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POWER CAPACITY AND PRODUCTION IN THE UNITED STATES

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CONTENTS

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POWER CAPACITY AND PRODUCTION IN THE UNITED STATES

INTRODUCTION

By NATHAN CLIFFORD GROVER [1]

For countless centuries man was the principal source of motive power for practically all purposes. He was ably assisted in certain activities by the lower animals—the beasts of burden that have served especially in transportation and agriculture. The changeable and fitful wind was also long utilized, especially for pumping water and propelling ships. Small water-power plants were developed and used for sawing lumber, grinding grain, carding wool, weaving cloth, and other small industrial processes. But the universal supply of energy for productive work was furnished by human beings, frequently by slaves, and so long as this condition prevailed the human race was able to produce only the bare necessities of life, and famine was forever stalking in the background of existence.

Since the invention of the steam engine the burden of the world's work has gradually been lifted from the backs of men and placed on machines driven by power generated by the burning of fuels. Not, however, until energy had been made mobile by means of electric transmission was the possibility of man's emancipation from the treadmill of drudgery realized. He must, of course, continue to labor, but he is now the operator of machines instead of being the primary source of power.

With the "horsepower" of the water or steam driven engine to aid him, man's capacity to accomplish has been greatly increased, and as a result the human race can now produce not only the necessities of life but the remarkably varied luxuries of the present day. Because of the availability of cheap mechanical and electrical energy every person in this country has to-day the equivalent of about 60 servants in constant attendance in supplying food, clothing, and shelter of a kind that would have been the envy of kings a century ago; in furnishing easy transportation by palatial steamships, by railway trains consisting of sleeping, dining, club, and observation

[1] Chief hydraulic engineer, U. S. Geological Survey.

cars equipped with every convenience for the comfort of the traveler by automobiles for business and pleasure, and in the immediate future by the airship with its possibilities for both comfort and speed; and in promoting rapid communication by mail, telegraph, telephone, and the radio. Under these new conditions, even with a greatly increased population, the civilized world is practically free from the danger of famine.

The necessities, conveniences, and luxuries of the present generation are made available largely as the result of the utilization of cheap energy, generally electric but in part mechanical, which now dominates industry, transportation, and communication. By abridging space this mighty force has elongated time, given to everyone the possibilities of leisure and luxury, and changed not only the daily routine but the very aspect of life in both city and country.

Individuals, States, and nations are therefore vitally interested in this giant that rules the modern world. What are the national sources in cheap energy, how are they being utilized, and what are the limits of development? Fortunately the United States has been endowed by nature with great resources in water power, that source of energy which is not depleted by use, as well as with enormous deposits of coal and oil, which are exhaustible. In so far as water power is used the fuels can be conserved, and wherever it is economical to do so, water power should therefore be utilized.

The problems related to the availability of our resources in power and to the development and utilization of those resources are accordingly of national scope and importance, and the three reports presented herein are of vital interest to students of economics as well as to many people in all walks of life who use in some or many forms the products of mechanical and electric power. These reports show by States the Nation's resources in water power and the installed capacity of water-power plants at certain dates since 1849; the utilization and growth in utilization of energy in the various lines of human activity; the monthly output of electric energy by public-utility plants since 1919, the proportions of this output furnished by water power and by fuels, the consumption of fuels in producing this power, and the decreasing consumption of fuel per unit of power developed. They constitute therefore a compilation of information not to be found elsewhere concerning the growth of the power business in connection with many kinds of human endeavor, and they show the remarkable development of the power business since the electric transmission of power was made practicable and the trend toward the utilization of large central power stations of great capacity and high efficiency operated by public-utility companies that have been created under State control to generate, transmit, and sell power as a commodity.

The information contained in the report has been collected in part by the Geological Survey in connection with its activities in studying the water resources of the country and their best utilization, in part by the Bureau of the Census in its periodic statistical study of the country's activities, and in part by the Federal Power Commission in connection with the administration of the Federal water-power act. Some of the data have therefore been previously published in scattered statistical form, and some have been made available in multigraphed or mimeographed preliminary reports; but some have never before been published. All these statistics are now brought together in such form as to be available for further study and any other use that may be found to be desirable. They will serve as base data on which must rest any future study in this country of the problems of power utilization in relation to economics and government.

THE DEVELOPMENT OF HORSEPOWER EQUIPMENT IN THE UNITED STATES

BY

CARROLL ROOP DAUGHERTY

CONTENTS

ILLUSTRATIONS

TABLES

THE DEVELOPMENT OF HORSEPOWER EQUIPMENT IN THE UNITED STATES

By CARROLL ROOP DAUGHERTY

PREFATORY NOTE

In the academic year of 1924–25 it was the writer's good fortune to be one of a seminar group at the University of Pennsylvania which was studying the mineral and power resources and industries of the United States under the direction of Mr. F. G. Tryon, then chief coal statistician of the United States Geological Survey. The study of horsepower equipment as an index of the installation of machinery seemed to be a particularly appealing statistical problem, the mastering of which promised to be productive of interesting results. The findings in summary which were forthcoming after the year's work so fully justified this expectation that it seemed wise to enlarge the scope of the study and develop it, if possible, into a doctor's dissertation, in the hope of throwing light on a subject of broad interest among economists.

At all stages in the development of the thesis Mr. Tryon's suggestions and advice have been of valuable assistance. Acknowledgment is especially made to him for his unfailing interest, inspirational guidance, and kindly criticism. His intimate knowledge of the field made possible the use of many different kinds of source material.

The writer is indebted also to Mr. C. D. Kinsman, agricultural engineer, of the United States Department of Agriculture, for suggestions and material in connection with horsepower in agriculture and work animals. Mr. Kinsman has recently made an exhaustive and scholarly analysis of power used on farms in this country. His findings were used almost in toto.

Acknowledgment is made to the National Automobile Chamber of Commerce and to the Bureau of Statistics of the Interstate Commerce Commission for data furnished in their respective fields. In the preparation of the manuscript valuable suggestions and criticism were offered by Dr. J. H. Willits, Dr. A. H. Williams, Dr. R. T. Bye, Dr. Walter Voskuil, and Miss Anne Bezanson, all of the University of Pennsylvania faculty.

INTRODUCTION

The United States of America undeniably leads the world in the production of wealth—in material prosperity. Especially has this been true since the World War. The other nations of the world, particularly the European industrial countries, have by contrast appeared to be in a sad plight. Unemployment, labor troubles, and financial difficulties have hampered the industries of England, France, and Germany, but on this side of the water there has been a relatively smooth flow, in huge volume, of goods for the satisfaction of myriad wants.

Naturally this unprecedented prosperity has attracted a great deal of attention both at home and abroad, and all thinking people have asked themselves the reason for it. To what cause or causes may it be attributed? From England two engineers were sent to study and analyze the situation. The recent book of one of our greatest industrialists telling the how and the why of our success is said to be selling very widely in Europe. And the fact that for the last year almost every good periodical and newspaper has devoted large amounts of space to the subject, in the form of articles or reports of industrial congresses and conferