeable to navigation and about \$440,000,000 to navigation on the Mississippi system.

We need new estimating, accounting, and cost-finding technique not only to weigh the advantages and disadvantages of river transportation, but to determine the proper place of inland waterways in a coordinated national transportation system.

Power. The production and distribution of electricity, more than most other factors, demands Valley-wide coordination as a part of a unified national system. The opportunities for power development are great. If coordination is taken as the key we see the unfortunate effects of the present set-up in a power map which shows a "crazy patchwork of operating areas" and "a mass of independent unrelated generating units." Congested areas have more installed power than their inhabitants can utilize under present conditions; other areas, especially the rural ones, have little or no electric service, and there is a general underconsumption of power.

Coordination, under Government leadership, would not only benefit the consumer, but would aid the private producers by eliminating unnecessary duplications of plant and equipment, stabilizing service, and making available new sources of energy.

LOOK OUT! HERE COME THE NATURE LOVERS.



From "Publicity for Social Work"

Courtesy Russell Sage Foundation

An Inescapable Lesson in Four Pictures from the Pen of "Ding" Darling
Permission of J. N. Darling



Courtesy American Forests

**The CCC Has Completed an Unprecedented Amount of Protection
and Improvement Work on National and State Domain**



Courtesy American Forests

**Enrollees in the CCC Have Been Restored to Normal
American Manhood**

The Federal Government should regulate transmission, regardless of the number of generating plants or transmission lines it may ultimately own. During the next twenty years it could profitably spend a billion dollars on river works in the Mississippi Valley, half of which would be for self-liquidating power installations. With this nucleus it could experiment as well as regulate. An allotment of a million dollars to build independent, self-liquidating rural electric projects would be a safe and socially justifiable experiment. Such an enterprise would not compete with private capital, since it would serve territory not now served or likely to be served in any other way. There is every reason to expect that the low rates which would be possible would result in a great expansion in the rural uses of electricity and a consequent increase in rural living standards.

Water Supply and Sanitation. The provision of an ample supply of pure water for domestic uses is a problem throughout the basin. Low water everywhere intensifies pollution. Planning obviously must look far ahead, providing for future supplies and for purification works; establishing water and sewerage districts; arranging for the better disposal of sewage and industrial waste; and in rural districts encouraging better sanitation.

Chemical, physical, and biological analyses of the water in the basin have been few, and are badly needed.

The situation calls for State legislation, where necessary, to give health departments supervision over water supplies, sewage and industrial waste in the interests of public health; for the creation of State agencies to inventory and allocate intra-state waters; for State laws, where needed, to establish water supply and sewer districts; for inter-state compacts in some cases; and for the pooling and correlation, by State and Federal agencies, including the Public Health Service, of information now existing, and to be secured by comprehensive surveys.

Erosion Control. A large portion of the agricultural land in the basin has lost from 3 to 6 inches of top soil, and "no less than 25 per cent of the tilled lands, have actually been stripped to the subsoil." About 5 per cent has reached the gully stage, and has been permanently ruined for agricultural use. Four hundred million dollars a year is a conservative estimate of the tangible loss in the United States.

The cost of protection against erosion is but a minute frac-

tion of the cost of erosion. A twenty-year Federal program, calling for joint action with States, counties, land districts, and individual owners, would cost the National Government \$20,000,000 a year—5 per cent of the measurable annual loss from erosion at the present rate.

III. WATER ON THE LAND. If the water resources of a region are to be planned for effectively, there must also be coördinating planning for the land resources.

Land, Water and the Farmer. American farm practice, as it relates to the continuing productivity of the land, is now not merely an individual concern—it is a national concern. Improvements in farming technique have not protected the land itself, as the erosion situation shows. A successful national agricultural policy would require that all our soils (of which there are hundreds of types) be analyzed and grouped; that from these studies the best uses of each kind of land be determined; and that scientific cropping systems be developed for each type of land.

Irrigation. Farming in regions of inadequate rainfall, such as that part of the Mississippi Valley lying west of the 100th meridian, demands a special technique on the part of the farmer. Neither the agricultural situation as a whole nor the situation on the irrigated lands justifies Federal action to extend the irrigated area. Where necessary, steps should be taken to protect investments in irrigation works and irrigation farms from deterioration. Irrigation should be studied in connection with the recommended national program on land-uses. There should be more accurate estimates of costs and profits.

Forestry. In the Mississippi Basin about 40 per cent of the land was originally forested. Only about 20 per cent is now rated as forest land, and of this a large portion consists of cut-over land or second growth of little or no present commercial importance. The national plan (proposed by the U. S. Forest Service) would be well adapted to meet the regional needs of the Mississippi Valley.

Recreation. A national recreation policy, adapted to the Mississippi Valley but applicable everywhere, should include a comprehensive examination of all recreation problems and areas; definite distribution of responsibility between Federal and other governmental agencies on the one hand and private inter-

ests on the other; the coördination of such Federal activities as touch on recreation; the extension of "wilderness areas"; the recognition of recreation as a motive for acquiring new Federal lands not suitable for National Parks or National Forests; provision for new National Parks where the proper standards can be met, and for additions to existing Parks, and, in general, more liberal appropriations for recreation in the Parks and Forests. Recreation is a necessity, not a luxury. It should have parity with other necessities.

Wildlife Conservation. Wildlife is public rather than private property. A wildlife program for the Federal Government should include the acquisition of refuges and preserves, as recommended early in 1934 by the President's Committee on Wildlife Restoration; larger appropriations for conservation activities; common action of all water-use agencies with the Biological Survey to protect migratory waterfowl; an enlarged research program; education; leadership in suppressing diseases and other dangers to wildlife; and liberal financial support for the protection of the inland fisheries.

Planning. The words "plan" and "planning" have grown to have a precise meaning for engineers and industrialists, expressing definite objectives and definite ways of attaining those objectives. The only assumption with which they have been loaded in the present report is one which ought to be held as self-evident in a democratic society, that no social or economic technique is sound which does not make for the health and well-being of the people.

Industrial and engineering practice distinguishes three "planes" of planning; directive planning, which defines major purposes, ways and means; general administrative planning, which carries out in the individual plans or project the policies of directive planning; and operative planning, which determines detailed operations. That these proven principles of private planning may be adapted to governmental planning the Committee is convinced; that anything less than planning of this nature will suffice to meet the Nation's needs is extremely doubtful. The principles outlined permit both the long-range view and the early preparation of specifications for particular projects which may be entered upon at once, or which may be kept ready for some future time when unemployment exists.

TVA Planning in Practice

By EARLE S. DRAPER, Director, Land Planning & Housing, TVA

THE building of great dams, the widespread distribution of electric power, the production of cheap mineral fertilizers, the building of towns like Norris or a new type of highway, are the more obvious highlights in a broad panorama upon which the Tennessee Valley Authority is depicting the physical, economic, and social characteristics and potentialities of a region embracing more than 40,000 square miles. These larger activities are vital but they are not all-important. The Act of Congress creating the Authority gave to the TVA the right to conduct experiments and demonstrations as a basis for future recommendations to Congress.

An important feature is TVA's employee relationships. The men work six hours a day, six days a week—or a total of thirty-six hours weekly. This short working period gives the men extra time to participate in the training courses offered to all TVA workers. This training has been made an integral part of employment—not compulsory, but simply made attractive and easily available. TVA courses are largely vocational and agricultural at Norris, with certain modifications at Pickwick Landing Dam providing for spare-time work on the worker's own farm under the advice and counsel of the State agricultural agencies.

But even more important to the people as a whole is the fact that when a dam is completed and the worker must be released, he will probably be more valuable to himself and to the people of the Valley than before. Thousands of men are employed on the dams, but eventually they must find other work to do. The TVA is trying to make that return as easy and assured as possible so that the evils of unemployment will be lessened to every possible extent, and also to turn out potential leaders for the long-time private job of Valley development.

Health and sanitation are matters of TVA concern. In areas of TVA construction activities, medical centers have been established. The problem of malaria control is receiving TVA attention in cooperation with the States, especially in connection with the problems created by new reservoirs.

In connection with TVA construction communities, schools

have been established on a modern yet economical basis. Norris school is an example of a complete but moderate-sized plant, in the design of which special attention was given to lighting and physical conditions. There is a strong faculty, and special emphasis is given to individual instruction rather than textbook cramming. An unusually active and purposeful P. T. A. is instrumental in spreading educational interest throughout the community, and the school is already attracting wide attention, and is being visited by many teachers and other interested people from throughout the Valley. The school for the smaller community at Pickwick is more modest in size, but otherwise maintains the high educational standards of the larger one.

In buying land adjacent to dams for the protection of reservoirs from silting, the TVA is also given a means to control private land speculation in proximity to its operations. One vacant-lot boom like that which took place in connection with the Government's war-time operation at Muscle Shoals is enough for the Valley. The TVA is determined that there shall be healthy growth rather than speculative exploitation of the Government's investments in the Valley.

The building of a huge dam involves problems other than pure engineering. A dam means a reservoir, and a reservoir means a widespread, permanently flooded area whose original inhabitants must establish themselves elsewhere. Unless guided, this movement, together with the taking of more or less productive lands out of use, is apt to disturb agricultural balance. This is one of the things which the TVA must analyze, mollify, and ameliorate wherever possible. Studies and projects include those leading to the retirement of lands purchased when they are submarginal from standpoints of productivity, erosion control, unbalanced costs of public services, and so on. Such areas as are suitable are being developed as forest reservations, game refuges, and regional recreation areas. There have been studies made looking to the establishment of production forests on a sustained-yield basis and utilizing the labor of the original residents; studies of possible coöperatives of residents to operate recreational areas; studies to conserve the land and to protect the reservoirs from silt through erosion control, which involves terracing aid, provision of fertilizer, recommendations for cover crops, and grazing practice.

In cases involving displaced populations, studies have been made of standards of living; of preferences in moving from a flooded area to another location; of adaptability to a combined agro-industrial economy, and assistance is given in the selection of new farmsteads on a basis of good investment and satisfactory living conditions. These studies include population concentration, analysis of trade areas, population mobility or stability, and so on. Tentative studies have been made for the relocation of displaced communities so as to offer better opportunities for making a living and for enjoying it; these projects in self-containment are also to serve as practical demonstrations for other communities throughout the Valley.

In several reservoir areas, such as Norris, Wheeler, and Pickwick, these studies have been utilized to give a cross-section of the various conditions found in the Valley as a whole. Around Norris is found a self-sufficing type of mountain agriculture with personal farm ownership predominant, while in the wide bottomlands around Wheeler, cotton tenantry abounds. In coöperation with State and other governmental agencies these studies embrace such things as the economic and social aspects of tenantry; the future of cotton, its optional uses and its importance in the world's markets; the import of mechanization, such as the mechanical cotton-picker, with reference to its probable effect on the earnings and living standards of field-hands in the cotton country.

Looking toward diversification, soil-conservation, and increased farm incomes, TVA is distributing phosphate fertilizers to the agricultural colleges of the Valley, who through county agents, distribute the fertilizer to farmers of the Valley for demonstration and experimental use, with particular attention to cover and grazing crops. Research is being carried on for a balanced fertilizer program under which the fixation of nitrogen by means of legume crops supplements the phosphates. The phosphate used in this work is being produced under an improved technique developed by TVA at the war-time nitrogen plant at Muscle Shoals. An improved method of phosphate rock removal has also been perfected, permitting the replacement of the soil over-burden and resulting in the continued use of land for agricultural purposes.

As an example of what can be done in rural electrification

the case of Alcorn County, Mississippi, is cited. Enthusiastic people of this county decided that—as the benefits of rural electrification also accrued to the city through the development of a more prosperous countryside—the urban users should join with the rural users and all pay a uniform cost for building a unified urban-rural system, with electric rates the same throughout the county. The lines were built and TVA power contracted for, with the result that electric rates throughout Alcorn County are 50 per cent less than they were before, even in towns.

There have been studies made of local governmental problems arising from the flooding of large areas lying within TVA reservoirs. This involves not only the withdrawal of large areas, but brings up the problem of stranded county remnants, cut off from one another and sometimes isolated from their former trade centers or county seats, which may indicate the desirability of county consolidation as a means of solving the problem with possible better political administration.

Navigation and flood-control studies include the encouragement of water transport through the promotion of deeper river channels; studies of Valley rate structures as they affect the water shipment of heavy commodities; the relationship of river transport to highway feeders and transfer points; the relationship of waterways to railroads and to industrial opportunities. In connection with flood-control are the dams, the accumulation of climatic data such as stream-flow, rainfall, and run-off.

Close contacts are maintained with all governmental agencies, Federal, State, and local—whether permanent or relief in character. There is active coöperation between the Authority, the U. S. Forest Service, and the CCC—there are 38 CCC camps in the Valley. This involves joint work in forestry, erosion-control, development of public recreation areas, conservation of wildlife, and other activities. Recently the TVA and the State Highway Commissions, acting in coöperation, have worked out a route for a highway, soon to be built in North Carolina, Tennessee, and Alabama, that will serve present needs and yet fit into the pattern of land-use as affected by future reservoirs and dam construction. Similar coördination of highways and other public works within the Valley has already effected large savings.

The Planning Achievements of the Pacific Northwest

By MARSHALL N. DANA, Chairman, Pacific Northwest Regional Planning Commission, Portland, Ore.

THE planning program of the Pacific Northwest consists, first, of an appraisal of natural resources. It is intended to be followed by analyses and by integration of public works with what we find to be the needs and opportunities of the region. Outstanding in the Public Works Program for this region was the establishment, on the Columbia River, at Grand Coulee and Bonneville, of two great power, navigation, and reclamation projects, and of another on the Missouri, in eastern Montana, at Fort Peck. The Public Works Program brought us to the necessity for planning the profitable use of these projects—that is, we must learn what is necessary to pay their way and repay their cost. We must devise development along a broad and comprehensive front. Otherwise, there would be no benefit from these great undertakings, except that of temporary employment and relief.

Research has been undertaken by each of the States and by the regional organization. I am not, however, patient with mere research. There is something else necessary. In the future will come use. It will come while some of us are living, and certainly for generations to follow. It seems to me of highest importance to narrow the gap that exists between research and the application of knowledge in organized development. We have, therefore, adopted a policy. We are proceeding in a manner different from that of the TVA. I do not mean to be derogatory. We look upon the TVA experiment as a national laboratory valuable to the Pacific Northwest, or to any of the other drainage areas of the country. We are opposed to regimentation—meaning a superimposed authority provided without the consent or participation of those under that authority.

We believe that we have undertaken planning in harmony with democratic processes. We believe that with the organization of the people of the region into planning boards and regional organization, we shall have a body of public sentiment and of support necessary later on for effective use. The planners of the present will become users of the facilities provided through the

Public Works Program, and through power development keyed in with a balanced and comprehensive development of the land, water, mineral, and forest resources, and of the human resources of the entire region. We believe that in so proceeding, we are acting in harmony with the spirit of the National Program.

An inventory of water resources has been made. In our part of the country water is gold. The Columbia River is the only stream flowing through an arid region that last season had enough water. This we are told by the U. S. Geological Survey. We have additional lands available for production, but we do not have enough to supply the agricultural products needed in a balanced development. By the inventory, we hope to be able to establish the priorities of use for power, for reclamation, for fisheries, for industry, domestic and municipal use, and, not least, for recreation. We hope to satisfy differences that may exist in the apportionment of water between the Northwest States and with Canada. Some 29,000 square miles of the Columbia River basin drainage area are in British Columbia.

We have undertaken, through the National Resources Board, classification of land for its best use. We hope to be able in the future to select projects and establish the rate of their development that will aid in the removal of people from areas where they cannot succeed to lesser areas, perhaps, but more fertile and productive, where they may realize the greater security and enriched experience with life.

In the West, reclamation has a large part in land-planning. The work of pioneers in reclamation has made a valuable contribution to the joint planning of uses of water and land that gives us a scientific and solid basis for land- and water-planning in a National Program today. It has given us experience—correctives of blunders. It has provided us with widened land area, effectively used. It has given us experiments in the checking of soil-erosion, the extensions of transportation, the enlarged production of land, and the increased executive ability of people who live upon the land and are served by it. Reclamation is as essential a part of the national plan for a water program as is transportation to cities.

When I come East, I hear "Why do you want to reclaim land when that now cultivated produces more than can be disposed of?" My answer is that we wish to make such inventory of

water, and such study of land covering its fertility and availability, that projects may be adopted, developed, and carried sanely into fruition at a rate of ascertained demand. Promotions, whims, and impulses should not be effective in crowding upon the market, and upon gullible people, land areas that should never be used for other than recreation. By such a policy we shall discover the means of economic production, within the cost of producing the yields of the soil. We may, to a limited extent, be in competition with the other agricultural areas of the country. To a greater extent, we are not in competition at all. I believe the national reclamation program today is in harmony with, and a necessary part of, the great national water and land program.

In the planning program for the Pacific Northwest, it is necessary to make some of the plans for the projects already adopted. The generation of power from the great natural sources may be keyed with a development of land and water resources, and so contrived that in the end all will be adapted to the soundest principles of planning.

There is a great deal of public interest in the subject of recreation. It will not be possible for the Pacific Northwest ever to become congested, interspersed, as it is, with productive valleys and mountain ranges, lakes, forests, with all of their beauty and charm. It is therefore a necessary part of a planning program that we shall study the relationship and interrelationship of National Parks and National Forests, and their recreational values to the more utilitarian features of a general development. More than 52 per cent of the area of our States is owned by the Federal Government.

The planned development of transportation is another subject of earnest consideration. It involves the interrelated uses of water, rail, highway, and air. It brings into the picture one of the greatest harbors in the world—that of Puget Sound. It turns our attention to the gorge of the Columbia River as an artery of transportation, and yet one of the most magnificent treasures of nature this country possesses.

The gorge of the Columbia is a titanic slash, mile-deep, more than mile-wide, cut through a great mountain range. Its rolling floor is the shimmering flow of the Nation's second largest river, gathered from the lakes and streams of more than

a quarter million square miles. Its domed roof is the sky. Its walls and recesses are a gallery wherein stand the sculpture of the ages. Its heights are birthplaces of waterfalls thrown over the shoulders of its cliffs like lacy scarfs. Its summits are viewpoints that nowhere else in all the world can be duplicated. Its majesty grips the heart like the deafening thunder of the storm or like the breathless hush of the multitude in prayer.

It presents one of the great recreational opportunities, and in the whole of the Pacific Northwest we feel the urgency to plan for recreation as inspiration. It has been my belief that, under the spell of some of these magnificent possessions, we may produce, in manhood and womanhood, standards of culture, of attainment in the arts and sciences, that will reflect upon this, and all of the generations to come.

We are just beginning to consider the question of population planning. National population may not increase greatly. It is, nevertheless, fluid under the play of numerous conditions, such as drought and the congestion of cities. Many are coming to us now, believing that the Pacific Northwest offers them a better chance; that the projects complete the opportunity, and all they need to do is to come. They are coming responsive to the lure of a region as yet only 10 per cent developed in its resources.

We are engaged in mapping. This work covers forest, mineral, and land resources. It covers mapping from the air, and includes the underground water supply. All are highly necessary.

We have undertaken coöperations outside the boundaries of the region. Active coöperation has been undertaken with British Columbia, which has common interests. We are dealing with Alaska to work out a planning program for that little-known territory. Alaska, properly organized, is also entitled to a consultant service.

I have tried to outline a program, perhaps audaciously undertaken, to indicate the nature of it, the initiative that is necessary, and to emphasize the essential democracy of it. Now I want to refer to the necessary implementation of it. There is a great need for adequate scientific information. Research and surveys, industrial studies, are necessary to economic understanding. These are just as necessary to a balanced program in public works and of progress as are the construction of power dams, the development of reclamation projects, and all of the

other undertakings of recovery. Upon the need for industrial surveys I place a great deal of emphasis. The depression will not last always. One of these days we shall come again to a balanced and routine way of living. If the present planning program proves, then, to be a success, it will be because we have searched for facts and have been controlled by facts. Thus we shall bring about the closer settlement of land, the extension of electricity to rural districts and to the cities. There will be stimulation of industry, the growth of population, the extension of transportation, and the use of educational facilities fitted to the needs of the region.

I attach a great deal of meaning to the added preparation we shall have made in facing the Orient. We shall have a properly articulated transportation system. We shall understand our trade position and be able to produce balance in the relationship between import and export. We hope to build cities which will escape the blunders of some of the cities of the East. Those blunders, so painful and costly, have not yet all been committed out our way. Perhaps we can avoid them. To me the city of the future is one of the profound and inviting problems of the planning program.

It will be possible, by use of natural resources and public works, to develop the human resources which are the wealth of the Nation. When civilization looks back, it will be profoundly ashamed of the polluted streams, eroded lands, and ugly cities it has permitted. When our civilization takes stock today, we shall find those materials of which we may build structures that are eternal. When our civilization looks forward, we may hope to see created an opportunity in which people are not regimented, but free, wherein they may better meet all of the old challenge to industry, prosperity, aggressiveness, and ambition, but not bound and limited by an economic-social organization in such chaos as ours has recently been.

We are undertaking, in the Pacific Northwest, to bring about a sustained yield of the forests and of the fields, of the gardens and orchards, and the water; a sustained yield of game and wildlife; a sustained yield of recreation and its pleasures. Thus we seek a sustained yield of food and the means of material sustenance, all in order that we may bring about the most important objective—the sustained yield of life.

The New England Regional Planning Commission

By FREDERICK P. CLARK, Associate Consultant

THERE has long been widespread interest in regional planning for New England, and several attempts have been made to form a New England planning association. In March, 1934, with the coöperation of the former National Planning Board, representatives appointed by each of the six New England governors met and organized the New England Regional Planning Commission. In the words of the State representatives at the first meeting, it was desired "to establish a permanent body for the coördination of planning effort in the several New England States and for the making of basic regional studies for this area."

The Commission is composed of the chairman of the six State Planning Boards, two members-at-large, and a chairman appointed by the National Resources Committee. The surveys and planning studies are conducted by a staff under the direction and supervision of a consultant and associate consultant assigned by the National Resources Committee.

The staff of the Commission is preparing a plan in coöperation with Federal, State, and local authorities for (1) regional *coördination* of facilities for transportation (railroads, airways, and highways) and recreation (inter-State reservations, parkways, and trails); (2) *conservation* of forests, streams, and wildlife, and preservation of scenic and historic features; (3) the proper *development* of areas particularly suited to study from a regional rather than an individual State viewpoint—the Connecticut, Merrimac, and Blackstone river basins. In addition, studies are being made of legislation necessary to make the above plans possible.

The most important work being conducted by the Commission at present is a comprehensive study of inter-State river basins. The study covers the Connecticut, Merrimac, and Blackstone river drainage basins and is concerned with flood-control, erosion, pollution, recreation, navigation, and power. A conference of persons interested in New England water problems was held in February, 1935, at which time a Water Re-

sources Committee was appointed to work with the regular staff on an intensive study of the region's water problems.

A very significant study just getting under way is that of New England aviation. It will be conducted under the guidance of an Aviation Committee composed of leading New England men.

Other surveys and studies of the Commission are:

1. A study of New England population trends.
2. A program of Limited Motorways for New England.
3. A survey of transportation facilities and service.
4. A survey of highway facilities, traffic-flow, and accidents.
5. A study of railroad-highway grade crossings.
6. A survey of existing and suggested parks and forests.
7. A survey of sources of stream pollution.
8. A survey of existing and proposed legislation affecting planning.

In order to focus local interest and criticism on the broad programs developed by the Commission, an Advisory Committee has been formed. It is composed of more than 500 representative individuals throughout New England directly interested in planning. Of this number, 174 members are officials of various governmental agencies, 244 are representatives of organizations whose work or interests are connected with planning, and the remainder of the committee are private individuals. They have given unanimous approval to regional planning in New England.

The Commission actively coöperates with Federal, State, and local organizations, especially the State Planning Boards. Assistance has been given to about 100 local planning boards throughout New England and several thousand items of material have been sent out in answer to requests for information. To bring New England problems before the public the Commission has issued monographs on population trends, regional highways, housing, and grade crossings.

State Planning legislation in each of the New England States has been encouraged and supported by the Commission. Today every one of the New England States has a permanent board established through legislation. The result of the activities of the New England Regional Planning Commission has been (1) the promotion of a clearer understanding of the value of and need for planning throughout the region and (2) the preparation of preliminary regional plans for such matters as are particularly susceptible to regional consideration.

STATE PLANNING

Need for State Planning

By PAUL V. McNUTT, Governor of Indiana

Condensed from an address delivered at the Conference on City, Regional, State, and National Planning, Cincinnati, May 22, 1935

ABOUT a decade ago, Ferrero, eminent Roman historian, in an amazing volume entitled "Words to the Deaf," wrote:

There have been epochs more uncouth, poorer, and more ignorant than our own, but they knew what they wanted. What do we want? That is the essential question. Every man and every epoch should keep this question constantly before them, just as a lamp is kept burning day and night in dark places. . . . We do not know what we want. . . . On the contrary, our will is in a state of complete confusion. Sometimes it splits in twain, at once desirous of good and evil, or of benefits that are mutually exclusive. Sometimes it cloaks itself in agreeable falsehoods, persuading itself that it desires one thing, while all the time it desires something different or even antithetical. Sometimes it entirely strays away from reason and reality, lured on by a chimerical mirage.

Ferrero is a pessimist. I am not. Rather than choose the words of Ferrero, or Spengler, or Henry Adams, or any of the host of major or minor Jeremiahs who are around us, I would choose the words of the man who stood at Valley Forge, amidst hardships no one of us could ever know, and kept his faith—kept his faith in his men, in his God, in his nation which was to be. Washington said then, and his words are particularly applicable now: "The game is yet in our own hands. To play it well is all we have to do."

To play it well we need a planned economy. We have it in the National Resources Board, the State Planning Boards, and in the City Planning Commissions. I wish to speak on a State plan.

It is evident that the fundamental objective of a State plan is the provision for healthful, convenient, pleasant living conditions in situations affording abundant opportunity for the proper utilization of the talents and ability of all individuals in a manner profitable to each.

Calm and deliberate thinking upon the needs of the entire population is essential. The false influences of periods of prosperity and want must both be avoided. The economic security of the individual and the family must be established in a manner which will withstand the exigencies occasioned by the false and

limited thinking prevalent in both booms and depressions. In other words, the American family must be basically self-sufficient. Such self-sufficiency is far different from the self-satisfied complacency which exists when everyone has plenty of money. Moreover, it is a far cry from the want and woe prevalent during periods of depression. The more enlightened understanding of self-sufficiency embraces absolute conviction that the provision of needs must be accompanied by the opportunity to progress in proportion to the intelligence, ability, and talents of the individual. In no other way is it possible to construct an economic and social structure which will be proof against the onslaughts of prosperity and depression.

The underlying stratum affecting the activities of individuals engaged in all kinds of gainful occupations is the great mass of natural resources. The assembling of existing information, showing the location and extent of geological and soil deposits and natural growths and forests, is a first step. This should be followed by a technical study of the possibilities for development of each and the rôle which each must play in the struggle for self-sufficiency. A potentiality scale may be set up to rate each particular resource. Fundamental analysis of natural resources, simple in character, but requiring technical skill and a vast amount of study and investigation, will result in the division of a State into three great regions—mineral, farming, and recreational or public-use.

The mineral region will be divided into areas producing or capable of producing different types of natural products. Agricultural lands are divided into regions based upon types of farming. The reservation, or public-use region, broken into many areas scattered over a State, is formed from land unsuitable for farming on account of soil-deficiency, topography, erosion, or poor drainage, or because of surpassing scenic advantages. Public-use areas may be devoted to recreation of various types, forests, water storage, catchment areas for flood-prevention, game-preserves and wildlife refuges, and may include lakes and rivers.

The old idea of self-sufficiency, applicable to the early settlers, presupposed the ability of the family to produce everything it needed for its living and support. The pioneer was able to live in this manner, but the march of civilization has produced

a change from which a return is neither possible nor desirable. Now the measure of self-sufficiency is the ability of the individual to utilize or sell his services and to produce a return from which he may purchase the supplies which are needed to maintain himself and his family in a proper standard of living.

Manufacturing, absorbing the third great section of the population in its activities, depends upon natural resources for its raw materials. A thorough study of the potential use of stone, minerals, clays, coal, and products of the farm will undoubtedly result in the establishment of new factories for making articles not now in trade, or which are imported from abroad. Such thought and activity will be a great factor in the decentralization of industry. Decentralization does not mean, necessarily, removing industry a long distance from cities. The diversification of industry may take place properly within the city or near its borders. The combination of manufacturing of some sorts with part-time farming is sound and would be of great value in promoting economic security and the self-sufficiency of both urban and rural populations.

Transportation and power are two great factors in the development of a State. The first cities of the Middle West were established on rivers, followed by others on canals. The advent of the railroads encouraged the founding of more cities, where transportation and power, dependent upon coal, were available. The extension of super-power lines over the State and the building of highways, affording routes for trucks, will be strong influences to encourage decentralization of industry and population. All transportation should be coördinated and unfair competition eliminated. Tax burdens should be adjusted and equalized and each form of transportation utilized for the purpose for which it is best suited.

The development of a ten-year program for public works, annually brought up to date and extended one year, is a matter for serious consideration. The primary consideration of State planning is the development of human resources. Natural resources and human endeavor contribute to the main objective.

"The game is yet in our own hands. To play it well is all we have to do."

Work of State Planning Boards

By ROBERT H. RANDALL, Consultant, State Section, National Resources Committee, Washington, D. C.

A YEAR AGO there were forty State planning boards. Eight States had passed enabling laws, placing State planning on a permanent basis. At this writing (August, 1935) there are planning boards in forty-six States, the District of Columbia and the Territory of Alaska. Thirty-two States have given legal status to State planning by enacting enabling laws, and prospects for future legislation in the next sessions are most encouraging. Parallel with the growth in the number of boards and in the securing of legislation has been the increase of financial support accorded by the States to planning. All of the forty-six States provide office space and facilities for the boards' activities, and lend technical personnel, assigned for varying periods from other State departments. Nineteen State legislatures have made direct appropriations for State planning. The largest appropriation furnished to date by any State is that of Oklahoma, which has set aside \$100,000 for the twenty-six-months' period, beginning May 1, 1935.

The conditions under which consultants, compensated by the National Resources Committee, are assigned to State planning boards are substantially as follows:

1. Appointment by the Governor of an unpaid State Planning Board.
2. Assurance by the Governor that if adequate legislation has not been enacted, he will sponsor necessary legislation to put State planning on a continuing basis.
3. Agreement by the State Planning Board, endorsed in writing by the Governor, to provide reasonable office space, drafting and stenographic assistance and incidental expenses of the State Planning Board for the period covered by the program.
4. Assurance that a planning program will be developed and submitted to the National Resources Committee giving the status of planning work already done and outlining specific studies to be undertaken in the next six months. It is hoped that in this program specific attention will be directed toward studies of land utilization and water resources, the integration of the transportation system and the preparation of a six to ten-year program of public works improvements within the State.
5. An agreement by the State Planning Board that it will cooperate with the National Resources Committee in preparing a comprehensive report on "State Planning in the United States," by assisting the State Planning Consultants in assembling the necessary material for the Consultant's contribution to the said report.

6. Statement of the Governor's willingness to appoint the planner, or the chairman of the State Planning Board, as the State representative on a Regional or Inter-State Planning Committee, if such committee is organized.

Forty-six State planning consultants, working in coöperation with the chairmen of eleven districts, are assigned to thirty-five States, two regions, and one to a special study. Regional planning organizations are operating in the Pacific Northwest and in New England.

The very practical help given by Federal agencies to State planning is indicated by the fact that during the period December 15, 1933, to June 15, 1935, the National Planning Board and the National Resources Board supplied State planning consultants' services to the extent of some \$270,000, while the CWA and the FERA contributed approximately \$2,000,000 in personnel to supplement the staffs supplied by State appropriations.

Preliminary reports on the State's natural and human resources have been received from thirty-seven States and the New England and the Pacific Northwest Regional Planning Commissions.

Financial aid given by the PWA, CWA, and the FERA in providing staff aid for State planning boards was largely for the purpose of preparing projects suitable for prosecution under the emergency work program. Personnel for the planning staffs necessary was provided by the CWA and by the Relief Administration for both State and local planning boards, such projects being accorded preferred status.

Under the current work program financed by funds under the Emergency Relief Appropriation Act of 1935, both the PWA and the WPA endeavored to secure the benefits of sound planning by requiring that all project applications be referred to the planning boards having jurisdiction in the areas where the projects originated. This continues the practice established by the PWA and the Relief Administration in reviewing projects under their previous programs.

Governmental Relationships. The relationship between Federal and State planning agencies is well expressed in a recent report of the New York State Planning Board:

A plan for the development of the resources of a State should be coördinated with the larger regional or national plan. This presupposes the existence of a national authority (such as the National Resources Committee) that will determine national land policies, and sketch the outlines of a national resources plan.

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There should be a broad framework of national planning to insure wise State planning.

Broad national policies in relation to the use and conservation of all national resources would give direction to the planning of the State's resources. National planning would show in a broad way the Nation's requirements in relation to land-use for agriculture, for timber production, for watershed protection, for recreation. It should formulate general policies in relation to the use of the land that is now submarginal for farming purposes, and in relation to the gradual relocation of families living on such lands, or elsewhere permanently stranded without prospect of occupational opportunity. It should formulate the basis and lay down the main lines of a coordinated national transportation system—rail, highway, water, and air. It should prepare a long-term program of public works.

National resources planning will in turn be given form and reality by proceeding in close correlation with State planning. In other words, national and State planning need to be carried on concomitantly. They are really parts of a single process.

To insure participation of the various elements of the State's citizenship, and of its departmental life as well, many State boards have appointed advisory committees with memberships drawn from both private and official life. The rôle that State planning boards may in many instances assume in the State government is indicated by a progress report of the Minnesota State Board to the effect that, "The State Planning Board has been able to act as an unofficial cabinet for the administrative departments of the State in respect to consideration of emergency relief and public works."

Much helpful work has been done by the State boards in furtherance of local planning activity. The Pacific Northwest Regional Planning Commission has prepared a considerable amount of literature for the guidance of local planning, one particular paper being entitled "County Planning Commissions: Their Organization and Activities." * The Washington State Planning Council has published similar guidance material in its bulletin, "Some Notes and Suggestions on County Planning Procedure." The New England Regional Planning Commission has made public a bulletin comprising a list of all "New England Organizations Interested in Planning." The New Hampshire State Planning Board published in 1934 a booklet, "Town and City Zoning and Planning Primer."

The Pacific Northwest Regional Planning Commission has stimulated the creation of 226 local planning agencies. All of the counties and 76 per cent of the cities and towns in Idaho have recently set up planning boards, and the State Legislature has

*See page 208 of this ANNUAL where a summary is presented.

enacted comprehensive enabling laws for the establishment of such local agencies upon a continuing basis.

The progress, and to a large extent the existence, of many town and city planning boards is directly traceable to the support extended by the State planning board. Such boards have endorsed the applications of local planning commissions for staff aid, when these were presented to the FERA and the WPA and have done much in support of local planning through the close advisory relationships maintained through correspondence and actual contacts.

The 1930 census was the principal basis of *population* studies prosecuted by the State planning boards. More recent surveys of population conditions and trends, available from State agencies or from actual census surveys prosecuted under the CWA or the FERA programs, were also used. On the basis of material available, forecasts of population growth and trends were prepared, and many interesting and important conclusions were reached. The New England Regional Planning Commission reported that it expected a tendency toward stabilization of population of the New England area at approximately 10,000,000 persons in 1990. The Missouri Board expects a stationary population in Missouri in 1960. In Illinois the State Planning Board looks for a stabilized population of about 9,000,000 in 1960, and expects that 80 per cent of the State's citizens at that time will be living in urban areas, and 65 per cent concentrated in cities of 10,000 or more inhabitants.

The Minnesota Board, using mathematical analysis for prediction of population growth and trends, undertook a forecast of its own future population, and by similar procedure made forecasts for the neighboring States of Iowa and Wisconsin. The Michigan State Planning Board reported: "In total numbers the population of the State of Michigan is unlikely to increase in the future as rapidly as in the past decades."

Population characteristics, such as race and nativity, were naturally subjects of much study. Age distribution was a prime consideration in population studies. Because of the present widespread unemployment, studies of occupational characteristics with their implications for future employment, are of much interest. The Minnesota State Planning Board reports: "Assuming that the population of the State continues to grow in accord-

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ance with the estimates, and assuming that the rates of growth of the various groups of occupations continue in the future as in the past without abrupt changes," the following tentative conclusions may be made regarding the growth in the number of gainfully employed in Minnesota:

1. The total number will increase about the same proportion as the population, which means that a relatively small and gradually diminishing increase in total employment is to be expected in the future.
2. The numbers engaged in agriculture, forestry, and in the manufacturing and mechanical industries will increase very little.
3. Transportation, communication, trade, and the domestic and personal-service occupation groups will show substantial increases.
4. The professional-service group will continue to grow in numbers at a fairly rapid rate.

Zoning and Land Classification. State planning boards were assisted in land planning by the land-planning consultants assigned by the National Resources Board, who worked in close cooperation not only with the State boards but with the agricultural experiment stations and universities.

The application of zoning to rural development is in its early stages, but shows growth. Los Angeles was the first county to adopt a zoning ordinance, in 1925. Milwaukee County, in Wisconsin, adopted an ordinance in 1927. In Maryland, Montgomery and Prince Georges counties have adopted ordinances governing the development of territory adjacent to Washington, D. C. Oneida County, Wisconsin, adopted in 1933 what was the first entirely rural zoning ordinance. In December, 1934, the Wisconsin Regional Planning Committee reported that nineteen Wisconsin counties had enacted similar ordinances. This limited but very interesting experience in rural zoning has been made available to all State planning boards, through the publications of the State planning boards concerned as well as those of the National Resources Board, and further development of rural zoning is expected.*

Studies of land classification form the basis for recommendations for improvement in land-use, of which rural zoning regulations may be, in part, a method of enforcement. Land-classification studies were universally undertaken by the State boards. One of the immediate objectives was the determination of sub-marginal areas which should be retired from agriculture.

*See also article by C. I. Hendrickson on page 204 of this ANNUAL.

The classification of land-use problem areas, developed by the Iowa State Planning Board, is indicative of procedure:

1. Areas in which a substantial part of the farms are on land of such low productivity that arable farming is uneconomic and undesirable, and should be replaced by some other major use such as extensive grazing, forestry, and recreation.
2. Areas in which most of the farms should be permanently retired from cultivation and devoted to other major use for reasons other than the fact that they are unsuited to farming, such as areas potentially suitable for public recreation or other public use.
3. Areas where, on a significant portion of the farms, a change in the size, tenure, or financial status of holdings, or the provision of sources of supplementary income to farmers, is desirable.
4. Areas in which the checking of serious erosion on farms should be effected by a change in the cropping system, but without necessitating changes in the sizes of the holdings.
5. Farming areas which can be made suitable for continued occupancy by other farm improvements.
6. Areas of forest or cut-over land not in farms and not in public ownership where a constructive form of land use should be instituted.
7. Range lands where conditions of land use result in depletion of forage, in erosion, and in economic instability.

Reclamation. In respect to reclamation by drainage, the Indiana Board states that it believes "under the present economic situation, further drainage is justified only in instances of intensive farming operation." The Michigan State Planning Commission sent out questionnaires to drainage commissioners in that State. These indicate that there are "no present plans throughout the State for local drainage projects except for cleaning existing drains, and there is a well-informed opinion that considerable past drainage work was ill-advised and now presents a problem in its relation to inland-lake levels, ground-water levels and related matters."

The need of State planning, even before a State planning organization was available, is illustrated by a report from the Illinois State Planning Commission:

Reclamation of the Illinois River bottom lands was started shortly after the Civil War, though the greatest activity occurred between 1902 and 1922. Many comprehensive studies have been made of the Illinois River and from them has emerged a general agreement that levee set-backs aggregating \$8,000,000 in cost sooner or later will become a public project. Construction of these set-backs, it is estimated, will reduce annual flood losses from something more than \$2,200,000 to around \$560,000.

Erosion control has been considered by all the State boards. Pennsylvania reports that soil-erosion surveys indicate that one-

half the top soil of the State has been lost in a hundred years of farming, and goes on to recommend systems of crop-rotation, strip-farming, contour-plowing, and permanent pasture or forest use of the steeper slopes.

The Utah State Planning Board suggests that "through the medium of zoning the counties would regulate the use of land and protect it from over-grazing, water and wind erosion, isolated settlement and many other evils now attending land use." The Tennessee Board proposes agreements with farmers to plant winter pasture or cover crops after cultivated crops have been harvested, and to limit the area in cultivated crops to prevent soil-erosion.

Recreation. In the words of the Iowa State Planning Board,

Millions of people have nothing but leisure on their hands. They want work more than they want recreation, but it seems fair to assume that the final disposition of the unemployment problem will see practically this same amount of leisure time on someone's hands, distributed, let us hope, more evenly than at present.

With the decline in revenues from public taxation, and with the present high proportion of unemployment, the problem of providing recreational facilities in urban areas presents seemingly insurmountable difficulties. Federal and State agencies have increasingly been called upon for assistance. The California State Planning Board comments:

It becomes a definite obligation of all governmental agencies to prepare for it. The problem is that of providing on an ample scale through acquisition of relatively cheap land outside the limits of cities, a well planned, diversified system of recreation areas which will serve the people. . . . The development of a plan for such a system must start from a thorough understanding of the human interests which such a system is expected to serve.

"Recreation," says the December, 1934, Wisconsin Regional Plan Report, "can be defined as that broad form of land use which best contributes to man's non-material needs." While no State planning board has as yet fully completed a comprehensive program of State-wide recreation, most of the boards have set themselves to the task of preparing such programs, recognizing the necessity of coordinating recreational uses with other elements of a proper State plan. As a report of the Michigan State Planning Board states:

Recreational use, although it be the best use, is seldom the only value to be considered, for recreation is intimately associated with the problems of reforestation, game management, lake and stream control, health, urban and rural plan-

ning, population, taxation, zoning, transportation, industry, and even unemployment. This complex relationship with other human problems is of utmost importance. . . . The conservation program of works projects, including forest, fish, game and park development, emphasizes again the establishment of the State's recreational resources as a principal means of livelihood and enjoyment. The social and economic desirability of consummation of these projects by both State and Federal Governments goes beyond emergency and local calculations. Civilized society demands these institutions.

Planning for recreation has taken into account the creation and administration of State Parks, of wildlife reservations, of National Parks and Forests, and of restricted and vacation areas, both publicly and privately owned. In all of these phases of recreation the State boards are performing a useful function in coördinating the activities of the various State departments concerned and in correlating them with the programs of all interested Federal agencies.

The problem of best utilization, conservation, and development of *water resources* has been considered by most State boards in close association with the related problem of hydroelectric power development. Studies of water resources have received most attention in the States west of the 100th meridian, in the arid regions. In Maine, Michigan, Minnesota, Ohio, and South Dakota the planning boards made surveys of municipalities served by public water-supply systems. Studies in Maine assumed such helpful significance that a number of Maine communities have asked the help of the planning board in giving information and advice on water-supply problems. The Iowa Board surveyed the sources of public water supply in that State in coöperation with the State Department of Health. The Wisconsin and Wyoming Boards made similar surveys.

Stream-pollution is everywhere reported as a serious problem. In Missouri and the Pacific Northwest, however, pollution is not yet evident on a large enough scale to create a nuisance or to endanger fish-life. New Jersey reports that the greatest damage from stream-pollution is to be found in its interference with recreation.

The cure of stream-pollution lies in prevention or in artificial purification. Practically every State planning board has reported upon sewerage and sewage disposal.

The use of water areas for recreational purposes is stressed in many of the boards' programs. North Dakota, New York, and Wisconsin advocate improvement of their lakes. The New York

State Board urges that public opportunities for access to rivers, lakes, and seashore be conserved and increased. In Wisconsin the planning board recommends future studies of water-level control, and of pollution dangers in the recreational lakes.

The Arkansas State Planning Board has considered the possibilities of diverting water from one river basin to another and is interested in the protection of the mineral springs which constitute a resource of great value in that State. The Utah Board reports upon the advisability of creating a fresh-water lake, separated from the Great Salt Lake by dikes. These and other special problems are reported by various boards.

Power. It is a notable fact that, notwithstanding the decrease in consumption of many goods and service during recent years, the use of electricity has in many areas consistently increased. Recognizing the vital part which electricity plays in our individual and collective lives, State boards have undertaken the study of electrical power development and use.

The Minnesota Board states that:

The economic and social welfare of a community or region will be affected materially by the availability of adequate quantities of electricity at low cost. Improved economies in the transmission of electricity and in the utilization of fuel for generation of power, promise to remove the handicap of areas without adequate water-power resources. The remaining undeveloped water power in Minnesota is located in the areas considered best suited to forest use in the northern part of the State. This water power may aid in the development of small urban areas supported by forest industries and tourist trade. An electric power plan is needed for Minnesota, which will promote the best unified use of all resources, and which will promote adequate provision of present and future power needs of the State.

The Missouri Board reports that "quite a number of opportunities exist for the development of power dams and lakes as in the case of the Lake of the Ozarks. . . . Projects of this character are beneficial in agricultural areas in that the availability of cheap power in large volume should invite local industrial development and generally provide opportunity for improved standards of living for the residents of agricultural areas."

State Boards throughout the country, in cooperation with the FERA, made surveys of the needs of rural electrification, including recommendations as to generation and distribution facilities.

Large power projects have been studied and reported upon in several instances. The work in the Tennessee Valley is too well known to require further elaboration, but developments of a

comparable nature have been suggested in several other regions. Notable among these are the Passamaquoddy project in Maine, the Bonneville and Grand Coulee Dams in the Northwest, the Boulder Dam project in Arizona, and various steam and hydroelectric power development proposals in the New York region. The planning boards of the States affected by these various projects have studied their possibilities and have reported on them to the State and national authorities concerned.

Minerals. Reports from State boards show that their programs include surveys and specific studies on occurrences and location of mineral-bearing deposits; inventories of mineral reserves; fundamental geologic research; improvements in the technique of geologic exploration; improvements in the technique of mining and metallurgy; broad studies of the economic problems confronting the mining industry.

Transportation, obviously a basic factor in any plan for the development of a city, region, State, or nation, has been studied in its various aspects by all State planning boards. Such studies comprise all methods of transporting passengers and freight, and include highways, railways, and terminals, ocean and inland waterways and ports, airways and airports, pipelines and communication lines. Transportation studies undertaken by State planning boards have considered not only the individual problems of the different forms of transportation within the State but also the relation of all of these to other factors in State development.

State highway departments have made plans of highway development in their various States for many years. The advent of the State planning board has in most cases served to improve and strengthen the planning work of the constructing agencies, and the coöperative efforts of the planning boards have been welcomed. In the words of one State highway director who is incidentally a member of his State's planning board, "When we go before the Legislature for highway revenue legislation our position is much strengthened if we have the support of the State Planning Board."

Studies of special types of traffic were made by several boards. The Indiana Board made an analysis of the operating methods of common, contract, and private carriers, with reference to their financial responsibility and insurance carried and to the extra

costs of highway construction and maintenance caused by such heavily loaded vehicles. Bus and truck transportation studies were made by most of the State boards. Kansas made a comprehensive survey of trucks entering the State, to determine the number of trucks operating and the volume of freight carried into the State from outside points, the average length of haul within and outside the State, the commodities hauled, place of origin and destination, and weight of load. The Arkansas Board as a result of similar investigations reported that truck and bus lines largely parallel and duplicate the existing railroad service, and proposes to attempt the determination of how much of this duplication is justified. Colorado, Maine, New Hampshire, Indiana, Minnesota, and Kansas reported similar studies.

Parkways, freeways, and limited ways have been studied and in some cases recommended by the State boards as desirable parts of the highway transportation system. Outstanding among the parkways proposed are the Green Mountain Parkway and the Shenandoah-Great Smoky Parkway. The "freeway," in essence a parkway on which access from abutting properties is prohibited, is recommended as a desirable extension to similar existing types of highways in New York State.

The New England Regional Planning Commission has recommended the use of limited ways in that district. These incorporate: separation of opposing lines of traffic; grade separation or traffic circles at intersections; control of margins to prevent access except at designated intersections; provision for pedestrian paths along the highway and over bridges; proper curves, banking, and visibility for fast-moving traffic. The Commission has made available a 12-page pamphlet entitled "Limited Motorways," in which the economies resulting from the construction of limited ways are detailed.

Most of the State planning boards have recognized that *railroad* transportation is essentially a regional or national affair. The Kentucky State Board stressed both the need for coordinated transportation and the consideration of the national aspects of railroad traffic. In Colorado the State Planning Board emphasizes the fact that there is a greater need now than ever before for improved railroad transportation. In Arkansas the State Board reports the abandonment of some 286 miles of track since 1922.

STATE PARKS

NATIONAL CONFERENCE ON STATE PARKS

A Ten-Year Review

By RICHARD LIEBER, President, National Conference on State Parks,
Indianapolis, Ind.

EDITOR'S NOTE.—The National Conference on State Parks, organized in 1921, met in 1925 at Skyland, Va. The 1935 meeting at the same place was in the nature of an anniversary conference. Three of many excellent papers have been selected for presentation here.

TEN YEARS ago we met here to hold the Fifth National Conference on State Parks. John Barton Payne was President, Stephen T. Mather, Vice-President; they are with us today in devoted memory. The meeting-place at that time had been selected in order to be helpful in the desired establishment of a great public playground in these marvelous environs. Honorable E. Lee Trinkle, Governor of Virginia, welcomed us; Congressman R. Walton Moore addressed the Conference.

We had a great many interesting subjects and many fruitful discussions about what we had heard and seen. As always, we were interested in National Parks, as evidenced by our very presence in a proposed site; furthermore, we listened at that conference to a vivid description of "The Smoky Mountains as a National Park," by Colonel Chapman. Both of these great enterprises have been realized and stand as monuments to the perseverance of their sponsors. Our own organization takes no small pride in having helped. But the main concern, as I well remember, was the Conference's desire to work out in a comparatively new field a policy as well as a philosophy of State parks, in order to increase their usefulness and maintain their integrity.

For the first time we busied ourselves with a survey of State parks and kindred properties—a labor undertaken and splendidly carried out by our Field Secretary, Raymond H. Torrey. This work subsequently was taken up and expanded by our Secretary, Miss Beatrice Ward. So fast have the parks increased that we are today in need of a revision and expansion of this most excellent compendium.

For the first time we also heard of that bit of sound provincialism, the "Regional Park Meeting," and, in the course of years, we have held a number of highly successful regional conferences in the Middle West. I hope that the practice will be extended, and in that work we will depend on the cooperation of the National Park Service—State Park Division.

Much has happened in State park history in the past ten years, and an enormous impetus was given through the coming of the CCC camps. The creation of these camps was a master stroke. They have met with universal approval. Undoubtedly, our young manhood has as much benefited by the experience as has the country at large; but there will come an end to "pick-and-shovel" work in State parks on the scale that exists now, partly because there is no more to be done in a given area, and partly because the individual States, as yet, have not signified their willingness to guarantee maintenance and continuity of purpose to the Federal Government. The Government, in turn, by this time has such a great investment in the enterprise that we, as a citizens' organization reaching over the country, would be missing a great opportunity to make Federal aid a lasting benefit, if we should fail to hold the States to a definite park policy. There should be better guarantees on the part of the separate States as to their promised performance. Our own undivided support of the State Park Division of the National Park Service would be simply an emphasis on self interest.

If we wish to preserve the integrity of State parks we must help to ward off undesirable or substandard additions to the number, as well as unsound practices within the established parks. I believe that the National Park Service would welcome our help, for we may readily imagine that it is overrun with all kinds of "unselfish proposals" to make "silk park purses" out of an over-supply of "sows' ears," for which there is no other ready market.

Our activity in the States, in close cooperation with the American Civic Association, city and State planners and commissions, would also clarify the status of worth-while recreational projects, some of which would qualify as State parks and others not, for it is not necessary to establish elaborate State parks in order merely to obtain camping, picnicking, playgrounds, or general recreational facilities.



Courtesy American Forests

**Camping-site in Allegany State Park, New York, Typical of Many Developed
for the Enjoyment of the Public**



View in Adirondack State Park, New York, with Lake George in the Distance

Courtesy American Forests

If, for instance, the citizens of a certain town or city desire swimming facilities, and they can be provided, by all means let us help a good work along by building the necessary pond commonly mislabeled "lake." But let us keep these things out of the State parks, especially if the parks possess scenic or historic value.

Wherever the people want a State park, someone should tell them whether it can be done and how it can be done, and what it will cost to build and to maintain. It is one thing to believe in Santa Claus and another to capitalize him.

The Government has gone so far in this State park work in the last two years that it must have a permanent organization of park builders and technicians. While "pick-and-shovel" work in parks will come to an end, the Government's large investment should be protected and its fund of knowledge, plans, and records should remain available to the States for guidance. Furthermore, the Government should be put in a position to prescribe the nomenclature and service accordingly. Merely to obtain land, provide a gate, and an occasional shelter-house, should not entitle a place to the rank of "State park." Promising properties of that sort should be called "State park territory," and be so known until, by circumspect and orderly preparation, they are able to graduate into the State park class.

After more than 300 years of settlement, leading to ultimate complete occupation of these United States, we have, in the process of conquering this vast territory, indulged in grotesque and profligate waste of natural wealth. It is worthwhile to do all we can to save those spots which, miraculously, survived. That is the meaning of National and State parks—State parks that deserve the name, not mere outing-places. There are yet some spots left which have not suffered in this maddening and often nauseating scramble for "bigger and better" things; but this bigger-and-better stuff simply would not "stay put," and that is the reason our cities and towns have contributed so much to the rack and ruin of the landscape, of lakes and water-courses.

After 300 years we have ruined much beyond retrieve, adding to the chaos by way of our shifting "improvements," but, with all of our eagerness to build, we have not yet created a single architectural masterpiece expressing our own culture.

Our great monuments are neither Gothic cathedrals nor castles on the Rhine. Ours are still those marvelous parts of our country which have escaped destruction, notably those which have been set aside as the great National or State parks. Again, what a marvelous opportunity is ours for, notwithstanding song and romance and skillful advertising, Baedekers and Blue Ribbon ocean liners, there is practically nothing left of natural values in Europe as it was in the beginning of things. In marked contrast we still have some glorious spots left in this country, some as yet even undiscovered, which hark back to the day when the white man was not in these parts. What an opportunity and what an obligation!

Loria, the Italian economist, so Frederick Jackson Turner tells us, has urged the study of American colonial life as an aid in understanding the stages of European development, affirming that colonial settlement is for economic science what the mountain is for geology, bringing to light primitive stratifications. "America," he says, "has the key to the historical enigma which Europe has sought for centuries in vain, and the land which has no history reveals luminously the course of universal history. There is much truth in this. The United States lies like a huge page in the history of society. Line by line as we read this continental page from West to East, we find the record of social evolution."

May I be permitted at this time to suggest to the National Government a rare opportunity for visual education concerning an era in our history which, politically and socially, was the culmination of the ideas of the eighteenth-century thinkers and which, in itself, was also the closing chapter of an economic period. I refer to the colonial farm, that self-contained entity of life. I hope the Government will see the fruitful possibilities in this direction by reconstructing and operating in the North a complete colonial farm and, in the South, similarly, a plantation. Beyond this it is devoutly to be wished that the National Government may assist the States in the preservation of their historic public and private buildings. In my own State (Indiana) I had the privilege of participating in the restoration of three valuable and enormously interesting properties, only to learn to my regret how many others of like value had to be delayed or even forgotten.

Turner reminds us that "The early settlers were tied to the coast by the need of salt, without which they could not preserve their meats or live in comfort." This need was in part the cause for search and consequent discovery of salt springs along the Kanawha, Holston, and Kentucky rivers and in central New York, and it was this find which enabled settlers to cross the mountains. Would it not be possible to locate some of these springs and mark them as a lesson in American history?

If we once fully understand our own origin and development, if it becomes clear to us that it was not alone our European inheritance and tradition but rather, and increasingly so as we expanded westward, the American factors of life which shaped our national destiny, we will in turn take deeper pride as well as a keener delight in things truly American.

Need I preach that verity to you, my friends and collaborators? Have we not all worked toward the practical ideal of State parks, and attained some of it in practice?

But will you not permit me, in conclusion, to restate a definition of State parks as it has taken form in my mind after more than twenty years of work, of contact with helpful kindred spirits, and of observation in general. A State park is a typical portion of the State's original domain. It is a tract of adequate size, preserved in primeval condition; it is "unspoilt," "unimproved" or "beautified." It is a physical expression of life, liberty, and the pursuit of happiness.

State parks offer much to all classes of citizens. To the city dweller they bring the solace of quiet and solitude. In the same place the rural peoples may find the pleasure of crowds and intercourse with strangers. The student finds much to study in the flora, fauna, and geologic structure. The artist finds beauty. The young find the sport of swimming, hiking, and fishing. The beneficence of Nature gives to each who comes what he wishes.

We have in State parks a sermon in true Americanism. They represent a bit of the sacred soil from which grew the Declaration of Independence and the Constitution. They are a constant reminder of the source from which our present-day comforts flow.

Let us ever remember that State parks are social institutions, and that their first and foremost object is to preserve our native scenery in its primeval glory.

Parks and Their Uses

By CONRAD L. WIRTH, Assistant Director, National Park Service

PARKS have been given a great deal of attention, even before the beginning of the Emergency Conservation Work which gave the wonderful opportunity to go full speed ahead in the furtherance of conservation, to get work accomplished on our already established parks and other recreational areas, and to provide an incentive for many States to set aside areas on which conservation and recreational work could be done.

Let me give you the definition of conservation which the National Park Service adopted and put into the Recreation Division section of the National Resources Board Report. It is short and to the point: "Conservation is wise use." That definition, I believe, embraces all of conservation, whether it be of natural economic resources for future production, or of resources for the recreational use of the people.

For convenience and clarity, I shall divide parks into two classifications: (1) parks that are set aside primarily for conservation, and (2) parks that are set aside primarily for recreation. These two types of areas may be joined or they may be separated. One might even completely surround the other, forming a multiple-use area.

Any one of at least six distinct considerations may govern the selection of park areas for conservation. Just what does each mean in relation to State park areas and smaller park districts such as county or metropolitan park areas?

1. SCENERY

- A. State park selection: A general combination of features, none of which in themselves might be called outstanding; but all of which thrown together comprise the outstanding natural scenic areas of the State.
- B. Other park districts. The general combination of features that are outstanding in that region or that best conform to the needs of that region.

2. TREES AND PLANTS

- A. State use. Special types or specimens or groups of specimens and types that are so outstanding that they attract State-wide recognition and need protection.
- B. Other park regions. Special types or specimens which are of great interest locally or which fill a definite local need, or are the best that can be had to meet the conservation needs and demands of the local park regions.

3. WILDLIFE

- A. State. Sufficient area should be set aside in order to protect wildlife in

its natural habitat, and laws and regulations should be established and enforced in order to protect the important species of wildlife of the State. The State should designate as State wards the important species that are in danger of extinction and should protect them fully until such time as they have been well re-established.

- B. Other park regions. Unless the region is of considerable size, it is usually impossible or impracticable to set aside areas similar to those prescribed for the State. However, this should be done in local communities wherever possible and every effort should be made to cooperate with the State's program.

4. GEOLOGIC FEATURES

- A. State parks. All geologic features that are important should be set aside and protected by the States.
- B. Other park regions. Generally speaking, the protection of geologic features will fall almost entirely within the State's jurisdiction.

5. WATER

- A. State areas. Bodies of water or streams in their natural condition and whose shores had not been molested, of any considerable size or interest, should be brought under the park-conservation jurisdiction of the State.
- B. Other areas. Complete harmony in promotion of State policies should be adhered to.

I am including historical areas under park conservation areas, although they perhaps should be classed by themselves. A complete study of the historic development of the State should be made, and those areas that are important to the history of the State, whether from a standpoint of war, science, invention, progress, immigration, or whatnot, should be set aside and properly marked and protected. The same thing should be done in local park areas.

Now let us consider the second group, Park Recreation Areas. These areas are for the purpose of concentrated recreation and may be broken down in any number of ways. I have chosen, however, to consider only four divisions, any one of which might well be broken down further.

1. **CAMPING AREAS.** These areas should include all types of camping such as tent-camping, cabin-camping, etc., together with all necessary facilities to make such an area complete for its purpose.

2. **HIKING AND RIDING AREAS.** These include paths in all sections of publicly owned property for all forms of travel other than by automobile or other heavy vehicle. This type of park recreational area includes those lands which can be seen by the person using foot-trails through the undergrowth.

3. **PARKWAYS.** These include specially constructed roads for driving purposes and are usually constructed on narrow pieces of land connecting larger park areas and having sufficient right-of-way to give a park-like character. In other words, on these areas there shall be no foreground structures.

4. **HIGHWAYS.** I have included highways in the category of park recreational areas. Although few of our highways at present are protected from abuses, nevertheless they are used more for recreational purposes than for any other and are extremely important to the people of this Nation from a recreational standpoint.

These areas might be combined. Hiking-trails might pass through many of the park recreational areas, or, if not, they probably pass many of the park conservation areas, and they themselves very likely contain certain areas which could be termed park conservation areas.

True conservation areas are hard to find, because they exist only in sparsely populated sections. We may accept the statement which Colonel Richard Lieber used in a letter to Herbert Evison, State Park Supervisor, which was that "as soon as we enter an area it is intrusion and the area ceases to be a true wilderness area." We shall find then that we have very few really wild regions. After all, the best park conservation areas are set aside for the social benefit of the people, and if the heartiest of us care to wander through wilderness areas without trails, surely that would not be a violation of the principles governing park conservation areas. We could split hairs arguing about when an area is a park conservation area or when it is a park recreational area, and perhaps not come any closer to it than any of those who have discussed it in previous years.

It can be said that the more park recreational areas we acquire, the more conservation areas we will possess. This rule will hold good until we reach a point in the development of the States when it no longer becomes practical or desirable to set aside areas for park purposes, or at least for park conservation purposes, because in doing so we will upset a balance between the social and the economic benefits to the people. However, I know of no State which has reached that stage, and no doubt it will be a number of years before this occurs.

While there is a tendency for park conservation areas and the park recreational areas to grow together, we must always bear in mind the distinction between them, and forever seek a means of separating these two types. I say this because if the bars were let down and no consideration given to park conservation areas (and that is an easy thing to do, for park recreational areas are very popular with the masses), we should soon find

that they would encroach so far on our conservation areas that the latter would cease to be such and would automatically become recreational areas. There is a great need for both types, and perhaps one of the most important reasons why park recreational areas are more popular than the park conservation areas is that we, as a nation, take to a vigorous type of recreation due, almost entirely, to our past history, which has been one of enterprise, hardships, and progressive endeavor. However, we are on the threshold of maturity, as a nation, and we must give careful consideration to our finer senses which will desire an atmosphere for our leisure time such as can be provided only by park conservation areas.

Although the National Resources Board report recommended about 10,000,000 acres for State parks, it is my conviction that there should be at least 30,000,000 acres, of which about 80 per cent should be for park conservation type areas and the other 20 per cent, or one-fifth, for park recreational areas.

This leads to a consideration of park recreation in State parks. How are the areas to be selected? In the past, and even in the present, we rely largely on our judgment without considering the facts. Sometimes this judgment is good; sometimes it is not. Our judgment has, perhaps, been better in selecting park conservation areas than in selecting park recreational areas, because of one of the senses which God gave us—our eyesight. Our eyes are the feelers for our imagination. We can see beautiful scenery, a fine group of trees, wildlife, extraordinary geographic features, and a beautiful waterfall. If they are really outstanding, we say, "That should be set aside and protected for all time." And, really, that is the basis on which to establish park conservation areas. However, when it comes to the establishment of park recreational areas, we do not go to the trouble of figuring the problem out in advance but wait until the demands are so great we have to do something. We see a bare piece of ground and pass it by, whereas, if we had our facts, we would realize that there is need for a recreational area in that spot. We could visualize how that piece of barren land could be transformed to serve good recreational purposes.

I have just referred to the terms "imagination" and "facts." Let us dwell for a moment on "facts," because, after all, they are the basis of visualizing the establishment and development

of recreational areas. Who can answer these questions: How many people in the United States are receiving salaries less than \$1,500 per year? Where are they located? What kind of recreation, if any, are they getting? What kind of recreation could they afford if it were available or what kind of recreational facilities do we think they should have for their own well being?

Let's ask a simpler question: About how far will a person travel for a week-end outing? There are hundreds of questions similar to this that must be answered before a complete and comprehensive State park recreational area plan can be laid out. These questions are essential—just as essential as are the questions you ask yourself and your family when you start planning for a home. You take into consideration your desires, your probable needs, and your resources. Therefore, why shouldn't you take into consideration these same factors in planning recreation for your State household? One other question before I refer to a step we are taking which we hope will aid in developing State plans for both park conservation areas and park recreational areas. The question is: "Have you ever stopped to count, on a Sunday, the number of people who stop along our billboarded and fenced-in highways for a picnic?" If you have, how many of you have taken steps to provide suitable places along your highways for picnic purposes? Do you realize that an average of over 80 per cent of our week-end travel is pleasure travel, which of course is recreational? Should we not provide some protection for these people, such as a place to turn off from a highway into park-like areas which we term "waysides"? The biggest users of our highways are the recreation-seeking people, and until now we have given very little attention to the protection of that scenery which they seek and which can be supplied by proper zoning and the provision of adequate locations for waysides.

While we are proud of the big advance that has been made in State parks, through adding nearly 600,000 acres to the system in the last two years, yet, in taking stock, we realize we are far behind what should be our goal. We realize that in order to provide the people with those areas that will be of benefit to them, we must take account of our natural resources and our present and future demands for recreation. We have up for consideration at present a request for funds to make a study of

the recreational needs of this country, and, if this is approved, we shall call upon each of the States for assistance, and the reports of these surveys will be made available to the States. We propose in the survey to take into consideration three distinct phases of work: (1) a study of the United States, State by State, in an effort to locate and to define the boundaries of State conservation areas, to cover scenery, trees, plants, wildlife, geographic features, water, and history; (2) a proposed study of the recreational needs and probable demand of the people of the United States, State by State, county by county, and city by city, canvassing workshops of various kinds, farm areas, and farm communities, city business sections, and city residential areas—in fact, all populations in the United States that we possibly can to ascertain the needs and probable demands for recreation; (3) a search for park recreational areas that will meet the present and future needs of the people of the United States.

Essentials of State Park Legislation

By PAUL V. BROWN, Regional Officer, National Park Service

NEARLY every State now has on its statute books at least one law relating in one way or another to State parks. In relatively few of the States have these laws been so broadly and satisfactorily framed that their State park legislation may be said to have reached practical stability. At least a dozen States, during the 1935 regular legislative sessions, asked the National Park Service for suggestions as to how their laws might be improved, or, in the case of a few States which were virtually without State park laws, what such laws should contain. Because of the demand for such information, the State Park Division, in the Branch of Planning, issued a mimeographed bulletin or memorandum covering the subject, which seems to have been helpful in several quarters and which was the basis for at least one new general park law—that passed by the Legislature of Maine.

Out of the experience of so many States it certainly seems that it should be possible, not to shape an act which all the States could adopt, but to set out the essential features of park

legislation on the wisdom and soundness of which there is fairly general agreement. That uniform legislation is both impossible and undesirable was the conclusion of a special committee, headed by the late Everett Millard, which was appointed at the first meeting of the National Conference on State Parks, in 1921, and which reported at the meeting the following year. Time has borne out the validity of their conclusion, which is based on differences in area, population numbers and distribution, and the temper and habits of the people.

Any general State park act will, of course, provide the necessary administrative organization. We are often asked, "Just what is the best administrative set-up for parks?" To which the answer is, "There is no best set-up."

In a State newly embarked on park work, but which has established agencies for forestry—especially if that includes administration of State forests—or fish and game, or both, it seems to us that a separate State park commission is justified. Otherwise, there is too much chance that the youngest conservation branch will be the neglected child of the family, because of the headstart of the others.

With this exception, there seems to be fairly wide agreement on the wisdom of making parks a branch of a conservation department coördinate with the other branches. For a State with many parks and with either a heavy population or great size, it seems to us that New York has developed a sound modification of the more or less standard set-up, with her regions and regional commissions, and the logical decentralization of administrative responsibility that goes with them, but with centralized responsibility for major policies and the budget. Probably Texas, chiefly because of size, would do well to follow the New York example—perhaps with somewhat fewer commissions; California and Michigan come to mind as two other States in which conditions warrant some such arrangement.

Whether covered by very broad authorization or a specific listing of duties and powers, there seems to be general agreement that a State park act, or any more general conservation act which defines the scope of a State's park activities, should include grants of power with authority: (1) To employ necessary personnel; (2) To purchase—including the power of eminent domain—and to accept donations or bequests of lands

for park purposes;* (3) To set aside parks or similar areas on lands already owned by the State; (4) To make surveys on which to base both selection and development of parks; (5) To undertake necessary development; (6) To make and enforce regulations, of which violation would be a misdemeanor; (7) To impose reasonable fees; (8) To enter into contracts or agreements—preferably subject to some such reasonable time limitation as five years—for operation of services.

Although there are certain parks—notably the Adirondack and Catskill parks—in which hunting is permitted, many of us believe that a prohibition of hunting on State parks should be included in the law rather than in commission or department regulations. Hunting and State parks seem to be completely incompatible, since preservation of wildlife—using the word wildlife in its widest sense—is a primary objective of State parks.

The report of the Recreation Division to the National Resources Board attempted to arrive at a simple classification of State recreation holdings and to define the several classifications. The whole purpose was to give some real meaning to such designations as State parks, monuments, recreation reserves, waysides, etc., and, almost as important, at least to influence the type of administration and development given them. I think most of us have some feeling against giving the name State park to any except genuinely scenic areas; and most of us know that it is now applied to an extremely miscellaneous collection of State properties. The Recreation Division classification, or something like it, could well be included—as it was included in slightly modified form in Maine—in the general State park act.

State park legislation can set up an administrative agency with a fair guaranty of stability and continuity of policy. It cannot be framed in such a way as to assure such necessary things as administration on an efficiency basis, employment of qualified personnel, maintenance of high standards of selection, development and administration. And these are the tests of the success of any effort in this field.

*Colonel Lieber has insisted that the act should specifically authorize rejection of gifts or bequests. We may leave it up to the lawyers to decide whether authority to accept automatically carries with it authority to reject; but such authority any park administrative agency should possess. Otherwise we should find the States even more badly loaded than they are now with so-called parks that should never be their responsibility.

STATE PARK DIVISION—NATIONAL PARK SERVICE

Recent Progress in State Parks

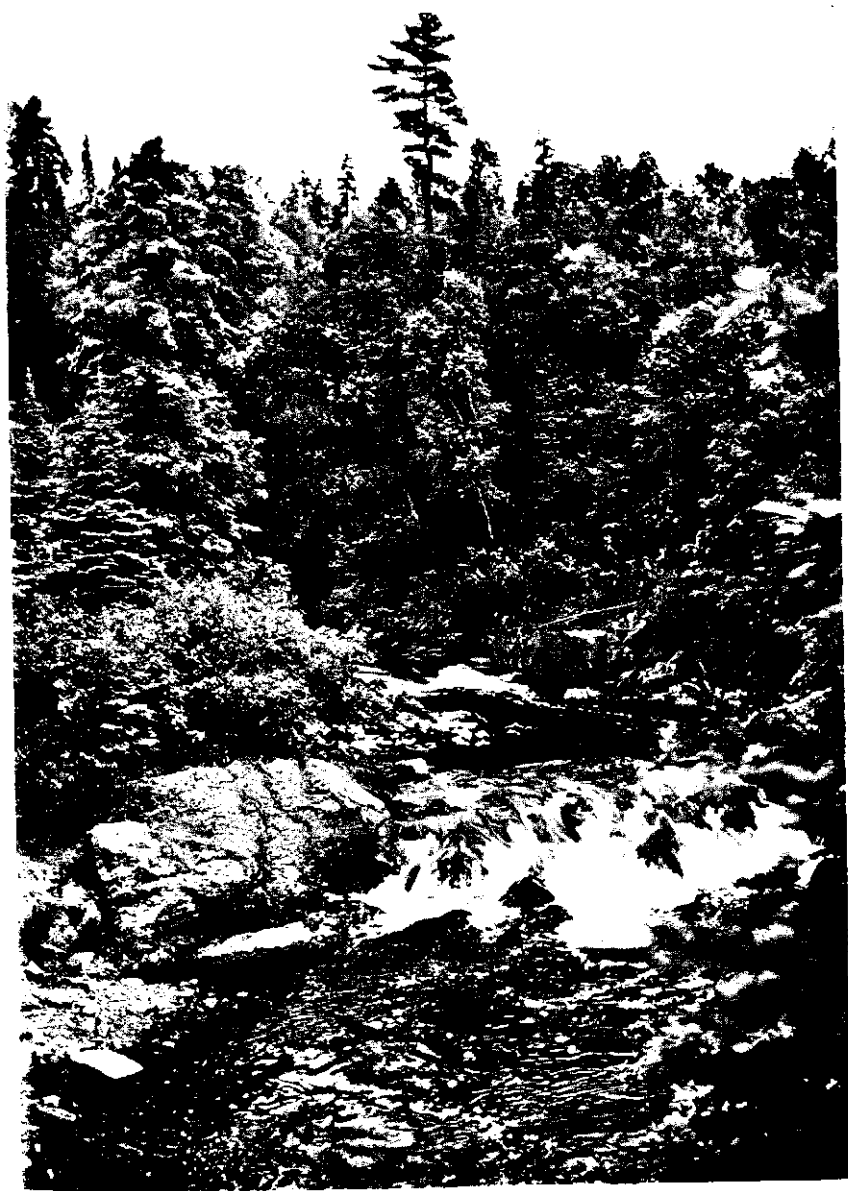
By HERBERT EVISON, State Park Supervisor, National Park Service

FROM the moment it was realized that the CCC could legitimately be utilized to perform Emergency Conservation Work on State parks, the State park situation underwent, for good or evil, the most radical change in its seventy-year history. Relief labor had previously been used in these parks in a few States, but at the moment their development was close to the stagnation point. Acquisition of lands was virtually at a standstill; new development activity was in almost the same case, and operating funds were suffering so badly as a result of the general curtailment of State expenditures that it was necessary in at least one State to close some of the parks. Large sections of the country, most notably the South and Southwest, were still unawakened to this particular kind of State undertaking.

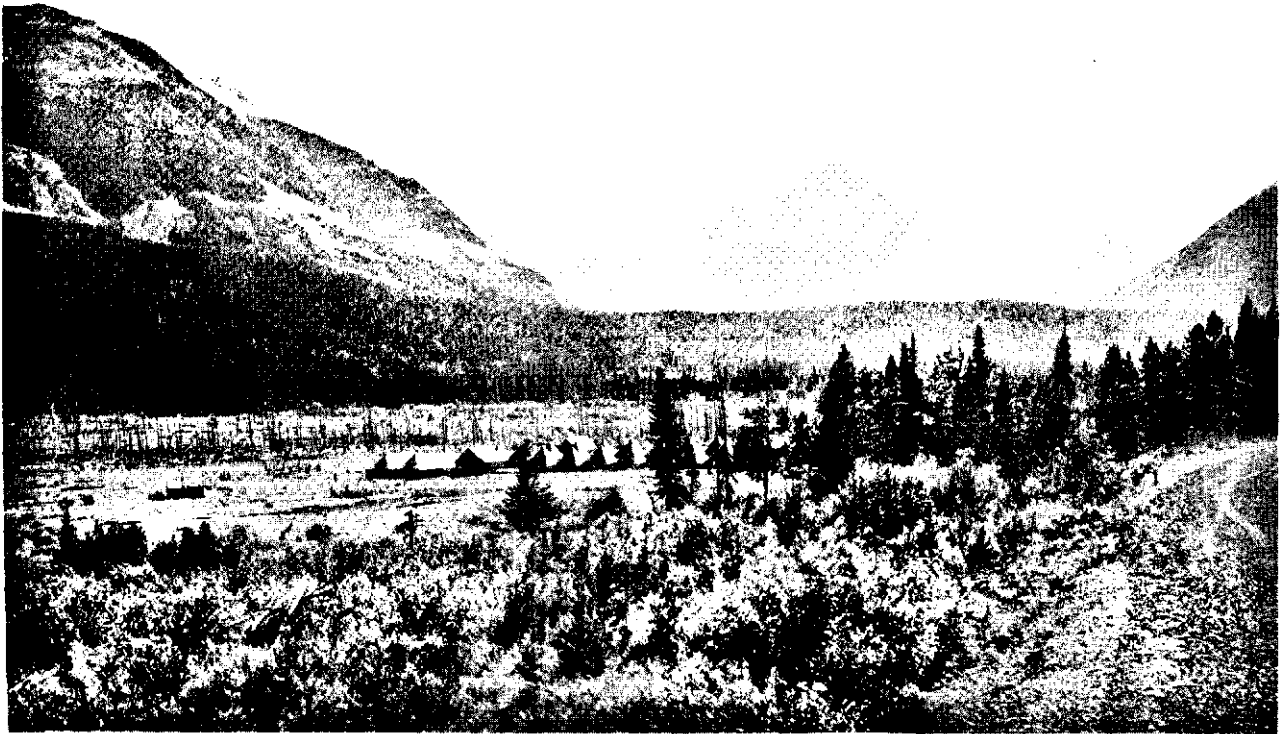
Although they did not all sprout immediately, the seeds of almost all the major changes that have occurred during the past twenty-seven months were there in the beginning. During the first period of operation—about four months, actually—so-called State park camps were to be found mostly in those States in which park activities were fairly solidly established. An exception was Virginia, which has been laying the groundwork for the establishment of a park system for several years, and which acquired its first large holding in time to obtain for it the advantages of this work.

The seeds sprouted in Arizona, Florida, Nevada, New Mexico, and Oklahoma, and in many other States the impetus given by the work to revived acquisition programs was indicated by the placement of camps on a number of parks which had hardly even been dreamed of six months before. A number of States, such as Arkansas, Alabama, Florida, and Georgia, which had previously stuck a timid and hesitant foot into the State park water, have decided that "the water's fine" and are in "all over."

As the work has progressed, the National Park Service has



Gooseberry Falls State Park, Minn.



One of the Forest-fire Prevention Camps of the CCC

Courtesy American Forests

pointed out the necessity of providing sound administrative machinery in State parks and of gaining public and legislative recognition of the related necessity of providing for upkeep. From our own end of the work, we are aware that, no matter how great our insistence on applying to the planning of parks the best obtainable technical assistance, the volume of the Emergency Conservation Work undertaking and the very serious paucity of men who combine technical ability with practical park administration experience has been a heavy handicap. The result is that in some cases we find that developments in which the individual features are of highly satisfactory quality combine into a general layout which could be improved on in point of ease and low cost of administration and maintenance. Our objective is, however, to place in the parks developments which, with respect both to the whole and the individual items, will facilitate both the task of maintenance and the equally important task of control of use and user.

There are States in which a lack of standards of selection, or the inability to say "no" to proposed park gifts which careful consideration would show to be potential liabilities rather than potential assets, has, during the past two years—as in the many preceding years—brought into State park systems areas that would much better have been left out. I have, however, been surprised to note, in the course of rather extensive travel in the field, how few were the properties which, in my opinion, should not be State parks. Also, I am convinced that even the newcomers in the field are increasingly realizing the importance of thoughtful selection of areas as to quality and location and of careful delimitation of individual boundaries.

Legislatively, the two years have been a period of progress. Oklahoma has set up a State Park Commission, to which Governor Marland has apparently made excellent appointments; Maine has a new and exceptionally comprehensive State park act. In Minnesota, where State parks have been a responsibility of the division of forestry ever since the Conservation Commission was established in 1931, a new, coördinate State Park Division was created by the 1935 Legislature.

New Florida legislation establishes a Park Service. This act requires certification to the qualifications of the Director of the State Park Service by the National Park Service. In Texas, an

act that would have taken the parks of the Panhandle region out of the jurisdiction of the State Parks Board and placed them under an independent commission, was vetoed by the governor. And a number of States have recognized the long-time value and importance of this field of activity either by making appropriations for it for the first time or by making moderate increases over previous years.

So much for a bird's-eye view of what has transpired and is transpiring. We are still far short of our needs with respect to State park acreage—but things are moving steadily in the right direction.

Two Years of ECW

By FANNING HEARON, State Park Division, National Park Service

IN THE two and a half rather amazing years since the CCC became a reality in April, 1933, the part of its strong young force which was turned into the development of State and local parks has made this phase of the Emergency Conservation Work program an important Federal Aid project.

The number of CCC companies assigned to these conservation-recreation projects has increased in seven-league strides from 105 at the beginning to 482 for the present expansion program, and the number of States involved has climbed from 26 to 47, until Delaware alone was missing.

From a little group in one room on the fourth floor of the Interior building, the organization which directs the work has grown to cover three floors in a downtown office building and establish itself in the light of permanency as the State Park Division of the National Park Service.

The five original field districts have become eight regions, with offices in Springfield, Mass., Bronxville, N. Y., Richmond, Va., Atlanta, Indianapolis, Oklahoma City, Omaha, and San Francisco. In these offices, as in the Washington office, are architects, landscape architects, engineers, wildlife technicians, historians, foresters and expert park, recreation, and regional planners—all with a part in the direction of the program.

Head man is Conrad L. Wirth, Assistant Director of the National Park Service, into whose broad lap Director Arno B.

Cammerer dropped his State park baby when he came back from Director Robert Fechner's first ECW Advisory Council meeting in 1933. Wirth is assisted by Herbert Evison, former executive secretary of the National Conference on State Parks and one-time newspaperman. Under these men work the bright young men of Washington and the field.

The work itself is a good blending of conservation and recreation. Men and machinery take part and the projects range from formal parkways to wilderness tracts deep in the back country. Typical jobs are stonework in stream-bank protection, flood-control, sewers and parkway bridges; the construction of log and stone recreation centers, cabin communities, concession quarters, fire-lanes, roads and large earth, stone, and concrete dams; bathhouses, spacious picnic shelters, outdoor fireplaces, lookout towers, water systems, waste-disposal systems; plant- and tree-disease and insect-control, reforestation, expansive landscaping and surveying.

Besides conservation and recreation there is restoration, rehabilitation, and the protection and propagation of wildlife. Good conservation areas are Cuyamaca Rancho State Park in southern California, the redwood tracts up the coast in the same State, Darling State Forest Park in northeastern Vermont, Watoga State Park in southern West Virginia, and Scenic State Park in northern Minnesota.

Recreation is primary in such areas as the Illinois and Indiana parks within reach of Chicago, the Milwaukee County system in Wisconsin, Deception Pass in Washington's Puget Sound country, Seashore State Park at Virginia Beach on the Virginia capes, Blue Hills Reservation around Boston, New York's Westchester County areas and the Dade County projects north and south of Miami. A job in its own class will be the development of Glenwood Park bordering Theodore Wirth's magnificent Minneapolis city park system.

Restoration thrives in the rebuilding of historically valuable old forts, mansions, cabins, and landmarks. When doubt as to the original persists, the object in question is set apart untouched so a new century may watch an old one return to the soil. Notable projects are Fort Frederick, Maryland's veteran of three wars; Fort Macon, fine old guardian of the North Carolina capes; the Lost City Indian archeological discoveries and

restorations at Overton, Nev.; Georgia's shrine at the home of Alexander Stephens, Vice-President of the Confederacy; California's famed La Purisima Mission and the one called Espiritu Santo near Goliad, Texas.

For the conservation of wildlife—every living thing, not just game in the popular sense—there has been set up within the State Park Division an organization whose responsibility it is to see that all ECW projects are developed with the welfare of these creatures forever in mind. Field technicians scour every area and report their findings to the regional offices and Washington.

In conjunction with the FERA land program, submarginal tracts are being retired to conservation and recreation and the struggling farmers who wrangled with that unproductive soil are replanted in fertile ground. Outstanding among these so-called Recreational Demonstration Projects are Chopowamsic, 30 miles south of Washington on the Richmond highway; Cuivre River near St. Louis and French Creek in Pennsylvania.

Actual physical accomplishments of the CCC companies assigned to State and local park projects in the first two years of ECW are significant. They have constructed 575 miles of telephone lines, 3,502 miles of foot-, horse-, and vehicle-trails, 1,445 foot-, horse-, and vehicle-bridges, 813 public campground buildings, 713 campground and picnic area comfort stations, 3,390 other park structures, 1,582 campground water systems containing 241,632 feet of pipe, 237 waste-disposal systems containing 218,512 feet of pipe, 395 miles of fences, 871 recreation dams, 44 lookout houses, 51 lookout towers, and 388,891 feet of guard-rails.

They opened up 1,120 miles of firebreaks; reduced the fire-hazard over 62,246 acres; cleaned up 42,118 acres in other than fire-protection; improved the timber stand on 43,211 acres; cleared 74,631 acres for campgrounds; and collected 47,544 pounds of hardwood seeds and 1,004 bushels of coniferous cones.

Insect-pest control has been practiced on 115,816 acres, rodent control on 15,890 acres, and tree- and plant-disease control over 59,963 acres.

River-banks were cleared of 18,185,509 square yards of debris, dam-sites of 297 square yards, and channels of 174,619 square yards.

An Innovation in Recreational Development

By MATTHIAS C. HUPPUCH, Supervisor Recreational Projects,
National Park Service

VARIOUS research studies during the past few years have disclosed the dire need of recreational facilities for adults, particularly leisure-time diversions. They are dependent on commercialized entertainment instead of creative participation. While some progress has been made in respect to children, scant attention has been given to the establishment of recreational facilities such as camping, hiking, and swimming for adults and families.

Some organization and semi-public agencies provide acreage and facilities for a limited number of people to engage in these activities. In most cases a detailed study of these provisions reveals that they are insufficiently organized or lacking in adequate property or facilities.

The need for adequate acreage and facilities for mass recreation, especially for the low-wage earners, is evident, and was given consideration in the national land utilization program. Primarily, through the efforts of the National Park Service and the Federal Emergency Relief Administration, recreational deficiencies were given consideration when the Public Works Administration allotted \$25,000,000, in 1934, to undertake a program of land-adjustment projects through the medium of the Land Program of the Federal Emergency Relief Administration. This program also included agricultural, biological, and Indian projects, as well as the recreational projects.

In coöperation with the Agricultural Adjustment Administration, the National Park Service, the Bureau of Biological Survey and the Office of Indian Affairs, projects were selected in problem areas where lands were economic liabilities to owners and governments under their present use, but did have possibilities of land-use adjustment. The projects contemplated recreation, forestry, migratory waterfowl, or Indian use, according to local, State or regional requirements.

The objective of the recreational projects contemplated a series of demonstration projects which include:

(1) The development of "wayside" recreational areas, usually from 5 to 50 acres, offering facilities for playing, picnic-

ing and relaxation to the pleasure driver or traveler. Naturally they are located near highways where the need is apparent.

(2) Vacation areas (industrial recreation), which are much larger and contemplate children's camps, family vacation camps, and facilities for industrial and social organizations. These areas will offer opportunities for both city and rural people to enjoy low-cost vacations and leisure-time activity. These projects are selected on appropriate areas about 50 miles from the populous region which can most advantageously utilize them.

(3) The development of regional recreational areas consisting of still larger acreage needed for recreation in the near future and not provided by the States.

(4) Additions to public recreational areas where adjoining lands are improperly used and will be needed to round out existing parks, monuments, or active recreational areas.

As a result of one year's effort, over 400 areas have been investigated by the National Park Service in cooperation with the several State conservation agencies and planning boards and has resulted in sixty major recreational demonstration projects, exclusive of the small wayside projects. Twenty-five of these projects have been approved for purchase and are in varying stages of planning and development. These areas are being planned and developed under the supervision of the National Park Service through its eight regional offices and project managers.

The motive underlying the development of these projects is the immediate need for making available, at the lowest possible cost, facilities at relatively short distances from the homes of millions of more or less underprivileged people. Not only the topography and physical features of the area are important but also the social and economic conditions of an entire region which a proposed area is to serve. This involves investigation of the number of people who are expected to use the areas, something of their living conditions, dominating sociological factors which justify the selection of the particular area.

The Cuivre River Project in Lincoln County, Missouri, and the Raccoon Creek Project in Beaver County, Pennsylvania, are examples. The former is to serve St. Louis and the latter Pittsburgh. In both cases suitable accessible recreational areas were not available and the need was very apparent.

Structures in State Parks—An Apologia*

By HERBERT MAIER, Regional Officer, and A. H. GOOD, Architect,
State Park Division, National Park Service

LAMENTABLE is the fact that during the six days given over to Creation, picnic tables and outdoor fireplaces, foot-bridges and many another of man's requirements, even in natural surroundings, were negligently and entirely overlooked. This grave omission persistent efforts have long endeavored to supply, with varying degrees of success, or lack of it, as one may choose to view it.

Man, confronted with this no less than awesome task of assuming to supply these odds and ends undone when the whistle blew on Creation, may well conclude, pending achievement of greater skill and finesse, that only the most persistent demands for a facility shall trap him into playing the jester in Nature's unspoiled places. He may well realize that structures, however well designed, almost never really add to the beauty, but only to the use, of a park of true natural distinction. Since the primary purpose of setting aside these areas is to conserve them as nearly as possible in their natural state, every structure, no matter how necessary, can only be regarded as an intruder.

Man has come slowly to realize that, if trespass is unavoidable, it can be done with a certain grace. The need proved, his undertaking is somehow legitimized or not, by harmony or lack of it. As he comes vaguely to sense that he cannot improve on Nature, but rather can only improve and facilitate the way to his understanding and enjoyment of her manifestations, he tends to a kindred humility toward the historic past.

In usual practice it is considered that the plan of a building is more important than its elevations, since, after all, a particular function is the primary reason for the erection of a building. In the case of park structures, however, it may be said that the design and treatment of exteriors are equally important with the plan, and at times more so. Next to the natural features of a park, buildings are the most conspicuous units on the landscape.

In determining the proper design for our park structures we

*The State Park Division, National Park Service, is issuing a portfolio on "Park Structures and Facilities" which treats this subject comprehensively.

must first consider that we are dealing generally with wilderness and semi-wilderness areas. To most people, therefore, what is commonly known as "rustic" architecture comes first to mind when considering the treatment of park buildings. But we find ourselves installing park structures in all sections of the continental United States. There is the heavy conifer forest region of the Rockies, contrasting with the drifting sands of the dunes at Goose Island State Park on the Gulf, and parks in the semi-arid mesa country of New Mexico require appropriate structures just as do State park areas in the Maine woods. It is obvious, therefore, that the usual type of rustic architecture will find itself inappropriate in many of our State parks.

Since the primary purpose in setting aside semi-wilderness areas is to conserve them in as nearly a primitive state as possible, it follows that every structure, no matter how necessary, must be regarded as an intruder and should be designed with an eye to lessening its importance. These primitive areas are most beautiful in the native condition in which the Lord made them, and the introduction of man-made structures cannot improve the beauty of the whole but tends rather to rob the picture which Nature has painted of much of its wholesome effect upon the visitor.

The term "improvement" is certainly an anomaly in dealing with parks. Right at the start, in undertaking the development of a new area, is the proper time for the park officials to begin to wage a fight to keep down the number of structures in an area. Where functions are closely related at a given location, two functions or even three or four should be combined under one roof. By that we do not mean that we should go in for excessively large buildings, but many small areas are ruined by the large number of small structures, and it is sometimes not possible to enjoy a single vista or long view without being conscious of the presence of a man-made structure somewhere in the picture.

The number of buildings which are desired by park officials under the State Park ECW program, and which they consider necessary for the needs of the visitors, is frequently found upon study to be erroneous. Only at picnic areas or at particular vantage-points at the termination of long walks are shelters really justifiable. It is not necessary, except for fire-protection,

to top off every peak with a lookout. It is much better for the hiker to absorb an expansive panorama from an open promontory rather than to be invited into a lookout or shelter from which he must peak through bull's-eye openings or, in any case, have the picture broken up into segments.

There are several ways of lessening the importance of a structure. One of these is screening the building by locating it behind existing plant material or in a secluded nook in the terrain partly screened by some natural feature. Where sufficient plant material does not exist at the site otherwise best suited for the building's function, an adequate screen should be planted, preferably by repeating the same plant material which exists nearby. It is sound theory, however, that structures should be so located and adapted to the natural features of the landscape that it will not be necessary to plant them out. The tendency on the part of some park officials "to make a feature" of their buildings indicates a lack of the proper sense of values.

In a treatment of exteriors the proper use of indigenous or native materials is perhaps the happiest means of blending the structure with its surroundings. The colors used on the exterior of wooden buildings or wooden portions of buildings are another most important factor in bringing about good blending. Naturally, such colors as occur in and are commonest to the immediate surroundings are best. In general, warm browns will go farther toward retiring a wooden building in a wooded or partly wooded setting. A light driftwood gray is another safe color to use. Where contrast is desired to give architectural value to minor items, such as window muntins, a light buff may be sparingly used. Green is perhaps the hardest of all colors to handle correctly, because it is so difficult to get just the correct shade in a given setting and because it usually takes on either a caustic hue or fades somewhat toward a lemon-yellow.

After all, the kinds of structures installed in State park areas are few in variety, and so our problem of architectural control is not so complex as it may at first appear. Roughly, park structures may be divided into two classes—those for administration and those for recreational use. Under the administrative group we have: headquarters units, caretaker's quarters, entrance ways, water towers, fire-lookouts, and fish-hatcheries. Under the recreational-use group we have: shelters and lookouts,

pavilions and recreation buildings, concession buildings, boat-and bath-houses, comfort stations, lodges, cabins, and amphitheatres.

The principles of construction employed in our park architecture should be simple and direct. Our exteriors should carry no gingerbread, twig architecture, or peanut brittle. A common type of architecture or form of construction should prevail in a given park so the visitor will not be everlastingly conscious of architectural disharmony.

In designing park buildings it should be remembered that all four elevations will in reality be front elevations and that the public will usually circulate about on all sides. On major park buildings, one side will always be the service entrance, and while fences in park areas are to be deplored and only installed where absolutely necessary, an adequate palisade on this side of the building should completely screen all service operations.

It is difficult, as a rule, to incorporate large sheets of glass in the design of a rustic building. Glass is somewhat out of harmony with rough rock and logwork, since the frontiersman had little or none of it and his window-openings were small. It may be desirable to break up larger windows into smaller lights by the introduction of wood muntins or division strips. In such cases it will be found that stock muntins are too delicate in appearance in a wilderness setting and special heavier ones must be designed.

Heavy rustic buildings are suitable only to mountainous areas where forests abound, and in such cases the various structural elements, such as logs, timbers, and rocks, must be considerably oversized to be in scale with the near-by trees, boulders, and slopes. The same type should be lighter in scale in less mountainous regions. But every effort should be made to steer clear of the "twig" type of architecture which flourishes under the name of rustic.

As a rule, park structures are less conspicuous and may be more readily screened when the silhouette is low and horizontal lines predominate. Wherever possible, verticality in park buildings should be avoided. This usually calls for a roof low in pitch. It too frequently occurs that the roofs of park buildings unnecessarily dominate the entire design and are conspicuous from a long distance.

Our park buildings should be well built so as to require as little maintenance as possible. Like fraternity houses, they should be foolproof, since vandalism is common in public areas. In most areas the type of park architecture which combines rough rockwork with logs or hewn timbers and heavy shake roofs is preferable.

In planning a building which is to have an attendant, the possibility of one-man control is sometimes of value. The attendant, be he naturalist in a museum or salesman in a concession building, should be so located that his eye can readily sweep the entire interior and observe any vandalism or improper conduct.

Fireplaces for cooking are usually oversized and homely in our parks. It does not require much cooking surface to provide for the heating of food for one family. A chimney is by no means necessary to a picnic fireplace.

One of the principal phases of park development which may be an indicator of appreciation of good installations is rockwork in general. The rock selected should first of all be proper in scale. That is, the average size of the rocks should be sufficiently large to justify the use of masonry. Whether in retaining walls or in buildings or bridges it is usually better to employ rough rockwork or rubble than to use cut stone. The weather faces of rock should be exposed. Rock should be selected for its color and for the lichens and mosses that abound on its surface as well as its hardness. Above everything else, rocks should be laid geologically correct, that is, they should be placed on their natural beds.

Dams for swimming, fishing, and smaller recreational lakes should be treated in a naturalistic manner.

The planning, designing, and execution of park structures is a specialty in itself. We would advise park officials, wherever possible, to seek the aid of the landscape and architectural professions. While the National Park Service under this program assists to a major extent in furnishing landscape architects and architects as inspectors and technical foremen, it also welcomes and encourages the States to secure competent professional service from private practice. We should strive for a sound and appropriate architecture but we are not interested in individual architectural masterpieces.

Conference of State Park Authorities

EDITOR'S NOTE.—On February 25-28, 1935, the National Park Service called together State Park Officials for a conference in Washington. We present here a few highlights from an excellent program.

SECRETARY ICKES ON PARKS, PLANNING, AND WILDERNESS

STATE PARKS may be either wilderness or recreational areas. Some of them, especially those that are near big centers of population, ought to be available for people who need exercise and recreation. But I would minimize the roads so far as possible. As our population increases there will be more and more demands for wider areas for camping, fishing, boating, hiking, and things like that. When State parks are more removed from crowded centers, if I had my way, I would foster and cherish the wilderness aspect of these areas. I hope, as the States develop their own park systems, that they will have in mind that citizens in time to come would like to know what the country in each State looked like before we civilized people came in and began to work our will on it.

There is a growing feeling for and appreciation of parks, both State and National. That is a good thing. During the past year, now happily ended, although we have been suffering the consequences which all of us would have wished to avoid, there has been some value in our experience which may make us realize that there is more to life than making money without effort through buying things that we cannot afford and selling things that we do not own in the hope and on the chance of being able to buy back at a lower price and thus make a profit.

We have discovered also that in the matter of State parks we need a plan. That has been more or less a dreadful word in this country, because it seems the Russians discovered it some time ago, and one utters it with some trepidation. But, at the risk of being called a Red or a Radical, I venture to assert that we need to plan in this country. As individuals we plan and look ahead; we save money for our old age. We try to build homes in which our families can live happily. We plan. We insist upon planning. We try to teach our children to plan. But as a Nation,

no, there has always been plenty for the taking; there has been no regard for the future—no realization of the necessity for looking ahead or planning. Now planning means looking ahead. It means getting the greatest value out of our resources. Planning is just as much called for in recreational matters as in other matters.

The National Government has been very glad to help the States, in so far as we have been able to do that during these last few months. But it would be a mistake for the States to acquire the habit of looking too much to the Federal Government for the development of their State park programs. We believe in parks. We want to spend a great deal more Federal money than we have been able to spend so far on national parks. We are willing to help the States with counsel and advice; but we believe that the States ought to administer their own State parks.

There may be a time in some of the States when the great recreational areas will be connected by highways, when the hot-dog stands and gasoline stations will be within the control of park authorities, as we propose to control those things on the Shenandoah-Great Smoky Mountains Parkway, where there will be a thousand-foot right-of-way, where billboards cannot encroach on the paradise of the motorist, so that the man who goes out to see Nature will not have to read about a cure for liver complaint.

In planning State park systems, State officials might very well consider whether connecting roads might not properly be under the jurisdiction and control of the State park agency, so that there will be control of the roadsides which will keep them clear of objectionable features.

ROBERT FECHNER ON CIVILIAN CONSERVATION CORPS IN STATE PARKS

EVERYBODY connected with the Emergency Conservation Work has realized the very great importance of the park-development program. When the President asked Congress to provide the legislation for this conservation work, and the Director was appointed, with the Advisory Council, to assist in

developing it, there was nothing to guide us; there were no precedents established; there was hardly any basis on which we could build.

It is true that the National Park Service had been well organized for a number of years, and probably those in charge of that feature of the Federal conservation work had planned in the hope that sometime they might have the opportunity of developing in a proper way the wonderful system of National Parks. Some of the States had also realized the importance of State park development. But I think that I am justified in saying that, generally speaking, when I met my Advisory Council for the first time on April 5, 1933, we did not have anything on which to develop a park-improvement program. But that did not discourage anyone who was connected with the work or who had been invited to come in to help develop the program.

The program has worked out very well. I doubt if any work program approaching the volume and the area that have been involved in the National Park development and the State park development has ever been done with so little friction or so much success as this. Just as soon as the newness of the organization wore off, just as quickly as individuals and States and organizations could really appreciate what we were trying to do, they caught the whole spirit of it. Undoubtedly it has become one of the most popular as well as one of the most successful agencies of our Federal Government. However, there is some embarrassment in being connected with an organization that is so popular. When we were first trying to find desirable work projects on which to locate CCC camps in the spring of 1933 we were not troubled a great deal with a surplus of applications. As a matter of fact, there were a great many localities where, when they heard that we were going to put a CCC camp anywhere within miles of their borders, they made vigorous protest. Many Senators and Congressmen called me and came to the office to protest against having a CCC camp in their districts.

But that did not last very long. Now our greatest difficulty has been to keep Congressmen, Senators, Governors, chambers of commerce, and everybody else satisfied. Every mail brings in requests for more camps. Within our organization itself we are sometimes embarrassed by the number of requests for camps. At the beginning of each six-months' period, when we are plan-

ning for camp locations, the Forest Service and the Park Service and the Soil Erosion Service and the Reclamation Service and the Geological Survey—I cannot enumerate all of them now—have new demands.

Regarding the generosity of the Federal Government in meeting all the costs of the CCC improvement work in the State parks, I may say that, by direction of the President, on May 5, 1933, I sent a lengthy telegram to all of the State Governors, calling attention to what the Federal Government proposed to do and asking the State, in return, to guarantee the maintenance of the improvements that would be made on State property by the CCC camps, and also, under certain conditions, to agree partially to reimburse the Federal Government for some of these expenditures.

The States responded favorably, guaranteeing that their legislatures would enact the necessary legislation and that the States would assume their proper obligation. I regret to say that very few of the States have as yet met that obligation. Last year I wrote all the Governors, and again this year. I want to take advantage of this opportunity to impress upon every State representative that this "Santa Claus" business is not going to continue indefinitely. I know that some States are already suggesting that the Federal Government ought to take over the maintenance of these improvements that have already been made. I do not think that any State can advance such a proposal seriously; but if such should happen to be the case, I hereby sound a warning that that State will face a rude awakening.

It would be utterly useless for the Federal Government to spend the millions that it is spending in the development of the beautiful State parks and then, when the CCC camps have completed their work and moved on to other projects, for the States to forget all about what had been done and let the lakes dry up, or the trees die, or the weeds grow up and destroy the value of all the work.

I realize fully that maintenance of these new projects may run into real money. But the States need developed parks. They need State park systems. And if they need them and desire them they should be fair enough to provide for their maintenance after they have once been created and improved.

CHARLES ELIOT ON STATE RECREATIONAL
PLANNING

THE National Planning Board has strongly believed in decentralization of planning work, and the Board has done everything in its power to encourage the States to take up the planning work for themselves. As a first step we sent out a circular suggesting the establishment of State planning work.

Starting from that basis we tried to encourage the various governors to set up interim planning boards without legislative authority, and we agreed to give them consulting service and other help if they met certain reasonable conditions. We were amazed to find the willingness of the States to proceed and the alacrity with which they took up our suggestions.

This means that we are trying to decentralize and to make the States take on the job of initiating proposals which up to now has rested so largely upon the State park agencies.

We need very much some kind of inventory of our recreational assets. Such a survey should be the basis of the State recreational program. What kinds of areas have we? Where are the best samples of each kind, whether in public or private ownership? Next, what methods of control must be utilized to make the best use of those best samples?

The State planning boards that have been created and are at work have in many cases undertaken some of this survey work and some of the work on methods and procedures for development. Some of these plans may go into the ash-can and better plans may replace them. But we need the initial plans to work on. I might refer to an important story in relation to the Washington plan. With each revival of planning down through the years, the agency which has been working on the program has gone back to the L'Enfant plan and sought out the controlling principles (not the details, but the controlling principles and trends) and tried to apply them with full recognition of changed conditions and changing requirements.

We earnestly beseech the help of all State park officials in assisting State planning. The principles are now only partly formulated. The job of providing for their continuity has not yet arrived. We are still in the stage of initiation. The State planning agencies need the help of all those engaged in State park work.

L. H. WEIR ON RECREATIONAL TRENDS

IN THE last three decades there has not been one type of political unit under which we are governed in America which has not undertaken to provide for the use of the leisure of the people, whether it be the little township at the base of our political structure, the city, the county, the State, or the Federal Government. We have witnessed the development of that new agency in handling recreational areas and facilities which we call the Metropolitan Park District, and other types somewhat analogous to that which we call the Special Park or Recreation District, comprising an area including the central city and certain territory around it.

In 1907 we had in American cities only about 76,000 acres of lands and waters set aside for the recreation of the people. By 1930 we estimate that we have somewhere between 350,000 and 400,000 acres. Beginning in 1894-5 we found counties entering the picture by the establishment of what we call county park systems. That was following, and was probably inspired by, the development of the Metropolitan Park District of Boston in 1892-3. The county development has been such that in the period from 1925 to 1930 the number of counties providing one or more recreation areas, and the acreage which is held by the counties more than doubled—a development that took place primarily within the metropolitan region of cities, although it is not entirely absent from more rural counties.

Between 1870 and 1890 a few States set aside a very few areas, largely to preserve something of biological or historic or scenic interest. During the past decade, or especially since 1920, the development of interest on the part of States in the providing of recreational opportunities for the people has gone on with remarkable rapidity. Under the influence of the National Government, especially through the CCC camps, that development is especially marked at the present time. If the employment of the unemployed youth continues, it is likely that the States will play an exceedingly dominant part in the outdoor recreational life of the people.

The United States is now possessed of a great system of national recreation areas exceeding that of any country in the world, comprising between 15,000,000 and 16,000,000 acres.

Coincident with this park development, but antedating it somewhat, is the movement for setting aside lands for certain economic purposes, especially for forest purposes. Forests held by towns, counties, and municipalities in the United States total about a million acres today, with the possibility that they will be greatly extended. In parks and forests the States have somewhere between 6,000,000 and 8,000,000 acres and the Federal Government has somewhere between 140,000,000 and 145,000,000 acres in National Forests, with a program of expansion leading toward a much larger acquisition. I mention the forests because it has been found that they present some of the most ideal conditions for outdoor recreation.

What are some of the reasons for this more or less sudden reversal or changing of attitude and habit of thought and action of the American people resulting in all this tremendous development that has taken place in the field of the use of leisure time?

The answer is to be found in the great revolution that took place in the habit of living and working whereby we transformed a great people from an agricultural dwelling, living and working people to an urban dwelling, living and working people. This has meant the transformation of millions of people to an environment that was so constructed as to omit some of the most fundamental and necessary biologic factors and also many social and cultural factors. Man, being an outdoor animal subject to the same biologic laws that all forms of life are subject to, is not surviving well the lack of sunlight, the lack of pure air, the lack of opportunity to use his body in a great variety of ways that employ the fundamental muscle groups of the body, the constant pressure of noises upon the very delicate mechanism of the nervous system. The fact that we have become accustomed to certain noises often means that we have become so eternally tired that our mechanisms fail to register. The masses of people living in cities are forever tired. The early planners, such as the elder Olmsted, advanced these basic arguments as the reasons for parks in the modern city.

We have the natural resources and the machines to develop the most magnificent physical race and the most intelligent people the world has ever seen; we have the chance to become the best governed people—if we want to pay the price.

HIGHWAYS AND ROADSIDES

The Need of Facts for Highway Planning

By THOMAS H. MACDONALD, Chief of the Bureau of Public Roads,
Department of Agriculture

FOR fifteen years or more prior to 1930, direct responsibility for the improvement and maintenance of the main inter-city highways, constituting the State highway systems, was vested in all States in the respective State highway departments. The designated systems—at first including approximately 200,000 miles—were increased during the fifteen-year period, by successive additions of important roads, to about 325,000 miles.

The expense of these State roads was met at first in large part by taxation of real property. By the end of the period mentioned it had become a charge to be met by taxation of road-users exclusively in the majority of States and largely by such taxation in all States.

During the same fifteen-year period the Federal Government cooperated with the States; and for the greater part of the period its aid was extended only to the improvement of the most important inter-State and inter-county roads which were included in the designated Federal-aid highway system. Initially limited to 7 per cent of the total rural road mileage, this system was gradually increased by successive additions from less than 170,000 to more than 200,000 miles. The Federal funds were required to be matched by State contributions, and were not available for maintenance, but for construction only.

All rural roads not included in the State and Federal-aid systems remained throughout the period mentioned under the care of local authorities. In aggregate about 2,700,000 miles—roughly 90 per cent of the total rural mileage—these roads are generally less heavily traveled than those included in the Federal-aid and State systems, but are known to include some sections on which traffic is denser than it is on many parts of the two selected systems. In large part the roads remaining under local control are believed to serve mainly local purposes, but, again, there are exceptional sections that undoubtedly serve to a considerable degree as through routes. At the beginning of the

fifteen-year period the roads administered by local authorities were financed almost entirely with revenues resulting from local property taxation; but this condition was changed from year to year until, by the end of the period, nearly 25 per cent of the cost was supplied by motor vehicle and gasoline taxes.

In 1930 a movement for reduction of the local highway tax burden in North Carolina resulted in the transfer of all authority over local rural roads from the counties to the State Highway Commission and the abolition of all existing highway taxes on real property. Similar changes have since occurred in Virginia and West Virginia and less sweeping changes in other States.

Strong influences are working in all States toward the same objectives; and it is to be anticipated that the movement will eventually result in a general taking over of responsibility for all rural roads by the State governments. In view of the recognized superior efficiency of the State agencies, the change is a desirable one and should be encouraged.

As it is generally promoted, the movement involves also the complete or partial abandonment of the property tax as a source of revenue and dependence upon motor vehicle and gasoline taxes wholly or in a very large part to meet all costs of the rural highways. This raises questions of the sufficiency of such revenues at the existing rates or of the changes in rates of taxation needed to supply the necessary funds.

For guidance of State Legislatures certain to be confronted with these problems, and as a basis for the work of State planning bodies and highway departments, it is highly desirable that accurate information—now unobtainable from any source—be accumulated. The information to be obtained should relate to the entire rural road system and should be sufficient to develop fully the present state of all roads, their degree of adequacy and relative service, and the probable future cost of supporting the necessary maintenance of the entire system and the desirable improvement of portions of it at a satisfactory rate.

Perhaps the most doubtful questions are those that relate to the large mileage of secondary and local roads. The information concerning them is especially inadequate, and notoriously inaccurate. Even the mileage involved is not known with any reasonable accuracy; and of the state of improvement and the adequacy of such improvement there is little dependable knowl-



Scarred Slopes and an Abandoned Roadway Constitute an Eyesore on the Landscape

Courtesy American Forests

The Key to Highway Improvement is to Preserve the Existing Natural Beauty

Courtesy American Forests





Courtesy The Roadside Bulletin
Ugly, Steep, Raw Banks Left Untouched after Road Construction



Courtesy The Roadside Bulletin
**A Bank Shaped and Planted by the National Park Service Contrasts
Above Condition**
Photographs by W. L. Lawton

edge. The local control under which these roads have always existed has, with few exceptions, developed no rational classification of the large mileage involved, and decisions upon questions of capital outlay and maintenance expenditure have been made upon inadequate and often definitely erroneous information. It is a matter of common observation that improvements have often been made where there was no recognizable need and have been omitted where the justification would appear to have been greater. If, as appears probable, the State governments are to assume responsibility for the care of the local roads, the State agencies will need full information concerning the relative usefulness of all parts of the large mileage, in order that the errors and weaknesses of local administration may be avoided and corrected.

To supply such needed information the Bureau of Public Roads has suggested that comprehensive road planning and financial surveys be made uniformly and as quickly as possible in all States. It has offered its cooperation in general terms and is about to propose a definite measure of Federal contribution to the suggested studies, which it is hoped will lead to the early beginning of work in all States.

The proposal of such cooperation by the Federal Government is a recognition of the fact that its interest in the matter is now as direct and practical as that of the States. National participation in road construction has already been extended beyond the main highways, to which it was formerly limited; and under the necessity of unemployment relief, if for no other reasons, the Government will probably continue to spend money on local roads. Whether the purpose be emergency relief only, or, as it may very properly be, the general economic and social development of rural America, there is equal desirability that the expenditure be made upon roads of the greatest usefulness in the promotion of an ordered plan of rural development. The information necessary to such a selection will be provided by the surveys proposed and can be satisfactorily obtained in no other way. That the matter is similarly viewed by State governments is indicated by the recent legislative and administrative actions preparatory to the conduct of similar surveys and by the insistent requests for Federal assistance and guidance in such projects received by the Bureau of Public Roads.

While the problems of administration and finance are most acute in respect to secondary roads, there are problems of design and location on the main roads that equally require organized study. In general these are associated with the changes in main highway design necessitated by increases in the speed and density of the traffic movement on these roads. Prompt solution of these problems and corresponding action are essential to maintain and enhance the efficiency of highway transportation, and, above all, to lower the alarming rate of traffic accidents and fatalities.

Progress in Roadside Development

By ELIZABETH B. LAWTON, Chairman, National Roadside Council,
New York City

THE increased respect shown by the average State highway engineer for the program of roadside development is one of the significant features of the year's progress.

It is not surprising that the entire thought of the highway engineer during the last twenty-five years of intensive road-building has been devoted to the roadbed.

But the whole picture was changed when, due to the action of the U. S. Bureau of Public Roads, the highway engineers found that every State using NRA highway funds must devote one-half of one per cent of its allotment to the roadsides. Many States which would have deferred roadside development for years now found themselves obliged to make a beginning, and while the total mileage developed as a result of this requirement has not been great, a most important gain has been made. The public has seen a demonstration of the possibilities in roadside improvement. The State highway departments have learned that the most important step in roadside development, the step which most quickly fits the highway into the landscape, is not one of planting but construction; it is the flattening and rounding of cut-and-fill slopes to their natural lines. This same step prevents erosion and lowers the cost of maintenance. Thus the highway engineer finds roadside development a practical matter of economy.

Roadside Planting Programs include the development of city

approaches, particularly in the arid and semi-arid States where all planting must be within reach of water. More or less formal planting is used on the approaches, but on the rural stretches most of the State programs call for informal group planting and the use of native material indigenous to the locality.

A wide right-of-way, essential in every State, is stressed in a few reports. Several States use voluntary easements secured from adjacent property owners to enable planting along the too-narrow roads or to conserve some picturesque stretch.

Roadside parks are reported by many States. Texas has created 214 and hopes to have 500 by the end of the year. A new stock law in Texas to keep cattle off the highway will be of great value in the extensive roadside program of that State. Snow-fences of evergreens are an interesting project in the colder States, as in Wyoming and Michigan.

Nevada offers an example of the work in arid States, with arid conditions in all but the extreme western part, and can do no planting other than cacti except in small areas near water. A typical Nevada project is on the approach to Las Vegas, where sage-brush and creosote bush are the only native growth. A 900-foot well has been bored and a 2-inch pipe laid on each side of the highway for 1½ miles. Soil has been brought in over a haul of 9 miles, and 235 trees—Chinese elm, Arizona ash, native cottonwood, and desert willow—have been set out in informal groups. As a contrasting project, on the shore of Lake Tahoe, through heavily wooded territory, no planting is done, but slopes are rounded and all debris and fallen trees cleared.

Montana, with her short, hot summers and long, cold winters, with her poor soil, dry winds, and Chinooks, cannot afford to plant grass on slopes, but confines her work largely to developing city entrances. Her landscape engineer reports, "We have hardly scratched the surface."

"No man's hand can beautify the scenic assets of Oregon," declares Samuel Boardman, State Parks Engineer. "Once he touches it he only messes it." For years Oregon has been acquiring strips of roadside forest. A recent spectacular project was the "daylighting" of every vista point between Crown Point and Hood River on the Columbia River Highway. Here the brush had been permitted to grow up until a thick hedge cut off the most wonderful scenes along the river. Now all of these

points are open to those who pass by, and Oregon has in effect "an entirely new scenic highway."

These are but a few examples, taken at random, of the less-known work going on in various States. The States which had already established a well-defined program of roadside work have taken advantage of the Federal funds to carry out plans long held in abeyance. California is spending \$200,000 on her roadside program for 1934 and 1935, ranging from planting trees in the desert to the construction of typical architectural features at city entrances and including many miles of water-lines for maintenance.

Several laws furthering roadside planting have been passed this year. New York State took a long step forward with a law allowing the use of funds for roadside planting on present roads, and requiring the planting of slopes and shoulders, also trees where needed, on all new construction.

Ohio recently passed a law authorizing the State to buy or retain odd parcels of land resulting from relocation, to be used for roadside parks. North Carolina passed an interesting law authorizing the State to condemn adjacent roadside property along Federal parkways for scenic easements. This enables North Carolina to meet the Federal requirements for the right-of-way and scenic easement along the parkway to connect the Shenandoah and Great Smoky Mountains National Parks. North Carolina has the power to condemn land for wayside parks.

Wayside Recreation Areas will probably be created in many States during the coming year through the cooperation of State highway departments and the Federal Government. These areas, ranging in size from 5 to 500 acres, will be developed through the cooperation of the Land Program, National Park Service, and State highway departments, and may be acquired by gift or through Federal purchase. They will be maintained by a State authority, usually the highway department.

The vital bearing on roadside development of the abuses due to outdoor advertising was stressed by several States. South Dakota declares, "Many of the finest views of our wooded hills and grassy valleys are completely blocked by glaring billboards. Legislative action is necessary." M. W. Torkelson, Director of Regional Planning in Wisconsin, says, "The billboard remains our most difficult problem. Although it was banished from the

highway limits long since, its presence just over the fence is not much different in so far as it affects the esthetic sense. It is as out of place in the country as kerosene would be in a salad."

Progress in Roadside Control. If the Federal Government would do for the problems of roadside control what it has done for the constructive phases of roadside development, we might see an equally encouraging progress in this field. If no Federal aid for State highways were available until the State prohibited all advertising signs within 300 feet of the right-of-way, with adequate restriction of the signs on places of business, it would become amazingly easy to pass such legislation in spite of the powerful billboard lobbies which exist in every State. Such a Federal requirement would be amply justified on the ground of safety as indicated in the recent decision of the Massachusetts Supreme Court.

Meanwhile, without such support and in the face of the powerfully organized and financed billboard lobbies, Maine, this year, passed a regulatory license and permit bill requiring a license fee of \$25 per company and a permit fee of \$1 per sign, also a set-back of 50 feet from the center of the traveled way. The billboard interests fought stubbornly. At the critical moment they offered a compromise and promised before fourteen witnesses that if the compromise were accepted they would no longer oppose the bill. The compromise was accepted, thereby greatly weakening the bill, and the billboard companies continued to fight its passage to the very end.

This is the usual experience. Ohio, Michigan, and other States are at the present time consulting with the billboard industry to frame a bill which the industry will agree to support. It should be clear by now that no matter what promises are made, the industry will fight every bill which in the least restricts its operation.

One feature of special interest in the Maine law is its restriction of signs on places of business. These are exempt from the law provided they do not exceed two in number, neither larger than 100 square feet in area. All signs beyond two must each pay the \$1 fee. If enforced, this provision will go far to clean the roadsides of U. S. Highway No. 1 from Portsmouth to Portland. Filling stations displaying 15 to 20 signs will quickly reduce the number. Earlier billboard laws granted complete

exemption to signs on places of business. The restricted exemption is a long step forward. We find it also in the McNaboe Bill passed a year ago in New York State, forbidding signs within 500 feet of parks and parkways, exempting signs erected upon property in connection with a business conducted thereon, provided such signs have an area of not more than 24 square feet, do not extend more than 15 feet above ground-level, and are placed on the fronts of buildings. The bill now proposed in Michigan has similarly restricted exemption.

In California the billboard interests introduced several bills this year in an effort to either repeal or annul the Outdoor Advertising Act passed a year ago. The California Roadside Council at once enlisted the cooperation of all supporting groups to fight these measures and now reports: "Our efforts to safeguard the present Act met with complete victory." Take note that California's law which the billboard interests seek to repeal was framed with their cooperation and supposed to have their support.

A similar effort was made by the billboard interests in New Jersey to nullify the present New Jersey law which taxes signs 3 cents per square foot. This Repeal Bill, as it was termed, had the full support of the State Tax Department, but failed to pass—a real victory for the New Jersey Roadside Council and other civic groups opposing it.

If you would know what a hold the Billboard Octopus has on our country, both physically and politically, you have only to study the situation in the old Bay State. When the Supreme Court of Massachusetts, in the spring of 1935, ended the ten-year fight over the constitutionality of the Massachusetts billboard regulations and declared them both reasonable and constitutional, the intelligent citizens of the State breathed a sigh of relief and thanksgiving for the hard-won victory. But the billboard king laughed up his sleeve. During the years of delay over the Massachusetts case—delay which the billboard interests prolonged by every conceivable trick—the billboard industry had been quietly building up a political power which would stand the industry in good stead should the Court decide against billboards.

Four bills have been successively introduced which would repeal entirely the present law and give the billboard industry

free rein in the rural districts. These bills were very cleverly drawn, were presented to the civic groups as designed to eliminate signs from the rural sections, and have had the active support of the Administration. Only by strenuous activity has the Billboard Law Defense Committee fought off their passage and won the first round.

Unless the billboard industry can force through its proposed law, the industry, no longer protected by the famous injunction, must obey present regulations and move hundreds of large billboards back to the 300-foot line. To defer this calamity, the industry has entered an appeal to the Supreme Court of the United States.

The Massachusetts Billboard Law Defense Committee now faces a double struggle—to defeat the pro-billboard laws which would ruin the beauty of Massachusetts, and to defend the case before the Supreme Court of the United States, whose decision, if it upholds the regulations, will be of inestimable value to protect the amenities of every State. The Committee is led by a handful of faithful self-sacrificing men and women. Horace B. Gale, chairman, has given years of his life to this grueling work. The Committee, in spite of these unexpected blows, is still ready to lead the battle.

Will lovers of America support the campaign to free our countryside from the strangle-hold of the Billboard Octopus?

Roadsides Under the Law in New England

By FLAVEL SHURTLEFF, Counsel, American Planning and Civic Association

MASSACHUSETTS has so long held the front page in its struggle to regulate outdoor advertising that the efforts of other New England States to mitigate the abuse of the roadsides, and in particular to control billboard locations, have had little notice. And yet, measured by actual improvement in roadside conditions, the record of Massachusetts is one of futility, and can be cited chiefly for the intensity of the struggle and the stubbornness of the contestants.

An amendment to the State Constitution in 1920 permitting the regulation and restriction of advertising on public ways,

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regulations adopted by the Department of Public Works in 1924, ten years of litigation ended in January, 1935, by a Supreme Court decision unanimously upholding the validity of the regulations, a Special Commission established in 1931 which failed to agree on the billboard section of their report, bring the struggle up to the Legislature of 1935.

Pending an appeal to the Supreme Court the advertisers made two moves. They asked for a Recess Committee to revise the regulations of 1924, and when defeated in this they introduced a so-called "Compromise Bill" which had the support of Governor Curley and the Attorney General. The advertisers apparently conceded that billboards had no place in rural sections except in business districts, but in the Act the Administrator may find a business district whenever any two buildings within reasonable proximity of each other are used for business. This provision and the section of the act which takes away the right of municipalities to legislate against the billboard made the whole act vicious in the eyes of the champions of home rule and the defenders of the roadside.

The bill had a stormy time during a particularly hot July. Defeated quite decisively, it was revived in a slightly amended form by a special message from the Governor and was not finally disposed of until the Governor himself asked for its defeat. In explaining this sudden and complete reversal, Governor Curley told the Legislature that he had found another method for accomplishing the same result. It looks as if the roadside defenders who have spent fifteen years and many thousand dollars to put the billboards in their proper place will have to face a new attack. The Department of Public Works will doubtless be urged by Governor Curley to revise the regulations of 1924 in accordance with the compromise bill; and the Governor appoints the Board.

Meantime the billboards are flourishing without hindrance along the scenic routes of Massachusetts.

On other New England fronts, the 1935 battle of the billboard has been fought with almost equal stubbornness. The advertisers won in New Hampshire and lost in Maine. The New Hampshire Legislature defeated a very comprehensive regulatory measure reported to be the first ever introduced.

The Maine defeat of the advertisers came after several years

of successful opposition to restrictive legislation. The Maine law puts the administration in the hands of the State Highway Commission, charges a license fee of \$25 per company and a permit fee of \$1 per sign, sets all boards back 50 feet from the nearer line of the traveled way of a public highway, 300 feet from public parks, reservations, forests, playgrounds, churches, schools or cemeteries when in public view, and 300 feet from the intersection of highways or of highways and street railways if the location obstructs the view. Permits may also be refused in the discretion of the Commission where the billboard would be injurious to surrounding property or endanger the safety of persons on the highway. The right of localities to legislate against the billboard by ordinance is preserved. The law will go into effect January 1, 1936.

Connecticut's defenders of the roadside lost the battle to put a heavier fee on the billboards and more restrictions on their locations. The Kitchel Bill passed the Lower House but was defeated without roll-call in the Senate.

There is comparative calm in the Rhode Island and Vermont sectors. Rhode Island has had since 1910 a billboard law which leaves the actual working out of the regulations to cities, towns, and villages by ordinance. Perhaps the calm in Rhode Island is because few cities have taken advantage of the act.

It is Vermont's boast that her highways are freer from offensive billboards than any New England State, and motorists generally agree. Whether this freedom is the result of the billboard law is still a guess. There doubtless has been a decrease in the number of signs, particularly in the larger signs, and in the older boards which are no longer profitable. Fees under the Vermont law are proportionate to the size of the board, and a fee of \$7 for a 400-foot panel is discouraging. Honorable Rawson Myrick, Secretary of State, points out that billboards may come back with better times and higher advertising rates. Certainly nothing else in the regulations of the Vermont law will stop them.

The method of billboard control by restrictions on location cannot be highly recommended. Success has come in Vermont by imposing a heavy fee. Even under the fairly restrictive Maine law the billboard line will merely be moved back a few feet, and other offensive uses of the roadside will not be affected.

All the New England States have tried at least one other method of control, and Connecticut is soon to try an ambitious plan. The proposed Merritt Parkway, 35 miles long, across Fairfield County, authorized in the closing days of the 1935 Legislature, assures a most effective control of all roadside business. The Parkway has a right-of-way 300 feet wide. This will furnish land enough in State ownership to screen out any business. Such ways are, of course, expensive. The Merritt Parkway will cost at least twenty-five million dollars. Even the purchase of a lesser right-of-way, wide enough to furnish adequate screening, or the purchase of the right to control the use of a roadside strip, would add a considerable item to the already heavy investment in roads.

Zoning as practiced in every New England State is now the surest way to prevent the abuse of the roadsides, the kind of zoning which confines all business to business districts, which keeps billboards out of residential districts and which requires a special hearing for every application for a gas station or public garage permit. But zoning is a slow process. Maine has had its zoning law for eight years and only three cities have used it. New Hampshire, Vermont, and Rhode Island have done only slightly better. County zoning is not practiced in New England. It might speed up the control over billboards and other offensive uses of the roadsides, wherever the county is an effective governmental unit.

Zoning will remain the most effective method of control until the conception prevails that the State should have control over a roadside strip, should not only determine the use of the land within this strip, but the location of intersecting roads both private and public. The exercise of this new right should not be called zoning, because the constitutional justification of zoning is based on its comprehensiveness for a governmental unit, city, town, village or county, and a roadside strip can never be a governmental unit. The same principles, however, that support zoning—the protection of life and the promotion of welfare—should be successfully invoked to support State control of the roadsides.

Highways and Landscape

By FREDERICK LAW OLMSTED, Landscape Architect, Brookline, Mass.

Condensed from a statement prepared for the Committee on
Highway Beautification of the American Automobile Association

HOW do those highways which motorists find peculiarly enjoyable, because they are notable for beauty, differ from others which they find tediously lacking in beauty? Chiefly and basically because of qualities in the *scenery of the surrounding territory* through which the highways pass, vastly more than upon differences in what lies within the highway limits. Provided roads are tolerably good as roads, and their immediate borders are at least tolerably inoffensive, what makes a journey over one of them an experience of unforgettable beauty, and over another of them tedious and uninteresting or even distressingly unpleasant, is generally to be found in views of what lies beyond the highway limits, often for many miles beyond. And even though the land over which these views extend be subject to little, if any, direct control in the interest of the traveling public, the road-builders and other agents of that public can, and do, very largely determine by their decisions *what* is seen of that land—whether it is seen so as to present to the motorist the best of the landscape qualities potentially inherent in it, or the worst, or what is merely mediocre. The big job in relation to the beauty of highways is to take the utmost possible advantage of the wealth of scenic beauty inherent in the surrounding country.

Let me abridge from a statement made by my father many years ago:

When we have to deal . . . with flowers and plants and trees, groves, woods, forests, hills and dales, mountains and valleys, as we have occasion to do . . . in arranging roads, . . . how much are we given to asking what is to be the effect of our determinations upon the more important conditions of beauty? Is it to be that of emphasizing them, fixing them, or the reverse? Suppose that the general local beauty is but meagre, and that there are blemishes; are our plans laid to obscure and tone down these, and to develop, exalt, and hold the eye and the mind to what nature and circumstances *not of our* arrangement have provided that are inherently beautiful?

This suggests the sort of purpose which should normally control the "beautification" of the publicly owned borders of highways; namely, that of treating them as a mere foreground for (or screen against) what lies beyond. This is fundamentally

different from the purpose so frequently pursued of creating on these borders something beautiful and attractive in itself and by the same token likely to be *disattractive* of attention from outlying things of far greater potential esthetic value. It also suggests the far greater opportunities for enhancing highway beauty which lie in the wise control of other factors than the grading, planting, and accessory structures between the road and the property-line.

The precise *location* of a road, both horizontally and vertically, in relation to its surroundings, often determines whether or not it can thereafter be made possible for users of the road to see and enjoy such qualities of beauty as may be inherent in the country through which the highway passes and to avoid seeing elements of ugliness therein; and, in case these results are made possible at all, largely determines how successfully they can be attained. An immense amount of new location and relocation of highways is being done and will be done. It is an encouraging fact that location-engineers are more and more generally recognizing in their work that the value of highways is increased by laying them out as far as practicable through agreeable rather than through disagreeable surroundings; but when it comes to actual details of highway location in practice, we are still very far short of applying sufficiently skilled artistic judgment concerning the effect which various practicable alternative decisions in matters of alignment and grade would have upon the enjoyment of that scenery by users of the road. In order to obtain substantially larger values in highway beauty throughout the country by more skillful technique in location, two requirements have to be faced. One is essentially a matter of *education*—primarily further education of highway engineers in the esthetic aspects of their professional work not hitherto sufficiently stressed in their training. The other is a matter of *personnel*, in that there are a great many worthy and capable people among engineers (as in other walks in life) who cannot, even with the best of training and the best of good will on their own part, develop very skillful artistic judgments; so that existing highway staffs may need supplementing by individuals whose technical qualifications are accompanied by inherently keener esthetic discrimination.

Variations in the *width* of rights-of-way, not infrequently

made to provide for necessities of construction such as wide embankments or cuts, could and should be made far more frequently than they are for the express purpose of better controlling the foregrounds of critically important scenery that lies beyond, so as to secure maximum values per dollar of highway expenditure.

There is an immensely important and difficult field for study and experiment and for education of the public and of legislatures and the courts, in respect to practicable and expedient measures of control over those operations on private property adjoining highways which substantially affect the value, esthetic and otherwise, that the public derives from its expenditures on the highways. This field obviously includes the vexing and complicated subject of controlling the abuses of *billboard advertising*. It includes with that the control of a variety of kindred activities directed toward exploiting the users of the highway for private gain by means of operations on adjoining private property, the gainfulness of which is wholly dependent on the presence of the highway, built for motorists and at their expense, and which often greatly reduce the value of the highway to those motorists, taken as a whole, even though the services offered by the exploiters are occasionally of real value to some motorists at some times. Proper control of such abuses does not by any means rest on considerations of beauty alone; though just resentment at the uglification of highways by such private exploitation of the motoring public is undoubtedly a basic motive in the efforts that are gropingly being made toward wise and effective control.

The reasonable control of billboard advertising along highways, still ineffective, is clearly but one aspect of this problem. It gets into the big subject of zoning, especially rural and regional zoning. And it includes also that of public acquisition in special cases by purchase (or condemnation with payment) of fee title to or special easements in parcels of land outside the rights-of-way where special limitation on the uses to which those parcels may be put is the key to preserving great scenic and recreational values for the highway. Considerable progress is being made in some States in the acquisition of park and picnic-ground areas adjoining highways at strategic points. Along scenic highways, we might have easements on private property to restrict it against new and scenically injurious uses.

Looking Forward

By J. HORACE McFARLAND, Chairman, Committee on
Roadside Development, American Planning and Civic Association

THE forward look for highways and roadsides as presented in the papers preceding is both obvious and encouraging. It is somewhat like the recovery now proceeding against the depression—it moves ahead in jumps, but it moves, and incidental setbacks can no more than bother those who fight for the public welfare, just as political experiments and credit adventures can but slightly delay the improved business that rests upon satisfying the absolute needs of people who do find money with which to buy, and who are finding that, after all, this great land of America can again breathe evenly and live sanely.

Mr. MacDonald proposes a real forward effort in his demand for facts. These facts will inevitably help toward uniformity and betterment of practice. A highway in Maine, traversed at will by travelers from Mexico or Canada, from Texas or Oregon, is worth national attention and sane support, and without putting the whole burden either on the contiguous property-owner or the traversed township, county, or State. This claim for general support, graded as fairly as may be within reach of such mileage tax as applied through gasoline surcharges or otherwise, fits into the peculiar relation that has come about in the work operations of hundreds of CCC camps with their millions of nationally paid young operators. There is evidence that here and there, where the direction and control of some of these camps is in the hands of men of vision, the young men leave, after their eighteen months of service and training, very much better fitted for improving highway conditions.

Particular attention needs to be paid to Mr. MacDonald's insistence upon "organized study" of road problems, especially as these relate to the reduction of traffic accidents and fatalities. The continuance of the highway slaughter of nearly a hundred lives every day, plus the accompanying non-fatal injuries and the enormous property destruction, is a challenge that justifies the fullest study and the most energetic action. This "gasoline war" is surely worse than the unsuccessful Great War. (Reference is later made to the contributory aggravation of this disgraceful accident wrong provided by signs and billboards.)



Courtesy American City

**Good Taste Displayed in a Theater Entrance Where No Portion of Signs
Projects More Than Twelve Inches beyond Building-line**

Photograph courtesy Art Jury, Philadelphia



Courtesy American City
A Conglomeration of Advertising Features Resulting Only in Confusion
Photograph courtesy Art Jury, Philadelphia

The look ahead as to planting along the highway, and as to the control or abolition of the selfish and unsocial sign nuisance, seems to combine the promotion of one and the *un*promotion of the other. That planting is desirable need no longer be argued. That the planting should be of trees, plants, and shrubs almost narrowly indigenous to the vicinity is not yet solidly accepted; there is too much fatal facility in buying the nurseryman's easily grown Thunberg barberry or his Norway spruce.

But there is slow gain in this direction. The persistent citizen may well do much primer work in acquainting State and local authorities with desirable natural flora, and it is not impossible that an occasional nurseryman may come to recognize the value of near-by American shrubs and plants for this work, especially if intelligent demand makes such action commercially wise.

The plant thievery that has been here and there reported will be reduced and eliminated as education proceeds, and as the motor patrol forces do their work. This education will not only check or eliminate vandalism but will react beneficially on planting along the highways.

It may be too much to expect to have the highway maintenance forces recognize the real value of nature's planting by avoiding its periodic ruthless cutting, leaving the piles of smelly "brush" to annoy and disgust the traveler. Here there is easy room for missionary work upon the "high-ups" who control. Let Jack Frost finish the golden-rod and the aster along Pennsylvania's hilly roads, rather than the scythes of the maintenance gang!

The conclusion is again forced upon us that there is no compromise, no "middle ground" with the billboard industry. It cannot be trusted to be law-observing any more than can the purveyors of "booze" in any form. No signs save those giving official road information, or restrainedly informing as to business conducted on the contiguous premises; no yielding to "set-backs." We will not come to own our own land until we prohibit all other advertising along roads publicly paid for and maintained. Much sorrowful experience convinces me that compromise with those who sell roadside advertising is defeat. Time after time, in State upon State, efforts have been made to agree upon a policy which would permit some displays while reducing

their obtrusive character. Such agreements do not work, and seemingly can never work.

The late Morris Knowles, an engineer with high public spirit and a long vision, argued to one attorney general in Pennsylvania the sheer fairness of having the State highway engineers survey the main arterial roads to determine what width outside the actual right-of-way it was requisite to control in order to protect the property of the public in its expensive highways. The legal authority was willing to admit the justice of thus proposing to prevent the use of public property for private advantage. Believed to be sound as a form of zoning, this principle needs legal development and trial. Certainly it seems poor economics at least, aside from scenic considerations, to spend up to fifty thousand dollars a mile for a smooth and comfortable road bed for motor travel, to consider its planting for protection and beauty, and then to have it serve as a basis for wholly private advantage, usually with little or no tax revenue, such private advantage disregarding the beauty of the landscape, the eye-comfort of the traveler, and often imposing extra hazards through the diversion of attention from the hazards of the highways.

The appalling motor death and accident rate on our highways above commented upon, strengthens the anti-billboard position. What possible advertising advantage can be worth killing any part of these hundred humans each day done to death? Can any "billboarder" maintain the argument that his sign did not cause the fatal lack of quick reaction?

Looking ahead, we can see this principle of responsibility for accidents fully developed, and fought to the bitter legal conclusion. With faster roads, faster cars, more of both, we need to provide every safeguard against diverting the attention of the man at the wheel. He can safely see and enjoy great scenery, pleasing roadside planting, the sight of comfortable homes, or of orderly industrial conditions, because none of these require his eye and his brain to catch the pleading wail to purchase "Camel" or "Coca-Cola" or their less frequent associates. We want all of them off the roads, even if it be necessary to charge the sign men with contributory responsibility for damage and death. Why not? It might be interesting to make the billboard concerns prove that their signs did *not* draw the eye of a motorist away from the dangers of the road.

COUNTY PLANNING

County Planning Keeps Pace with State Planning

By MAXFIELD H. DUNLAP, Secretary State Section, National
Resources Committee

ALTHOUGH the funds of many planning agencies have been reduced during the past few years, the actual number of county planning commissions has more than quadrupled since 1930.

The division of Building and Housing of the U. S. Department of Commerce reported 67 county and regional planning organizations in 1930; 79 in 1931; and 76 in both 1932 and 1933.

A Civil Works Administration project entitled "Status of City and Regional Planning in the United States" was sponsored late in 1933 by the National Planning Board and placed under the direction of Harold Merrill, Assistant Executive Officer. This survey, results of which were published in the Board's Eleventh Circular Letter of May 15, 1934, and summarized in the *AMERICAN CIVIC ANNUAL* of 1934, revealed that there was then a total of 85 county and regional planning agencies. (Throughout this article, "regional" is used to indicate inter-county agencies rather than inter-State.) From newspaper clippings, correspondence, and from other sources, it is learned that there are now (August, 1935) at least 310 county and regional planning commissions.

About 200, or 64 per cent of the total number of such agencies, are as yet unofficial, and a number of the newer ones were created chiefly to facilitate the formulation of county programs of public works and work relief projects. Such a program does, however, provide an opportunity to demonstrate in concrete form the objectives of planning, and many of the agencies will no doubt be made permanent.

Formerly, county planning agencies tended to concentrate almost exclusively around populous urban centers. The planning map now has quite a different appearance, the most striking change being in the West and Northwest.

Idaho, for example, has an official planning commission in

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every county of the State. Official county planning agencies also cover roughly about 50 per cent of the total area of Washington, and 40 per cent of California.

Unofficial agencies cover all of Montana, 90 per cent of South Dakota's total area, 80 per cent of Oregon, 35 per cent of North Dakota, and 20 per cent of Missouri.

The remainder of the county planning commissions in the United States are scattered over the country, principally in the urban areas of the Northeastern States, some in the Middle West, and only a few in the South.

In keeping with the geographical characteristics of the large non-urban counties now being planned, more and more emphasis is put upon natural resources and their development and conservation, rather than upon the social and economic problems so important in small, thickly settled counties.

The foregoing summary is based on incomplete information from a variety of sources. In order accurately to ascertain the extent and character of all types of local planning in the United States today, the National Resources Committee expects soon to launch a survey similar to the CWA project of 1933-34 as a part of its research on urban problems.

With the purpose of placing county planning on a permanent statutory basis, exclusive of legislation relating to cities and townships as such, States have to date enacted the following special and general county planning enabling laws:

California. Laws of 1929, c. 838, p. 1805 found in Code of General Laws (Deering) v. 2, Act 5211b, p. 2662. This Act authorizes planning commissions in counties and regions consisting of parts of counties or groups of counties.

Colorado. Laws of 1929, c. 67. Standard city planning act providing for the creation of county and regional planning commissions by governor, of regions where necessary to coordinate contiguous municipal plans.

Delaware. Laws of 1929, c. 148 authorizes preliminary report on the New Castle County region (Wilmington).

Laws of 1931, c. 68, p. 342 creates a regional planning commission for New Castle County.

Florida. Laws of 1935, S.B. 783, authorizes county planning councils in all counties.

Georgia. Laws of 1927, No. 260 authorizes zoning and planning in Chatham County, and creates a planning commission.

Laws of 1927, No. 272 authorizes zoning in Glynn County and appointment of a planning commission.

- Idaho.* Laws of 1935, Ex. Sess., C. 51 creates planning commissions in each county and regional planning commissions consisting of groups of contiguous counties.
- Illinois.* Laws of 1929, S.B. 249, p. 308 authorizing creation of county planning commissions and groups of counties may form regional planning commissions.
- Indiana.* Laws of 1935, S.B. 265 authorizes county planning commissions in all counties.
- Maryland.* Laws of 1933, c. 599, p. 1325. Standard city planning act authorizes county planning commissions in all counties.
- Michigan.* Laws of 1935, c. 44 authorizes county planning committees.
- New Jersey.* Laws of 1935, c. 251 provides for county and regional planning boards.
- New York.* Laws of 1927, c. 151 creating planning board for Putnam County.
- Laws of 1927, c. 232 creating Niagara Frontier Planning Board of Erie and Niagara Counties.
- Laws of 1928, c. 607 providing for planning commission in Westchester County.
- Laws of 1923, c. 863, Art. 16, Sec. 380 creating planning commission for Nassau County.
- Laws of 1928, c. 607 creating planning board in Onondaga County.
- Laws of 1929, c. 615 authorizing regional planning commission in counties consisting of towns, cities and villages therein.
- Laws of 1932, c. 137 creating county or regional planning boards consisting of representatives of the county or counties. The counties, cities, villages, and towns are to collaborate to form a regional planning board.
- Ohio.* Laws of 1923, p. 310 in Baldwin's Code, 1926, Sec. 4366-13 authorizing creation of regional planning commissions to consist of groups of municipalities and counties. All municipalities and all counties are authorized to create planning commissions.
- Tennessee.* Laws of 1935, c. 625 creates county planning commission for Shelby County.
- Virginia.* Laws of 1930, c. 420, as amended by Laws of 1932, c. 338 creating Northern Virginia Park and Planning Commission with jurisdiction of Alexandria, and Arlington and Fairfax Counties and contiguous territory which bears relation to the district.
- Laws of 1927, Ex. Sess. C. 15, p. 27 providing for zoning commission in counties having population of 500 to square mile.
- Washington.* Laws of 1935, c. 44 creates city, county, and regional planning commissions.
- Wisconsin.* Statutes 236.04 authorizing county park and planning commission of Milwaukee County.

In addition to the legislation actually enacted during 1935, county planning enabling bills were introduced but were lost in jams at the close of the legislative sessions in Arizona, Illinois,

Iowa, Minnesota, and Ohio. In New England, enabling legislation for the planning of towns and their surrounding areas, which in the absence of the county unit is to all intents and purposes the latter's equivalent, was introduced in Maine and New Hampshire but was also lost in legislative jams. In each State, however, passage of the bills in question is anticipated in the next session of the Legislature.

There are many indications that county planning may experience an expansion comparable to that in the field of State planning. Recent and anticipated county planning enabling legislation is, of course, an important factor. A second factor is the present opportunity to formulate, coördinate and advise on county programs of emergency public works and work relief projects. Third, the growing public interest in Government efficiency and expenditures. Fourth, the local activities of numerous new Federal agencies which would be benefited by local experience and advice. Fifth, the expanded popular conception of governmental services in keeping with the growing complexity of modern living conditions. Sixth, the increasing difficulties of city planning commissions resulting from the areal limitation of their jurisdiction. Seventh, and perhaps most important of all, the existence of 46 State Planning Boards, able to give technical advice to, and to coördinate the work of, local planning agencies.

Rural Zoning

By C. I. HENDRICKSON, Bureau of Agricultural Economics,
Dept. of Agriculture

THE first rural zoning ordinance, enacted in Oneida County, Wisconsin, in May, 1933, created two districts, one designated a forestry district, the other an unrestricted district. In some counties a third, or recreation, district has been created. In the forestry district the erection of year-long family residences and the use of land for agriculture are prohibited. In the recreation district, family dwellings are permitted but the use of land for agriculture is prohibited. The objective of such zoning is to prevent farm settlers from locating in areas of poor land—on land which is so poor that an operator cannot hope to secure a decent living from his farm.

Rural zoning ordinances in Wisconsin have been enacted by the county boards under the county zoning enabling act as amended in 1929. In most other States, too, the county board would seem to be the appropriate local governmental legislative body to enact the rural zoning ordinances. In the New England States, where the town governments are strong, the rural zoning ordinances would be enacted at the town meeting. All counties in California, Indiana, Maryland, and Michigan may adopt zoning ordinances. Enabling legislation was adopted in Indiana and Michigan this year (1935). Certain counties in Mississippi and Virginia have previously been authorized to zone, and this year (1935) Shelby County, Tennessee, was granted this authority. An enabling act for all counties was passed by the Tennessee Legislature, but a section was added which limited the zoning to publicly owned land. Glynn County, Georgia, and three counties in Illinois have adopted zoning ordinances, but in neither State has enabling legislation been passed. Table 1 presents the situation with respect to county zoning as of January 1, 1935. The table shows that the cut-over counties in Wisconsin are the only ones that have what may be classified as strictly rural ordinances. The main purpose of the other county ordinances has been to regulate the urban uses of land for business, industry, and residence. An important consideration in several of the ordinances is the regulation of billboards, filling stations, "hot-dog" stands, and other uses of the land along the highways which destroy the beauty of many suburban and rural areas. Even in these urban ordinances there are a number of regulations affecting the use of land for agriculture, although the purpose is not the same as that for the control of the agricultural use of land in the rural ordinances. These non-rural ordinances aim to prevent or to control any use of the land for agriculture which would lessen the desirability of the district for residence and to prevent the use of the land for commerce under the guise of farming or agriculture.

In a study of over 150 ordinances of counties and municipalities containing rural territory, a number of regulations affecting agriculture were found in addition to the prohibition of agriculture in the forestry and recreation districts of the Wisconsin ordinances. One ordinance provides that in a district called an agricultural district no "dairy, stockyard, cattle feeding yard,

hog ranch, or pig raising establishment shall be established." Two other ordinances prohibit "commercial dairies, commercial kennels, rabbit, fox and goat and other animal raising farms, farms devoted primarily to the raising, fattening and/or butchering of chickens, pigeons, turkeys and other poultry on a commercial scale, hog and stock feeding ranches and ranches operated publicly or privately for the disposal of garbage, sewage, rubbish, or offal." Several ordinances limit the number of animals that may be kept in a barn or stable. In some of the municipal ordinances there is a requirement to the effect that plots or tracts must be of a certain size before anyone may engage in agricultural operations. A very large number of ordinances prescribe limitations on the location of barns, poultry houses, and other agricultural buildings. Some ordinances prohibit the sale of any produce and others limit it to produce grown either on the premises or in the locality.

Rural territory so far zoned is adjacent to urban or thickly populated areas where urban uses of land are developing, or is in cut-over areas where some of the land is coming into agricultural use. In both instances the desire is to control and guide the growth in the developing areas. That the local residents in such developing agricultural areas believe zoning is desirable is indicated by the adoption of rural ordinances in 18 counties in Wisconsin between May, 1933, and January, 1935.

TABLE 1.—COUNTIES HAVING ZONING ORDINANCES, JANUARY 1, 1935

State and County	Year Adopted	Type of Ordinance
CALIFORNIA¹		
(All counties have authority to zone.)		
Kern	1934	Urban
Los Angeles	1927 ²	Urban
Marin	1934	Urban
Monterey	1930	Urban
Placer	1933	Urban
San Diego	1932	Urban
San Mateo	1933	Urban
Santa Barbara	1929	Urban
Santa Clara	1933	Urban
Stanislaus	1933	Urban
GEORGIA³		
Glynn	1928	Urban

¹The county board of Los Angeles County adopted an ordinance for the unincorporated town of Altadena in 1925.

²There is no enabling legislation providing for county zoning in Georgia. An amendment to the State constitution permitting specified counties to zone was defeated at the general election in 1930.

TABLE 1.—COUNTIES HAVING ZONING ORDINANCES, JANUARY 1, 1935, cont'd

State and County	Year Adopted	Type of Ordinance
ILLINOIS³		
Du Page	1933	Urban
Madison	1933	Urban
St. Claire	1933	Urban
MARYLAND⁴		
(All counties have authority to zone.)		
Montgomery	1928	Urban
Prince Georges	1928	Urban
MISSISSIPPI		
In 1926 the State authorized the counties bordering on tidal water to zone unincorporated territory.		
VIRGINIA		
Arlington	1928	Urban
Chesterfield	1934	Urban
Henrico	1934	Urban
Norfolk	1934	Urban
WISCONSIN⁵		
(All counties have authority to zone.)		
Ashtabula	1934	Rural
Bayfield	1934	Rural
Burnett	1934	Rural
Clark	1934	Rural
Douglas	1934	Rural
Eau Claire	1934	Rural
Forest	1934	Rural
Iron	1934	Rural
Langlade	1934	Rural
Lincoln	1934	Rural
Marinette	1934	Rural
Milwaukee	1927	Urban
Oconto	1934	Rural
Oneida	1933	Rural
Price	1934	Rural
Sawyer	1934	Rural
Vilas	1933	Rural
Washburn	1934	Rural
Wood	1934	Rural

³There is no county zoning enabling act in Illinois.

⁴These ordinances are only for the metropolitan district of the city of Washington that extends into Maryland.

⁵In addition to the counties listed, the Kenosha County Board passed an ordinance covering the town of Somers in 1925; the Manitowoc County Board an ordinance for the town of Manitowoc Rapids in 1932; the Outagamie County Board for the town of Grand Chute in 1930.

Organization and Activities of County Planning Commissions

By C. A. McCLURE, Associate Consultant, Pacific Northwest
Regional Planning Commission

EACH of the 175 counties of the Pacific Northwest States has some problems—land-use, water conservation and use, agriculture, forests, grazing, highways, recreation—solution of which would be furthered by planning, or in other words, study and foresight.

This work should be undertaken by a board or commission comprised of persons well acquainted with the county and qualified to take an active interest in some phase of the work because of special knowledge. The work of a well-organized planning commission will be of direct benefit to the county—with values greatly in excess of the amount expended for operations. A county with a well-thought-out plan of procedure will be able to carry out improvements at minimum practicable expense and with less necessity of later rectifying misdirected efforts caused by lack of knowledge of general needs and future requirements.

In Washington, county planning commissions are appointed under authority of House Bill 108, Legislature of 1935. This bill provides that commissions shall consist of from three to twelve members, to be appointed by the chairman of the board of county commissioners. Not more than one-third of the members may be *ex officio* members by virtue of office held in such municipality. The term of appointive members is for six years on a staggered rotational basis. Members may be removed, after public hearing, by the appointing official for inefficiency or neglect of duty. The commission elects its own chairman and creates and fills such other offices as it may determine it requires. Funds for the use of the commission are to be furnished by the county.

The act of Washington specifies that a county planning commission shall hold regular monthly meetings during at least nine months each year. A commission, if and when at all active, may have to hold meetings at more frequent intervals. Regular meetings should be on a specific day each month—other meet-

ings at call of the chairman. All meetings should be publicly announced and in general the public may attend. The commission is a body working for the best interests of the public—the more the people become acquainted with its aims the more their interest and desire to cooperate.

The county planning problem is to ascertain the county's resources and how they may be conserved, developed and used to the best advantage. The problem may be divided under heads:

1. *Land Resources.* Economic use of land (residential, agricultural, commercial and recreational purposes), agriculture and its production, soil-conservation, forests and timber, minerals, wildlife preserves.

2. *Water Resources.* Precipitation, stream-flow, domestic and public supplies, irrigation, flood-control, power, navigation, fishery, waste disposal, stream purification.

3. *Transportation.* Highways, railroads, grade separations, waterways, airways, and their ports and terminals.

4. *Other Utilities.* Power and communication lines, etc.

5. *Public Welfare.* Facilities for recreation, housing, distribution and location of population and industries, health and sanitation, education, safety and protection; also economic, social and administrative problems involving employment, relief, finances, government, taxation, etc.

6. *Other Physical Improvements and Public Works.* Miscellaneous physical improvements, structures, and facilities, and public works plans and programs in general.

Before a county plan is completed it is desirable that the smaller units within the county develop plans. Whether or not these smaller units have planning bodies, they should consider their needs, means to meet them, and relations to county plans. A well-organized county planning commission should undertake, as a part of its own activity, some planning for the smaller communities. It should also be in close contact with the planning commissions of its cities, so that respective plans may coincide at meeting lines.

There are two phases to county planning—the long-term, comprehensive plan for the entire county, covering all resources and activities, and the plan for meeting immediate needs and requirements. As a planning commission is an advisory body, the formal adoption and administration of a plan are matters under the jurisdiction of the county commissioners. It is probable that the county commissioners will wish for a considerable amount of public support of the plan. The planning commission can be of material assistance by a campaign of education, explaining the benefits from the adoption of an official plan.

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After a plan is officially adopted, it will be of little use unless the public and the administrative departments are aware of its existence and its contents. Accordingly, copies should be furnished to all administrative departments, as a guide for their future activity. Before any improvements, construction developments and/or betterments are undertaken or approved, the plan should be consulted and all major undertakings authorized in accordance with it.

In each county there are numerous agencies—local, State and Federal—with particular functions to perform. In many instances these functions overlap. The planning commission can be of material assistance in bringing about a closer relationship of these agencies, eliminating some of the duplication of work and, at the same time, correlating the work and information so it would be much more useful to the entire county.

In many ways, county-planning procedure will follow that of cities, making allowances for larger areas and some differences in the nature of problems. Also, county planning should recognize the procedure being developed for State planning, of which the former is, in part, a decentralization.

The apparent magnitude of the county-planning problem should not deter a county from adopting planning technique. The problem exists, whether recognized or not, and scientific planning leads to the most desirable and logical solutions. When a start is made, relationships become clearer and some of the determinations and solutions will appear almost automatically. Much of the work will be found to be done or in process of being done by State and other agencies.

In each county are engineers, architects and other professional and technical men, and civic, trade, and professional groups or associations that have an interest in the future of the county and State. These may be requested to serve on advisory or technical committees and give of their knowledge and time toward the perfection of the complete plan.

The indications of growing interest and appreciation in many parts of the country leave little doubt of the general need of county planning, or of the values to be obtained through county-planning organization and procedure in harmony with the already active State- and city-planning movement.

IN THE CITIES AND TOWNS

CONFERENCE ON CITY, REGIONAL, STATE, AND NATIONAL PLANNING

EDITOR'S NOTE.—On May 20, 21, and 22, 1935, there was held in the City of Cincinnati, a Conference on City, Regional, State, and National Planning, which addressed itself to the general subject: What City, Regional, State, and National Planning Can Do for the Future of American Cities. The Conference was sponsored by the American City Planning Institute, the American Civic Association, the American Society of Planning Officials, and the National Conference on City Planning. The Secretary of the Joint Conference was Flavel Shurtleff and the Chairman of the Cincinnati Committee on Arrangements was Alfred Bettman. Since that meeting the American Civic Association and the National Conference on City Planning have merged. The AMERICAN PLANNING AND CIVIC ANNUAL thus includes Volume VI of the AMERICAN CIVIC ANNUAL and Volume XXV of the PROCEEDINGS of the Planning Conference. This section, entitled "In the Cities and Towns," constitutes the Proceedings of the Cincinnati Planning Conference, except that the addresses delivered at the final dinner have been placed under appropriate subject titles elsewhere in this volume.

MUST AMERICAN CITIES DECAY?

Population and Industrial Trends

By L. SEGOE, Planning Consultant, Cincinnati, Ohio

POPULATION and its distribution, in their quantitative and qualitative aspects, and the relationship between population, natural resources, and the physical environmental pattern are ultimate factors determining national and community life. City, regional, State, and national planning have the common basic objective of furthering and achieving better balance and adjustment between population and environmental pattern, as a means to greater and more enduring social welfare. Therefore, population trends, and, in our highly developed industrial society, related trends in the growth and distribution of manufacturing industries, are factors of controlling importance in planning for the future of our cities and the Nation.

POPULATION TRENDS

(A) *Population Growth and Distribution.* The most competent authorities on population problems generally agree that there is to be a very pronounced slowing up in the growth of the population of the United States; that the maximum is likely to be reached within the next 30 to 40 years; and that this maximum will probably fall between 140 and 145 millions. Such growth would represent at the most an increase of 17 per cent in the next 30 years, in contrast to 61.5 per cent between 1900 and 1930.

From a little over 30 millions in 1900 the urban population increased by 1930 to over 68 millions. The increase during the last census decade in the urban population amounted to 14,600,000 in contrast to an increase of only 2,400,000 in the rural population. The urban population may reach 75 millions by about 1969 and may decline thereafter to about 67 millions by 1980, less by about a million than in 1930. In contrast with an increase of 108.5 per cent in urban population during the past 30 years, only 8.4 per cent increase is expected in the next 30 years with a greater decline for the 20 years following 1960 than the expected increase during the preceding 30 years.

The unfamiliar sound of declining urban population may be

made more credible, although perhaps no less surprising or unpleasant to some people, by noting that during the last census decade one-eighth of all cities between 10,000 and 250,000 and one-fifth of those smaller than 10,000 (a total of 532 cities) have actually lost population; that in many cities the birth-rate is inadequate to maintain the present population; that the flow of population from farm to city, whether temporarily or not, has been reversed. In contrast to an average annual gain for the cities from the farm-city interchange of nearly two millions between 1920 and 1930, in 1931 the cities lost about 200,000 and in 1932 about 500,000 population to the farms.

Taken as a group, the population of suburban areas and satellite communities increased between 1920 and 1930 by 36.2 per cent, while that of the non-satellite cities increased by only 19.4 per cent. There appears to exist a fairly close inverse relation between the size of the satellite cities and their rates of growth—the smaller the city, the higher the rate of increase. For non-satellite cities, the size and growth tend to be in direct relation up to 25,000; after this size the relation is inverse.

Cities under 100,000 have maintained since 1880, excepting the 1890-1900 decade, a higher average rate of increase than cities over 100,000. Except for the group of cities of one million population or over, which between 1890 and 1930 increased its proportion of the total urban population by 6.5 per cent (from 5.8 to 12.3 per cent), the 25,000 to 100,000 group increased its proportion most, by 3.7 per cent (from 6.8 to 10.5 per cent). The gain of the one-million-and-over group would have been much lower had it not been for Los Angeles and Detroit. Cities between 25,000 and 50,000 showed the largest consistent rate of increase since 1910, indicating that communities of medium size in this group benefited relatively most in point of growth by industrial expansion during and since the war. The second largest rate of consistent gain during the past two census decades was for cities of 15,000 and under, which include a large number of satellite communities.

Cities under 100,000 are expected to continue to increase at a somewhat faster rate than the larger cities, at perhaps 9.2 per cent in the next 30 years as against 5.3 per cent in the group over 100,000 population. The suburban areas within the Metropolitan District of Detroit increased in population twice as fast

as in Detroit, similarly in the San Francisco-Oakland District; three times as fast in the Chicago and Pittsburgh District and in the New York-New England-New Jersey District; six times as fast in the Philadelphia District; more than ten times as fast around St. Louis; nearly eleven times as fast in the Cleveland District. All metropolitan districts of 300,000 population or more, with the exception of Louisville, showed a larger rate of increase in the suburban areas than in the central city. In all 85 metropolitan districts under one million population, the rate of increase in the suburban areas was almost twice that of the central cities.

Today the metropolitan district is drawing its population from the rural areas and other cities, as evidenced by the increasing number of cities losing population: 532 in 1930 compared with 393 during the preceding decade. Within the metropolitan district, decentralization is proceeding at a phenomenal rate.

According to W. Russell Tylor, in the *Journal of Land and Public Utility Economics* for February, 1933: "In the nation at large it is the urban trend; in the urban population itself it is a metropolitan district trend; in the metropolitan district it is the suburban trend. Perhaps then instead of characterizing our national tendency as *urban* we should say *suburban*."

(B) *Age Composition.* Equally significant are the expected changes in the age composition of the population. Decreases in rate of growth of population are due in part to the alarmingly rapid decline in the birth-rate (13 per cent between 1900 and 1920, and 23 per cent during the last census decade) and to immigrations restrictions. It is estimated that the number of persons under 20 years of age may be 13 per cent less 50 years hence than it was in 1930 and that persons 45 years or older will probably constitute nearly 38 per cent of the total population, as against 23 per cent in 1930.

Whatever margin of error population prognostications are subject to, it is certain that, in comparison with the unprecedented growth of the past 30 years, in the next 30 years the Nation as a whole and the cities also will appear to be standing still in growth. A stationary or even a declining population within the next 30 to 50 years does not appear to be improbable, and the rapid change in the age composition of population towards the dominance of the older age groups is almost sure to occur.

An appraisal of the probable effect on our cities of changes in the trends of population growth, distribution, and age composition, which should influence our policies in planning for their physical and social future, would indicate:

(1) The basic reason for the great rise in real-estate values in our cities during the last few decades has been the very rapid increase of their population. A substantially slower city growth, or a stationary or declining population, may be expected to have pronounced effects on these values. The effects of slower growth are likely to be less pronounced on residential properties, because the number of families will probably increase faster than population and may continue to increase even in a stationary population due to the dwindling size of families (4.7 persons per family in 1900 and 4.1 persons in 1930). Industrial properties, the value of which tends to increase in direct proportion with the population, should for this and other reasons be more seriously affected. Business properties, particularly properties in the central business districts, are the ones, however, that will probably feel most severely the effects of the declining rate of urban growth. In an increasing population, land values, especially of business and industrial properties, are rising as a result of both population growth and increased purchasing power. In a stationary population, the rise of land values in general will be dependent on the increase of living standards and purchasing power.

As a result of these probable effects on real-estate values the following changes may be anticipated:

- (a) A new attitude towards real estate as a long-time investment or an acquisition for immediate use, instead of an article of speculation.
 - (b) A system of real-estate taxation based on income rather than assessed valuation, and the increased dependence of the community on sources of taxation other than real estate.
 - (c) Slowing up or stoppage of vertical expansion in central business districts.
 - (d) Improvement in the standard of new developments, as quality will become increasingly more important for attracting purchasing power.
 - (e) Possibilities of a permanent open belt around the city devoted to uses of extremely open type in public or private ownership.
 - (f) An intelligent attack on the rehabilitation of blighted areas may become possible with the liquidation of inflated values through a rapidly diminishing demand and increasingly severe competition. Rehabilitation based on functional fitness may supplant the prevailing confusion with respect to slum clearance and low-cost housing.
 - (g) Higher standards of living (reasonable to anticipate in a slow-growing or stationary population) should increase the demand for higher quality of land and neighborhood. Over-crowded, badly laid out, unattractive sections will depreciate; spacious, well-planned developments with attractive outlook and natural beauty will be increasingly in demand and should appreciate in value.
- (2) Much of the land held for commercial and industrial expansion will not be needed for these purposes. Because of the concentration of population, as a result of the increasing number of older people and smaller families, to a lesser extent the same may be expected in residential areas. The problem now faced in the blighted districts will thus arise in other parts of the community, i. e., what is the best and most appropriate use to be made of such districts?
- (3) The demand for detached single-family homes is likely to decrease and that for apartments increase, due to changes in age composition and to smaller families.

(4) Greater physical and social stability of neighborhoods may result from the lack of replacements at the bottom and through increasing public control.

(5) On the whole, the demand for extending public facilities, and consequently the expenditures therefor, may be expected to decrease. Fewer new school buildings, fewer institutions for the care of children may be needed, there should be less demand for additions to the water-works and utility main extensions; more institutions for old people, and of the cultural recreational type, more parks, libraries, museums, art galleries will be required.

(6) In a more compact and more stable community the cost of public services ought to be lower.

(7) The declining number of births should allow better provision for maternity and infant welfare.

(8) Opportunity for extended education and vocational guidance should increase.

(9) Old age pensions will likely be provided with more pressing need therefor, due to fewer children to depend upon and with older people in control of social and economic policies.

(10) The present tendency in industry to reduce the age limit of workers will have to be modified. Unfortunately, this cannot be expected to relieve the problem of the industrial unemployables because of the rapidly aging population.

(11) Contingent on increasing economic security through social insurance, greater expenditures for consumption goods and personal services, especially of the cultural recreational type, appear to be likely, due to the change in the age composition, a higher standard of living, and lower expenditures for capital equipment.

(12) Growing conservatism in political policies would appear natural with the aging of the population.

(13) Increased interest in cultural and civic affairs is probable in a society of more mature people, as well as the focusing of attention on the quality of life in the community instead of opportunities for material gain or mere size.

INDUSTRIAL TRENDS*

Measured by the movement of the "center of gravity" of manufactures, in 70 years from 1849 to 1919, manufactures worked westward about 330 miles approximately along the fortieth parallel of latitude, deviating but slightly north and south. The center of population during the same period moved in the same direction but 290 miles. In 1849 the population center was situated about 203 miles to the west and 118 miles to the south of the center of manufactures; by 1919 the center of population was only 163 miles to the west and only 90 miles to the south. While the population center has held consistently at a

*"Location of Manufactures, 1899-1929" by U. S. Bureau of the Census was used freely in developing this phase of the inquiry.

considerable distance west and south of the center of manufactures, the distance between the two is rapidly decreasing—a perfectly natural occurrence with 61 per cent of all persons gainfully employed in production reported by the manufacturing and mechanical industries.

In spite of the growth in industry in the South and West, only the East North Central Division has been able to challenge seriously the industrial supremacy of the manufacturing East, composed of the New England and Middle Atlantic States. These three divisions reported 75 per cent of all factory wage jobs at the beginning of the century and over 70 per cent 30 years later. The ten industrial regions containing the ten largest cities, with one-quarter of the Nation's population, accounted in 1929 for more than one-third of all wage jobs in the manufacturing industry. The 93 cities of 100,000 population or more, including the counties in which these cities are located, plus 47 other counties belonging in "industrial areas" as defined by the Census, reported in 1929 nearly 65 per cent of all manufacturing wage jobs. The remainder of the country contained only a little over 35 per cent of such wage jobs.

According to the Bureau of the Census, the ten most populous cities fell far short during the 30 years from 1899 to 1929 of keeping step with the increase of manufactures in the country as a whole (68.4 as against 87.5 per cent), although their population increased far more rapidly (118.4 as compared with 61.6 per cent). The percentage of the total wage jobs located within these ten cities remained practically stationary (62.2 in 1899 and 62.3 in 1929), while their proportions of population increased from 22 to 30 per cent. The proportion of wage jobs in the group of ten smaller cities, of 100,000 and over, located within the areas dominated by the ten industrial areas outside of these 20 cities, increased their proportion of industrial development (from 28.6 to 30 per cent), although at a much slower rate than the growth of manufactures in the country at large (77 against 87.5 per cent).

Taking all 93 cities of 100,000 or over, these held their own, having lost but slightly in their share of manufactures during the 30 years (from 44.6 to 43.8 per cent), but 73 of this group not within the industrial regions dominated by the ten largest cities substantially increased their proportionate share (from 15.8 to 19.4 per cent), and show a relative increase in wage jobs much

greater than the country as a whole (118 compared with 87.5 per cent). There appears to be a definable trend toward manufacturing dispersion toward the surroundings of the larger industrial centers and medium-sized communities located away from such centers. The trend is more suburban than urban.

The factors of raw materials, labor, fuel and power, market, capital and transportation are tending to have a progressively lessening influence, although markets and materials are yielding more slowly and transportation is almost as potent as before the ending of the hegemony of the railroads. There is every reason to believe that the railroad freight structure, unduly favorable to the eastern seaboard cities, will be revised. Should a general reorganization of the transport systems take place, most significant changes may follow in the location of manufacturing industries. The westward movement of manufactures is likely to become greatly accelerated, for proximity to materials and markets would then become controlling economic factors. Decentralization within industrial regions would likely be encouraged.

With greater freedom in the selection of locations by industry through reorganization of transportation and the wider distribution of power, social considerations should have greater influence, and the type and size of community in which workers are to live should play a more important part. The rehousing on a desirable standard of that part of the industrial population now concentrated in congested central areas of our large cities, in our notorious slums, should be facilitated.

Lessening of congestion of bulk freight movements in central areas would ensue. The removal of the multitude of freight depots and other railroad facilities from congested central areas to outlying freight concentration terminals would be encouraged. A better balanced and more effective use of passenger transit facilities and streets should also result. The decentralization of manufactures and the re-articulation of traffic holds out the promise of reducing the enormous expenditures for street improvements which in recent years have consumed the major share of the financial resources of our larger communities. The removal of freight depots and other facilities should offer opportunities for public open spaces for recreation and for adequate grounds around public buildings.

There is obviously a need for careful industrial planning if we

are to make the most of the opportunity for obtaining in our cities a balanced and properly articulated industrial development. The already manifest trend of manufactures into outlying areas directs attention to the need for more effective control of industrial locations in such districts, from the physical and social standpoint as well as that of tax revenues and economy of public administration.

The broad general trends are clear, at least for the next two or three decades. After that, entrance upon a new economic epoch may alter the outlook entirely as did the Industrial Revolution. Many of our cities have grown beyond their ability to assure decent living conditions to their populations. In many rural areas the population is too widely scattered to provide for itself a satisfactory standard of public services and to make possible desirable social existence.

Planning alone will not be sufficient. Aside from the perfection of the art itself, the success or failure of planning will largely depend on how far we are willing to substitute, in place of the immediate individual and group gain, the sustained welfare of the community and Nation, on which in the long run the well-being of all of us and that of future generations largely depends.

ROBERT WHITTEN, CONSULTANT TO THE NEW YORK STATE PLANNING BOARD:

I heartily agree with most of the statements that Mr. Segoe has made. At first I thought that he was proposing that we were coming to a rather *stabilized* situation in which it would be comparatively easy to plan everything because we would know how many people we were to provide for and how many of each age, and so forth. Then as Mr. Segoe got into his subject he showed clearly that we were not coming into a stabilized condition but were coming into a really more dynamic condition in which changes may be even more radical than they have been in the past.

I did doubt a little the estimate that, while there would be an increase of some 17 per cent in the population of the United States as a whole, there would be an increase of only 8 per cent in the urban population. That may be if we include in the rural population all the population that will be outside of the urban communities of specified size, say 2,500, but if we are thinking, not of the urban population as that which is within urban boundaries, but rather of the non-farm population—the population that gains its livelihood from urban occupations—I think that estimate is probably false, because the fact that fewer people will be required in industrial processes also applies to farms and there will

be a continuing drift of man-power away from the farms. A good deal of this population will be located outside of urban areas along the good roads within ten or fifteen miles of the city, but it will not be a strictly farming population. There will be this stringing out of population along the main roads between the farms and urban residence districts. In the future this will probably bring us problems of scattered development and of shoestring areas without much cohesion.

In New York State only 5½ per cent of the population in 1930 lived on farms, and during the period of 1900-1930 all but one-half of one per cent of the increase in the population of the State would be accounted for by the increase in the population of the seven metropolitan areas. I agree with Mr. Segoe that the trend is a suburban trend and that trend seems likely to continue. There will probably be declines in the population of smaller cities outside the boundaries of suburban areas or future metropolitan areas.

The higher standard of living to which Mr. Segoe referred will in itself produce many changes in our city structure and it will require readjustments and reorganization all along the line. I am not so sure that we may expect less emphasis on vertical structures. With a higher standard of living there may be, even with the same population, more goods to produce to support the population, and therefore an increase in the service and clerical populations that will be housed in central business districts. This may very well continue the urge for vertical structures in those districts.

The number of persons employed in the manufacturing industries is tending to decline sharply. The growth of the smaller cities from 1920-1930 was caused, I venture to say, not by their increase in the number of persons employed in manufacturing industries, but it was due to increases in service, clerical, and other occupations.

HARLAND BARTHOLOMEW, PLANNING CONSULTANT, ST. LOUIS, Mo.:

One of the reasons that decay has become so acute in the large city is that the population has reacted against it, first, by decentralizing to the suburban areas. Why? Because it was dissatisfied with the living conditions in the large city. We are hearing about decentralization. Industry is not particularly interested in decentralization. Industry is dependent on large population and on markets. The change is taking place because we have failed to establish policies which make it satisfactory for industry to stay and satisfactory for our population to stay. There are many things that we can do. One is the revision of our zoning ordinances. Another difficulty is that we do not enforce high standards in building codes or sanitary codes.

Faulty Urban Land Policies

By PHILIP H. CORNICK, National Institute of Public Administration,
New York City

THE results of faulty urban land policies are all about us: municipal and private defaults on bonded debt; underdevelopment alongside overdevelopment and premature development. The explanations offered are numerous. The curative and preventive remedies proposed are legion. This paper attempts an analysis of what might be called the abc's of city growth in the hope of finding the basic causes which underlie these faulty policies.

What is a City? A city is the focal point of certain specialized human activities which are essential to the highest development of the economic and social life of a people. Physically, it consists of three things: the land on which it stands; the man-made improvements on that land; and the people who live in it. The land itself must inevitably be divided into two broad classes of use: lands used in common, and lands used by separate individuals, families, or other groups. Man-made attachments to land with responsibility for construction and maintenance fall into two categories which parallel the land classes. The exact location of the lines of demarcation between the two classes of land, and of the improvements thereon, varies from time to time, and from place to place, as economic conditions, the state of arts, standards of living, and human concepts change. No matter how extreme the variations in these factors, the line itself persists. It has not been wholly obliterated either in Soviet Russia or in any citadel of the most extreme individualism.

Land More Than a Foundation. What function does land itself serve in a city? The most obvious is to provide foundations for the works of man. But on Manhattan Island, both solid rock and quicksands have been found to serve that purpose adequately. New Orleans is built on swamp muck hundreds of feet deep. Considerable parts of New York City, Chicago, Boston, and San Francisco stand on sites which were formerly under water. It would appear that almost any part of the more than three million square miles included within the boundaries of the continental United States will serve that purpose.

Does that mean that a city may be built anywhere? Appar-

ently not. The existing central cities in our 96 metropolitan districts, as defined by the Bureau of the Census, cover only about 15 acres out of every ten thousand in our total area. Even if we include the sprawling satellites which surround these central cities, some with average densities of less than one inhabitant for every four acres, we find that our metropolitan districts cover only about 120 acres out of every ten thousand. Is this concentration of population the result of chance, or was it determined by the existence of characteristics which inhere in urban sites other than the mere capacity to provide foundations?

Urban Sites Limited. A classification by location of the 96 metropolitan districts shows that 23, with almost one-half the metropolitan population, are located on seaports; 13 grew up along the route of the Erie Canal and on the Great Lakes; 13 are distributed along the Mississippi River and its navigable tributaries. The locations of this group of 49, with more than three-fourths of the country's metropolitan population, and more than one-third of its total population, were predetermined by the topography of the continent, in combination with climate and the distribution of natural resources. These factors, all beyond the control of man, determined not only the natural trade routes along which commerce would flow, but also the sites along these routes where cities would develop. With few exceptions, those sites were used as permanent or occasional trading posts one, two, or three centuries ago. Since the flow of commerce through them began, sailing vessels and canoes have been replaced by steamships; oxcarts, pack animals, and stage coaches gave way first to horse-drawn canal boats, and then to railways, motor vehicles, and airplanes; the stream of commodities which consisted at first largely of furs in exchange for trinkets now includes all the varied products of farm, forest, mine, and factory, drawn from all the continents. These changes have not affected the unique advantages in the sites except to intensify them.

We have an important group of 18 metropolitan districts, which are located on or near mineral deposits—coal, iron, petroleum, copper, gold, silver, and clay. Some of these, such as Pittsburgh, have a history which antedates the development of large-scale extractive industries on the continent. They had an earlier existence as centers of commerce along established trade routes running from the Atlantic seaboard to the great interior

valley. The topographic features of this group of routes made it second in importance only to the Erie Canal-Great Lakes route. When the mineral deposits were developed near the trading posts along it, the enormous increase in tonnage offset the topographic handicaps under which it labored, and converted its major and minor variants into effective rivals of the dominant route.

These and other factors helped to create a network of trade routes extending from the Atlantic ports between Boston and Norfolk to the ports on the Great Lakes, and on the Mississippi and Ohio Rivers. Where the lines in this network crossed one another, or where, as in the case of some of the inland metropolises in New England, available water-power early became a factor, other cities grew up. Eighteen metropolitan districts of this type exist. Of the remaining 11 districts, Atlantic City is located on tidewater but has no port. It exists solely as a resort city, and its livelihood depends on the fact that its beaches are easily accessible to the millions of people living in the great cities near it. The others are inland trade centers located at the intersections of two or more rail lines, or where river and rail lines meet.

Records are not available for an adequate analysis of the thousands of ambitious plans for the founding of metropolises throughout the Nation which have come to naught. Certain projected centers had excellent harbors, but Nature had interposed obstacles which prevented the development of trade routes to the interior. In the interior itself, a succession of promoters during the past century and a half pinned their hopes on thousands of sites, but topographic, geologic, or climatic conditions were such that some exist today merely as names on old maps, others as local centers of trade and manufacture on minor tributaries of the great national and international streams of commerce.

Relative Values of Urban and Rural Lands. We are justified in assuming that urban sites have been endowed by Nature with certain economic potentialities which far outweigh those which inhere in other lands. Can the relationship be stated quantitatively? Facts suitable for the purpose are incomplete and far from precise. Real estate in the metropolitan districts is assessed at 79 billion dollars as compared with slightly less than 50 billions of dollars in all the rest of the country. An average square mile

in the metropolitan districts is the economic equivalent of more than 125 square miles in the remainder of the country.

Startling as this comparison of average values is, it does not begin to express the capacity for variation in value between different types of urban land, or between urban and rural lands. A tract of land located at the southeast corner of Broadway and Wall Streets in New York City is reported to have changed hands twice at a price approximating \$640 per square foot. This is a bare land price, and the fact that a considerable period elapsed between the two transactions warrants the conclusion that it represents a stabilized capitalization of its net annual rental. In the borough of Queens, there are lands which the department of taxes and assessments values at one and a half cents per square foot. We find here a variation of almost 43,000 to 1 in the values assigned to a given area of land. One single square foot of the most valuable parcel in New York City is the equivalent in value of more than two and a half acres of bare land in the best general farming area in the State of Iowa—a spread of more than 100,000 to 1. The same square foot is also the equivalent in value of an entire square mile of grazing-land in our semi-arid west, or of the same area of denuded forest land in some of the sections of the country which are not adaptable for general farming. In these cases, the ratio between the high and low values for equal areas of land mounts to almost 28 millions to one.

In these ratios between the economic capacities of equal areas of lands at various levels of use to produce net annual incomes in excess of the costs of capital and labor expended in production, we find the basic causes of the pressures which disrupt the best-laid plans for the orderly development of lands. But even these figures, which have been based as nearly as available statistics will permit on land *value*—that is, on the capitalized value of the net economic rent of bare land—do not illustrate fully either the extent or the nature of the disruptive forces with which we are dealing. In a Nation such as ours, characterized by a steady and long-continued growth in population, by a progressive development of natural resources, by constant shifts in the location of the center of population, and by the attendant changes in the relative importance of primary trade routes, speculation in future increases in land rents comes into play. Land *prices*, rather than land *values*, become the dominant factors in the

thinking and the activities of men with respect to land. As I have endeavored to show elsewhere,¹ these prices consist of two elements: the capitalized value of current land rents, plus the present discounted value of anticipated future increases in land rents. For long periods and over large areas, the value of the first of these elements in a land price may stand at or near zero, with the result that the price may consist wholly or in large part of the speculative second element.

Shifts in Land Prices from Time to Time. There is available, so far as I know, only one study which measures the shifts in the prices of a given area of land over a period of time—Homer Hoyt's study of land prices in Chicago.² A table in that book indicates that in 1833, when the completion of the Erie Canal had made the development of Chicago possible, the entire area of 211 square miles now included within the limits of the city of Chicago might have been bought for \$168,800. Three years later, when the State of Illinois had embarked on its ambitious project to open a waterway between Chicago and the Mississippi River, the same land had a price of \$10,500,000. In 1842, only six years later, when the State of Illinois found itself unable to pay the interest on its canal debt, and work on the proposed canal had ceased, the price dropped to \$1,400,000. Fourteen years later, in 1856, when the railway had replaced the canal in popular imagination as the best means for stimulating increases in land prices, and when counties and townships were issuing railway aid bonds in large volume, the price increased to \$125,000,000. The following year, the structure of public and private debt, erected largely on the unstable base of speculative land prices, crumbled. The city of Chicago was forced into default. By 1861 the land prices had shrunk to less than one-half of what they had been five years earlier.

After a succession of similar rises and falls during the booms and depressions which followed the Civil War, the land prices for the same 211 square miles stood at an estimated one billion in 1897. Thereafter the price mounted steadily until, in 1926, it reached the sum of five billions. Public and private credit mounted similarly and provided a reservoir sufficient to finance

¹See *Journal of Land and Public Utility Economics*, August, 1934; "Land Prices in a Commodity Price System," by Philip H. Cornick.

²"One Hundred Years of Land Values in Chicago," by Homer Hoyt; University of Chicago Press, 1933.

between 1922 and 1928, not only the erection of new buildings along 580 miles of street frontage, but also all the public improvements needed to serve those buildings and the large vacant areas lying in new subdivisions. By 1933, 60 per cent of the land prices of 1926 had evaporated; some of the overlapping municipal governments were again in default; payments had been suspended on mortgage bonds and certificates; and 163 banks had closed their doors.

Mr. Hoyt's study constitutes an outstanding contribution to the body of facts on which our future concepts of economic history and of economic theory must rest. Of the long series of booms which took place during the century subjected to scrutiny by Mr. Hoyt, two followed immediately on the heels of credit inflations incident to the conduct of great wars. I find nothing in Mr. Hoyt's exhaustive and orderly compilation of pertinent material which runs counter to the hypothesis that all of the remaining booms in the series generated the bases for their own progressive inflations of credit by widespread increases in the speculative prices of land. I find nothing to indicate that many of the disastrous effects of the inevitable deflations following all of the booms, including those which came as the aftermath of wars, are not traceable directly and indirectly to the mountainous debts incurred for unwise or premature construction of man-made attachments to public and private lands while the credit inflation lasted—debts which, when they were created, seemed conservative alike to borrowers and lenders, to statesmen and demagogues, to wise men and fools.

Until Mr. Hoyt or other patient and discerning delvers into the foundations of our economic life, shall produce facts to the contrary, we seem justified in advancing the hypothesis that land prices, under our existing system of tenure, have constituted a basic cause of the violently disruptive series of inflations and deflations which have characterized our history. If that hypothesis proves to be tenable, it goes to the heart of the problems confronting the city planners. Cities exist because of and along great streams of national and international commerce. It is only through the agency of these streams that our cities can discharge their proper and beneficent functions in the life of the world. How can intelligent planning proceed on any level when those streams are now torrents which tax the capacity of our man-

made attachments to public and private lands and now trickles which leave those facilities wholly or partly idle and the men who operate them unemployed?

Ineffective Plans for Control. We have developed and applied three instruments designed to correct our faulty urban land policies: the comprehensive master plan, the zoning ordinance, and subdivision control. Can any planner here point out instances where they have been more than partially successful?

Our master plans, where they have become official, consist in general of compromises between what the planner, after intensive and detached study, felt was best for the city as a whole, and what the individual landowners felt was best for their own interests. The promulgation of the compromise plan itself has all too frequently raised obstacles in the way of its effectuation by stimulating speculative increases in the prices of the lands necessary for carrying it out.

Our zoning ordinances have had a similar history. Starting out as compromises, satisfactory neither to the experts who drafted them nor to some of the landowners who had to operate under them, they became during the boom in some of our cities new sources of turmoil and logrolling in the city councils. Amendment followed amendment, almost invariably increasing the already excessive areas set aside for the more intensive uses in the compromise draft originally enacted.

Actual results in subdivision control have been even more disappointing. In the great majority of the places where such control has been exercised, it has been effective chiefly in eliminating obvious errors in the width and alignment of streets and in the shapes and sizes of blocks and lots. It had little or no retarding effect on the rate at which unneeded building lots were created during the boom, nor on the abandon with which new public indebtedness was incurred for street improvements which have turned out to be worse than useless. Cincinnati is almost the sole exception to this statement. Partly because of an unusually wise, tactful, and courageous administration in the planning field, partly also perhaps because a relatively low rate of increase in population had weakened the intense speculative urge which prevailed elsewhere, subdivision control here succeeded in holding surplus lots and wasted public improvements to a minimum.

Summary and Conclusions. What is the bearing of this series of facts—of these abc's of city growth—on the problem of faulty urban land policies?

We have seen that the sites on which cities can grow are limited by nature. We have developed, if not precise data, then at least rough approximations, which indicate that equal areas of physically similar but economically dissimilar lands vary widely at a given time in their capacities to produce net rents. We have seen that the economic rent of a given piece of land may vary widely from time to time. We have seen that these variations from one period to another lead men to capitalize anticipated future increases in land rents into present prices, and that the desire of men to realize on these prices places obstacles in the way of utilizing successfully those instruments which have been devised for the formulation and control of land policies. We have observed facts which support the hypothesis that shifts in the speculative prices of lands lead to alternate expansions and contractions of the basis of public and private credit; and that the consequent series of booms and depressions disrupts the orderly operations of those essential economic processes which alone justify the existence of cities, and which provide their sole legitimate means of livelihood. In this series of facts, it would seem, therefore, that we have found the basic causes which underlie our faulty policies with respect not only to urban land but to all land.

In 1879, at the close of the last great depression comparable to that from which we now seem to be emerging, Henry George published a volume under the title "Progress and Poverty." Long before the art of city planning had been elevated in this country to the status of an organized profession, that book presented a searching inquiry into the problems discussed in this paper. No unprejudiced mind can approach that work without being impressed by its freshness and its direct applicability to the problems of today. The statistics on which I have drawn, none of them available when he wrote, as well as other series of economic facts which have been produced since his death, buttress the foundation which he built up laboriously from isolated facts collected by personal observation and by reading, and substantiate the basic conclusions which he erected on that foundation.

He argued passionately that land is a common heritage of the race; that our system of land tenure made speculation in future increases in rents inevitable; that that speculation paved the way for industrial depressions. He came to the conclusion that private initiative among individuals under conditions of economic equality was essential to the orderly progress of civilization, and that the private use of land was therefore an essential element in the factors underlying progress. He proposed to absorb in taxation the net economic rent of land for the purpose of restoring the rights of men in their common heritage, but to preserve the benefits of private initiative by leaving lands in private possession. He contended that only by this device could industrial booms and depressions be avoided, and an orderly plan of land use developed and maintained. Stated in terms which have come into general use only since he wrote, he contended further that his proposal offered the only escape from a communist dictatorship on the one hand or a fascist dictatorship on the other.

As an humble witness whose testimony may or may not carry weight, I can only say that I can see no major flaws in his logic, and that the chief obstacles which now stand in the way of attaining the objectives to which the members of this conference are devoting their lives can be removed most easily if we adopt the proposals made by Henry George more than fifty years ago.

TRACY B. AUGUR, TENNESSEE VALLEY AUTHORITY:

I find myself in very great agreement with Mr. Cornick that of all the many faults in urban land policies, the one which is the root of them is the speculative interest in land and all the ills that it creates.

I am inclined to disagree slightly, however, that the forces which have created this condition are going to continue in the future as they have in the past. I believe that we are on the eve of a distribution of resources which will change the currents or trends which we know today. It is significant that the controlling airplane routes ignore fairly high mountain ranges by going to great heights, and we find that geography is perfectly controlled. We also know that motor-truck traffic has developed new fields which the railroads never have touched.

On the question of industrial resources, we are perhaps entering an era when we shall be less dependent on the deposits of minerals and more dependent on the manufactured products that come from agricultural and timber resources, so that great forests and farmlands may be just as important or more important than deposits of coal or iron ore. The net result is that existing great centers that have been built up

by the past importance of the location of resources may decline. Their sites may not possess the monopolistic position which they occupy at present. That fact in itself will break down the high values which city lands in existing centers now have and will tend to dissipate values and to give opportunity for new developments. I look upon this as rather a hopeful outlook. It may help us to overcome the conditions we now have arising out of the high speculative land values in cities, because if the demand for the present sites is lessened, then the price values of those present sites will be lessened and it will not be necessary to take other measures to combat them.

I agree with Mr. Cornick that it is necessary to combat the speculative interest in land, and the device he suggests is one of the most fertile subjects of combat. There are perhaps other means which are worth trying. I was always interested in the device in effect in the City of Radburn to do away with the speculative interest in land and still retain private ownership. The device was to sell residential land so highly restricted that there was very little income value in it and to control the commercial land within the community through a business corporation representing the community. We have the English scheme of having a community corporation control the entire site.

It has been intensely interesting to me in the past year and a half to be working in the Tennessee Valley where we have built a small community where the land is held on the same plan. The town of Norris was built as a construction camp community at the Norris dam, but it was designed to become a permanent small community. The land was bought and is owned by the United States Government. Under present regulations it is impossible to sell the land to individuals, but they may lease homes. As I have talked to many people in the community I have been delighted to find that the prevailing wish there is to maintain that condition regardless of any changes in the local situation. Those who live in Norris are interested in maintaining the security accorded in one central ownership. Under leases for residences, industry and commerce, the increase in land value in that town, if the present situation is maintained, will go to the community and not to individuals. I put that forward as another means of accomplishing the same result that Mr. Cornick advocates through new systems of taxation.

HERBERT U. NELSON, SECRETARY OF THE NATIONAL ASSOCIATION OF REAL ESTATE BOARDS:

I am much interested in Mr. Cornick's suggestion as to taxation as a means of controlling speculation in the use of land. Those who advocate the system of taxation of Henry George probably do not realize that for a good many years we have had it. The Department of Commerce in 1930 quoted some very interesting figures on the income of real property throughout the United States, and their calculations check with our own. They indicated that the income from all of the real estate in the United States, including the computed rental value of all

the farms that are owned and the computed rental value of all the houses that are occupied by their owners, is something under five billion dollars per year, about four billion eight hundred million. Now the tax burden on real property for local government in this country is something in excess of five billion dollars per year, so that taxation today does, as a matter of fact, take all of the income of real property if you consider the real-estate plant of the Nation as a whole.

It is true that some properties are profitable and sometimes show a net income, but that is always offset by losses elsewhere. This applies not only to income on the land but to income on the improvements as well.

Some years ago Dr. Richard T. Ely, economist, went over to Vienna to attend a conference on taxation at which there was a large group in favor of the single tax, and when he got through describing what we had in the United States, they said, "Well, all that we want is what you have."

Dr. Herbert Simpson of Northwestern University made a study some time ago in Cook County of agricultural lands in that county. If you own a farm in Cook County, you cannot continue to farm it; you have to do something with it, so you try to subdivide it, and land ownership—profitable land ownership—becomes a race between the carrying charges and unloading on somebody else. Land is thus forced into premature use. We feel that a successful system certainly does not lie in the direction of increasing the tax load on land. We must find other and more intelligent methods.

Social and Economic Factors in City Planning

By WILLIAM HABER, Professor of Economics, Michigan State College,
East Lansing, Mich.

THOSE advocates of planning who have recognized the full scope of their problem have always realized that economic and social factors must be given attention, along with the more obvious technical considerations. The engineer, the sociologist, and the economist, as well as the public administrator, have all played a part in the development of the planning concept, but, quite naturally, the concrete and visible engineering aspects have usually received most attention. The layman's idea of planning is probably centered, rather narrowly, on those aspects which make it possible for a community, State, region, or Nation to control the developments on its land, the specific use to which it is put, its location in relationship to the rest of the community both structurally and functionally.

Many problems of planning involve the control of space relationships which can be plotted on a map or master plan. Ultimately, however, the effectiveness of a plan is measured, not in terms of structures and material services alone, but in terms of the general well-being, the health, security, and welfare which are promoted by sound land-use and other factors which can be subjected to constructive direction. We are beginning to deal positively with the human and economic factors which, in the long run, determine the effectiveness of any adjustment of space relationships and material services. Among these factors are questions of income, education, occupational adjustment, industrial changes, and unemployment. The best of plans must fail if any large group in the population is subject to inadequate and unstable income, or if industrial changes create an unforeseen turn in the direction of population growth.

The development of the metropolitan community, with its influences extended far beyond its borders, has created a new way of living for the majority of the people in the United States. For most of the residents of our great cities this way of living has been an unsatisfactory one. Built haphazardly and chaotically, the city has been primarily a mechanism for commerce. Poverty, ugliness and squalor, disease and inconvenience, were inevitable concomitants of blind growth. There is no technical reason that our cities should be scarred with slums and blighted areas. There is every reason, from the social point of view, that we should begin the strenuous task of creating a new type of city.

Many technical changes have, of course, been responsible for the difficult problems of cities. The progressive concentration of population in cities has been accomplished by an increasing ease and efficiency of travel. The city's influence has been extended to rural areas. Metropolitan or regional factors—trade areas, zones of influence, commercial and cultural—are as important from the planning viewpoint as the city proper.

The exodus of the upper economic classes, the lowering of land values, the leaving behind of blighted lands, are results too well known in most American communities.

Social and economic factors are more difficult to measure accurately than factors of location and technical desirability. The city's problems cannot be solved in terms of the limited approach alone, but require for their practical treatment a full

consideration of the broader but closely related aspects of unemployment, housing, income, standard of living, and similar problems.

These are social and economic problems. All are difficult to solve. But all contribute in determining the character of the city. These problems often play havoc with the framers' blueprints; technological and market shifts in industry have created long-time labor surpluses in many large cities which have specialized in one or two industries. Detroit for automobiles; Grand Rapids for furniture; the copper country in upper Michigan; the textile industry in New England—these are instances of the significant influence which broad economic factors have on the plan of the framer and indicate the need for giving due weight to these broader items.

Unquestionably these difficulties, which Federal relief subsidies for the population and grants for construction and improvement of services with relief labor have for the time being minimized, can be traced to the changes in the requirements of industry. Machines, raw materials, trade areas, depression—long-time factors, all of them—have introduced causes of decay and impoverishment to many cities and chaotic growth to others.

Quite apart from the industrial changes, population trends are also of vital importance in influencing the city plan. The optimistic booster may not be the best guide to the city's growth in the decade ahead. Evidences of changes in population trend have been emphasized in the past several years. Such changes, whether related to the sum total of population growth or its character as influenced by the changed immigration policy, are of vital importance to the city plan.

Mistaken estimates of future growth are responsible for areas of underuse around the margins of our cities; anyone who has seen the vast areas of almost empty subdivisions around the margins of Detroit is inevitably impressed with the amount of wasted money and labor which was used to create pavements and sewers for a population which will never come. Mistaken estimates of commercial and industrial expansion are similarly responsible for blighted areas where residential uses are prematurely abandoned for other uses which do not expand as expected.

Population trends are also basic in planning the type of services to be provided to the people in a city or region. The

location and number of new schools should be determined by a detailed foreknowledge of the future growth and distribution of the school-age population. Recreation and public health facilities must also be adapted to the community's age distribution.

The importance of other social and economic factors, notably family income, is especially evident in connection with problems of housing and slum clearance. The slum is not simply a case of unwise land use; it is one of the visible effects of poverty and insecurity upon urban society. New construction of housing available for low-income groups, as we know, has been inadequate for many years, especially since the depression began. Residential building has declined more rapidly than non-residential, and the volume of general construction suffered an astounding decline from 3,805,000,000 in 1925 to 1,045,000,000 in 1931, and down to 274,000,000 per year in 1933-34; less than 8 per cent of the 1925 peak.

This collapse of residential building can be traced to an income structure which made a vast sector of our population, in the lower socio-economic groups, dependent (even before 1929) on incomes so low that only a very small part could be devoted to shelter and home maintenance. Economists of the Brookings Institution, in their study of "America's Capacity to Consume," have pointed out that low-income groups spend a large share of their income for food and have little surplus to devote to shelter, attire and general living, recreation, etc. In higher income groups the amount available for non-food expenses increased, so that families with incomes above \$5,000 spend more for shelter and home than for food.

The amount of income which the low-income groups can devote to rental or purchase of homes is thus relatively small. The so-called "subsistence and poverty" group—families with incomes of less than \$1,500 per year—accounted for only 17 per cent of the total expenditure for shelter and home maintenance in 1929. Half of the total expenditure for this purpose was made by the upper two-tenths of the salary range. Construction has been primarily aimed at this upper-class market, and private initiative has been unable or unwilling to provide decent homes for the poorer groups.

The unsanitary and unfit housing in a slum area is, from one point of view, less significant than the low and unstable incomes

which make the slum-dweller unable to pay for better housing. The real purpose of slum-clearance is not merely to eliminate slums from a few acres of ground, but to rehabilitate the slum family by wiping out some of the economic conditions from which crime and other social evils are derived. If rentals on our new housing projects are not adjusted to fit income of the poorer families, it will mean that we clear slums but do not eliminate them; the slum-dweller and the slum's problems will merely move elsewhere.

The same relationship between income and housing conditions was clearly shown by data obtained in the Financial Survey of Urban Housing made under the Civil Works Administration. This survey covered a carefully stratified sample of 15 per cent of the families in sixty-four cities, and provided nearly half a million usable schedules. The results, as D. L. Wickens has pointed out, "suggest that there are practicable limits to the amount chargeable for rents." The ratio of rent delinquency is closely related to the ratio of rent to family income. Only 16 per cent of the families with rent-income ratios between 15 and 20 per cent were delinquent; when rental represented 35 to 40 per cent of income, 34 per cent were delinquent. Housing conditions are determined by a chain of factors, growing worse as income is lowered by low wages and unemployment.

It may be that in order to provide adequate housing for the lower income groups, we must accept one of the following alternatives: subsidization of low-cost housing to make accommodations available at less than cost, or strenuous steps to raise the effective income of the lower groups. The first alternative would involve abandonment of the idea that housing projects must be self-liquidating, and the use of taxation of the higher income groups to maintain the general level of health and decency in the community, as has been done effectively in Vienna. The second alternative involves the horizon of economic planning on a national scale.

Slum-clearance ultimately depends on our success in achieving a minimum standard of income, education, and health for our whole population. Low incomes, in many cases, result from unemployment or low earning power which can be traced back to socially preventable causes, malnutrition and preventable illness in childhood, or early entrance into "blind alley" occupa-

tions because of economic pressure. The amount of slums which will exist twenty years from now may depend as much upon these social causes of poverty as upon present success in housing construction. Minimum standards of housing are one aspect of an achievable social goal—minimum standards of general welfare for all citizens.

More recently many students of our economic problems have been impressed by the characteristic dependence of urban workers upon industrial employment, and their lack of protection in periods of depression and industrial collapse. As an alternative to urban insecurity they stress the possibilities of attaining security by decentralization of industry and the establishment of workers on the land, with the opportunity to augment their wage income by small-scale farming for their own consumption. In addition to its service as a cushion against unemployment, other advantages are attributed to the subsistence homestead: a more varied diet, better conditions for the rearing of children, a closer association with nature, and a range of more wholesome leisure-time activities. To clinch the argument, it is alleged that a vast decentralization of industry is already under way. True or not, it promises to introduce additional problems for the city.

Decentralization, however, is by no means accepted unanimously as a cure for insecurity. Carter Goodrich, one of the outstanding students of population movement, has vigorously questioned the basic arguments advanced in its favor. On the basis of studies by Daniel B. Cramer, he emphasizes the fact that the past three decades have brought a spreading rather than a true decentralization of industry. The percentage of manufacturing done in major cities has declined, it is true, from 40 per cent in 1899 to 35 per cent in 1931, but these losses have gone almost entirely to suburban sections around the major cities, and to "important industrial counties" of more moderate concentration. The 2,800 remaining counties, which contain half the Nation's population and 90 per cent of its farmers, actually provided a smaller proportion of total manufacturing employment in 1931 than in 1899.

Such "back-to-the-farm" movements as have occurred since 1930 may be temporary rather than permanent trends. It is significant that the estimates of net migration between farm and

city, made by the United States Department of Agriculture, show a net movement of 227,000 persons from country to city in 1933, the first year of "recovery"—this in contrast to a net city-to-country movement of 214,000 persons in 1931 and 533,000 persons in 1932.

Will decentralization really bring security to the workers? Part-time farming, without doubt, provides a useful cushion against joblessness, but at the same time it decreases the worker's mobility, his opportunity for solidarity with other workers, and his social contacts. If the situation is such as to make workers in a given community dependent on a single employer, the effect upon bargaining power may be a serious risk. As Goodrich says, "It does not take company-owned houses and deputy sheriffs to produce the dependence that is the essential feature of the company town." Except in the outskirts of metropolitan regions, where diversified employment opportunities exist, this loss of mobility is a risk to be reckoned with.

The same point is put even more strongly by Ware and Powell in their article "Planning for Permanent Poverty": "The homestead project offers the industrialist a population of selected home owners driven by the fear of unemployment and the certainty that the world outside is barren of jobs. Though personally free, the homesteader is actually bound—he cannot move."

A problem bearing directly on the future of present manufacturing areas is the question of who is to get the decentralized employment. If decentralization means moving city workers to the country, it offers little to the rural population; if it means bringing supplementary income to impoverished or stranded rural populations, it will not help urban workers. Obviously the solution of our economic problems lies in increased and stabilized production of goods. Mere movement of employment from one place to another may improve living conditions for some workers, but general welfare will require more complete utilization of our unused productive capacity and labor power.

Technologically, decentralization has advantages only for a few industries, and if, as might occur, it becomes a vehicle by which manufacturers escape from high urban wages and labor organization, it may actually decrease the aggregate purchasing power of those classes whose present low purchasing power is

responsible for our failure to consume what we could produce. It is an important task of regional planners to see that decentralization leads to increased aggregate consumption; this it may accomplish, if carefully controlled, by bringing rural purchasing power more clearly in line with urban purchasing power.

For the great mass of our population, despite some industrial development in rural areas, the most desirable, and probably inevitable, way of life seems to be connected with the metropolitan community of the future. This metropolitan unit will not be coterminous with the political city; it will represent a "super community" built up by the absorption of numbers of local communities into a single economic and cultural unit. The greater possibility of specialization in its commercial, economic, and cultural activities makes this type of organization a logical outgrowth of the machine, rapid transit, and perfected communication. Within such communities space arrangements of industrial, residential, and recreational areas will probably be far different from what we have known in the past, with residence more evenly distributed, industry "decentralized" within the metropolitan area, and recreational facilities and park lands expanded to meet the needs of a full life for all citizens. In all these changes the need for technical, social, and economic planning will be enormous.

The city must be viewed as an integral part of the economy. The development of the city must be related to the social resources of the community. The hope of the city lies in the broadest concept of planning, in the consideration of issues on the widest front. Without regional and national planning, without a deliberate determination of objectives which have in mind institutional controls over unemployment, economies, and low standards of living, poor housing—these and related factors—city planning will of necessity be limited to those aspects of our economy which the individual community can control. Most laws, however, are subject to the terrific insecurity of being obsolete due to the social and economic factors broader than the city.

YNGVE LARSSON, CITY MANAGER, STOCKHOLM, SWEDEN:

In Europe, and especially in Sweden, where the same trends in population are very formidable, we are discussing the problems you

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have had under consideration here. We have this falling off in the birth-rate which has gone much further than in this country, especially in the bigger towns and in the metropolitan areas. We are expecting the same development which you are looking forward to in the next decades. In Stockholm we reckon from 1945 that the population will be stabilized, but the population is getting older at the same time and the productive ages are increasing in relationship to the whole population.

Our experience after the war was that the demand for new houses and the production of new houses increased faster than the development of the population. In our town planning in Stockholm we feel compelled to reckon with this tendency, and accordingly, though the population is increasing at rather a slow rate, to calculate on a rather rapid development of residential areas. We plan our cities with outlying districts which you may have seen described in last month's *New York Times*.

Our town planning policy is founded on municipal land ownership. The municipality of Stockholm owns practically the whole land surrounding the city, and accordingly we lease it. It is perhaps impossible to be responsible for the housing conditions in a city without being in a dominant position with regard to land values and to development of new land. For thirty years we have been acquiring the outlying districts, and from time to time area in the center of the municipality, as we found opportunity.

JOHN IHLDER, EXECUTIVE OFFICER, ALLEY DWELLING AUTHORITY, D. C.:

I believe that we should use every opportunity to secure public lands which become available through tax delinquencies or in any other way, in order that we may be in a position in our cities to deal effectively with housing without being handicapped by speculative land values because of lack of sites.

I am surprised to find an economist advocating that we subsidize our houses. It is in the field of economy that the greatest evils are going to appear if we follow that easy suggestion. One of my social worker friends said to me not long ago that from one-half to three-quarters of his time is spent in undoing the mistakes made years before—mistakes made with the best intentions in the world. We may do the same thing today. If we make heavy exemptions and subsidize housing, I believe that we are not entering a bright era. We shall have all kinds of trouble as a result. If we must subsidize, then subsidize the family—do it through relief, but have housing stand on its own feet economically.

THE PLANNING PROCESS AS A REMEDY

The Urban and Rural Land-Use Survey

By A. R. MANN, Chairman New York State Planning Board, Syracuse, N. Y.

LONG-TERM planning in urban or rural areas is much concerned with land-use, since the land is the underlying and fixed requirement for human abode and occupation. Among the data which are basic to the planning of any area are the trends in land value and utilization, the present and prospective values and uses, and the factors which determine value and intensity of use to which the land is adapted. Land-use surveys are widely employed by planning agencies.

The Urban Survey. In urban planning a first requirement is a real property inventory, which should be obtained and analyzed in much detail, preferably block by block. As an example of method and objective we may follow the procedure used by the Mayor's planning organization in New York City. The information to be obtained, all of which will reflect land values and uses and make possible the preparation of land-use maps, is here found to include such items as the predominant existing use of the land, whether vacant block, residential block, or non-residential block; the predominant residential building in each block, as to type, age, condition, number of family quarters, number and per cent of vacancies, average rooms per quarters, population, rental cost; for non-residential buildings the predominant type, whether office, store, loft, warehouse, factory, whether publicly or privately owned, condition, day population, and the like. With such data in hand it is possible to prepare city-wide maps showing for each block all of the more essential factors which establish land-use and affect the intrinsic values, such as the predominant type of building, the predominant age of buildings, the predominant condition, the percentage of vacancies, the population density, the predominant family rentals, the density of working population in each block, and the like. Data as to land values are usually based on the most recent assessments.

When such city-wide maps have been prepared they will set out clearly the boundaries of land-use areas of like character-

istics. The essential purpose of the land-use map is to project the picture of the area in order to focus and facilitate detailed studies and investigations of highly specialized problems within the areas of like characteristics and of changing characteristics. Locating and describing areas of homogeneous use reveal problem areas with a degree of accuracy and force which is impossible in the absence of such surveys. When the facts are thus revealed the problems requiring attention are at least broadly indicated and defined and some of their common elements are known.

The land-use surveys will be supplemented by other requisite economic and social data necessary to complete the picture, including the location and condition of the streets, transportation systems, sewers, water mains, and other matters.

The Rural Survey. In planning an area such as a State or a natural topographic region, a knowledge of rural land-uses is of paramount importance. It affects every other item in the program, and without such knowledge little of permanent value can be accomplished. It vitally affects the social organization and the economic pattern and competence of the population. It creates problems of government and administration. It influences the culture of the people. The nature of the land and of its use is the dominating element in rural America. The rural land-use survey is therefore the first step in the rural planning process; and the nature of the agriculture and the rural life of an area affects powerfully the character of the urban life in that area.

The purpose of the rural land-use survey is to assemble the facts necessary to establish a sound classification and inventory of land resources according to their nearly permanent characteristics considered both with reference to present uses and to the probable, if not the inevitable, future uses. Lands differ widely in their chemical, physical, and biological character as well as in topography, elevation, and other characteristics. These natural physical differences determine the uses for which the lands by nature are best suited. Some lands are well adapted to agricultural production, some are not at all adapted to farming, and there are many gradations between these extremes. The fact that many lands, especially in rough or very hilly country, were cleared of their forests and put into farms, is of itself no evidence that such areas are suited for farming under

present conditions or any future conditions that can now be foreseen, or that they should remain in farms. A bit of historical perspective is needed in order properly to assess the changes that have taken place and that are in progress which have caused or are causing such lands to be abandoned.

By way of example we may cite conditions in the Northeast. In the early settlement of this Nation the concentration of population was on the eastern seaboard. Before railroad transportation developed and the West was opened, there was relatively heavy pressure on the lands near at hand. In consequence, the incentive was to clear the forests and to bring all the land under the plow or into grazing areas in order to supply the near-by markets with food and raw material. While the scant virgin fertility and the supplemental income from lumber enabled a modest living to be gleaned from the vast areas of rugged hill lands, the crop yields from those lands were never very good and over most of the area they steadily declined. As penetration of lands to the West went forward, and as railroad transportation developed and made possible competition with the more remote but more fertile lands, farming on many of these eastern hill lands became unprofitable and decadent. Settlement of such lands had scarcely been completed before abandonment began. The abandonment was due to soil characteristics, to topography, slope, elevation, difficulty of access, climate, and to changed economic conditions. Every advance in agricultural technique and practice accelerated the movement down from the steeper hill lands toward the level and more fertile valleys or to fresh lands to the West. The development of underdrainage of farmlands, of commercial fertilizers, of more rapid transportation to markets, and especially of the use of machinery for all manner of farm operations hastened the movement. It was an economically sound and socially desirable shift. But it left in its wake vast stretches of cut-over, waste, and often denuded lands which are today serving little or no economic or social purpose.

As settlement moved westward and population rapidly increased, the process was repeated in the West. Destructive lumbering added to the areas of waste. Now throughout much of the United States there continues to be a consistent decline in the acreage in farms, leaving large areas unused. Soil-erosion

has deteriorated these lands where they have not been protected by a vegetative cover.

As the lands were abandoned for commercial agriculture, there was a tendency for indigent families or families unfamiliar with the requirements of farming to move on to those cheap lands. Tragic human losses and suffering have been sustained on many such lands. Wherever people dwell, even though the population may be scanty and the economic resources negligible, the American policy and conscience is to maintain for them roads, schools, rural mail delivery, and other public services which impose a heavy tax on the whole population. In a large proportion of the areas which are submarginal for farming, acute problems of local government arise. With a low density of population, low property valuation, low income, there are relatively high costs for roads, schools, and other public services, necessitating a high percentage of public or State aid. The returns from submarginal lands will not support the social services and institutions necessary for even the most modest requirements today, so that public subsidies are necessitated, often running into large sums which are drawn heavily from urban populations.

In order to study the adaptation of use to the character of the rural land, the land must first be classified. The basis of the rural land-use classification is the soil survey to determine the natural physical characteristics of the land. These natural characteristics largely determine what the land can produce and whether or not it is suited to agricultural production. The physical soil survey, which describes the physical characteristics, must be supplemented by an economic and social survey which assembles all pertinent economic and social facts, so as to reach conclusion whether it is economically or socially profitable to farm the lands even though physically farming of a sort may be practicable. As a result of the surveys there is obtained both a physical and an economic classification and inventory of the lands, the combination of which helps to make clear the desirable use of the land. As rural land varies in the intensity of use to which it is adapted, it varies also in its ability to purchase, to use, and to benefit from modern services.

When the lands have been thus classified and mapped, the areas will be located and defined which are superior for agricul-

ture, those which are submarginal and have passed or are passing out of agricultural use, and the various categories which fall between these extremes. Such classification and inventory is the basis for all further planning for the development of these areas. When the lands have been classified, the various land classes can be compared with respect to public or private ownership, resident or absentee ownership, size of business and income of operated farms, assessed values, tax delinquency, cost of farm fire insurance, cost of farm mortgage credit, cost of outdoor relief to the poor, and cost of education in rural schools.

For all lands which it appears are to remain permanently in agriculture it is essential that all of the farms shall be served by improved highways, readily usable at all times of the year. For much of the country this implies hard-surface roads. As rapidly as possible the farms should also be served with electric power lines and telephone lines. From the surveys the remaining mileage of improved roads and of rural electric and telephone lines to be constructed can readily be determined and decision as to their location facilitated. These are the areas in which such facilities will have the greatest number of users and should generally first be constructed. These are the areas of higher economic returns, better wages, greater frequency of economic and social intercourse with neighboring urban centers, and therefore more ready and more able to support improvements in social services and institutions and the amenities of comfortable living.

The land-use survey throws clear light on the question as to whether the individual farm units are of adequate size for economic success under the types of farming which the soil character and location permit. They therefore contribute toward reorganization of such units where it is desirable.

For the lands submarginal for agriculture, which have been abandoned or which are in process of abandonment, considerable mileages of roads may be abandoned and their upkeep saved, and other needed roads may frequently be maintained as dirt or gravel roads for less frequent access to the areas, according to the new uses to which the lands may be put. Public utility companies can be saved possibly large expenditures for lines into areas which seem destined to pass out of agricultural use.

The fact that the lands are submarginal for agriculture does not mean that they are incapable of serving other important economic or social purposes. These alternative uses are chiefly for the production of timber, for water control and conservation, for wildlife preserves and fishing and hunting, for public parks and other recreational uses, and for the beautification of the countryside; but still other alternative uses may be considered. Among them is the production of secondary and derived forest products, providing building stone, sand, clay, salt, oil, gas and other mineral products, and providing research and demonstration areas and the conservation of areas of unusual scenic or historic interest. There is little land that cannot be put to some worth-while use. Often multiple uses can be worked out for single tracts. For arriving at these alternative uses and mapping the areas for which they are adapted, the land-use survey is a first essential.

The land-use survey may reveal tracts of low productivity which should be retained in farming because of certain compensating economic advantages in location or type of farming; and, on the other hand, it may reveal areas of good farmland which should be retired permanently from cultivation because of greater social or economic values to be derived from their use for some other purpose, such as special need or utility for public recreation for adjacent urban centers. There will also be located areas suitable for farming but not at present so used because they may require certain improvements, as by irrigation or drainage.

In the western range States they have developed extensive areas of steadily decreasing utility because of improper range management, and other areas which have been ruined or are rapidly being ruined by over-grazing and washing. The land-use survey establishes the location, extent, and seriousness of these misuses and points to the remedies.

Land Survey and the Water Resources. Problems of water supplies, flood-control, stream regulation, soil-erosion, water-power, location of water supply, irrigation and power reservoirs, recreational uses of the public waters, and related questions are becoming growingly acute in many parts of the country. The relation of the use of land to water control and conservation is very intimate. The protection of the upland watersheds of the

principal river systems must everywhere receive careful attention. The present and prospective needs for water are so great that in so far as physically and economically possible, the rainfall of the more elevated hill and mountain regions should be carefully conserved. The land-use survey will locate areas where the problems are acute, indicate why they are acute, and make evident at least some of the remedies to be applied. Such land survey is indispensable in dealing with the recurring menace of great floods and the appalling losses of soil caused by uncontrolled erosion.

Other Products of the Land-Use Survey. Tax delinquency on farm and cut-over forest lands has reached great proportions, and in some areas the reversion of lands to public ownership as a result of such delinquency has become a major problem of government. The survey not only enables the mapping of such areas but also the determination of their common characteristics in so far as physical character and possibilities of economic utilization of the lands are factors in causing the delinquency.

For land-settlement projects and the zoning of areas against resettlement in order to avoid governmental costs in providing the essential public services to such areas or for other reasons, the land-use survey is an essential implement.

The land-use survey has obvious contributions to make to industrial location and relocation, particularly when the production of raw materials for industrial uses is considered or when the development of suburban homes for industrial workers is contemplated.

The survey provides facts relating to the extent and location of rural non-farm homes and part-time farms, a recent development of rapidly expanding proportions adjacent to urban centers and one bringing in its wake many important planning problems and governmental responsibilities, as well as many economic and social advantages.

Because the land-use survey throws light on changing uses, and especially on the extent and the process of abandonment for agricultural uses, it raises sharply the question as to what changes in local government and in the provision of public aid for roads, schools, and the like are desirable in view of the probable future uses of such lands. Vast savings can be effected when lands submarginal for agriculture are withdrawn from

farming and when foresight is exercised as to probable future changes in use.

Finally, the survey is perhaps the first essential step in formulating or modifying public policies in relation to land and to agriculture. The situation confronting agriculture in this country and the vast and growing domain of lands formerly productively used but now lying idle, show clearly the urgent need for new public-land policies better adapted to a Nation approaching maturity, in whose youth many sins have been committed for which amends must yet be made.

It will be recognized that, in conjunction with the land-use survey and the utilization of facts derived therefrom, there must be considered what are the requirements of the Nation for land for each of the various major uses. In reaching conclusions as to such requirements consideration must be given to such matters as the outlook for population growth, occupation, and distribution, changing industrial conditions and the prospects for employment in industry, the effect of further mechanization of agriculture and the applications of science on the human requirements in agriculture, the land requirements in relation to the actual land resources in the Nation as a whole, and any other matters which will assist in ascertaining the needs of the Nation for lands for any of the larger purposes for which land is requisite.

The cities have always rested heavily on the economic and the social welfare of the surrounding, and to a degree the supporting, land areas about them. With the tendency toward a more nearly stable population, with the automobile and the hard-surface roads, with the ready transmission of power and the development of transportation almost anywhere, with the concentration of population in urban centers creating increasingly urgent needs and desires for ready access to recreation areas in the open country, and with the possibility of seriously altered employment conditions arising from changed economic conditions, and especially from changes and restrictions in international trade, the more intelligently planned utilization of the rural lands promises to be nearly as important for the future dwellers in our cities as for the future of those who reside in the open country.

Geography and Its Function in Regional Planning

By G. DONALD HUDSON, Chief, Geography Section, Division of Land Planning and Housing, TVA

ONE of the more interesting places I have lived in is Beirut, Syria, the port of the old inland trading city of Damascus. As my medical brother used to say, there is a lot of geography out there. Of course there is a lot of geography everywhere. The point is that life in Syria is sufficiently simple to make some features of the geography area readily observed.

Let me give you an example. Beirut stands on a point of land. This point of land turns slightly toward the north, partially encircling a body of water that forms St. Georges Bay. This bay is the only protected body of water for miles up and down the coast. It is nearer to Damascus than any other such bay. This fact largely explains why Beirut is the most important port city of Syria. This explanation is geographic.

Have you ever admired the symmetry and neatness of French vineyards? Each row of vines is neatly trained on a low, sturdy arbor. Each season vines are carefully trimmed so that the grapes are exposed to the warm sunshine. When I first saw the famous vineyards of the Lebanon Mountains, I thought the Syrians were about the most shiftless farmers I had ever seen. Not a vine grew on an arbor. They were allowed to lie on the ground, a carpet of intermingled vines and leaves. I learned later that my first impressions were not justified. When I was in the vineyards the next season I lifted the leaves here and there to find beautiful bunches of juicy grapes on the dry ground under the shade of the carpet of leaves. Where a bunch of grapes protruded into the sunshine, the portion of the bunch exposed was shriveled into small, undeveloped, dried grapes. This difference in the vineyards of France and the Lebanon Mountains is related primarily to conditions of climate. The best wines of France are produced during years of relatively low rainfall and relatively abundant sunshine. The French lay out their vineyards so that the ground is shaded as little as possible and the grapes can benefit as much as possible from the sunshine. In the Lebanon Mountains rainfall is light and the

continuous succession of sunny days together with the high altitude make it necessary to conserve moisture and protect the grapes from the sun. These relationships between methods of grape culture and climatic conditions are geographic in quality.

It is an old principle in shipping that the farther inland that ships can go, the better. Thus we have Philadelphia, Quebec, Mobile, Buenos Aires, Seattle, and many other ports at inland points of arms of the sea. Montreal was hindered in its development because above Quebec the St. Lawrence is too shallow for the traditional type of trans-Atlantic liners. The river could not be deepened because the bottom is solid rock. So what happened? A ship-builder sliced the bottom off the liners. A cross-section of one of these liners forms a "U" instead of the traditional "V." Now Montreal is visited regularly by the "Duchess" boats of the Canadian Pacific. That adjustment of vessel design to the contours of the bed of the St. Lawrence represents a geographic relationship.

When you glide down the St. Lawrence on one of these Duchess boats you may notice the strings of farmsteads along the river and the relative absence of farmsteads back on the hills. Each farm has its cultivated fields on the comparatively level land near the river, its pastures on the hillsides behind the farmstead, and its woodlots on the hill-crests still higher up. The relationship of farm pattern to topography catches the eye. It is geography.

Most people think of Illinois as a State of rich agricultural resources. Not all of the State produces great agricultural wealth. Some sections have only recently come into their own. Calhoun County is one of these. It is tucked between the Illinois and Mississippi rivers, only its northern boundary of thirty-odd miles being a land boundary. The lack of development, the county's submarginality, was related mainly to two things: The topography was relatively rough, and the county was relatively inaccessible. No railroad or highway bridge crossed either the Illinois or Mississippi. No highway reached into the county from the North. Whatever agricultural development took place had to be sufficiently specialized to be adjusted to rough topography and to overcome the disadvantages of relative inaccessibility.

One man brought Calhoun County into its own. The story of his work is full of drama. He saw in Calhoun County the opportunity to produce apples. Soil, climate, and topography were favorable. In addition, apples constituted a product high in unit value, and, therefore, able to pay its way to a market relatively hard to reach. Also, apples do not have to be hurried to market. They were suited to the means of transportation at hand, namely, the river highways to the St. Louis metropolitan area. The possible development was greater than the market of St. Louis warranted. The problem then was to remove the disadvantages of inaccessibility. A spur railroad was constructed to the east bank of the Illinois River and a highway bridge thrown across the river at that point. With these facilities, development could go ahead, the county occupying a strategic position between St. Louis and Chicago, which was further utilized by the extension of a highway into the county from the North. Calhoun County is today raised from the submarginal class to the excellent class. The story of its development consists of a series of adjustments between the agricultural activities of the people of Calhoun County and the factors of the natural environment. The study of these adjustments is in the field of geography.

Tucked back on the foothills of the Shenandoah Mountains is a cement factory. After driving along the road that twists through wooded hills and past winding mountain brooks, one comes without warning upon this busy industrial spot. You feel that it is out of place in its mountain glen. But there were very good reasons for putting a cement factory at its point. At that particular place excellent limestone beds and good shale were in juxtaposition. This adjustment of plant location to limestone and shale is geographic. If the plant were being located today, it would be nearer its market. We have found that cement can be made from other materials than limestone and shale. But the plant continued to operate where it is, carried forward by geographic inertia.

And so we could go on and on, picking out additional evidence that geography is everywhere. The warm sunny climate of California winters, together with mountain snows in the form of irrigation water, help to produce fresh vegetables for the dinner-tables of cold, wintry New York. It takes four minutes

to cook a "three-minute" egg in the dining-car kitchen when it is lifted over the high altitudes of the Rockies. Farmers of the cotton belt terrace their fields against the erosive effects of rains. More U. S. wheat goes out of Montreal than New York, and more Canadian wheat goes out of New York than Montreal, largely because ice has blocked the St. Lawrence by the time Canadian wheat is ready for shipment. We yearn for cool spots when temperatures are high and seek warmth when temperatures are low. When it rains, department stores move their umbrella racks to the front doors.

Geography is everywhere. One can see it if he learns to see geographically. Dr. Mann is seeing geographically when he says, "The land is one of the underlying and fixed requirements for human abode and occupation." The theme that runs through the illustrations I have noted runs through his statement, too. On the one hand are the activities of man—the building of a harbor, the development of a port, the application of certain methods to the growing of grapes, the building of trans-Atlantic liners with "U"-shaped hulls, in other words, man's abode and occupation. On the other hand are the factors of Nature—a protected bay, an arm of the sea, a sunny climate, a shallow stream.

Human activities the world over form a pattern. Here is a mine shaft; there is a factory; here is a farmer moving with his team and plow across a field; there is a herdsman and his flock; and here is a housewife hanging out her clothes. Let us call this pattern of human activities the *cultural* pattern. Into that pattern Dr. Mann would put his items of human abode and occupation. In like manner, the items of the natural environment the world over form a pattern. Here are coal-fields; there are limestone and shale lying close together; here are the prairies of Iowa; there are the rugged slopes of Switzerland; and here are drying winds and bright sunshine. This is the natural pattern. Into this pattern Dr. Mann would place his items concerning the land—its topography, its elevation, its soil, and the conditions of drainage and erosion.

These two great patterns are related to each other through the use that man makes of Nature. Sometimes these relationships are easily discovered. Sometimes they can be discovered only after long and arduous study. The discovery and under-

standing of these relationships between man and Nature is recognized by the sciences as the function of geography.

Thus we come from the simple geographic relationship between the port city of Beirut and a protected bay to the complex study of the geographic relationships between the cultural pattern and the natural pattern of a region. Are these geographic relationships of significance to regional planning? Dr. Mann answers this question many times in the affirmative. Let me give my answer affirmatively, too.

The history of mankind, both past and present, is full of many sins of omission and commission. People have tried to develop ports where they should not be developed, and they have not developed ports where they should be developed. They have tried to grow grapes where they should not be grown and they have not grown grapes where they should be grown. In other words, there have not always been satisfactory adjustments between man and Nature. If man had always known and always knew how to adjust his activities to his natural environment, there would never have arisen the need for regional planning.

In order to adjust his activities to Nature, man must discover and understand the relationships between his activities and the resources Nature has to offer. Geographers have devised certain technical ways and means of discovering these relationships, that is, techniques of gathering, analyzing, measuring, and otherwise treating cultural and natural data. Geographers have developed a scientific philosophy for the purpose of promoting a regional understanding of these relationships. Geographic relationships between man and Nature must be discovered and understood regionally if human activities are to be rearranged so that haphazard, unplanned, and unintegrated social and industrial development can be replaced by order, design, and forethought—the aim of regional planning.

Making of the Plan

By RUSSELL VAN NEST BLACK, Planning Consultant, New Hope, Pa.

PLANNING is a process. The making of a plan, whether for a city, a State, or a Nation, is a step in that process. Viewed over a period of years, a plan is, or should be, a product of evolution. It has many protean characteristics. A plan prepared today is to the city or State of tomorrow as the acorn is to the oak. In the plan there should be the vital germs of form and direction, with inherent capacity for adjustment to circumstances. As the embryo oak must be adaptable to unforeseeable environment, ranging from deep forest to open field and from low plain to mountainside, so must the plan for a city or State be adaptable to evolving customs and to changing economic and social requirements and demands.

Such statement of premise is made lest planning be regarded too much as an exact science or the plan be thought of as too static a portrayal of objectives. A plan may be positive for today's requirements, depending in soundness upon the degree to which those requirements are understood and adapted to unavoidable limitations. The applicability of today's plan may be extended into future years to whatever extent current trends may be successfully interpreted. It seems probable that scientific and social development is such as to place planners in better position than ever before to appraise future conditions and needs. But sufficient scientific and social fluidity remain to compel a kinetic quality in plan.

This by no means is intended to imply that planning is a futile enterprise. A highway-planning engineer for a State important in highway construction has frequently said to the writer that it is impossible to plan State highways as much as five years ahead. He is wrong. Many contingencies cannot be foreseen. Others are discernible through broad analyses of conditions and trends. The State highway structure should be given conscious form. To fail in attempting that because new and better principles of design may be evolved five or ten years hence is merely foolish evasion. This is the era of highway building. Essential form and system are now in the process of crystallization. As with railroads, the opportunity for good planning will

never come again. As incomplete and fallible as foresight may be, that foresight should be applied to the best of human ability through the process of planning and through the agency of comprehensive plan. A little foresight is better than no foresight at all. A good motto might be that which has been said in better words to the effect that: Let us do our damndest today with minds turned always, and not too remorsefully, toward the future.

Planning directed toward the making of a city, State, or national plan is something of a science, a little of an art, and a great deal of an applied point of view founded upon informed good judgment and common sense. Planning is neither engineering, architecture, economics, law, nor sociology, but a well-balanced blending of all of these, overlaid with an appreciation of the all-inclusive art of living.

Some of this may sound a little nebulous or abstruse when applied to an activity of such high claims to practicality as are those of planning. There is no desire to confuse. I am attempting merely to establish a groundwork of planning objectives and to give some definition to its limitations. It must be recognized from the beginning that plan-making is not quite as simple nor as easy as it looks. Since it is an inexact science, the results of planning, and in this instance the plan, cannot be checked in entirety by rule or formulæ. To the extent that planning is an art, the appraisal of its product is subject to all the inexactitudes of the judgment of other arts. The quality of judgment and common sense applied may be determined surely only by the showings of time.

Because of its apparent simplicity, because of the difficulties of adequate appraisal of the product of planning, and because of the resulting lack of tested criteria, planning, as a guide for modern progressive development, tends to become anybody's plaything, subject sometimes to either conscious or unconscious exploitation but, more often, an object of suspicion. In other words, given an awakened enthusiasm and nothing else to do, almost anybody will undertake the making of a city plan, and, because of the ill-defined and narrowly known earmarks of good planning, few are the public administrators and fewer are the private citizens who can separate the "sheep-plans" from the "goat-plans." A badly constructed bridge falls with an accusing

roar, much to the confusion of its would-be designer. The people of a badly planned city live in blissful ignorance of better, cheaper, and equally possible alternatives.

As one rather inadequate illustration: 183 New Jersey municipalities proudly boast of adopted zoning ordinances and plans. A considerable proportion of these ordinances have been drawn by "yardstick" methods without benefit of a background of comprehensive planning study. Many of them have been made by lay committees through a process of assembling or copying miscellaneous clauses from grab-bag ordinances of other cities. It is probably not an unfair estimate that fifty per cent of these zoned municipalities would be almost, if not quite, better off with no zoning than with the kind of zoning plans they now have.

More often than not, the village lawyer or the neighborhood grocer will unhesitatingly take on the drafting of a zoning ordinance and the making of a zoning plan. The task seems simple, especially if the ordinances of cities A and X are at hand to copy from. The job *is* simple, compared with the making of a comprehensive plan for a city in complicated environment—much more so in comparison with tackling a plan for a region or for a State. But zoning and planning are more than skin deep. Underneath all planning, and too frequently unobserved, lie the complications and interrelationships of numerous social and economic implications and objectives. Plans for no single element in a community's physical structure or social existence can be well made without taking all other elements into consideration.

Now, planning is beginning to assume somewhat the rank of a great American pastime. Perhaps only a few more years of depression are needed to assure to planning that position. Already, school children in school exercises are reported as making better plans than produced by professional planners. Both modesty and chagrin make it difficult for me to offer refutation. The butcher, the baker, and the candle-stick maker, distinguished by appointment to a planning commission, romp joyously into plan making—sometimes, it is true, returning a bit crestfallen through experience, but sometimes never learning, never knowing. A hundred and fifty miscellaneous advisers to a planning project become overnight a hundred and fifty able planners. There is something about this planning business that

touches a very responsive chord in the human make-up. Like gardening, perhaps, it seems to offer a fleeting opportunity to assume man's birthright, the image of God, without wearisome pre-preparation and without danger of really serious or recognizable blunders. Unlike gardening, there is more at stake in planning than color harmony or an adequate supply of fresh green asparagus.

This is a long way around to saying that not all of so-called planning is remedial. Planning, *per se*, may be good, bad, or indifferent, depending upon how it is done, what it is, and how it is used.

The above is not intended to belittle the invaluable part played by planning commissioners in the making and administering of plans, nor to discourage the entrance into the professional planning field of sorely needed new and additional talent. Nor is it intended to imply that planning is being approached any more amateurishly than are many other governmental activities in this country—not especially since 1932, but habitually and traditionally. I am trying to drive home the fact that plan-making is a much more complicated thing than usually appears on the surface, requiring in its successful application much of experience and well-balanced judgment.

A plan is as good as the directing intelligence under which it is made, whether that intelligence is vested in one man or in ten. The present-day social and economic structure, whether evidenced in city or State, is too extensive and too involved to be completely mastered in all its parts by any single individual. The thought and findings of many men, directly or indirectly, must go into the making of a plan. Usually, however, one man acting as interpreter and coördinator must be relied upon to give unity, form, and direction to the plan. This man is the planner or plan-director. He is a planner not because he is an architect, engineer, sociologist, or economist, but because, by reason of experience or peculiar capacity, he has sufficient grasp of all basic requirements and considerations, and sufficient judgment to weave the many elements of plan into a desirable and workable whole.

The importance of adequate direction extends through the entire planning process from the making of basic maps and surveys, through planning studies, to the making of the plan and

its administration. Pointed discrimination must be used in determining the kind and scales of needed maps and in the selection of pertinent information. Facts obtained must be analyzed and co-related in their direct and indirect bearing upon the plan and its administration. Unsupported by the authority of dictatorship, planned development is considerably dependent upon wide understanding and appreciation of its provisions and objectives. Facts and their analyses must serve the dual purpose of shaping and of supporting the plan. Their presentation must have popular appeal and legibility as well as technical adequacy.

To the entire process of survey- and plan-making there should be imparted the symphonic qualities of scale, tone, and balance. Too much stress upon the bassoons of traffic and highways and too much or too little upon the 'cellos of forest and park will serve only to reproduce the cacophony of the old order of unbalance with an improved technique. Coördinated direction, therefore, calling for a peculiar and perhaps specialized quality in directing personnel, is a first essential in beneficially effective plan-making.

This requirement of good planning procedure is particularly troublesome at this time. Present disorders and their more or less obvious causes have emphasized the need for planning. The necessity of providing useful public work for many men offers unparalleled opportunity to advance planning projects. Fairly adequate tools of almost every kind, except sufficient experienced or otherwise qualified direction, are or can be made readily available. The finding of qualified directing personnel is difficult. Undoubtedly there are thousands of men in this country with inherent capacity to direct well the most involved of planning jobs. But most of them are specialized and busily occupied in other fields. Lacking close familiarity with planning procedure and objectives, knowing little or nothing of its technique, and being preoccupied with other things, few of these men are available to planning. Bringing them into, and educating them in, the field of comprehensive planning is of necessity a rather long process. Because of a deficiency in trained personnel, therefore, it may be necessary to stop many current planning projects short of actual comprehensive plan-making, confining activity for the time being, at least, to such preliminary

and basic work as the making of maps and the compilation and presentation of significant factual data. These items require a minimum of specialized direction. In the absence of experienced direction there will be some lost motion but no more in planning than in any other operation tied up with fitting square pegs into round holes. Such temporary limitation of the scope of a planning project, pending arrangements for adequate direction, will not necessarily retard planning progress. A wide range of dependable maps and fact compilations is essential to intelligent and efficient planning. Most planning projects of the past have suffered from the lack of this foundational material. Few cities are so well equipped with such basic maps and assembled information that bringing themselves up to date in these matters will not, of itself, require months of concentrated effort. Full planning programs should, of course, be undertaken wherever and whenever, by reason of sufficient funds or other favorable circumstances, competent direction is available or can be drafted into service.

Someone will now call attention to the presence and probable availability in all sizable cities, urban counties, and States, of the wide array of competent technicians: street and highway engineers, sanitation engineers, park and conservation men, educators, statisticians, lawyers, sociologists, administrators, and numerous others. Someone will go on to suggest that organized coöperation between these men can be made to produce an adequate plan and that the setting up of machinery to insure that coöperation is the only need. My reply is that positive *coördination* and not coöperation alone is essential and that this coördination must be initiated by a neutral agency such as the planning board and its staff. Such coördination should be directed toward the initiation of a comprehensive plan, constructed upon a much deeper and a much broader base than has hitherto been applied in the disjointed development-procedure of the unplanned city or State. Close coöperation between many specialists is essential, but this alone will not produce a well-balanced plan and works program. The situation calls for one more specialist, the coördinator.

A further first essential to effective plan-making and administration is a strong, interested, and enthusiastic planning board. The planning board need not be comprised of technicians,

although the inclusion of some technicians among its members will be found most helpful and desirable. It is seldom the function of a planning board, through direct membership activity, to do the technical planning. This is a job for the board's paid staff. The primary function of the board, and one no less important and exacting than the technical job of plan-making, is that of bringing to bear upon the entire process that matured judgment and vari-sided point of view essential to an assured workability and suitability of plan. In addition to the competency of matured judgment and balanced point of view, the planning board and its individual members should have sufficient position and prestige in the community to command respectful hearing in all matters within or affecting its jurisdiction.

Having set planning up as a noble and specialized procedure, it has seemed scarcely logical for me to follow that by an attempt to frame rules-of-thumb covering technique and procedure. I also have my doubts as to whether planning can be so packed, sealed, and delivered. I am quite certain that the technique of plan-making is not a matter to be confined effectively within the span of one short paper. Moreover, so much has already been written on the subject that further discussion of specialized planning technique seems relatively unimportant at this time and in this place. Given a good planning board, willing and in position to devote time and thought to its job; qualified directing personnel; ample funds; and a reasonably well-trained staff, planning presents no peculiar or insurmountable difficulties. There remains to the planning process so implemented only one especially troublesome problem, that of shaping plans and policies toward an economically sound and socially desirable end. We have all heard of and perhaps know "the beautiful but dumb" and "soulless perfection." Plans can be that way, too.

THE FUNCTIONING OF THE PLAN

Public Works and Uses

By C. A. DYKSTRA, City Manager, Cincinnati, Ohio

WE ARE trying to answer the question as to whether cities are bound to decay. If they are not, how is that decay to be avoided?

Manifestly, the speakers here have indicated that we should work through a planning process. They suggest that we should make a plan for the rehabilitation of cities as they now are—for the future of cities as they are to be. They predict that we shall have much geography and many finely drafted plans which will make of cities what those of us who have vision would want them to be.

Then we come to that most prosaic consideration, that old problem of finance. We encounter the problem of the acceptance of such plans by those who have never lived under one, those who perhaps do not care to live under one. Assuming some sort of public acceptance, there are then all those special groups who appear before legislative bodies and administrative bodies and say: But this plan does thus and so to my hopes and schemes, to the plans that I have thought would be my own future programs.

One of the ways in which those interests are brought together in the administration of a plan, perhaps quite naturally, is to bring into the planning commission representatives of those agencies of the government which are to have part in the application of the plan. For instance, in the planning commission in this city there is a member of the city council chosen by that council as *ex officio* member of the commission, also a member of one of the administrative force, as it happens to be here, the city manager; so that representatives, not only of the legislative body but of the administrative officers as well, sit with the planning commission which is charged with the planning function of the community.

That may produce a good deal of friction or it may avoid some, depending somewhat on the personalities and depending on what these officials may be thinking from time to time. But there are informal ways of reaching conclusions, of discovering

what differences of opinion may exist, and of ironing out these difficulties. There are ways of finding how to avoid the rocks which will come to a plan or a new zoning ordinance, before action by the commission or the legislative body which has authority to put it into effect or prevent it from going into effect. I think we have had some success here doing this kind of thing, and perhaps a suggestion or two to the community as to how certain difficulties may be ironed out by the administration of a plan involves not only the local legislative body and administrative officials, but also, under the impetus of the growth in regional and State and national planning, involves other levels of administration as well.

We ought to be on the eve of discovering how, perhaps on a vertical line, the administration of all this planning may be brought together and integrated. I call to mind such an illustration as this: Many of our communities are working on this problem of developing public housing. You may have a local planning authority of some kind. Here in this community the city planning commission has taken very great interest and a very great part in seeing that a public housing development shall do its part in the rehabilitation of certain districts in this community; but in the administration of that program there have to come to bear upon the scheme not only local administrative officers, not only park commissions and playground commissions, but all those who have to do with the national features of this project as well. A local project not only has to run the gamut of engineers and architects and financial authorities at Washington, but has to be coördinated with a national plan, and there are a great many difficulties involved in that, so that it takes a great deal of time to administer a program once it is set up as a local matter, because it is also part of a national program.

Certainly that is true in the building of a local Federal building. What is going to be done about the location of Federal buildings in your community? Is the Federal Government going to work with the local planning authorities in the determination of a civic center plan? If so, is the Department of the Treasury and Post Office going to participate also in that planning arrangement?

The problem is not a local problem only, when we come to the administration of a plan. It may become a State problem

because there are certain facilities which the State may locate in the community. It may become a national problem. Therefore, if we are going to talk about the integration of *planning* on these various levels of government, local, regional, State and national, we must begin one of these days to talk about the integration of the *administration* of these plans on these various levels as well. Unless we can do that, we shall have a conflict of interests and a conflict of authority, which will limit the opportunity to carry through in a practical administrative way all of the beautiful schemes and plans which we may have integrated as a *program*, but for which there is no opportunity for a thorough-going integration of *administration*.

I take it that is the reason that even now there is a suggestion that a national body should study problems of taxation and collection of revenues on all the various levels of government. When we discover where the finances are to come from for an integrated plan and how it is to be administered, and when we get some integration of all the administrative authorities vertically through all the administrative forces of our government, then I think we can look forward to the administration of plans.

You have listened patiently to discussions of plans of geography, of the troubles with plans, and the problems of administering plans. I suggest that not only as planners, but as administrators, we should find a way to integrate these two functions in such a way that we can make a proper progress toward a proper end in a proper way. That is why the question of *who* is to administer a plan, of *how* the local planning and the regional planning and perhaps State and national planning commissions are to be made up, is of considerable importance. I would suggest as a last item that perhaps on all these levels it would be worthwhile to introduce into our planning agencies and groups representation of those who will have to furnish the financial support for the *making* of the plans, and those who are going to have something to do with the final *administration* of the plans. By such a coördination and coöperation, and certainly by such an integration, I think we shall discover that we can make progress much more quickly, much more sanely, and much more surely, and, once that progress is made, it will be nailed down in pretty good fashion and the community will support not only the plan, but its administration as well.

Subdivision Control

By EARL O. MILLS, Planning Consultant, St. Louis, Mo.

LARGELY as a consequence of the constructive suggestions elicited by this Conference, many subdivision laws have been enacted and a marked degree of progress has been made in the method and control of land subdivision. Though the exact number of municipalities possessing and diligently enforcing modern platting regulations is not readily ascertainable, it no doubt includes a substantial part, if not a majority, of the approximately 800 planning commissions now in existence. Similarly gratifying is the statement contained in that enlightening publication "Our Cities Today and Tomorrow" by Mr. and Mrs. Hubbard of Harvard University. According to a statement contained therein, nearly half of the States have authorized municipalities to exercise extra-territorial control of subdivisions varying in extent from one-half to ten miles beyond their corporate limits.

Through the application of more scientific principles in land platting, creditable achievements have been obtained in a better adaptation of street arrangement to topography, more economical and rational use of street space, larger and more practical lot sizes, some provision for recreation, and a greater recognition and acceptance of modern thoroughfare planning.

The vast mileage of major thoroughfares acquired without cost, through comprehensive planning and subdivision control, represents one of the most effective and economic products in the field of planning achievements. Among the numerous notable accomplishments illustrating the economic wisdom of far-sighted planning, which our more "practical" community builders like to think of as the day-dream of a benighted theorist, is the experience of Los Angeles County. According to a report issued by the Los Angeles Regional Planning Commission in July, 1932, it had secured over a period of years, "the dedication absolutely free, of 165 miles of highways. During the same period, the auditor's books show the County condemned 24.6 miles of highway right-of-way at a cost of \$118,000 per mile. At this rate the 165 miles secured through planning would have cost nearly \$20,000,000."

These figures for Los Angeles County, where planning precedes development, afford a striking comparison with the regrettable and costly experience of the City of Los Angeles, which grew and then planned. Obviously, if the City of Los Angeles had exercised the same foresight several decades ago that has been followed in Los Angeles County during the past decade, the vast majority of the City's one-hundred-million-dollar program for major thoroughfare improvements could have been prevented. Numerous other cogent demonstrations could be recounted, but this alone should be sufficient to sustain the contention that far-sighted planning pays big dividends.

Notwithstanding the fact that meritorious progress has been achieved in subdivision control as a part of comprehensive planning, certain serious evils still prevail. The root of these evils, which have persisted virtually since the beginning of community development, can be attributed in large measure to the unflinching belief that land is a commodity to be bought and sold for profit rather than devoted to its most logical and wholesome use.

Few, if any, communities have escaped the blighting and detrimental effects of land exploitation in the form of excessive and unwarranted subdivided areas. The disastrous consequences of these false attempts at the urbanization of land yet unripe for development are not, and cannot be, fully realized in the absence of more complete and authentic information. The editors of the magazine *Fortune*, however, throw some light on this dilemma in their excellent publication "Housing America," in which they say:

The American Continent was whittled down from the lap of God to the corner lot in a man's lifetime. And the waste of that process lies about our cities now in slag heaps of houseless subdivisions and tailings of high-priced acres like the refuse around a careless mill. Chicago was said to have enough newly plotted suburban land five years ago to house 10 million people. There are enough lots staked off on Long Island to make suburbanites of the inhabitants of the five Boroughs of New York. One hundred and seventy-five thousand of Cleveland's 375,000 lots, or 47 per cent, were vacant in 1929. Detroit suburbs have been staked 30 per cent in advance of requirements for the last thirty years. Seventy-five per cent of the total plotted area of Burbank, California, and 53 per cent of the plotted land throughout Los Angeles County are vacant. Fifty per cent of the land of Portland, Maine, 66 per cent of the lot area of Duluth and 30 per cent of the plotted area of El Paso, stand empty.

Another indication of the fallacious and almost ludicrous situation which has arisen through unbridled land gambling can

be gained from a rough approximation of the probable total number of vacant lots existing throughout the country. For instance, if the average amount of vacant platted land known to exist in several representative communities is indicative of the average for all urban regions, there are now sufficient vacant lots to accommodate a total urban population considerably more than double that of 1930, which was 69 millions. Contrast this with the population studies in the recent report of the National Resources Board, which anticipates that the Nation's maximum population will be attained about the year 1960 with a total of slightly more than 140 million. If the migration from rural to urban areas continues at the same pace as it did from 1920 to 1930, which is exceedingly doubtful, the maximum increase in urban population will scarcely exceed 13 millions, or only about 15 or 20 per cent of the amount needed to absorb the now existing vacant lots. It cannot be assumed that the entire increase in urban population will seek the lots already subdivided. There are many areas relatively closer in and more attractive that could and should be developed, notwithstanding that the present surplus far exceeds all reasonable future demand. This would indicate that the vast majority of the surplus subdivided areas will forever remain idle unless some readjustment is effected.

It is reported that in Los Angeles County there are 2,220 miles of streets serving the frontage of vacant lots and the *annual* charge for street maintenance in front of these vacant lots alone is \$1,435,869. It also is stated that the increased cost of government made necessary solely because of the existence of these vacant lots is 3½ million dollars annually. Another testimony to the folly of surplus land platting is the resultant and fictitious increase in land values. From a few approximate estimates it is clearly evident that for the entire Nation such inflated values would run into billions of dollars, being in excess of ½ billion in Chicago and Los Angeles regions alone. Undoubtedly careful research would disclose that these false increments in land values exert a more profound and distressing effect upon governmental finance than is generally realized. It should be apparent that in no other phase of urban planning is there greater need for research and study than in the social and economic consequences of indiscriminate land platting.

The immediate problem of urban land planning might be said to be concerned chiefly with the urban slums, and the sparsely built areas between the developed sections and the open country. In the urban slum areas, it has long since been conceded that the only practical solution to this vexatious problem of rehabilitation is the consolidation of individual parcels of land and the construction of neighborhood units sufficiently large to create and maintain their own environment. This, of course, involves several serious obstacles which heretofore have been regarded as almost insurmountable.

It can scarcely be denied that the sparsely built areas constitute one of the greatest present-day challenges to the ingenuity of the planning profession. With a scattered surplus of vacant subdivided property, most of which will never be needed for building purposes,—some of it improved and much of it held in small parcels,—the problem is indeed a most complex one and one which under present inadequate legal authority seems almost insoluble. Yet if metropolitan areas are to be well balanced and reflect some semblance of order, economy, and efficiency, certain readjustments are inevitable. To be sure, any plans for the intelligent reorganization of these areas will necessitate a more comprehensive survey and analysis of present conditions than are now available.

One of the difficulties in curbing premature platting of land has been the failure or inability to substantiate previous predictions with complete and conclusive facts. Enlightenment is needed upon such matters as

(1) The cost of installation and maintenance of streets, sewers, water, gas, electricity, transportation, schools, fire, police, health, and similar facilities, now serving vacant lots.

(2) The losses sustained in carrying charges, such as interest and taxes, and the effect of vacant lots upon the problem of tax delinquency.

(3) The greater financial risk involved, for which the unsuspecting purchasers pay, where agricultural lands are prematurely platted into building lots and remain idle indefinitely or eternally.

(4) The fictitious property values created by designating rural land for urban purposes in advance of need, thereby enhancing its assessed value and establishing a false security upon which the community bonded limit is legally determined.

Factual information of this character would not only serve to emphasize the need for broader regulatory powers but would also facilitate the reorganization and planning of these areas.

Obviously any plan for readjustment should take into account opportunities for converting tax-delinquent lands into park and school sites, and the replatting of vacant unimproved subdivisions for residence, business, subsistence homestead, and other appropriate uses.

To secure an orderly reorganization of the sparsely built areas, it is essential that a thoroughfare plan and zoning regulations precede the platting or replatting of land. In States where county zoning may be difficult to obtain, "extra-territorial zoning" might be resorted to, as is permissible in certain cities in Kentucky and Tennessee. Density regulations under zoning ordinances, if used more extensively and effectively, would contribute immeasurably to the solution of the problem of indiscriminate land platting and the prevention of suburban slums. It is quite generally conceded and should be recognized in planning that greater open space should be the compensating factor for greater distance in travel. Generally speaking, building sites should be increased somewhat in proportion to their distance from the center of high values. Beyond the limits where scientific studies indicate that the subdivision of land into lots of less than an acre or two should terminate, only large estates, agricultural uses, subsistence homesteads, parks, and the like should be permitted.

Such an attempt to control more rigidly the distribution of population and wild-cat subdivisions may seem a questionable extension of the zoning principle, but we need only be reminded that in the short span of less than twenty years we have witnessed the extension of the application of zoning regulations from the skyscrapers of New York to the cut-over lands of Wisconsin, where the permanent use of certain lands is specifically prohibited. Moreover, in view of our serious land problems, both rural and urban, we may reasonably expect a more widespread use and continued refinement of zoning regulations to effect, among other things, a more rational and wholesome distribution of population.

Such regulations would serve to correct many evils in land platting and tend to bring about a better and saner understanding of our future population growth in the urban regions. Too much stress, however, cannot be placed upon the dire need of direct legal authority to control excess subdivision and the sale

of subdivided property by metes and bounds. The installation of improvements and utilities as a condition of approval of plats is now in effect in a limited number of communities. Though not a panacea for all ills, this is a commendable practice and one that should be more extensively used. In Memphis, Tennessee, an interesting law has been in operation for the past decade, which provides that a deed to a lot of less than two acres within the city or five miles beyond, cannot be recorded unless it abuts upon a public thoroughfare or is approved by the City Plan Commission. In other communities instances are recorded where building permits or utilities are refused for lots in unapproved subdivisions, and while such a procedure may possess some merit, it can, at best, be regarded only as an expedient of questionable practical value under our democratic form of government. Obviously these problems must be corrected at their source if subsequent and aggravating complications are to be avoided.

A gratifying degree of progress has been made in subdivision control, especially in the matter of design, though too little attention has been given to the final appearance of completed projects. A great deal can be achieved through such devices as density regulations under zoning ordinances, requiring the installation of improvements and prohibiting the conveyance of property in unapproved subdivisions, but there is admittedly a crying need for exhaustive research and study to reveal a true and comprehensive picture of the colossal waste and unwholesome conditions resulting from unbridled land speculation. With such supporting facts there is every reason to believe that, through the renewed interest in all phases of planning now being stimulated by the National Resources Board, together with the increasing favorable attitude of the courts toward the necessity of broader regulations to meet our changing social and economic conditions, suitable legislation can be procured and sustained.

Looking Zoning in the Face

By JOSEPH T. WOODRUFF, Consultant, New England Regional Planning Commission, Stratford, Conn.

LET US look zoning in the face. It has accomplished much. But in spite of the fact that the Supreme Court has given zoning a pretty clean bill of health, it is not what it used to be. Enabling legislation usually prescribed that zoning must be based on a comprehensive plan, that it should be designed to promote general welfare, to prevent the spread of fire and congestion on the streets, to promote safety and all the other things that would be achieved if zoning were truly the legal background for the comprehensive plan that it should be. Zoning would thus prove a medium to prevent decay.

The fact is that zoning as it exists today is far from that goal.

In many instances the quantitative relationships between business, residential, and industrial areas are awry. Much zoning was done in times when there was a belief that the sky was the limit, whereas most of us have found that it is not. Much zoning was not preceded by any plan at all. Business zones adequate for 800,000 people are found in cities of 140,000; areas in towns already troubled with delinquency, fire hazard, and other congestion, are zoned so that density in that area may be greatly increased; marshy lands that cannot be economically sewered are zoned for multiple dwellings; taxes are assessed by tax boards without reference to zoning; fire districts prescribe regulations for construction with no reference to areas zoned for specific uses; Boards of Appeal give special privilege to the chosen few, while they should be interested only in relieving unnecessary hardship in the strict enforcement of the ordinance.

You have probably heard of the discouraged squire who said that he had had so many messes in the family he was having a mop put on the coat of arms. We need a mop. The mopping will be difficult, for there is inertia in established zoning laws and practices. Yet improvements can be made.

Only recently sections of the Boston Post Road in Darien, Conn., have been reclaimed from business to residential use through a program of education based on a newly made comprehensive plan and extensive studies by the Fairfield County Planning Association.

The highest function of zoning is to promote health, safety, and general welfare through the intelligent exercise of the police power by setting aside certain uses of land, heights, bulk, and coverage of buildings, and population density provisions, *according to a comprehensive plan.*

The enabling acts call for a plan but do not require the production of a plan *before* and as a part of the evidence incidental to the adoption of the zoning ordinance. Zoning can so apportion the quantity of business, residence, and industrial uses that they will not only be suitable to the land areas but, what is more important, so that there will be a *balance* that will fit the comprehensive plan for the community. Zoning can prohibit residence (where sound background of health and safety reasons can be shown) on areas unsuited for such use. This principle has been used on marshlands of Connecticut shore towns and on Connecticut River areas subject to annual floods.

The heroic efforts of the National Resources Board are resulting in the making of more thorough and complete studies of existing and potential land-uses than have ever been made for this or any other country. Their labors are resulting also in the making of town, city, State, and regional plans. Plans are being made for cities and towns that were zoned without a plan, and data are being assembled for whole areas of rural lands, indicating their highest use. County and regional zoning should turn these data to good use.

I present seven principles and rules of action:

1. Zoning should form the legal control and support for a comprehensive plan, be it for town, city, or region.
2. Much of present zoning has been done without a plan.
3. Much of present zoning should be redone.
4. Before present zoning is redone, up-to-date plans should be made.
5. Comprehensive plans should be required before adoption of zoning plans.
6. The quantitative balance of land-uses in relation to population trends should be required to be stated on the zoning map and in the ordinance at the time of adoption, so that the people who are adopting the ordinance know what they are getting. A city should know whether it is providing business area today for ten times its present population or whether it is really getting some reasonable degree of protection.
7. Taxation methods, building codes, fire districts should conform to and be related to zoning.

Possibilities of Zoning

By HUGH R. POMEROY, Planning Consultant, Palo Alto, Calif.

WE HAVE heard outlined this morning certain effects in rural, city, and national development which have resulted primarily from four things: First, faulty land utilization; second, faulty distribution of population and resultant population density; third, faulty site planning; and fourth, faulty social and economic conditions. We therefore have as an objective in planning, whether it is city, State, or national, the effectuation of a pattern of sound land utilization, of sound distribution and density of population, sound site planning, and sound social and economic planning. It is necessary that those data be interpreted in the light of an adequate cultural philosophy and that they be evaluated in the light of what has taken place in the social development of the Nation. We need an adequate philosophy that is sound socially and economically toward the end of developing these sound patterns.

I do not entirely agree with Mr. Hudson in his statement that, if we knew how to integrate our development with geographical factors, we would not need regional planning. The accomplishment of these objectives is, of course, the purpose of planning. The very integration to which he refers is planning itself.

We have seen during the past few years a reaching down or a reaching in, as it were, from the broader aspects of planning which characterize our search for a constructive policy in forestry and in agriculture as a Nation. At the same time we have seen a reaching out in urban planning in an attempt to provide satisfactorily for the city dweller pleasant driving conditions along the highway by means of roadside control. This reaching in of a broader aspect of planning and reaching out are now meeting in the field particularly of county and State planning. We have seen some interesting experiments along that line. While much has been done in Los Angeles County in subdivision control, there still remains the terrific burden in that community of the fact that over fifty per cent of all its subdivided lots are still vacant and the resultant fact that one out of every three lots in Los Angeles is zoned for some particular purpose. There needs

to be a pulling in and redrafting of our urban zoning patterns and an endeavor to develop a technique that shall reach beyond the rather departmental urban limits as we have known them.

We endeavored in some of the California counties to do certain things which are frankly experimental in nature so far as the application of techniques is concerned. The County of San Mateo is undertaking to write rather broad laws making planning an essential function of the county government, providing that the plan as it is developed shall not become what has been said here today, something "beautiful but dumb," by providing that the plan shall actually become a part of the working policy and program of the county development. It is made the duty of the county government to determine the means for effectuating the conditions of the plan as the plan is developed. In that county, zoning is not called zoning, but is referred to as *land use planning*, and the ordinance is known as the *land use plan ordinance*. That ordinance does the thing which a good city is supposed to do. It sets up an urban plan, but at the same time it is reaching out in the rural areas of the county to roadside control along the larger thoroughfares, not in terms of urban classification but frankly rural classification. It sets out very frankly to protect the scenic areas of the county. It is the intention of that ordinance to extend even to the problem of erosion, controlling improper agricultural practices for the protection of the land and in terms of their effects upon adjacent urban areas. There is an attempt in that county to extend the zoning process to the point that it will control the ultimate land utilization definitely by controlling the extent of occupancy and by protecting the roadsides, both from the standpoint of safety and of preservation of the scenic areas of the county.

We do not have a local precedent for what is being done, but we have felt ringing through parts of California something Mr. Bettman said at the Pittsburgh Conference in 1932 when he wished we as planners would forget about the law, being sure our programs were purely for human betterment, as it was the job of the lawyer to keep up with us.

We are rather humbly, but with possibly more courage than good sense, proceeding to find a means whereby the zoning process may be used for the effectuation of a pattern of sound land-utilization, of population distribution, and site design.

REHABILITATION OF THE BLIGHTED DISTRICT—A COÖPERATIVE ENTERPRISE

The Share of the Planner and the Lawyer

By WALTER H. BLUCHER, Executive Director, American Society
of Planning Officials, Chicago, Ill.

MANY of the people in this country are still under the delusion that the rehabilitation of blighted areas involves only new housing in those areas. If we approached the problem of rehabilitation properly, it would become apparent in many communities that the best use of the property might be for commercial or industrial purposes or for parks and open spaces. Even if we finally conclude that housing is the best and highest use for particular property in blighted areas, it is utterly impossible to determine what kind of housing is needed in the community and in the particular area without first having a plan for the city. Since housing is being given the most consideration under rehabilitation at this time, I propose to discuss that aspect of the problem first.

Why is it that we in America resist experience? It is seventeen years since the Government entered upon its war housing program. That program taught us certain lessons which we proceeded to forget as rapidly as possible. We were left a collection of data which has had little improvement in the seventeen years that have elapsed. Housing in those days was truly an emergency measure. It is not an emergency measure today. In the hurry to get homes under way for workers engaged in war industries it would have been reasonable to assume that planning aspects might properly be overlooked. As a matter of fact, in spite of the emergency, we were left with a few well-planned communities—communities which today, because of adequate planning, are able to maintain themselves as desirable neighborhoods. Little of the site planning of recent years has equaled that of the war housing, much less excelled it.

I will say nothing about the problems which were created in maintaining and operating the war housing communities. They do not leave pleasant memories, but that, too, seems to have been forgotten.

We have now been engaged in a Federal housing program for about two years, and the greater part of the country has not to all appearances learned the elementary principles of housing policy.

Some of these elementary principles are:

1. Every slum area is not necessarily an area to be rebuilt with new types of housing.
2. Every blighted area should not of necessity be developed for housing purposes.
3. Cheap land alone will not serve as the only basis for a housing program.
4. The mere incidence of high rate of juvenile delinquency, felonious homicides, tuberculosis deaths, pneumonia deaths, infant mortality, and tax delinquency, does not prove that the area should necessarily be rebuilt with housing.
5. There can be no suitable housing program in any community without first having a "land pattern" or a "concept of" the community. This may be called the "plan" for the community.
6. Suitable housing will not ordinarily be obtained if a site is selected without relation to the "land pattern" with later attempts to justify that selection on a so-called "planning basis."

What I say is not in criticism of public housing. My stand on that matter is sufficiently well known. Some of us will disagree as to the policy of Federal or public housing, but all of us, I am sure, wish that if there is to be public housing, every effort should be made to insure that it will be adequate and successful public housing. If we criticize, it is because we feel that essential factors are being overlooked, factors which if missing may prevent the consummation of a successful housing project.

I do not come here as a preacher for the abstract or theoretical cause of planning. I do not believe in planning for planning's sake. I believe that without planning we can have no successful governmental housing operations.

I quote from a public address of a Federal official:

We have heard it stated that a housing program must be incidental to a city plan. While I fully agree that all housing development should be a part of a city plan, I can assure you that we would never get started on housing if we were to sit down and wait for the planning bodies to organize or be organized and work up plans for their cities. I do not mean to imply that sufficient interest has been lacking on the part of planning officials, but rather that the housing issue has been brought to a head in advance of planning progress in many cities. This is substantiated by our fact-finding questionnaires which are, in effect, cross examinations in planning. Many times months are consumed in digging out

necessary facts which would be immediately available in well-ordered, well-planned communities. Unquestionably the housing movement will stimulate city planning activities.

I am forced to disagree with that statement. There is only one way to approach a housing study; that is to approach it as not a housing study at all. We are no longer talking of housing as an emergency measure to prime the pump. It is part of a long-time program to provide a better physical environment for the people of this country.

The only way to approach urban housing is on the basis of a study for the building of a suitable community.

The city of Toronto recently made an extensive survey in that community. It was determined that proper housing could not be done without relating the projects to a plan for the development of the community. The first recommendation of the special committee was that a City Planning Commission be established immediately for Toronto. The Report states:

It is essential that a City Planning Commission be established forthwith. This would be desirable even if there were no problems of housing in existence. The lack of a single body to plan and guide urban development should be a matter of concern to all citizens of Toronto. It is remarkable that property owners, industrialists, business men, taxpayers and voters should so long have permitted their interests to remain unguarded. For there is no citizen who does not stand to profit, in the long run, from a beautiful, orderly and conveniently planned city; there is none who does not stand to lose from the waste of a city which sprawls haphazard at its outskirts and which decays in congestion at its heart. But when we add to the need for a body to plan and guide future development the immediate necessity for reconstructing certain areas, where housing conditions are beyond the toleration of civic conscience and civic pride alike, then the case for a City Planning Commission becomes overwhelming. To undertake the reconstruction of these areas at considerable trouble and expense, without ensuring that development of the city would be such as to improve, rather than degrade, their surroundings or that equally obnoxious conditions would not develop elsewhere—such a policy would be to reject the light which is available and to leap wilfully into the dark.

Because I am to be followed by the Sociologist, the Realtor, and the Administrator, and because I am to shed my robes of Dr. Jekyll to become Mr. Hyde, I will only touch upon some of the studies which must be obtained or made, before we can properly consider housing:

For the entire community, the region around it, and the State, we must know about population, its shifts and trends, what has been and what probably will be. The same information must be obtained for industry.

Also on a city-wide basis there should be studies of:

- (a) Assessed valuations and trends
- (b) Tax delinquency and trends
- (c) Streets and thoroughfares
- (d) Parks and recreation
- (e) Schools
- (f) Transportation
- (g) Residential buildings, condition, age, and vacancies.

It will be claimed that housing cannot wait for a comprehensive plan. My answer is that a so-called comprehensive plan is not needed, that with a properly equipped and directed planning organization, all the information listed can be obtained in a reasonable time; that housing has not been constructed in unplanned communities in less time than is required for these studies, and that it would be much better to delay housing projects a few months than to gamble upon constructing buildings in appropriate places.

A word of caution here might not be inappropriate. It is easy to reach false conclusions from some of the data collected. An area with a high rate of tax delinquency denotes more than physical blight. It often denotes low economic status of the residents. Place these people in the best area in the city, give them the same wages or lack of wages, and you will find the same high rate of tax delinquency, the same welfare load, and the same demand upon health agencies. Strangely enough, we find high rates of tax delinquency in some of our best areas, but there has been no suggestion that these areas are blighted or that they ought to be replaced with low-cost or low-income or low-rental homes.

After the city-wide studies have been made and are properly analyzed, areas of the community will stand out as potential housing districts. More detailed studies can and should be made here. These will include various economic and social surveys, including family income, size of families, place of work, and similar information. Of course you will want the usual surveys of crime, juvenile delinquency, and deaths. Although not nearly so important as other data, they make good propaganda.

It is desirable and often informative to have comparisons of the economic and social status of relief clients in the selected areas to compare with averages for the whole community.

I had not intended to prepare an outline for a housing study; I was merely trying to show that it is impossible to do housing without first knowing in what kind of community it is to be placed.

Irrespective of the type of housing work to be done in a community, the lawyer (unfortunately) comes into the picture. There will be some discussion this evening of rehabilitation through the instrument of private property-owners. Certain additional powers would have to be granted if successful rehabilitation is to be carried out. Perhaps we will have to give to the majority of property-owners, or to a public agency acting in their behalf, limited powers of eminent domain.

In the field of public housing every step of the work is directed by lawyers. They prepare agreements for the sale of property, examine titles, institute condemnation proceedings, and execute deeds. It has also been necessary for them to appear before the courts to get a determination of the legality of public housing procedure.

I confess frankly that my interest in the planning aspects of rehabilitation is greater than my interest in the legal aspects. I venture to say, however, that if planning is not given adequate consideration at the outset, the lawyers of the future will be kept very busy settling all of the difficulties which are sure to be created by unplanned housing developments.

The Share of the Sociologist

By EDWIN S. BURDELL, Professor of Sociology, Massachusetts Institute of Technology, Boston, Mass.

THE fact that the sociologist has a share in the program this evening does not assure by any means that he has had or will have any very real share in the rehabilitation of the blighted districts now being studied in American cities. What has the sociologist to contribute to the field of city planning and housing, a field which was long ago preempted by those trained in the physical sciences and technology?

The sociologist's part in the rehabilitation of a blighted area should begin with the fact-finding process. The collecting of social data relative to specific areas under consideration

should be done at least in consultation with persons trained in the technique as well as the theory of urban social studies. A mere census or count is of relatively little value. For instance, census tracts, that become now such convenient frames of reference, may or may not have any real significance, depending on their relation to the so-called natural areas upon which they are superimposed. Having had something to do with fitting such a frame upon the capital city of this State, I haven't a great deal of confidence in the adequacy of this device, which to engineers might appear to be entirely satisfactory. The setting up of field surveys, the use of the schedule and the questionnaire, the use of attitude measuring scales involve rather highly specialized techniques that should be launched under the supervision of a person thoroughly trained in such matters. Neither is knowledge of mathematical statistics sufficient.

The other day I was consulted by a graduate student in the College of Education in one of our leading eastern colleges, as to method in a current college graduate unemployment study. I was amazed to find that he had had no training in the planning of a social investigation, had no idea of determining the proper scope of his study or the difference in the use of, or the results obtained by, the schedule as against the questionnaire, yet he could talk glibly about . . . coefficients of correlation, time series, harmonic mean, and the like. Another type of "researcher" that I have come across during the depression is one who winnows the World Almanacs, the Federal statistical services on down to police and fire department annual reports, and arrives at something that is usually more chaff than wheat. Yet by reason of ample footnotes and documentation it looks pretty good, especially if it proves the point the board or the committee wants to make.

Perhaps I am a bit too cynical, but I know that with plenty of white-collar relief labor available to city planning and housing boards, there is a real temptation to turn loose some energetic and resourceful ex-clerk or real-estate salesman and bring in six weeks later a comprehensive survey of housing conditions in Pleasantville, Ohio. I speak feelingly on this score, for in the summer of 1933 Dr. William J. Blackburn of the Ohio State University and I put on a survey of nine blighted areas in

Columbus involving 3,734 households. The problems proved to be much more formidable than could have been suspected. In the first place, we had to construct a schedule and instruction sheet that was fool-proof in the hands of relief labor. Next, we had to train seven or eight crews because of the small number of hours of work any one man was then allotted. Then a check-up had to be devised to see whether or not areas had been completely enumerated, and finally, the problem of editing, coding, tabulating, text-writing, and preparation of the manuscript for printing had to be met by close and constant supervision by one or the other or both of us. I want to make clear that the specialized training of the sociologist and social surveyor can be turned to good use in making preliminary studies and facts preceding the policy-making and the action-taking.

I am going to assume, for purposes of discussion, that there are usually three possible lines of action in rehabilitating a blighted area. The first situation might conceivably involve principally repair, reconditioning, moving families out of basement apartments, ferreting out over-crowded tenements, and breaking up combinations of families that for economy's sake had doubled up or tripled up. Enforcement of the sanitary laws, building codes, fire-escape provisions may do much to save an area from passing from blight to slum. I am assuming that we all agree that we have here a distinction as well as a difference. In this first situation, where neither demolition nor rebuilding is indicated, the sociologist is able to advise on specific situations that may be factors leading to social disorganization. The trained social investigator, family case worker, and group worker acting as the eyes and ears of the sociologist and reporting to him, places the sociologist in a much better position to make recommendations than the architect and engineer who see only structural deficiencies or who more likely might overlook situations of over-crowding, the latent threat of single boarders and lodgers in families with growing children, the essential lack of privacy where there is an intermingling of sexes in the use of toilet and bathing facilities, however perfectly such facilities might comply with the requirements of the plumbing code. The architect and engineer may quite naturally dismiss inherently bad social situations simply because outrageous filth, vice, and depravity are

not too obtrusive. As a rule, they are not trained to see the more subtle social dangers and demoralizing factors that the sociologist who has had field training in social work and social administration can readily put his finger on.

Mere statistics of over-crowding, ratios of persons per room, may not mean very much to the public taxpayer who is putting up the money or to the hard-pressed public-works manager who is trying to make that money put as many people to work as possible. Both must interpolate the social situations that lie back of these figures. They must realize that children get less sleep when they are put to bed in rooms where grown-ups are stirring about and that the adults cannot entertain friends, especially the teen-age members of the family cannot entertain their friends, where children are supposed to be asleep. With over-crowding and uncleanness go drab furnishings, unsightly walls, producing a total complex so uninviting and unlovely that the father and older children, the more mobile members of the family, are almost forced to seek their recreation and to spend their leisure time in pool-rooms, taverns, dance halls, and loitering places. Exposure of the youth and the temptation of the adults to unsocial and criminal behavior become a certainty.

An attack upon the state of repair and living conditions probably offers not only the most immediate possibilities of better housing conditions, but also is the method that would extend better housing to the largest number of people. Many of the houses in the blighted areas are very well built, as is attested to by the years of abuse that they have survived. An architect and engineer could readily determine the structural safety, the cost of repairs and remodeling, if needed. I have in mind room rearrangement to eliminate the windowless rooms and to provide a private toilet and bathing facilities for each family. To be sure, the thoroughly bad "dumb-bell" tenements so common in New York do not lend themselves to much rearrangement unless perhaps by a combination of two or more buildings. I am aware that this suggestion of rehabilitation of existing buildings will not appeal to a considerable number of you. Architects, by the necessity of requiring larger fees on a higher percentage basis for remodeling as against their fees for new construction, give some hint of their basic opposition to this form of improvement. Nevertheless, if we want to be realistic about getting improved

conditions to the greatest number in the shortest possible time, this method has much to recommend itself.

I would not for a moment rehabilitate the rickety old arks that characterize so much of the low-rental areas of our large cities. Therefore, I believe that the second possible situation may be described as one that lies between mere repair on the one hand and complete rehousing on the other. I submit this second alternative partially in reply to a recent query from Mr. Flavel Shurtleff, the secretary of this conference, in the matter of the wisdom of a wholesale destruction of slum properties. I believe that his point is well taken, namely, that to dislodge a considerable number of families at one time might lead to serious social difficulties. He raises the question whether the rehabilitation process will not have better results, if in slum areas only properties here and there are entirely demolished and model dwellings put in their place, using renovation for other properties in the neighborhood.

We know from experience that spot zoning is bad. It would be interesting to know whether spot housing is good; that is, would isolated good housing prove to be effective? The recent report of the Rosenwald Foundation on five years' operation of the Michigan Boulevard negro apartments in Chicago says:

(The Apartments) have beneficially influenced property values throughout the surrounding territory. In many instances, it can be pointed out that competitive real-estate owners and managers in this area have patterned some of their services and practices after those of the building, with the result that there has been general improvement in the facilities, management, and appearance of other properties.*

The Federal Government cannot hope to offer the cities anything more than isolated demonstration projects. The most ambitious Federal program could actually rehouse only a fraction of the urban population needing it. Very properly the Federal authorities indicate at the outset that they expect the municipalities will take over the job just as quickly as possible. Even though we had the funds, it might take some years to get national and State laws enacted, much less enforced, similar to the British, which make it an offense to house persons in overcrowded and sub-standard dwellings. The strong central influence of the Ministry of Health in the British Government has

*Five Year Report of the Michigan Boulevard Garden Apt. Bldg. Corp., Chicago, Feb., 1935.

accomplished in a decade the adoption of an attitude of mind as well as a willingness on the part of the British taxpayer to support such measures. We have a long, long way to go before we shall have any such national program in this country. In the meantime, we may learn much by a trial of spot housing.

The sociologist believes in the power of imitation as a social force. He has observed and experimented with it. He has reason to believe that normal people in our contemporary western civilization really prefer cleanness to dirt, quiet to noise, warmth to cold, dryness to dampness, activity to idleness, happy, healthy children to cross, sickly ones, wives and husbands adequate to meet life's problems in a self-sufficient, independent way as against doles, charities, and institutions. Believing this, the sociologist has no hesitation in predicting that a few examples of good housing correctly interpreted to the community and the concrete evidence of the happier and more adequate living that goes along with it, will have a leavening effect on the lump of apathy, indifference, and ignorance that accounts for the complacent acceptance of such frightful housing conditions on the part of those subjected to them.

I have in mind the splendid work being done in the South End, Boston, by Mr. Albert Stoneman, head resident of venerable South End House. Mr. Stoneman is a worthy successor to Robert Woods in that he is following a program of creating a community consciousness of housing, clean streets and alleys, vice and crime on the part of his neighborhood. Although Mr. Stoneman has not the remotest idea of being able physically to clear out the dilapidated rookeries in his district, the shabby remnants of the fashionable homes of Boston of the early nineteenth century, still he is doing much that the architect, engineer, and city planner may marvel at in the way of arousing local interest, and what is equally important, local energy in improving housing in a manner suggested in what I called situation number one, namely, repair, paint, sanitation, reduction of crowding, and the like. I know that he feels that one good example of adequate housing at rents within the reach of his people would be a tremendous boost to his program of social reform and amelioration.

I agree with Dr. Aronovici that we have evidence from European sources that we can depend to some extent upon the

voluntary vacating of the slums provided we afford the tenants an opportunity to occupy at reasonable rents, dwellings in the suburbs or in the outlying urban districts.* Here in the United States Mr. Harland Bartholomew finds that the Bowery population of Manhattan had lost 53 per cent of its population between 1910 and 1930. His report goes on to say,

With the present conditions of obsolescent buildings, inadequate open space for light and air, insufficient recreational areas and numerous other unfavorable factors which are largely responsible for the great losses in population, it appears necessary to rebuild the entire area or major portions thereof, if the present unfortunate social and economic conditions are to be corrected.†

The savings banks and insurance companies who hold the mortgages and who were also "holding the bag" discovered this all too late. The landlords had killed the Goose that Laid the Golden Egg. The Goose really hadn't been such a goose after all. The landlords of Harlem, Queens, Long Island City, and City Point, however, now have a chance to repeat the blunders just mentioned. But I have a feeling that these isolated Federal demonstration projects, if properly operated and adequately interpreted to the community, will bring even the dullest as well as the most rapacious landlord to his senses.

Of course, coal and vegetables will go into the bath-tub, and even door-frames may be broken up into kindling wood if the families know of no better use for them. Bewildered, demoralized, poverty-stricken people who have scampered from one rabbit-warren to another, who have perhaps moved to the city during the late lamented boom times from remote rural or mountain settlements, need more than anything else the assistance of a helping hand, the sympathy of the friendly neighbor; in a word, those services which the trained settlement house worker is able to furnish. I want to emphasize the fact that merely transplanting families from basement tenements, shanties, and rickety old arks to decent, clean, sanitary dwellings will not in and of itself work any miracles. Miracles do still happen in social relations, but they happen because we use our heads in figuring out a solution that is a complete solution. In other words, a complete solution of rehabilitation is not merely a brick-and-mortar proposition of a building, a park, or a play-

*Law and Contemporary Problems, School of Law, Duke University, March, 1934, p. 152.

†Plans for Major Traffic Thorofaree and Transit, Lower East Side, N. Y., 1932, p. 25.

ground. It must necessarily include an educational program, and by educational, I do not mean classes and text-books in the conventional sense. The only education worthy of the name is one of teaching by living—the heart and soul of the settlement movement from Barnett, Toynbee, and Woods down to date.

The sociologist reads with interest and approval the details of the plans of Mr. Bohn's group, the National Association of Housing Officials, to inaugurate a training school for the managers of the new Federal housing projects. There seems to be every reason in support of training for management. Neither a glorified janitor nor a hard-boiled rent-collector is sufficiently qualified to cope with the exacting responsibilities both physical, financial, and social. Premature deterioration and careless financial control on these first few public projects will very effectively kill the chances of anything like a really comprehensive national program having the enthusiastic support of the public that it has in Great Britain. The sociologist, in so far as he is interested in the creation of a favorable public opinion toward better housing, is interested in the adequacy of the management. We simply cannot afford to let these first efforts fail. If, in order to avoid direct subsidy, the Federal or local authorities resort to long, long periods of amortization, say seventy-five or eighty years, the physical upkeep will be no significant item.

Equally important is the securing of the maximum social return for the money invested. This implies a sympathetic landlord plus a friendly neighbor, a combination indeed rare when looked for among persons who are at the same time good maintenance men and rent-collectors. Adequate social administration will be predicated somewhat on the manager's understanding of the economic and social problems of low-income families, specifically, such problems as distribution of family incomes, family budgets, and expenditures, housing policies of relief agencies, standards and habits of living of different racial and nationality groups, the influence of churches, schools, fraternal orders, and the like, adult education, handicrafts and hobbies, recreation of one kind or another, and especially the recognition of the importance of the trend of the short-hour day and the short work-week in planning leisure-time activity for the prevention of anti-social habits and debilitating amusements.

As to the third possible situation, involving wholesale demoli-

tion and complete rehousing on the site, the sociologist has some advice to give in the matter of handling groups, of adjusting relationships between widely divergent national or ethnic folkways, of making provision for adult leisure-time activities, of securing the coöperation of the health forces of the community in making an intelligent attack as well as defense in preventing sickness and epidemics. The brick-and-mortar program of the architect is good as far as it goes, the health worker's program is important, the recreation leader is indispensable, the small garden adviser is useful, the family case worker will still be needed to straighten out marital and family difficulties. Of all these, the so-called neighborhood worker, trained by years of service in our best American settlement houses, comes the nearest to seeing the situation in its totality as the sociologist sees it.

Many of these plans of rehousing are much too elaborate. They require too great change and too many adaptations for many of the poorest of our slum families to make. Perhaps it is unwise to pick out specific items, but it strikes me that electric refrigeration is expensive equipment that could be dispensed with. Monel metal sinks and tile baths, which I have seen proposed in some plans, appear to me as being too far beyond the needs of the people who will use them, assuming that we are talking now about the rehousing of the lowest third of our income group, those for whom outright subsidy seems inevitable.

I have presented to you the reasons why I think that the framing of an adequate social plan is quite as important as your legal, engineering, and financial plans. I believe that the real threat to the success of the present Federal projects and future State and municipal projects is the possibility of inadequate social management.

It has been assumed that by some hocus-pocus fine streets, civic centers, parks, and rehousing will result in improved standards of living, more stable and happier family life, and consequently less vice, crime, poverty, and disease. Let us make a "sure thing" out of our ambitious and high-minded efforts along these lines by making as rigorous demands upon the social sciences as we have made upon the physical sciences. We insist on science and technology in industry and building; why not require at least the same scientific approach to the social reconstruction of our blighted areas?

The Share of the Realtor

By HERBERT U. NELSON, Secretary, National Association of Real Estate Boards, Chicago, Ill.

I THINK we must admit that there are limitations to comprehensive planning, and that the function of the planner is a great deal like that of the physician who can study the growing child and study the human body and can do some things to provide for its good health, but certainly cannot create.

We need to break down this concept of planning, it seems to me, into some of its narrow segments so that we may study them in detail. One of them is industry. We have looked with keen interest on the successful operation of the clearing of the industrial district in Chicago and the northwest terminal district in Minneapolis, which are the only two I have seen, but that is an enormous field where the technique of the engineer should be applied.

There are other functions that should be studied separately and analyzed so that they may be understood. We know that every financial district tends to concentration resulting in high buildings. High buildings go with the financial district performing financial functions in a city. It is possible that type of activity demands a concentration that no other community does.

When it comes to housing in the blighted districts, we are somewhat more familiar with that, possibly because we have thought about it a little longer. Our group began to think of this question about seven years ago and appointed some committees to make studies and assemble some facts. We have spent most of that time in trying to find the answer. We have no answer yet, but we have drafted a suggestion or memorandum from which we propose to start. This memorandum we have turned over to Mr. Harland Bartholomew, who is a consultant of the Association in this matter and who is, with some legal help in St. Louis, preparing a preliminary draft of what we hope will be a State Enabling Act to enable us to cope with the problem of the blighted district.

We recognize that the flight to the suburbs, which we have witnessed during the past ten or fifteen years and which has caused the suburbs to grow at about three times the rate of the city, was caused not necessarily by speculation in land but by

people wanting to preserve the home environment for themselves. Those who were able left the city and went to the suburbs where they could control their home conditions. This has left us in our cities with, as someone pointed out this morning, almost a third of the privately owned land standing vacant, which entails an enormous carrying cost on the local government.

The zoning ordinances which were designed to create some protection for homes and for residential districts came too late. To a large extent they were imposed upon the basis of existing use. While they saved some residential districts from destruction, they could not save those which already had been penetrated by inharmonious uses, and people had no confidence in building their homes in the districts even though they were zoned.

We believe, on the whole, it is better for us who are citizens, as well as those who are in the real-estate business, to try to correct the errors we made and so to rebuild our cities more wisely on the basis of experience, than it is to go still farther out and spread the American city over a larger area.

We feel that we ought to give those who have the greatest stake in this problem—people who own property in the districts that have been deserted and are blighted because of the inharmonious uses—some chance to fight their own battles by providing some mechanism through which they can do it. We doubt if any efforts to impose any plan for blighted districts can ever suffice, but we believe if they are given an opportunity to save themselves, they will do it.

We suggest an enabling act to be enacted by State legislatures which would authorize local city governments to create Neighborhood Improvement Districts. We suggest the boundaries for such Districts would be tentatively outlined by the City Council with the advice of the City Planning Commission and when more than half of the property-owners, owning more than half of the assessed value, agree to the creation of such a District, there should then be issued for such District a Charter for a Neighborhood Improvement District Association in which all property-owners in the District would automatically hold memberships.

We suggest a creation of such an association because it would take advantage of something that already exists. I do not know how many neighborhood improvement associations there are

now set up. They represent a feeble effort on the part of the home-owner primarily to protect his environment. So far, these improvement associations have fought a losing battle. If, however, they are definitely recognized by the Government and given a status and given certain powers, it may be that they can make a successful fight.

We further suggest that the District organization, when created, elect Trustees whose powers would be clearly defined in the Charter. Hearings would be held in the District as to the final definition of its boundaries, and a plan for the rezoning of the District would be prepared by the Trustees in cooperation with the City Planning Commission and submitted to the City Council.

We recognize the first point of attack is rezoning. After the City Council by appropriate resolution or ordinance approved the plan for rezoning and the boundaries of the District, the District would be declared established. Whenever such a District is established, all of it thenceforth would be reserved for residential uses only, except for such specified lots as may be set aside for neighborhood business and other activities necessary to serve the residents of the District.

This enabling act should further provide that where a Neighborhood Improvement District was established and the plan for rezoning has been approved, all non-conforming uses must cease completely within a period of ten or fifteen years. That is what is called restrictive zoning.

Where deemed necessary or desirable for the protection of development of the District, the City Council could, upon the request of the District Association, acquire by purchase or condemnation any properties devoted to a non-conforming use; properties which are obsolete and detrimental to neighborhood values; vacant property when necessary for replanning or replotting the District or any portion of it in conformity with the approved plan.

The costs of such acquisitions should be assessed by the City Council against all property in the District in proportion to its taxable value. The city should have power to issue its bonds, pay out its funds, or otherwise use its credit for such acquisitions. The city should not, however, continue to own such properties. It should dispose of them, after the replanning and replotting

and other necessary measures have been taken to insure the carrying out of neighborhood plans, to the highest responsible bidder who covenants to carry forward improvements of the character needed in the neighborhood and approved by the Neighborhood Improvement District Association.

The Neighborhood Improvement District Association should, with the aid of the City Planning Commission, develop plans for the District. Such plans, when approved by the Planning Commission and the District Association, should be regarded as recommendations to all of the property-owners in the District but should not have legal or binding force. The District Association should also, after consultation with the City Planning Commission, have the right to make official recommendations to the City Council with regard to land-uses and the uses of improvements. When such recommendations are approved by the City Council, they should become a part of the Neighborhood Improvement District Ordinance for that District and be binding upon all property-owners. When such recommendations are approved by the City Council (in other words, they would be substantially amendments to the zoning ordinance), they should become a part of the Neighborhood Improvement District Ordinance for that District and be binding upon all property-owners. Such recommendations would include the establishment of building lines, side yards, rear yards, building heights, and similar matters.

We suggest that the Neighborhood Improvement District Association should also recommend that it be authorized to carry on certain neighborhood services in addition to those conducted by the city. These might include such matters as planting, landscaping, servicing trees, shrubs, playgrounds, collection of rubbish, cutting of grass and weeds on neglected vacant property, and so on. These are activities which are at present carried on by local improvement associations, in a good many associations, through a system of voluntary assessments.

When the City Council by appropriate resolution or ordinance authorizes the District Association to carry on such services and a budget presented by the Trustees of the Association is approved, the Council should assess the costs of such services against all of the property-owners in the District.

With respect to architecture of new buildings and buildings

that are reconstructed, the District Association should have the right to make recommendations. The District Trustees should be notified of all applications for building permits and have access to the plans. If the District Trustees give notice that they wish to be heard with reference to plans for any specific property, no permit should be granted until reasonable opportunity for such hearing has been given. The hearing should be conducted by the City Planning Commission. If the City Planning Commission finds the architecture of the proposed improvement is of a nature which would be clearly detrimental to the values of surrounding property, the Commission might recommend to the City Council that a building permit be refused. If the Council concurred in the recommendation of the Planning Commission, it should issue instructions to the Building Department to refuse a permit for such construction until new plans have been submitted to which no objection is made.

Now, obviously a plan of this kind suggests objections which naturally we have considered very seriously. It involves a large degree of decentralization at a time when a good many students of administrative law and public affairs feel that a large degree of centralization is wise and necessary. It has been our observation, however, that to try to concentrate the function of planning in one group of men, a planning commission or in a few officials, leads to neglect of the local problem and to a lack of constructive action in preserving the neighborhood unit as such.

The Share of the City Administrator

By ERNEST J. BOHN, Chairman, Housing Committee, City Council,
Cleveland, Ohio

I HAD an occasion recently to comment on the fact that perhaps no group of persons should take the blame for the lack of planning in this country more than the city planner. I think it is all his fault. The city planner at this time should sell planning to the public. Someone raised the question as to whether this is the job of the administrator. He should go out in the highways and byways and tell the public it is necessary. Isn't it a fact that the principal reason planning has not gone any further in this country is that the public has not been told about the necessity of planning?

You have your society of this and society of that and this planning conference and that, and what do you do? You go into a small room year after year and tell what a great thing planning is, but the real way and the only way that you have of putting planning into effect is to convince the administrator and the legislators—the persons who have the power to accomplish things that need to be done—that planning is practical.

When the finance committee of the City Council makes appropriations in January, and money is scarce, and there is not sufficient of it to take care of the policemen and firemen and the planning commission too, what is done? Of course, it is taken away from the planning commission because the public has not been made to recognize that planning is as essential as we think it is.

With the National Resources Board during the last year, planning has come more to the front than it ever has before. Why? Because the administrator has had to take the bit in his own teeth and say, "Since the planner cannot do anything about it, we, the Government, have to do it."

What are the principal reasons we are discussing blighted areas tonight from the point of view of the administrator? Some said, "Let's have zoning laws." That was a wave that went over the country. How were the original planning zones made? We had public hearings to prepare the zoning districts and now we find in my city of Cleveland that we have enough property zoned for business to take care not only of Cleveland but of the whole State of Ohio as well, and yet, every Monday night, there is legislation pending in Council to do what? To amend that comprehensive zoning law made some time ago in order to zone more property for business.

What is the poor legislator or Council member to do? If he listens to that poor widow whose earnings are in that piece of property which she owns and who finds the property-owner across the street is able to have a grocery store on his property but she is not, what is that legislator going to do? Vote to amend that zoning law to have more property for business purposes?

And there is the beginning of your problem of blighted areas. I live on a street that at one time was one of the finest streets in the city. Someone had the zoning law amended so as to be able to put up an apartment house, and immediately in that area,

probably not right at that moment but soon, someone else put up an apartment right next door to me. So in rooms for which I am paying about twenty dollars a month, I can stretch my arm out of the window and touch the apartment next door.

You had a law in this city that permitted the creation of so-called sanitary districts. It has been amended so that they can be created by county commissioners who are then administrators of that sanitary district, and by virtue of that receive an additional salary. This led to an increase in sanitary districts, even in the country, where assessments were made against the abutting property. Now, there is a resolution to wipe out these assessments.

There is a very definite place here for the lawyer. He should be thinking about this condition. What is the job in planning that belongs to my profession? For I do call it a profession. The politician has a profession. It is not a lucrative business but a profession. If I should make my speech in one sentence, I should say that the administrator or legislator ought to have the courage and good sense to take advantage of these things you have been talking of today, and the lawyers ought to have sense enough not to be too far ahead of the public but to make use of the studies that have been made.

The administration and the legislature have to provide the money to do all these things that you have been discussing. We have to have money, and we are gradually getting around to the place where the Government is looked upon to provide it. There is a great opportunity for the planner to point the way.

I know my good friend Mr. Bartholomew is circulating a proposal to provide a tax. I think we ought to give consideration to public subsidy of housing. We administrators and public officials ought to give a good deal of consideration to propositions such as Mr. Nelson described today.

When I was in Newark, N. J., a short time ago, I noticed that the Metropolitan Life Insurance Company bought several blocks of land, retained enough of it to put up their structures, and sold the rest to the public for recreational purposes. Why should the tenant who lives on land abutting that recreational land bear the cost, rather than all the public?

STATE PLANNING AND URBAN COMMUNITIES

What Planning Can Contribute to the Gov- ernmental Reorganization of Urban Areas

By CHARLES E. MERRIAM, Professor of Political Science,
University of Chicago

I HAVE been concerned a good deal with the governmental reorganization of cities, particularly those of larger size and especially one town on Lake Michigan. In setting up governmental reorganization of a metropolitan area, we have a good many questions to direct to those who are what we might call the regularly licensed and authenticated planners. The types of questions we are now raising are different from those of the earlier times when in Chicago the Burnham plan was developed under the auspices of my colleague, Mr. Delano, and others. We now ask the planners: What shall be the areas for which you wish us to plan a governmental organization? Our planners may reply: The corporate limits of the city, Chicago, Cincinnati, or New York; but obviously that is not a complete answer, for it is necessary to go outside the limits of New York, Chicago, and Cincinnati and build some extra-mural type of political set-up. So we ask the planners: What is it that constitutes the right kind of unit, with regard to the density of population or with respect to other characteristics which you may develop? What is the unit for which the governmental costume should be designed? Those of us in the governmental field are raising that question, not only in regard to the larger metropolitan cities, but all along the line. We are raising the question even in the smaller units—towns of three thousand and towns of five thousand—as to what kind of area you wish us governmentally to plan for. If you take a town of five thousand, how far do we go outside that, or do we go at all? What is the social area for which you wish us to set up a governmental plan? We ask that in regard to many cities that are located in counties where the urban population is twenty-five, fifty, or seventy-five per cent of the total county population. We ask in regard to the middle-sized

cities: As planners and as students of government, what is the social area for which we might most effectively plan?

A city is, in fact, a bundle of services that are labeled "Governmental Services" with a peculiar brand and type of power. These governmental services are set in a network of larger social services which require much sharper definitions and much more elaboration than we now have in order to make sure that the particular thing we label a city has the population and the area that is best adapted to that particular kind of social grouping or service grouping.

We ask you from another and larger point of view: What are the data upon which we should plan unions or combinations of cities? Already there have arisen, there are bound to arise, many more unions of cities, two cities combining for a purpose, three or five or ten cities—whether for public works, or for protection of their municipal credits, or water-works, or whatever the service may be. Before we can plan successfully for the government of a town it is necessary to have the social and economic data which indicate the kind of service which might best be performed by the particular municipal corporation or political authority about to be set up. Thus far, when we come to consider governmental services, the social and economic data are largely missing. I do not know whether this is a function of the economist, the student of population, or a function of the sociologist to collect these data which are the necessary precondition of the needed governmental structural plan. Perhaps I am suggesting that the planner himself will become somewhat more of a student of populations, of economic or social forces than he has heretofore been.

Planning came out of architecture, of engineering, and remarkable results have already been achieved, but others remain to be accomplished. In the next stage of our development we shall require from somebody, whether it be the economist or the sociologist or some other kind of "ologist," more elaborate data before we can set up metropolitan regions. We must also ask: What is the place of the urban community in the national economy? If we ask you planners what are the data upon which we, as students of government, should build, or ask you to suggest the relation between the cities and the United States Government, what will the answer be? The answer may be, "You

tell us." Of course, we can tell you about varieties of services that are being rendered by the Federal Government for the municipalities. I refer here not merely to services rendered in emergencies like the present, but to the steadily increasing stream and contributions in the way of service rendered by the United States to particular municipalities. So far as those administrative and political data are concerned, we can supply those ourselves, but the larger question we cannot answer, and it is here we have to make our appeal to some group of planners.

Is it desirable to build the larger cities? Already there are ninety-six metropolitan regions with 45 per cent of the population within their area—I may say, roughly, one hundred centers with one-half of the people of the United States living in them. From the national viewpoint, what should be the policy? Do we want to build our greater cities still greater so that in time we may have seventy-five cities with 75 per cent of the population in them, or do we want to follow the policy of pinching down on cities in some degree, making them smaller and smaller and even in the extreme of making the United States a loosely flung federation of subsistence homesteads or small towns hung together in some fashion or other? Before we know how to plan our cities governmentally we must know what the general direction is. The line so far is the line of drift. We have no particular policy, no general understanding in the United States as to whether we wish to build cities greater or whether we wish to build them of a different size.

Are we to have industrial centralization or industrial decentralization? Persons who are interested in governmental structure for cities are going to be looking in the future for help on this problem from what we call the planners. Can you give us the line of direction, whether we should look forward in our housing problem to dealing with larger cities, or whether we should look forward in our housing plan to smaller cities, or whether we should look forward to some sort of satellites or belt around the city type of development, or whether we should look forward to an industrial type of city? You may say no one can answer these questions. If he could answer them, he wouldn't have the power to put his answer into practice. That is true enough, but with all the countries in the western European world we are obliged to think seriously about these urban policies.

It is not impossible that the hard and fast line between urban and rural communities may to some extent in the future be broken down. In all the great cities of the world and all the great civilizations of time there were people who had double residences. The richer ones who lived in Rome or Athens went out in the country or up in the mountains during part of the year. It is not impossible that with the growth of modern transportation, this may be the key to much economic and political difficulty. It is not impossible that the line to some extent may be broken down, so that a large number of people may live both in the cities and in the country. We would like to have help from the planners on the kind of values we ought to try to develop in the cities. Are there urban values we must consider at all cost; are there rural values arising out of contact with isolation with nature or solitude of nature; are there values of that kind we ought to try to build upon when we undertake to construct an urban area governmentally?

I am proposing here what may seem a large scope of data. But these are types of data that, whether by the planners or not, some group of people must collect for us, some group of people must analyze for us and indicate to us either a single line of direction or the main lines of direction upon which urban communities can build. We are unprepared to meet the national governmental plan with our housing projects because we have not thought out what kind of cities we want to build. Therefore, when we raise the different questions we have a civil war among the different kinds of housing authorities.

Whatever type of urban service we try to put into a plan of government—whether dealing with the little city or the middle-sized city or the metropolitan city—we find ourselves confronted with the fact that our planners have not thought out clearly and sharply that inner connection between the urban way of living and the rural way of living which lies at the base of much of our modern confusion in the construction of an urban government.

I throw these suggestions out to the professional planners hoping they will give us not only the splendid advice they have given us on landscape architecture and engineering and the general aspect of the city, but that they will give us a larger and richer measure of those facts upon which the governmentals can proceed in constructing an urban governmental structure.

State Planning and Leagues of Municipalities

By MORTON L. WALLERSTEIN, Chairman Virginia State
Planning Board, Richmond, Va.

ONLY recently I had the pleasure of forwarding to Mr. Eliot a copy of a veritable gem of an address on State planning delivered by Governor Peery at a meeting in Lynchburg. He tied up State planning with the Gospel according to St. Luke. That even antedates the planning activities of our distinguished chairman, Mr. Delano. Here's what our Governor claims St. Luke said: "For which of you, intending to build a tower, sitteth not down first and counteth the cost whether he have sufficient to finish it? Lest haply after he hath laid the foundation and is not able to finish it, all that behold it begin to mock him, saying 'This man began to build, and was not able to finish.'"

Many of you will recall that our great philosopher on public administration, Dr. Charles E. Merriam, at a luncheon at last year's session of this conference, counseled you planners to bring your respective State municipal leagues strongly into your State planning activities. When over a decade ago half a dozen league secretaries organized themselves into the American Municipal Association, the group was not too small for Dr. Merriam to meet with us and to encourage us in our endeavors. He foresaw, perhaps better than the secretaries, the possibilities of the State municipal leagues of which forty-one have since developed. He is an annual fixture at our meetings and it must be a source of gratification to him to observe our growth.

Overseas, these unions of cities are important organizations in the field of public administration. It is fortunate that today in this country they are becoming more and more potent. While I realize that it is probably unnecessary for me to point out to this group what these municipal leagues are, nevertheless it may not be amiss to touch the high spots of their activities.

Just as it has assisted the American Society of Planning Officials, so, too, the Spelman Fund has furnished liberal aid to some of the State municipal leagues. I believe that Fund acts upon the principle that one of the best ways of improving govern-

ment is to aid the organizations of the public officials themselves. Of such organizations, State municipal leagues are typical. While they are not organizations of public officials because the State municipal leagues are supported through financial appropriations made out of the municipal treasuries, they must necessarily function through the representatives of those governments who are the public officials.

Let us take Virginia as having a typical municipal league and briefly sketch some of its activities. Perhaps its most important although least spectacular function, is the day-to-day furnishing of information on any municipal question at the request of any official. For our long-time research projects, we have set up at the University of Virginia what we term the Bureau of Public Administration which through the use of a Director and graduate students aids us on many of those problems, the Bureau being operated jointly by the University and the League. Many of our State municipal leagues enjoy intimate contacts with the State Universities. During legislative sessions, following the adoption of a legislative program which we feel is both fair and progressive, we send out bulletins daily advising all of our cities and towns as to the status of legislation affecting their interests. This enables them promptly and propitiously to contact their own legislative representatives. During the past several years, we have trained, in a three-year course, 2,500 policemen and firemen in Virginia and this year will train 500 water-works operators. We conduct a radio series on various stations throughout the State enabling public officials to inform the public on various phases of our activities and of the activities of the city and town governments. Planning discourses have frequently been included in these series.

We publish a monthly magazine with a circulation among all of our municipal officials and many of the State and county officials, carrying current problems of interest. We answer legal, accounting, and auditing questions. We hold an annual convention, at the last one of which the vice-chairman of the State Planning Board led an interesting discussion on State planning. We have endeavored to represent the public in many utilities matters, and have a field representative who travels among the smaller municipalities and definitely assists them.

These leagues are both a sword and a shield in furthering

fairly municipal interests. The slogan of the Kansas League is "Substituting Facts for Guesses in Municipal Government." The league function is to translate these facts into action. I had always known that these leagues for the most part were independent organizations whose sole purpose is the furtherance of the public interest, but it took our consultant-director, Major Calrow, of the State Planning Board, to bring to me the idea that a league is primarily a planning organization. Because of the insistence of these leagues that facts are tough animals, not chameleons, our planning boards have the same common purpose. Having such a purpose—one in the local field and one in the State-wide field—a harmonious coöperative relationship of your planning board and your league would seem both logical and essential.

Let us then direct our attention as to whether such a relationship exists. I have endeavored to secure a summary of just how it has been worked out in some of our States. I selected State municipal leagues in thirteen States including our own as representing a cross-section. As a result of this survey, what do we find? In the thirteen States, two league secretaries have been chairmen of the State planning boards, although one of them has been smart enough to resign, due to the fact, I believe, that he was on leave for a year. On two of the State planning boards appear the presidents of their respective leagues, and on one of them, the secretary. The two chairmen were in Minnesota and Virginia, the two presidents in Oregon and Illinois, and the secretary in Michigan.

It is significant that when the State planning boards had a quick yet thorough job to do in connection with the projected public works program, nine of the thirteen leagues took an active coöperative part along with the State planning boards, notably California, Kansas, Kentucky, Michigan, Colorado, Oklahoma, Wisconsin, Minnesota, and Virginia. A close relationship between the leagues of municipalities and the State planning boards, according to my report, exists in all of the thirteen States. In California the league officials sit in at the various conferences of the planning board. In Kentucky they are of constant aid in securing the answers to questionnaires. In Kansas they have taken an active part on the public works program, in Oregon the league secretary is chairman of the sec-

tion of the Planning Board on Legislation, in Michigan they are in continuous coöperation, in Colorado a large section of their program at their annual convention was devoted to State planning, and they have run articles on State planning in their magazine. Oklahoma forwarded an educational program on State planning at eight district meetings throughout the State, all done through the State municipal league. In Arkansas the State planning board has aided in a joint endeavor to build up a library on city planning and the board has aided the Arkansas League in establishing many city planning commissions. New York has frequently furnished factual data to the State planning board and included a speaker on State planning in its radio series. Wisconsin has also supplied various data to the planning board, as has Minnesota, besides the league secretary acting as chairman of a sub-committee on taxation for the State planning board.

The Virginia experience with which I am most familiar may prove interesting. For over a year, our planning board was forced to operate without funds except for the furnishing of a consultant by the National Resources Board. After nearly a year's operation, we succeeded in persuading the Governor to furnish us a stenographer and some stamps. Both the State Chamber of Commerce and the League of Municipalities did much of the mimeograph work besides undertaking considerable correspondence. I paid for some of my State planning trips out of the treasury of the League of Virginia Municipalities. When I reported this fact to my executive committee with a statement that should they feel it advisable, I was ready to reimburse the League, I was much heartened to hear this committee approve of my efforts on behalf of the State planning board and give its entire ratification to the expenses incurred with the further authorization to incur such reasonable expenses as I deemed proper in connection with the Planning Board. This certainly is tangible evidence of the genuine interest of a municipal league in State planning. Since that time, due to a fortunate grant which our planning board received from the Spelman Fund, we are able to operate on an adequate basis.

Although I have hastily sketched the coöperation existing between the State boards and the municipal leagues, if you were to ask me from the survey made as to whether there had been

adequate coöperation between the planning boards and the municipal leagues, my answer would unquestionably be *no*. If you further asked me whether a close relationship should exist, the answer would unquestionably be *yes*. For whatever they may be worth in furnishing a basis for discussion, I would make the following suggestions: (1) In every State, if feasible, the executive secretary or other executive director of the State municipal league in that State, be a member of the planning board. My reason for suggesting the administrative head of the league is that league presidents come and go, but league secretaries seem to go on forever. Both leagues and planning boards bid fair to continue as permanent governmental departments. (2) Coöperation from the local municipal governing units in the local objectives of State planning can best be secured through the State municipal league. That being so, the State planning boards may not only secure much of their information as well as give much information through these leagues, but translate into action their suggestions. The State Departments in Virginia have wisely taken advantage of the fact that their best mode of securing coöperation where desired of municipal officials is for the most part by working through the municipal league. This may well be emulated by the State planning boards. (3) Wherever possible, subcommittees on taxation, municipal government, and various other germane subjects should contain representatives of the leagues of municipalities. (4) Active coöperation should be secured by the State board through the municipal leagues in an effort to further the establishment of local planning commissions. (5) State planning boards, as at present organized, being merely fact-finding bodies, must necessarily rely on such public organization as municipal leagues to translate their findings into action. (6) The National Resources Board, the American Municipal Association, being the national federation of the State municipal leagues, and the American Society of Planning Officials, in my opinion, should work out a technique of the exact lines of coöperation between the State planning boards, the leagues of municipalities, the planning association, and the Federal board. The municipal official as a rule is proud of his State municipal league. It is his own organization. The best way, therefore, to receive municipal support of a State planning program is through the local official's own organization.

Bear in mind, if you will, in tracing the history of planning and zoning legislation, that it was the State municipal leagues for the most part which were successful in securing this enabling legislation. Sometimes I almost forget that it was only a decade ago that a distinguished old Confederate soldier and lawyer, buttressed by a State senator who was then president of the Outdoor Advertising Association, made a stirring plea against the infringement on property rights. Little did either of them then realize that property rights were being best protected through zoning and planning laws. Nevertheless, almost single-handed, we were able within two years to secure modern and progressive zoning and planning legislation. Compare this with what happened at the last session of our general assembly. Mr. Harland Bartholomew, one of the members of the Richmond City Planning Commission, and I adapted to Virginia the act which was proposed and unfortunately defeated in the Legislature of Missouri. It is perhaps the most progressive city planning legislation enacted anywhere. Our municipal league made that legislation a part of its legislative program. Contrasted with the bitter experience of over a decade ago, it passed through the General Assembly without a dissenting vote in either branch. If the State municipal leagues are liberal, public-minded organizations representative of the best public interests, if they are truly planning organizations, if they are organizations that work upon the thesis that given the facts, the public will face those facts and arrive at more or less of a proper conclusion, then certainly it appears that there is no stronger ally of a State planning board than its State municipal league, nor correspondingly is there any body which can aid in building up our leagues more than these planning boards.

By such coördination and assistance we can in some measure realize one of the objectives set forth in the executive order creating the original National Planning Board nearly two years ago so aptly stated in this language: "The analysis of projects for coördination in location and sequence in order to prevent duplication of wasteful overlaps and to obtain the maximum amount of coöperation and correlation of effect among the departments, bureaus, and agencies of the Federal, State, and local governments."

New Approaches to Urban Planning

By CHARLES W. ELIOT, 2d, Executive Officer, National Resources Committee, Washington, D. C.

LAST fall at the Planning Conference in St. Louis we focused our attention on problems of extensive rural land areas. We discussed plans for land-use, for agriculture, forestry, recreation, and other subjects which were later reviewed and expanded in the December report of the National Resources Board. Now we are called together to consider the future of our urban areas. Almost one-half of the total population in this country is concentrated in a few small areas. Rough figures show that 47 per cent of the total population occupy less than 1 per cent of the land area of the United States. In this same small area is concentrated a large part of the personal wealth of the country and, according to recent figures, at least 60 per cent of the relief cases are located in cities of over 2,500 population.

Planning as forethought for the future has taken on much new meaning since these National Conferences on Planning were inaugurated in 1909. At the last two National Conferences I tried to make some contribution to the re-definition of the term and to supply new words to describe different aspects of planning work. I do not want to frighten any of those of you who heard me make those other suggestions by either suggesting additional ones or re-hashing previous ideas, but I do want to impress upon you that the need for re-definition of planning in relation to the problem of our American cities is acute. Perhaps I can best illustrate what I mean by suggesting a few contrasts or different ways of approaching the whole subject of urban planning.

First of all, what I have to say refers not to town, city, or metropolitan areas, but to problems of urban communities as contrasted with rural problems. Thinking about city planning, we need to differentiate between urban and rural life, instead of thinking about particular plots of grounds and jurisdictions. You must know, as I do, people who sincerely prefer to live with sidewalks, street cars, traffic, and the other excitements, noises, and attractions that go with city life. Personally, I do not understand their point of view very well, but I have been forced to recognize their existence.

Civilization to my mind has too long been synonymous with

urbanism. We have learned, I hope, that opportunities for the abundant life and other incentives to progress are not monopolies of the cities. Neither city nor country has any corner either on the good things or on the problems of civilization. We have heard talk, for instance, in recent years, of the "Barbarian Flow," as Benton MacKaye described the extension of billboards, gas stations, and shack towns along our interurban highways, and we are all familiar with the uncivilized intrusion of urban characteristics into healthier rural surroundings. On the other hand, persons in high places predict "grass in our city streets" as though a spot of green amidst our tenements was a sign of deterioration instead of something devoutly to be sought.

Can we not find a happy balance and understanding of mutual dependence between city and rural conditions? Can we not find a new approach to the city problem by thinking out some idealized mode of life which we want to make possible for those who by choice or by force of economic circumstances, live in areas of concentrated population?

In the past we have started with the obvious and acute problems which were immediately facing us—problems of our physical surroundings with which we are all familiar. Do not suppose that I deprecate such a practical line of approach, but let me also point out that from that stage we have been led on to consider other matters which in many cases apparently frustrated our efforts in physical planning. We have come smack up against social and economic conditions or governmental tangles which made our physical planning programs impossible or fruitless. What better example could I give than the choked entrances to our cities, where, because of the change of jurisdiction between city and suburb, both the will and the means to provide adequate entrances to the urban areas have been missing. Is it not time to look at the whole problem the other way round, to examine more closely, more intensively, the social-economic limitations and the governmental procedures and methods which limit and influence the kind of plans which are both desirable and practicable?

Besides thinking of this problem in terms of how we live or might live in cities and with stress on the organization of society to make possible better physical surroundings, we must add another definition to our new approach to urban planning. We

are not considering just the physical arrangement of things. We must design. We must have design implying understanding and organization of the forces behind the plan. It must not be just an architectural group of buildings, but a functional, dynamic force. It must be designed in the larger setting of the general, working back to the particular. Too long we have approached planning from the point of view of a geometric progression—the house lot, subdivision, small town, city, and metropolitan area. We are in danger of seeing nothing but house lots, of being unable to see the woods for the trees.

I have had occasion in recent weeks to go over inventories of public works and other proposals, and have heard people saying, "Here is a complete plan." I have felt called upon to ask them, "Since when did two and two make five?" It is a dangerous error to suppose that a compilation of a whole lot of good things is a plan, when the missing element, the design, the force binding the combination, is missing. If we are to have a real plan we must have the proposals put together in the proper order, *plus* a design.

It seems to me we must again examine all the influences of commerce, transportation facilities, power and natural resources, industry, government, art, recreation, invention, individual genius, all those things which in one form or another caused the original settlement of a town, village, or city and which cause or do not cause its growth. Let's go back and reanalyze the forces which cause these concentrations of population. We would do well to analyze further the power of tradition and the various economic forces that cause our cities to grow or decline, for in planning we are concerned primarily with direction of those forces, and if we are to direct them we must have increasing knowledge of their operation and their possibilities. Without for a moment minimizing the constant uncertainties in this world, we should seek out the forces that seem to follow a predictable course with a view to using them as tools in planning. We must recognize living and changing forces, such as new inventions, but we must fight against the idea that we are hostages to fortune, and substitute a determination to be masters in some limited degree of our own destiny.

When I talk of tools that we can use, I am really discussing the approaches to urban planning which are made up of three

main elements: a positive element, a negative element, and an organization element.

Among the positive elements, it seems to me we ought to make special efforts in the next few years to study the influence of transportation on the growth and decline of cities. I have been interested, for instance, in the dependence of cities on the rate structure and on its possibilities as a means of stimulating or retarding growth. Just imagine what would be the effect of a single railroad system on many cities which have grown up primarily because of competition between railroads! Another element on the positive side of the public works program, and still another example is the reservation of lands in advance, whether for park or for urban development; a fourth element which requires reanalysis is our taxation system which we all recognize as a motive power for development.

Among the negative elements which influence urban development I include zoning, limitations on the borrowing capacity of cities, and tax limitations.

Finally, with reference to governmental organization. You all know that we now have forty-five State planning boards. Perhaps you don't know that we have twenty-six legislative enactments and two legislative resolutions to establish those boards on a permanent basis. We expect four or five more States to pass similar legislation in the next month or two. There are great possibilities of developing, through State planning boards, a new technique of relationship between the State governments and the municipalities. It seems to me that a primary responsibility of State planning boards should be to develop local planning organizations, to encourage their growth, to give them direction and guidance. That is the next step in city planning.

But in any talk about the tools of the planner I should not minimize one other aspect of the work. Planning is not static; if it is, it is dead. It must be a dynamic and continuous force. It is an approach and not a finality.

In summary then, I am advocating an approach to urban planning which, by my own definition, means an approach to an approach or a plan for a plan. Is that not what we need most in the field of city planning? A new interpretation of what we are trying to do. To make such a statement is one of the goals of the National Resources Board for the next year.

FEDERAL ACTIVITIES AND URBAN PLANNING

Federal Assistance to Local Planning Projects

By ROBERT H. RANDALL, Consultant, State Section,
National Resources Committee, Washington, D. C.

ANY discussion of Federal aid for planning projects must necessarily involve a consideration of the organization of such projects and the duties of the planning staffs so organized as they relate to the work program.

In the matter of organization, I may say that it is anticipated that applications for projects to supply staffs for State planning boards will be made to the State Works Progress Administrator in each State, and by that State Works Administrator be forwarded to Washington, where it is expected that the representative of the Resources Board will review such applications.

In regard to application for staff aid to local planning commissions, these applications will also go to the State Works Progress Administration and will, in all probability, be subjected to a review in each State by the State Planning Board. Details of the procedure implied in this method of project application are being worked out at the present by the Works Progress Administration and by the National Resources Board in Washington.

It is expected, in general, that the procedure will be quite similar to that followed up to this date by the Federal Emergency Relief Administration in its relationship to State and local planning boards. Specific instructions as to how to make these applications will be forthcoming in the near future. The form of application blank is also expected to be ready shortly.

While it is a matter for individual judgment, I should advise those of you who are interested in making application for Federal aid to defer making actual application until the forms for the purpose are ready. When they are ready, they will be distributed to State Planning Boards.

In the meantime, if I might suggest, it would seem to be proper to prepare all the fact basis of your applications, ready to transfer to the blanks when these are available. That fact

basis, of course, should include a statement of exactly what you want the additional staff for. It should not be simply a general argument for the need of planning. It should be some of that, of course, but in the main it should be a specific list of the activities which you hope to undertake with the staff.

It also probably will be required that each governmental unit, the city, State, or county, whichever the case may be, make a statement of the participation or coöperation which it is prepared to extend. This should describe the degree of local supervision to be provided, because I think you will find it is expected that in each case competent local supervision is to be supplied by the applicant.

The statement should also cover the positions which you would like to have filled. At the present time the salaries of these positions are not known. All that anyone knows at the present time, I believe, is what we have all seen in the papers as to the limitations of the work relief financing.

So much for the method of making application. The relationship of the State and local planning board to the work program is very properly not only concerned with long-range planning and research, which is a typical activity of most planning boards, but it should also be concerned with projects for immediate operation. Quite a few in this audience heard Colonel Waite speak this afternoon about the wisdom of directing planning activities in a very practical way for the benefit of the work program.

Four billion dollars are to be spent in putting people to work. In doing that, it occurs to me that the State and local planning boards may be of service in creating a reservoir of projects, each project being designed to take its place in a coherent program of community improvement. If our planning boards fill that function, without neglecting their long-range planning activities, I think we can expect full support from the Federal agencies.

The Public Works Administration and the Works Progress Administration in conference with the National Resources Board in Washington are working upon application forms for construction and other projects. Some of you are familiar with the forms for the Public Works Administration, and I believe that I am correct in saying that the original procedure and forms adopted in the first instance in the Public Works Administration

will be continued. On these, provision was made for recording the opinion of the planning board concerned.

In the operation of the Works Progress Administration there are to be a series of forms. The first one will be a "project analysis" which will be more comprehensive and in more detail than the former project application which was used by the Federal Emergency Relief Administration.

It is anticipated, and again I must say that the details of this have not finally been settled, that on this project analysis sheet there will be space for recording the opinion of the proper State, city, county, or town planning agency. It is also expected that on the Works Progress form—I believe it will be called "Application Form No. 1"—which follows the project analysis sheet, the planning commission's action will be recorded.

So far I have confined myself pretty rigidly to a statement of the procedure by which we hope that Federal aid may be extended to planning. As those of you who have read the report of the National Resources Board will know, it is very definitely the purpose of the Board, and I believe of the other Federal agencies coöperating, to make planning a part of the method of this work program. While it is as yet not possible to speak with finality, and while the reports and the blanks for application are not yet complete, I think we may expect that planning will have a real place in the program, and that the coöperation of the Public Works Administration and the Works Progress Administration will be continued.

My final suggestion would be this: Get your facts together. Get clearly in mind exactly what it is that you would like to do. Get in touch with your State and your local relief administration and, as soon as it is organized, your Works Progress Administration. Make your application. I believe that you will find, on the part of that administration and all Federal agencies, a most hearty desire to coöperate with you in making planning a real factor in the program.

Building Houses and Building Cities

By JACOB L. CRANE, Jr., Planning Consultant, and President,
American City Planning Institute

IN THIS paper I am offering one proposition. The proposition is predicated upon one assumption. The assumption is that the country is not going to fall to pieces. I am assuming that we can successfully readjust our collective affairs, readjust the distribution of purchasing power, reestablish and expand our tremendous potential production capacity. Assuming that these eventualities are in prospect, I submit that the current interest in housing on a large scale heralds the beginning of the greatest enterprise ever undertaken by the American people. I submit that we are undertaking to rebuild our cities. And I feel that all of our housing activities must be considered as elements in the vast project of rebuilding the cities of this country. We should understand this thing that we are undertaking, and each housing policy and each housing job should be fitted into that concept. We must measure all the urban housing work we do by this question: "How will it be as a part of the rebuilt American city?"

The evidence that we are beginning the rebuilding of our cities is plainly visible on every side. Thousands of dwellings are being demolished. As rapidly as means can be found, hundreds of thousands of people are fleeing from the huge, jerry-built, ugly, blighted areas. If we grow rich again, as I assume we shall, how little of these big cities will be acceptable as an environment for living? What family or what individual will endure the crowded, noisy, dirty, ugly, uneconomic, shoddy camps which we call cities,—vast stretches of disorganized brick and stone so barren that a crow would have to carry his lunch in flying over them? Who can conceive that the full expression of American life demands less than the almost complete rebuilding of these overgrown towns? I contend that the cities will not die nor disappear, but that we will rebuild them. The present many-sided attack on urban housing problems represents the beginning of that reconstruction.

A bigger project would be difficult to imagine. To reconstruct on a reasonably decent basis the unlivable and uneconomic portions of our bigger cities means, at present costs, an expenditure

of something in the range of fifty billion dollars! I insert that figure here so that the shock may wear off before the next speaker is called upon. Two billion dollars per year for twenty-five years! If it is work and the exchange of goods that creates purchasing power, and if our cities and their dwellings constitute one of our most important elements of capital, this is a project to rouse all of us from any lethargy and social paralysis we may feel. Here is by all odds the single greatest opportunity for utilizing our natural resources, our equipment, and our man power.

Now, in rebuilding our cities we will be giving expression to the culmination of our ideals. We will be registering our concept of the art of living. We will give visible evidence of our American standards. This is not just a matter of piling up bricks. It is our statement of the American ideal of life and of the framework for the American arts of living.

The policies which we formulate and follow lie at the foundation of all our future living arrangements. Possibly it is too soon to speak of policies which we formulate, since there is now so much feeling that with a complex of more or less conflicting policies there can be no central policy to follow. When the pick-pocket dashed into an office and asked to be concealed from the cops, the office girl said, "Jump into our filing system. Nobody can ever find anything there." Our housing policies, what ought to be city rebuilding policies, are buried, not in one, but in a dozen different filing systems. They should be brought out, dusted off, polished up, and put into the pot by a Federal Housing Policy Board. That Board could then build up the necessary general research, hear all sides of the case, and in a while produce a set of coördinate policies which could sensibly guide the Federal, State, and local governments, and out of which sensible and practicable programs could be developed—programs which recognize what we are actually undertaking and also recognize the difficulties to be overcome. Several separate agencies are doing this now for their own operations. The total resultant, when all are put together, still constitutes a confused picture.

An underlying question of policy is that having to do with standards. Is it possible that the prospects in America are so poor that we must pare housing down to the bare bones of three and a half rooms per family? I don't know. But I hope that our preoccupation with repayment, rigid limits upon subsidy, and

depression incomes will not blind us to the great potentialities we possess for building open, ample, full-scale cities.

Likewise, I hope that we have the courage and ingenuity really to tackle the gorgon of irrational land policies which still tends to frustrate the valiant efforts of those wrestling with it. We shall have to formulate some central policies and some new measures. Virtually every other industrialized Nation has gone away ahead of us here.

We must lay the ghost of public *versus* private enterprise in housing. I am convinced that there is a huge field for both, once the fields are analyzed and defined by a Housing Policy Board. Meanwhile it is clear that large housing programs, in reality city rebuilding programs, involve problems which can be solved only through the participation of our collective agent, the government. Even where purely private funds and private enterprise are utilized, I should say particularly where they are utilized, both the public interest and the private interest must be drawn in to plan and to stabilize the development.

Finally, while we do not know enough yet to institute a full scale long-range program, and while our instruments are still not perfectly adapted to our purposes, it can be clearly seen that we require as a part of our central policies for city rebuilding, first, sensibly drawn, complete city and metropolitan plans, second, procedures for fitting any single project into such a broad city plan, and third, procedures for designing each project and its site in such a way that the city we are rebuilding will find the project appropriate and right after it is completed.

We are undertaking to rebuild our cities. This is a principal significance in our large-scale housing work. Our policies, our programs, our procedures, the perfection of our techniques may all be directed toward that purpose. "Bigamy," says a school-boy, "is wrong, because no man can serve two masters." The objective we cannot deny, the objective from which we should not deviate, is the objective of rebuilding the American city.

An Urban Bureau in the Federal Government

By JOHN F. WILLMOTT, Statistician, Municipal Finance Officers' Association, Chicago, Ill.

WE HAVE heard two outstanding addresses both of which have emphasized Federal participation in local planning projects growing out of the changing relationships between the Federal Government and State and local governments.

Changing Relationships. This change in relationship is not confined to planning but touches other functions and activities as well. Indeed, the circumstances in which many local units now find themselves may bring about still further changes in the traditional pattern of government. Faced with sharp decrease in assessed valuation on the one hand and the restrictions of tax limitations and high tax delinquency on the other, many local governments are caught like miners in a flooded mine-shaft and are being driven to the high levels of the government to seek assistance in maintaining public services, through either

- (1) a transfer of functions or debts to the broader shoulders of the larger units of government,
- (2) a reorganization and consolidation of the small units,
- (3) aid from State collected locally shared taxes, or
- (4) grants-in-aids for specific purposes.

In at least one instance, namely Key West, we find the city and the county and the school district pooling their administrative and financial resources under the leadership of the Federal Government, in an arrangement which is called the Key West Administration.

No one knows how far this process of changing relationships will go and, for reasons to which I shall refer in a moment, no one knows how far it should go. But whether present trends are accelerated or retarded, whether we have more Federal participation or less, one thing we may predict with assurance, and that is that the old pattern of Federal, State, and local governments, existing in water-tight compartments, making their plans and conducting their affairs without regard for the policies or problems or requirements of the other levels of government—that pattern is a thing of the past.

Fact Basis Needed. It is not too much to say that this changing relationship between the different levels of government is the distinguishing characteristic of the present decade for the political scientist, the planner, and the administrator. I think that that fact is now quite commonly recognized. But it holds certain implications that are as yet only dimly perceived. And of these, there is one which I commend to your most earnest consideration, namely, the need for a fact basis for the determination and administration of national plans and policies of the State and local governments. Indeed, without this, there is real danger that what should be a thoroughly harmonious and coöperative relationship may result in friction, misunderstanding, and bitter controversy.

The cities and States are reasonably well equipped with facilities for keeping in touch with what the Federal Government has done, is doing, and proposes to do. We have in Chicago seventeen national organizations of public officials, including the American Society of Planning Officials. These organizations are located in the same building and there is the closest coöperation between them. Coördination of their activities in order to prevent overlapping of program and duplication of effort is brought about through Public Administration Clearing House, of which Mr. Brownlow is the Director.

The Federal Government, on the other hand, is inadequately supplied with information concerning the State and local governments. For a number of years, various Federal bureaus—notably the Bureau of the Census, the Office of Education, and the Bureau of Public Roads—have been gathering statistics of State and local governments. During the past two years, there has been a marked increase in the number of such compilations until, at the present time, we can count at least a dozen Federal agencies collecting State and municipal data of one sort or another, and, if we were to include those agencies which are interested in only minor aspects of local government or whose interest is only temporary, their number would increase to a surprising figure.

Many of these Federal agencies are doing excellent work under great handicaps, financial and otherwise. Yet with all this activity, much essential information is nowhere available, or to be found in various nooks and crannies of Federal bureaus

working with little or no coordination. Some of this information does not appear for almost two years after the period to which it relates. And of course, by that time the data may reflect a set of conditions which no longer exists. There is no one place in the entire Federal Government where complete and up-to-date information may be obtained regarding the financial condition, the transactions, and the activities of our State and local governments.

Bureau of Information Needed. For a number of years, leaders in the municipal field have been urging the establishment of a bureau of State and municipal information in the Federal Government for bringing together in one place complete, accurate, and up-to-date information concerning State and local taxes, tax delinquency, receipts, current expenditures, capital outlays, budgets, and balance sheets, together with data regarding State and local organization, personnel facilities and activities.

Presumably, the proposed bureau would be developed out of some existing Federal agency which is already engaged in the compilation of State and local data, but with greatly expanded facilities and a revision of procedure. Such a bureau should undertake the following activities:

1. It should serve as a central clearing house of information regarding State and local government for all Federal agencies.
2. It should coordinate the activities of the various Federal statistical and information services in so far as these deal with State and local government.
3. It should itself compile data where such data cannot be obtained in satisfactory form from other Federal agencies.
4. It should establish a monthly bulletin service for bringing together the following current information regarding States and municipalities: gasoline, sales, tobacco, and liquor tax collection; expenditures for relief and mothers' pensions; public construction; current and capital flotations; new bond defaults; number of public employees, and amount of payrolls, etc. This would involve little or no compilation, since most of this information is already available in one form or another, sometimes in several conflicting forms.
5. It should enlist the cooperation of the various State departments of municipal statistics in order to bring about better coordination of their activities.
6. It should carry on an active research program for studying the work of all State, regional, and Federal agencies engaged in compiling State and municipal data in order to develop new and improved techniques for its own use and for the use of others.

7. Finally, such a bureau should render information and advice to local communities where necessary.

Advice to Local Units. This latter function may sound like paternalism. May I remind you, however, that the Federal Government has persuaded a large number of the smaller communities to embark on new and familiar ventures, such as waterworks and hospitals, as a part of the national recovery program. Left to themselves, many of these communities would not have undertaken these activities for years to come. When the operation of these unfamiliar services develops perplexing questions for which their customary procedure makes no provision, they naturally turn to the Federal Government for advice.

Furthermore, the Federal Government has loaned them the money to finance the greater portion of the capital cost of these undertakings, which loans it expects to collect. Furnishing advice to the borrower is a traditional function of the money-lender. The merchant consults his banker concerning the conduct of his business, and if he fails to do so, the banker may offer such advice voluntarily and even insistently in order to protect his investment. The Federal Government, having assumed the rôle of banker, will find it necessary to furnish advice and information to many of the local units in order to protect its investment. Obviously, it cannot furnish information which it does not possess. Accordingly, it seems clear that if and when a bureau of State and municipal information is established, it should not be confined to statistics but should gather information regarding administrative and financial methods and make this information available to the local communities.

State Bureaus. A number of the States already have bureaus of municipal statistics. The establishment of a Federal bureau of State and municipal information need not duplicate the splendid work which they are doing. The Federal bureau should coördinate their activities and promote the use of uniform classifications and standard procedures. Eight of the States, which already have fair compilations of municipal statistics, contain one-third of all the cities of over 30,000 population. Were uniformity to become a fact in these eight States, the Federal Government could accept the State-compiled figures in such States and concentrate its energies on the States where the

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information is not so well organized. Mr. A. M. Hillhouse, Research Director of the Municipal Finance Officers' Association, has recently completed studies of State reporting in two States and we are, at the present time, in contact with two additional States where there is considerable interest in uniform reporting of municipal financial statistics.

Advantages. The establishment of a Federal bureau of State and municipal information with an active program and using standard techniques would be of great assistance to the Federal Government in passing upon applications for grants to State and local units for relief, public works, and other purposes, in passing upon applications for loans, in supervising such loans after they are made, and in determining national policies, particularly those governing Federal-State and Federal-municipal relationships. It would also assist the State and local governments in comparing their relative standing and in determining their policies, especially those affecting their relationships with Federal Government and with each other.

There need be no fear on the part of the States or the municipalities that this program will invade their prerogatives or hamper their freedom of action. They have nothing to lose and everything to gain by encouraging the Federal Government to obtain complete information regarding their finances, their activities, and their plans. The more information of this sort the Federal Government possesses, the more likely it is to understand the problems of the States and the local units of government and the less likely it is to take uninformed and arbitrary action detrimental to their interests. This program is, therefore, an effective bulwark against the thing which is sometimes called "bureaucracy." I know of no group which should be more interested in the establishment of a more adequate fact basis for these new relationships between our levels of government than those engaged in city, regional, State, and national planning. For if these relationships are allowed to develop haphazardly, resulting in friction and misunderstanding, a highly emotional atmosphere will be created which will be most unfavorable for the success of the planning movement, based as it is upon an appeal to reason.

The Planning Commission

ITS FUNCTIONS AND METHOD

By ALFRED BETTMAN, Chairman of Cincinnati Planning Commission

PLANNING has been talked and written about to such an extent as to lead to the impression that planning has a definite meaning in our minds, and that this meaning and its actual application in practice have become an established tradition. Those, however, who frankly face the facts realize that we are still far from any such stage. The ease with which local planning commissions were mowed down in the early skirmishes of budget reduction, and the rather small extent to which State and national plans have been actually applied in the selection of public works may be evidence that planning, as a concept, is far from either definiteness or the strength which comes from acceptance and deep roots, and that we are still in the period in which the meaning, the purpose, the justification, the function, the methods of planning are in the challenge and discussion stage.

The planning of which we are speaking, namely, city, county, State, regional, and national planning of the developments on and of the uses of the land, contemplates the performance of this planning function largely by public action through public governmental instrumentalities. To be effective in the attainment of influence upon governmental conduct, any concept has to be represented by some organism or agency in the governmental set-up. No amount of learning about contagious disease and the value of quarantine would be effective unless the application of this learning be committed to some organism in the structure of the government, such as a board of health. In order that the theories and principles of planning come to be translated into actual influences upon or controls of the uses to be made of the land of the city, region, State, or Nation, there must of necessity be organisms within the local, State, and national governmental structure whose special function it is to nurse and apply these theories and principles. The challenge directed at the planning commission, as, for instance, when, in the interest of so-called economy, the appropriation for the expenses of the commission is withdrawn, is necessarily a chal-

lenge to planning, that is, the planning concept, to justify itself. If planning be a necessary or valuable function or activity, then the necessity for or value of the creation, preservation, and strengthening of the planning agency follows as a matter of course.

What, then, is the special function of planning which none of the traditional governmental activities supplies and without which the other governmental activities will fail to produce effective results in terms of social welfare? At least three types of service can be mentioned which planning renders and which none of the other forms of governmental activity does or can render.

One of these is the supplying of the factor of adjustment or coördination amongst the multiplicity of ideas, activities, interest, specialties, and emphases which, by reason of variations in their fields of learning, their experiences, their economic or intellectual interests, the people and officials of any community possess, apply, and press. Numerous examples will occur to any of us, as, for instance, the coördination between street location and the zoning system. In the case of any proposed street there are the special interests or the special knowledge or the special enthusiasms concerning the street which cause an emphasis upon a proposed location of the street which conflicts with the views produced by the special knowledge or special economic interests of those more intent upon or emphatic about the zoning. The result is likely to be uneconomic in terms of both material and social costs, unless there be an adjustment based upon some intelligent principle of adjustment; not a mere guesswork or counting-of-noses adjustment. It is the function of planning to furnish and apply the principles of adjustment amongst the multiplicity of conflicting interests, special knowledges, and emphases which arise and bear upon every proposal involving the distribution of the uses of the land within the community.

A second necessary element in the making of decisions, an element without whose application the results will fail to yield the attainable social and material benefits, is that of foreseeing the future instead of allowing the decision to be based only upon those factors which are immediately visible. We know the pressure which is brought upon legislative bodies, such as muni-

cipal councils, by the existing situations, the pressure to treat the existing developments as decisive or to treat something new as valuable just because it produces an increase of one item of the tax duplicate. Against this pressure there needs to be the counteracting influence of the consideration of trends, of thought about the future, of caring about the future. Unless these be applied to each problem of the moment, those problems will not be solved in a way to produce stable and valuable results. A wealth of illustrations will occur to our minds. One session of this Conference was devoted to the subject of the blighted district. The blighted-district problem was treated as exclusively a housing problem. But the redevelopment of a blighted district cannot be intelligently solved without gathering and interpreting the data and making some decisions concerning the future location and distribution of industry. How can one know whether the redevelopment of the blighted district should or should not be for housing unless one seeks to make an informed estimate of where the industries are to be located? This caring about the future, this studying the future, this injecting the future into the decisions of the present is another necessary element furnished by planning to the intelligent determination regarding what we need and where we need it.

A third necessary factor in the work of reaching decisions of material and social value is that of the gathering and studying of data and information under conditions and in an atmosphere of freedom and detachment from pressures for speed and the pressures for compromise. Administrative officials and legislative officials are exceedingly busy. Each day's problems have to be solved by them under time pressures. They do not work in the atmosphere and environment which furnishes the opportunity for what we will call research. In order that there may be available to them the information which they should have for intelligent decision, there must be some agency which can slowly, quietly, and freely gather this information by the thorough and intellectually honest methods of research. This research is, of course, a function of planning.

The need for planning, therefore the justification for it as a concept and as a method, arises from the necessity that these three elements or factors of adjustment or coördination, of

injection of the thought of the future into the problems of the present, and of the free research into the facts of present and future, these three at least, should be applied to the actual day-to-day decisions regarding the uses of the lands and the waters and the resources of our cities, regions, States, and Nation.

Planning principles come to be applied to situations of what might be called tension; not necessarily open or angry tension, but the more or less conscious, the more or less open, or the more or less militant tension which is produced by the fact that the individuals who are concerned in the making or results of each decision have different economic and intellectual interests, training in different fields, different enthusiasms. For example, the city or the State government has many administrative departments, each of which has a special learning and special enthusiasm. For example, the city or the State government has many administrative departments, each of which has a special learning and special enthusiasm for its own field. A proposed street location may conflict with a proposed playground or invade a park which the park department believes should remain free from the invasion. The very existence of administrative departmental subdivision tends to produce division rather than coordination. Then several governmental units may operate in the same territorial units. The State's highway system enters the territory of the city and is capable of interfering with the zone plan of that city. These conflicts of interest or enthusiasm or knowledge require that there be this planning agency with the position and information which qualifies it for a harmonizing process. Then, as we have seen, there is in every question the conflict or tension between the present and future. For instance, when a bad traffic situation has developed on a certain street, the traffic department is likely to see in that situation the present inadequacy of the width of that street and to press for a widening there; whereas the study of the future might show that inadequacy to be merely a temporary situation for which a future development at some other point is the best remedy. The pressure of the motive of unemployment relief might point to placing a housing development on a site where the existing development is visibly dilapidated and all the practical details of getting that site and building new houses thereon can be quickly carried out;

whereas, a more careful study might show that conditions elsewhere in the city, together with discoverable trends, will speedily produce new blight of the proposed site and that, in the long run, more stable good housing and better municipal economy would be obtained by a slower and more thorough process of selecting the site by means of the methods of planning.

Then, of course, there is always present, at every moment of the day and night, in city hall, State house, national capitol, and everywhere else, the conflict between political considerations and scientific or expert considerations. By "political" is not meant partizan, but listening to the clamor of the moment, decisions by easy compromise between pressure groups, clamor groups. In order that the mistakes in these decisions may be reduced, the factor of expertness of science needs to be inserted to a greater degree.

The time available for the program of this Conference is too short to allow more elaboration of this analysis of the necessity for and the justification of planning as a part of governmental activity. Perhaps this brief analysis has been sufficient to demonstrate that if we are to get out of the administrative and legislative activities of our governments (national, State, and local) results which, in terms of material costs or social costs or benefits, justify the expenditure of the moneys and energies which go into the processes of government, there is the necessity for the performance of this function of planning and necessity for the creation and activity of a special organism within the structure of our various government units for the performance of this function of planning.

All of this is of the deepest importance to all of us, at least to all of us who yearn to preserve a fundamentally democratic method of conducting public affairs. What with the multiplicity and complexity of the problems of today, urban and rural, the capacity which all sorts of groups and interests have for making themselves heard and the tendency to treat each question as an emergency, the democratic method of operation will break down unless city councils, State legislatures, the national Congress, city, State, and national administrations, and the public be willing that there be injected into the governmental process the application of the principles and methods of what we call planning. Unless they be willing to have this planning function

introduced as a regular part of the process, the complexities are going to be too much for the democratic system of operation. Planning, if recognized and accepted and given its place, will be a preservative of our traditional democratic political constitution.

The type of agency which has been developed for this planning function is the planning commission. It may or may not prove to be the best form in the long run, but at the present stage it is, no doubt, in most places the best form of agency. When a new type of activity is required, the older governmental agencies are not prepared, psychologically or technically, for its acceptance; and the development of its use as a custom and tradition can widely be promoted by means of a new agency. For instance, in the case of the merit system in the civil service, the civil service commission was a necessity for getting going and for the gradual acceptance of the merit system as the traditional and customary method of the selection of civil servants. Here and there this tradition may reach such a degree of establishment and strength that the commission form of agency is no longer needed, and the application of the merit system can be placed in the personnel department of the administration. But in the long period of recognition, acceptance, striking roots, developing methods and tradition, this special commission type of agency is most practicable.

Furthermore, the planning department as a coordinating agency for all the administrative departments obviously needs to be separate from these administrative departments themselves, and there is seldom in the structure of any government a single executive who is the chief executive of all administrative departments and to whom the planning department can be attached and still perform its function. This may not be true in the Nation, for in the presidency we may have an office which heads all administrative activities. That is practically never true in the cities or in the counties and, of course, cannot occur in the region. For instance, the City of Cincinnati has a city manager form of government, and has an exceptional degree of centralization of executive authority; but even then some administrative departments are not under the manager. Furthermore, the commission is an advisory or research agency for the legislative branch as well as for the administrative. Besides, there is no single governmental unit which has the entire jurisdiction over

the development of any territory. Here where we sit today the land is subject to more or less control by a city government, a county government, a school government, a State government, and a national government, and the coördination of their decisions through planning principles and methods is necessary. At the present stage of the planning movement and with the present governmental organization, the best structural arrangement would seem to be that the planning department be not attached to any other department and be generally of the commission type. It might be well, however, if under conditions existing in special places there might be experimentation at least with the single head type, that is, a planning department with a single head like other departments.

Time does not permit extensive detailed consideration of the composition of the planning agency. In the city or other local unit, the mixture of *ex officio* and citizen members is practical. The meeting place being within easy reach in a short time, the citizen member can be active, and the contact between the citizen member and the *ex officio* member equally fruitful. In the State, the problem of the composition of the commission is more difficult. The citizen members are apt to live at a distance from the meeting place and therefore to attend less frequently, thus giving *ex officio* members a disproportionate power. The State planning movement is still too young to have furnished sufficient experience for answering this problem. So far, the national government has furnished in most States all the expert and staff services, and the States have not been put to much of a test as to the strength of the recognition and establishment of planning as a regular part of the governmental process. For the time being, we must experiment with the planning commission composed largely of the citizen members with some *ex officio* representation of the administration and possibly of the legislature.

Without the public planning agency there can be no making of the plan. But the mere making of the plan, even if the community has sufficient wisdom and character to go that far, is not enough. The drawing up of programs is not enough if their effectiveness is to depend entirely upon the willingness of others to read and use them. Something more must be a part of the process than the mere drawing up of the plans or the sending of

advice when advice is sought. There is need for some process or system by which, with a considerable degree of regularity, the advice must be sought and considered. This is the purpose of those provisions of the model planning laws and of many actual statutes which specify that the legislative and administrative organs shall not have power to decide finally on locations of new public improvements or places or of zoning amendments or the like without receiving and considering the advices of the planning board.

The functioning of the State planning commission presents greater difficulties than is the case of the localities. And yet there has not been sufficient experience upon which to base opinion and prophecy. The model laws which have been drafted and the statutes which have been enacted define the scope of the State plan, but leave its application largely to the chance that, by reason of the personality of the commissioners and the moral and intellectual quality of their work, planning techniques will come to be sought and followed by the governors, the executive department, and the general assemblies. A good experimental beginning has been made in the field of State planning. It has produced the exceedingly valuable reports of the State planning consultants. There is still a good deal of trial and error method to be applied in the matter of the composition and the powers of State planning agencies.

In the case of the Nation, the answer is more simple and is contained in the bill now before the United States Senate, which attaches the planning board to the office of the President and leaves to him the uses to be made of its reports and advices.

The provisions of the planning laws which require that, before final decision be made on the location and extent of any public improvement or zoning change, the report of the planning commission must be sought and received and a two-thirds vote of the legislative body must be obtained for overruling the advice of the planning commission, have been criticised as grants of administrative power to the planning board. Whether this accusation be correct turns entirely upon one's definition of the word "administrative"; and if the accuser uses administrative to include the power granted to the planning commission, there still remains the question whether the grant be good or bad. However, where an agency does not possess the power of final deci-

sion, that agency's power is, in the last analysis, advisory. If a national planning board writes a report setting up a program for waterways development during the following fifty years, to which program the governmental departments which make the decisions as to what shall or shall not be built give such influence as they choose and no more; or if the planning board of, say, Pittsburgh advises that the ordinance which will be before the city council in the following week be amended so as to make Jones Street 60 feet wide instead of 50 feet, which advice council is not required to follow--is not the function of these planning boards essentially advisory in both instances? The fact that the one board writes its fifty-year advice in one report, whereas the other board sends its advices weekly, does not disprove the essentially advisory nature of the performance of both boards.

The justification for the continuous, week-to-week advices must come from the fact that this additional agency, the planning board, has something valuable to contribute which is not possessed by and cannot, in the nature of things, be possessed by the other agencies. That means that the planning commission should develop a comprehensive plan which furnishes the basis upon which it develops its specific pieces of advice upon specific projects. If its data and its methods be the same as the legislative and administrative departments, then this additional agency would not be justified. If, for instance, in passing upon a zoning amendment it counts the neighborhood *pro* noses and the neighborhood *con* noses and possesses no general plan and planning standards, then it would become a superfluous duplicate. It should also have upon its staff one who, by virtue of his education and experience, is a specialist in the planning approaches and techniques, as distinguished from the approaches and techniques usually present in and appropriate to the administrative departments. Comprehensive planning as the basis for the integration to be applied to the specific proposal and the staff equipment of special knowledge furnish conclusive answers to any charge that the grant to planning commissions of the right to participate in the application of plans and planning to administrative decisions makes the planning organ just another administrative agency.

PLANNING ADMINISTRATION AND PUBLIC SUPPORT

Planning in Public Administration

By CHARLES B. WHITNALL, President, City Planning Commission,
Milwaukee, Wis.

PUBLIC administration covers all phases of public welfare, but we have been accustomed to think of *city planning* as pertaining to the physical development of the city only. While the physical plan is fundamental, we realize that for the human value of a city plan, social and economic factors must be included. Therefore, our plan involves the coordinated responsibility of every official of an administration. From the start we have been as much interested in the social and economic development as we have been in the physical.

About thirty years ago our city government created the Metropolitan Park Commission, with appointed members, of which I was one. The express purpose of this Commission was to lay out a boulevard system. After a few months of deliberation, this Commission became convinced that boulevards should bear some relation to other features of a city's development. This induced a traffic study, which led to a plan for a civic center. Before final approval, we invited Mr. Olmsted and Mr. Nolen to criticize our plans. Later, when we were working on zoning, we called on Mr. Bassett and Mr. Comey for assistance. The wisdom absorbed from these four gentlemen has been cherished, and we continue to appreciate their contributions.

We became impressed with the menace of congestion, not only because of its obstruction to physical activities, but on account of the inflated land values which it created and the large indirect tax which it imposed and which is borne unconsciously by the community. The incentive for this increase of the unearned increment, so much cherished by landlords and real-estate brokers generally, has produced in our modern cities many clusters of skyscrapers which are a civic burden. But they have developed legally and cannot be counteracted by prohibition. The growth of zoning ordinances is one encouraging indication that the bad effects of congestion have been recognized. We

have not reached a zoning control that prevents non-conforming uses. This means that planning has not, as yet, a secure position in public administration.

We had fixed our building height limit at 125 feet. Soon after, there came a high-pressure demand for an additional few feet to permit the erection of a much-talked-of hotel, which would not be erected if the height limit were not increased. We finally amended the ordinance to permit a greater height than 125 feet, if the building area on the ground were decreased, or if the cubical contents of the building were no greater than the 125 feet multiplied by the dimensions of the lot. We felt there might be some justification for a higher building if it were afforded an appropriate setting in the landscape. We realized that to stem the tide of avarice for the unearned increment involved a tremendous task, largely because so few people comprehend our dilemma, as everyone has become accustomed to the increase in land values under pressure of congestion, augmented by advertising.

Regional planning offered an escape, and we determined to make every effort to rescue the regions beyond our city and guide their development, if possible, so as to conserve human values, and at the same time afford greater efficiency in the conduct of business. We made a study of the human value of our natural landscape, and found the comparison something to ponder over. It presented a problem in social economics which convinced us that we must preserve our natural landscape. It did not require much of a survey to convince us that there is a serious waste in the destruction of our natural landscape by cutting and filling in, which is the engineer's usual mode of exercising his cleverness in providing as many lots as possible for sale at a price far in excess of their real value. This determination resulted in legislation which provided for a County Park Commission. As we already had a law providing for Rural Planning Boards, the park law was made to provide that in counties where a County Park Commission was established, it was also to function as a rural planning board.

Shortly after this, the City of Milwaukee concluded to keep its sewage out of Lake Michigan, which is the source of its water supply. That necessitated intercepting sewers to prevent pollution of the rivers. Then we realized that all of our streams came

into the city from the regions beyond and carried the regional sewage into our streams. So we went to the legislature again for a law creating the Metropolitan Sewerage Commission, with jurisdiction over all the county drainage that flowed into our Milwaukee rivers. We have three rivers and four creeks in Milwaukee County, all but one of which flow through the city of Milwaukee. The sewerage engineers had decided upon the stream valleys for the location of their trunk sewers, while the County Park Commission immediately advocated the use of these valleys for parkways, and claimed that the acquirement of land necessary would cost less than it would cost to build storm sewers.

Our arguments were convincing, and now by coöperation between the County Park Commission and the Metropolitan Sewerage Commission the trunk sewers are being laid along the stream valleys. The Parkway plan, following eighty-four miles of streams, was at first considered quite impractical and too costly by many, and it required some educational work before we got started. But after the first two-mile unit, paralleling our Menomonee River, was completed, the plan became very popular and we have proved our point that it is cheaper to acquire this parkway land along the shores of the streams, and let the streams take care of the storm water, than it would be to construct storm sewers costing millions of dollars.

We have thus created the most attractive residential areas along the streams, out of lands that had but a trifling value for other uses, and the streams which had been used for the disposal of all sorts of rubbish have become beauty spots, with a charm that only a stream can claim.

About this time the County arterial traffic plan was introduced. It was a plan to establish certain widths for the important arteries of the county, and we made a special effort that the plan should be understood by everyone interested who cared to know the plan, and for this purpose we undertook a real educational program. For two winters we spent several evenings a week in conference with the various political units within the county, before the project was understood and agreed to by the many officials interested on behalf of their small communities. This care and patience on our part has proved its value, for we have encountered no opposition or antagonism, as the widening

of these various roadways has been progressing for the past ten years. As soon as the various road widths were adopted, signs were put up at intervals along the road, explaining the future width of the road, and the action of the county board was recorded and became a part of the record of the real estate affected, so that all purchasers of land were thus notified, and realized that no building could encroach upon the portion eventually to be taken for highway purposes.

The plan has been highly successful, and because it is quite well understood by everyone in the county that the arterial plan, as well as the parkway plan, covers the whole county impartially, there has been no jealousy or obstruction in the development of the plans. Although there are nineteen political units in Milwaukee County, they are all harmonious in relation to parks, parkways, and highways. They all pay a county tax, including the City of Milwaukee. In fact, the city contributes 80 per cent of the county taxes.

The regional county development has been of greater benefit to the city than the accomplishments of the city for itself; in fact, the county plans originated in the city hall, and the city and county planning departments are neighborly. One feature of the county parkway plan is proving to be extremely important, so much so that a determined effort will be made shortly to extend the same enterprise all the way into the city. I have reference to parking facilities. Wherever there are attractions sufficient to induce the congregation of people, such as swimming-pools and athletic sports, or nature-study trails, adequate parking spaces are provided. They are screened by trees and shrubbery so as not to mar the landscape. They are a relief to people. We have no trouble in prohibiting parking on the main driveways, for we have provided something better. It has been extremely gratifying to note how naturally motorists take to this arrangement.

The City of Milwaukee was originally established in three units, divided by water courses. There were Kilbourn Town, Juneau Town, and Walker's Point. Therefore, the city has never really been confined to one "down town." After the feuds of the early settlers died out, one local business area predominated, but ever since a planning board has existed we have encouraged these subsidiary centers, more particularly since we have studied

zoning enforcement and growth of blighted areas. We have now conceived the idea of making a blight clearance close to each one of these business areas and of establishing an automobile park, ample in size and sufficiently landscaped to accommodate the residential area on one side and facilitate business on the other.

It must be understood that the success of the first venture of this kind will create a demand that will necessitate the establishment of eight more parking areas. We are quite firm in our conclusion that it is the obligation of the city to provide space for automobiles standing still as well as in motion. The makeshift of parking at the curb defeats the utility of the automobile.

We felt that we had done a pretty good job in Milwaukee County, but soon realized we could not stop there, that we must reach out beyond the county line. Our Milwaukee River comes to us after flowing through three other counties, and when we found that our authority ended at the imaginary county line, we became convinced of the need of State autonomy. So we went to the legislature once more and asked for the creation of a State planning board. This we obtained, and the law was recently amended to conform with the Federal Government's suggestions for State Planning Boards. In the State plan we also put forth the claim that the river valleys should be the plan units. A city is part of a county; a county is part of a State, and the State is composed of valleys with their natural water systems.

All of the natural forces on which we are so dependent for our welfare function without reference to political boundaries of village, town, city, or county. Important projects cannot always be confined within the limits of these political boundaries, and as projects of this kind usually benefit a large area, there must be an autonomy that is greater than that granted to small communities. It is the responsibility of the State to accomplish that which its smaller subdivisions are unable to do, but in which the smaller communities can cooperate. Our State Planning Board is still in its infancy, and while it is organized and is busy preparing surveys and reports, there is little that it has actually accomplished. But we are hopeful of its future work and feel certain of its value.

Our planning board, known as the Public Land Commission, includes in its personnel of five commissioners, our City Engineer

and our Commissioner of Public Works, who are *ex officio* members under the law. Among our employees are the City Real Estate Agent and his assistants. We have also had splendid cooperation from the Building Inspector and his department.

Milwaukee is governed by a Mayor and a Board of twenty-seven Aldermen, one representing each city ward. Although the Common Council retains its own committees, as it did before the creation of the Public Land Commission, every item that pertains to the city's physical plan, such as the sale or purchase of property, care of city property, zoning, and platting, is referred to the Public Land Commission for advice before the Council committees give it consideration and either approve or reject it.

The Public Land Commission does not build bridges, roads, parks, or furnish materials or equipment, yet all these tangible things are inefficient and haphazard unless by proper planning they have been placed where they will function efficiently and harmoniously.

We have found that public officials, with an impulse towards economy, usually carry out that impulse by attacking the most vital spot of good city government, and begin by cutting down the financial support of the planning department. It is as reckless for a city government to weaken its planning department for the purpose of economy, as it would be for a sea captain to sail without a compass to save the expense of the instrument. If permitted to function coördinately, the planning department should be the directorate of the city's physical, economic, and social development.

HENRY B. STEEG, *City Civil Engineer, Indianapolis, Ind.*: It is my purpose to evaluate the benefits to be derived from, and the necessity for, proper planning in modern municipal government as evidenced by actual experience in the city I have the privilege of representing at this Conference.

Municipal government is each day growing more and more technical, and of consequence, more complex. A city is no longer a self-contained unit, having nothing but purely local problems to consider. We who have interested ourselves in the practice of that science called "city planning" realized many years ago that, for the purpose of charting and guiding the growth of our com-

munities, the area outside the corporate limits of our cities had to be investigated and studied in order that we might more intelligently plan for the future of that area within. Regional planning, then, of necessity, had to come into being. Regions themselves bore definite relationships to each other, had problems that linked in with and were dependent upon the problems of other regions. And so from the small nucleus of a few city planning commissions we have seen our country grow more "planning conscious." Today we have hundreds of local planning commissions, a growing number of State planning boards, and a national planning agency, all working together towards a common goal—that of giving to each citizen of this country a better chance to prosper, to live more comfortably, and to be happy.

In this growing planning program, it is, in my opinion, the local unit, the city planning commission, that plays the most vital rôle of all. It is this agency which comes into more intimate contact with the public; it is this body that is more closely associated with the daily life and habits of our citizens; and it is this body, more than any other, upon which the success of the entire program depends. Therefore, the local commission must constantly be on guard to prevent the alienation of public support by its own acts. It can spend thousands of dollars to make studies and prepare comprehensive plans for replanning of old sections and the development of new ones. The final plan may be beautiful and well thought out, but be so economically unsound and expensive that the community never would be able financially to carry it out without bankrupting itself. The commission cannot for one minute overlook the capacity of the citizens to pay. Any idea suggested that cannot stand the light of close inspection to prove its practicability and economic soundness will result in unfavorable publicity, and the cause of planning in that community will suffer. The truth of this statement has been demonstrated in several cities.

No one questions the need for sound, practical planning in the make-up of our municipal governments. Its necessity is just as great as that of a police department. Any citizen, or group of persons, who permits the unplanned, haphazard development of a community is just as guilty of a crime contrary to public law and order as a gang that raids a bank at the point of a machine gun. In both cases there is a loss, but which is the greater? The

loss in the bank raid is trivial compared with the loss that is sustained by a community which permits slums to develop; that neglects to furnish proper parks and playgrounds for its citizens; that neglects to insure proper arteries for its ever-increasing burden of traffic; and that hesitates to adopt zoning laws for the safeguarding of property values. The economic loss that would be suffered by such a city is one that no municipality possibly can afford. I believe that every city in this country, large or small, should have an active planning commission, maintaining if possible a staff of one or more trained and qualified persons to prepare and keep up-to-date a sound, practical, comprehensive plan of long-range development, backed up by the necessary laws to make those plans workable. It is necessary that the membership of the planning commission be composed of intelligent, public-spirited men and women who can and must give liberally of their time and whose only compensation will be the satisfaction of doing their duties so that all can say, "A good job well done."

The benefits of a sound, practical plan are too many to enumerate. Allow me to relate two examples which occurred in Indianapolis. We have tried to develop a planning program that would be within the capacity of the city to support financially. We have completed several projects on a basis of pay-as-you-go—all that the city could reasonably afford. Sometimes we were sorely disappointed that funds would not permit us to move faster, but we kept working on definite plans that would be available for immediate construction when and as circumstances permitted. Then one day came the announcement of the CWA program. On a Friday morning the Mayor announced that we would have to put 5,000 men to work on useful public projects Monday morning and increase that number during the ensuing week until at least 10,000 men were at work. The planning commission was ready. From our files we pulled complete plans and two flood-prevention projects that were sorely needed, and that would give employment to more than 6,000 men. Other lesser projects were available and within ten days Indianapolis had taken care of her quota of men, most of whom were at work on projects that were of permanent value to Indianapolis, and were a part of the Commission's comprehensive plan. Indianapolis took advantage of CWA to do useful work and I believe

that a large amount of credit is due the planning commission for having been ready.

The second example that I would like to recite occurred the following year. The Chairman of our State Highway Commission called us over one day and announced that by the provisions of the Cartwright Bill which had just passed Congress, the Highway Commission was authorized to spend \$750,000 within the corporate limits of Indianapolis. Could we suggest a program of construction? Could we have the suggested program within ten days? Within two days the officials of Indianapolis not only had recommended projects utilizing the money, but had submitted complete surveys and plans on the most important parts of the work. As a result, the work in our city was started long before similar work in other Indiana cities. One of the projects completed has been universally accepted as the greatest municipal improvement ever undertaken in Indianapolis.

I am sure that every city that has an active planning commission can relate incidents similar to the ones I have mentioned. Experience has led me to believe that sound, practical planning practice is an investment in the present and future welfare of the modern city, and that every dollar expended will return to that city dividends in the way of healthful living conditions, beautiful communities, cheerful working conditions, and an efficient, economical administration.

An Educational Program for Planning

By MARSHALL N. DANA, Chairman, District No. 11, National Resources Committee, Pacific Northwest Regional Commission, Portland, Ore.

THE addition of planning to education and of education to planning has become a more emphasized necessity as experience lengthens and broadens. Education can, however, be a coöperative, contributive, and creative agency in planning only as its instruction, student guidance, and objectives are expertly harmonized with planning. As a training process it may well be a part of a planning process for itself and for its products.

The search for facts and the adventuring for truth are com-

elling incentives. That people may know and that they may use knowledge in organizing materials, setting up the controls, and weaving government, business, and trade into a mechanism sufficient for progress become inspiring expectations not only to the student in school, but to the student of life.

A program of education for planning ought to be the next step in the planning program. It calls for the planning of education. It argues for direct and definite inclusion of educational divisions in planning organizations. It should go beyond the school-room and include the public. Distinction should carefully be made between education and propaganda.

The education of educators and citizens to be planners is not enough. The education of planners to be educators is desirable. Planners ought to be freed from the impatience so often roused by the crass notion that research may properly be linked to application. They may even realize that the pure delights of graphic charts are legitimate parents to the dam and the riveting machine. Scientific investigation may suitably produce the water-conservation program and the project of land redemption.

Planning must gain the common touch. In necessary sequence are public understanding, confidence, and support, beyond which planners, no matter how eager, may go only far enough to mark the way. Only informed people can plan well and use well the means of abundance.

To the National Resources Board, a suggestion is therefore submitted. The National Resources Board has performed a work of commanding and historic importance, both to present and future generations, in its inventory of water and land and other physical resources, and its studied program of development for the benefit of the American people.

Let the National Resources Board now set up an educational planning project. Let it be done on the level of the water inventory and land classification. Let it summon the best qualified persons in the country to prepare a program of education for planning, accurate pedagogically, but likewise alive and challenging to the mass mind. Let it be a program national in scope but intimately related to divisional and local needs.

An educational program for planning will infer that orderly development and use of physical and human resources have been made permanently a part of the processes of government and the

practices of the people. It will mean that planning is more than a spasm or an impulse, and that the vitality of the idea today will live in the values of tomorrow. It will aid in the planning of government. It will necessitate the planning and coördination of education. It will help convince legislatures and other financing agencies of the practical values of education and educational institutions.

An educational program for planning will deal with tomorrow's users of the facilities created today. It will create in them *an awareness of opportunity*, reduce the abruptness of transition from school to life, and give them less feeling of strangeness upon entry into the world of work. It will go farther. It will impart to the mature persons in the thick of action an understanding of the meaning and the interrelationships of research and development.

It will present planning as essentially a community affair, protective of the home and the neighborhood as the primary groups upon which so much of the American tradition is founded. It may aid in the accomplishment of a necessity constantly more imperative in the view of those who seek an improved order not by scrapping, but by using the machinery of democracy effectively and in accord with original purpose. It may aid in reinterpretation of the profit motive to include recognition that the well-being of the individual may best be had coöperatively and by way of the well-being of others. Here is drawn in a modern community the distinction between truly civilized persons and barbarians wearing the trappings of civilization.

A program of education for planning would naturally suggest the production of trained leadership, but it ought to suggest another element equally valuable—an informed following.

It will support the effort to meet immediate needs. One of these, already much diagrammed but little done, is security. Another is defense against State and municipal graft. A third is the coördination of agencies. Separate agencies may plan for themselves, but only public policy and controls can hitch all forces to the same end of the wagon of progress.

A planning project naturally evolves from scientific research and analysis into campaigns for accomplishment. A charted course will be clearest and safest. Basic and essential facts and truth will be more easily discerned. As a newspaperman I have

found that if a thing is needed, if it is right, if the word about it is spread systematically and persistently, if one keeps his temper, refuses a house to skepticism and discouragement, if he employs the vital energy of enthusiasm and keeps at it everlastingly, it will be done. Effort at first seems futile, the public apathetic. But sentiment will be aroused. Then it will amaze even the crusader with its energy, its generosity, and its momentum. That is when causes become vogues, and whether they are cast into policy, practice, and institution will be settled by whether they stand the test of results.

An educational program for planning will be contributive not only in the school and college course, but in public understanding. It may train a few to be professional planners; it should train all to understand the value of planning. The prospect is then for comradeship in effort on the part of educators, scientists, and laymen. And I speak again for emphasis of the value of designating the vocations most useful in studied research and development, as well as the approximate number of trained persons needed in each. An orderly technology ought to find essential work for every qualified person.

A program of education for planning presents problems. Our teachers, many of whom were trained fifteen to twenty-five years ago, are called upon for revision of methods. The direct relation of education to life's activities is not always readily seen. Dr. John Dewey recently said that the correction of error and the prevention of repetition is a duty that may be shared by the teaching profession. And he added:

Teachers have been slow to recognize this fact. They have felt that the character of their work gave them a special position, marked off from that of the persons who work with their hands. In spite of the fact that the great mass of their pupils come from those who work with their hands on farms, in shops and in factories, they have maintained an aloof attitude toward the primary economic and political interests of the latter. . . . The business of teachers is to produce the goods of character, intelligence and skill.

The texts of education for planning are yet largely to be written. Guidance of students is new, perhaps fortunately. Certainly we will agree that the breadth of planning calls for broad general training in order to contribute to the instincts for coordination. To build specialization on a broad foundation will prevent the loss of wide view and tolerance.

The interweaving of planning with vocational training should

produce positive values. The planners of today fall into their work mostly from engineering, architecture, landscaping, agriculture, city planning, political science, and economics. Many planners will continue to come from these specialized fields, but they should come with broad knowledge of planning as a whole, and of its relationships to their specialty.

Educators must decide where planning fits best, but is there any reason for arbitrary delimitation? And should texts be restricted to pedagogical tomes? May they not include such reports as the National Resources Board has made, the record of planning conferences, surveys, briefs, newspapers, magazines, radio, and every other form of the written and spoken word? How can education better meet its duty to present instructionally and create inspiringly an awareness of opportunity? And a text for planning may be a power dam in full use, a city well built, or a Nation with a recovery program governed by plan.

Education is beginning to give evidence of realization that planning is a factor in national, State, and local government and economic and social programs. Its intrinsic purpose is not changed by planning.

The purpose of education is to prepare people for useful and happy life. The purpose of planning is to attain these ends by orderly processes applied to natural and human resources.

Very early in the planning program for the Pacific Northwest we were turned to the schools and colleges by our hope for successful research and development of the Columbia Basin States. There we found the men and women of scientific bent who had the disinterested public viewpoint, and who, if they did not have, would be the better for the common touch. There we found the boys and girls, the young men and women, hundreds of thousands of them, who would be the heirs and the users of the facilities to be created today. To create in them a sense of familiarity with opportunity in its specific terms promised the human link necessary to close the gap between research and application.

And while seeking to accent idealism and altruism, it seemed desirable to impart to planning a meat, bread and butter appeal that would reach through to the man on the street. One reason I believe in planning and in education for it is that it brings a simple diagram of effective and happy living nearer to plain

people. It may be disarming to ruthless individualism, but children may begin early to understand the place that a noble and logical diagram may have in purpose and accomplishment.

'Tis education forms the common mind,
Just as the twig is bent the tree's inclined.

Sentiment crystallized into action may be the objective of an educational planning program. Although American cities have been built by disconnected and individual effort, and although our resources have been developed largely by the take-and-carry-away impulse rather than the use-and-expand practice, the losses from lack of planning are so large and so evident that little excuse is left for disorder. Individual agencies have pointed the way. The telephone companies and the electric utilities have charted population trends. The railroads have studied lands with reference to tonnage. Businesses have enumerated potential customers. Newspapers have surveyed their circulation areas, and the buying desires and capacities of readers. Only the public, by plan, can coördinate all agencies, private, community, and governmental. Only education can create awareness of opportunity. The fact that coöperative effort can widen individual opportunity ought to be learned in childhood, patterned in youth, crystallized in careers, and realized in the useful, the noble, and the beautiful things. Thus we may erect the plan in the empire of habit, establish it in the democracy of appreciation, sustain it with the yield of its own good to men.

We may learn the planning of personal life as well as the resources and public interests necessary to individual security. It may be taught early that it is as sensible to plan a city as a house; to plan a water supply as rationally for a region as for a city; to establish land standards as clearly as merchandise standards; to utilize a resource for sustained yield as hopefully as to loot it for individual greed.

Today, it must be confessed that to teach planning well we must make more progress in planning in the schools and in our dealings with the public. We haven't the qualified teachers in necessary number, but we may have. We haven't full complement of leaders, but they will appear. We may emphasize geographic unity in the planning program. We may take up trade relationships and mutual needs. We may make planning educa-

tion graphic. Education may enjoy its own benefits from well-planned uses of the forests, the fisheries, and the development of power. It may help bring about the needed law for public planning organization and for zoning, under the fine democratic principle that a man shall not be destructive to the rights and safety of his neighbor.

Lastly, a program of education for planning, beginning with professional planners, may lead to the popular conviction that real and lasting values are to be had; that planning is better than chaos; and that people can be happy doing the things that make happiness. We can show that deep desires of human beings are within reach; that water can be held from flood and erosion and made useful in sanitation, power, industry, transportation, recreation, and domestic requirements; that land may be used for its fertility, assured by study and classification; that wasteful use of minerals and forests may be substituted by a sane policy nationally applied; that when public institutions are built, public works installed, and facilities provided for industry, trade, and commerce, these may function smoothly through coördination; that not to plan means losses in bread and meat, and that to do so means life at a higher level of subsistence and happiness.

An educational program for planning means a planning organization devoted to education. Each person on staff or committee must be an educator; hence each must constantly submit to educational and expansive processes. Planning may be fixed only in principle. It must be flexible in practice.

Closely associated with education in planning are the programs of research and the plans for use that go along with the building of facilities. Only planning can properly relate the uses and functions of plants and facilities necessary to the activities and satisfactions of the people.

Until planning is allowed its proper place in the educational program, we must plan more in the realm of theory than of practice, and the energy spent in planning must continue to be out of proportion to the results obtained.

RESOLUTIONS ADOPTED BY THE CONFERENCE

APPRECIATION

THE Conference on City, Regional, State, and National Planning, held in Cincinnati on May 20 to 22, 1935, closes with the consciousness of having had particularly valuable discussions of vital problems affecting the fields of activity of the participating organizations, in sessions held in a city noted for its sense of civic and social responsibility. The Conference acknowledges its gratitude to the excellent leadership of Alfred Bettman, to the contributions of those who have participated, and to the arrangements for the Conference made by the City of Cincinnati and by the various cooperating public and private agencies, and directs its Secretary to extend to all these an expression of the appreciation of the Conference.

SYMPATHY

The recent death of J. C. Murphy, of Louisville, has terminated the life of active service of one whose quiet, effective leadership has made an excellent contribution to the development of his community. He was a member of the National Conference on City Planning since its organization and was the first and only Chairman of the Louisville City Planning Commission. The Conference on City, Regional, State, and National Planning, meeting in Cincinnati on May 20 to 22, 1935, records its sorrow at his passing and extends its sympathy to the city which he served and to his bereaved family and friends.

RECOGNITION

The work of the National Resources Board has advanced planning to a place of recognition in the Nation, and in the States and their local communities, which offers hope for the accomplishment of the objectives of the agencies participating in the Conference on City, Regional, State, and National Planning, meeting in Cincinnati on May 20 to 22, 1935. At the same time, the National Resources Board has taken the effective first steps in a competent evaluation of our national

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resources, rural and urban, toward laying the foundation for orderly national development which shall be socially and economically sound. This Conference hereby expresses, first, *its gratitude to the members of the National Resources Board who have directed this work and to the staff who have conducted it, and, second, its confidence in the effective national leadership which is thus being provided in this field.*

RESEARCH

The Conference on City, Regional, State, and National Planning, meeting in Cincinnati on May 20 to 22, 1935, and representing the National Conference on City Planning, American Society of Planning Officials, American Civic Association and American City Planning Institute, has devoted its sessions to a consideration of the future of American cities in our national life. The Conference is conscious of the inability of the multitude of agencies, public and private, whose interests are bound up in this problem to approach it competently in the absence of data derived from comprehensive research in the broad field of the place of urbanism in the economic and social structure of the Nation. The Conference urges the National Resources Board to undertake such research as a study urgently necessary and with the broadest implications in the national well-being.

NATIONAL PLANNING BOARD

The Conference on City, Regional, State, and National Planning, meeting in Cincinnati on May 20 to 22, 1935, has separately expressed its appreciation of the efforts of the National Resources Board in the advancement of planning and toward an orderly national development.

This Conference believes that the ultimate success of these efforts is dependent upon the establishment of a National Planning Board as a permanent agency of the Federal Government through appropriate congressional legislation; and urges its participating organizations to endeavor to secure the adoption of such legislation.

ALLOCATION OF FUNDS

Broad plans of development for cities, counties, States, and regions are essential to the execution of sound public works programs, and to the satisfactory development of such areas. The full, practicable, social, and material utility from the expenditure of public works funds cannot effectively be attained except on the basis of competent and comprehensive planning; and the wise use of these funds depends upon the devotion of a reasonable portion of them to the collection of the necessary data, and the preparation of effective plans. The Conference on City, Regional, State, and National Planning, meeting in Cincinnati May 20 to 22, 1935, and representing the American City Planning Institute, American Civic Association, American Society of Planning Officials and the National Conference on City Planning, urges that an allocation of funds under the Work Relief Act, in an amount of from \$25,000,000 to \$35,000,000, be definitely allotted for such planning projects as the National Resources Board and its agencies may approve as suitably organized and competently directed. It is further urged that the regulations governing these projects be so drawn as to permit the provision of suitable direction and technical supervision.

FEDERAL BUREAU OF STATE AND LOCAL
GOVERNMENT AFFAIRS

Both for economic recovery and for long-range national planning, the Federal Government is finding it increasingly necessary to act with and through the States, and to an unprecedented extent with and through municipalities. To keep informed of Federal plans and programs, and to deal efficiently and effectively with many branches of the Federal Government, State and local officials have already proved the utility of establishing their own central organizations to act as clearing houses of information. On the other hand, the lack of such an agency in the Federal Government impedes the effectiveness of its collaboration with other units of government.

The Conference on City, Regional, State, and National Planning, meeting in Cincinnati May 20 to 22, 1935, therefore, recommends the establishment in the Federal Government of a

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Bureau of State and Local Governmental Affairs, to act as a clearing house of information about the plans, programs, finances, organization, and relationships of State and local governments; and to promote the compilation of data from the various units of government upon comparable bases.

PLANNING ESSENTIAL IN HOUSING

Housing which is socially adequate and economically justifiable depends, not alone upon satisfactory project design, but upon competent neighborhood planning and the sound relation of the project to comprehensive considerations of land-utilization, population distribution, and the desirable structure of the community. Projects not taking these factors into account are not likely to succeed in the accomplishment of the objectives of the housing program of the Federal Government and are in danger of perpetuating, in an initially pleasanter guise, some of the unsound features which have produced slums and decadent areas in American cities. The Conference on City, Regional, State, and National Planning, meeting in Cincinnati on May 20 to 22, 1935, and representing the National Conference on City Planning, the American Society of Planning Officials, the American Civic Association and the American City Planning Institute, believes that the desirability of and the possibility for success of housing projects to be accomplished under the Federal Work Relief program depend upon their formulation and evaluation in the light of planning principles and urges that more adequate provision be made for this in the organization and procedure of the various Federal organizations dealing with housing. The Conference offers the services of its participating organizations toward the accomplishment of this purpose.

Our Contributors

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Available Publications

BOOKS

- AMERICAN CIVIC ANNUAL.** Vols. I-V. 1929-34. Edited by Harlean James, Executive Secretary, American Civic Association (now merged with the former National Conference on City Planning into the American Planning and Civic Association), 901 Union Trust Bldg., Washington, D. C. \$3.00.
- PROCEEDINGS** of the National Conference on City Planning (now merged with the former American Civic Association into the American Planning and Civic Association), 1910 to 1934. (The Proceedings of 1910, 1911, 1912, 1913, 1914, 1919, 1920, 1924 are out of print.) 901 Union Trust Bldg., Washington, D. C. 1927-1934, \$3.00. Prior to 1927, from \$1.50 to \$2.50.
- WHAT ABOUT THE YEAR 2000?** An economic summary, prepared under the direction of Joint Committee on Bases of Sound Land Policy, organized by the Federated Societies on Planning and Parks, 1929. 901 Union Trust Bldg., Washington, D. C. 168 pp. \$1.00.
- STATE RECREATION, PARKS, FORESTS AND GAME PRESERVES.** Beatrice Ward Nelson. National Conference on State Parks, 901 Union Trust Bldg., Washington, D. C. 436 pp. Paper \$2.00.
- A STATE PARK ANTHOLOGY.** Selected and edited by Herbert Evison, National Conference on State Parks, Washington, D. C. 200 pp. Paper \$2.00.

PERIODICALS

- Planning and Civic Comment.** Quarterly. Official organ of the American Planning and Civic Association and the National Conference on State Parks, 901 Union Trust Bldg., Washington, D. C. Vol. I, Jan.-Mar., 1935 to date. Single copies, 75 cts. Subscription included in membership.
- City Planning** (now merged with Planning and Civic Comment). Quarterly. Official organ of the American City Planning Institute and the National Conference on City Planning. Vols. I-X, 1925-34. Back numbers available at 75 cts.
- Civic Comment** (now merged with Planning and Civic Comment). Bi-monthly. American Civic Association. Nos. 9-49, April, 1925 to Nov.-Dec., 1934. Back numbers available at 15 cts.

BULLETINS

- How Planning Affects Taxes and Taxes Affect Planning.** Harold S. Buttenheim. 1932. 25 cts.
- The Prevention of Blight in Residential Areas Adjacent to Expressways.** Robert Whitten. 1931. 25 cts.
- Some Principles Relating to the Economics of Land Subdivision.** Henry Wright. 1930. American City Planning Institute Paper. 50 cts.
- Subdivision Regulation in Unincorporated Areas.** Jacob L. Crane, Jr. 1930. 25 cts.
- The Better Use of the City Street.** Dr. Miller McClintock. 1930. Planning Foundation of America Bulletin. 20 cts.
- Civic Improvement in Your Town. A Program and a Plan of Procedure.** Harlean James. 1927. 50 cts.
- The American Civic Association's Park Primer. What Everybody Should Know About Parks.** Fourth Edition, Oct., 1932. 15 cts.

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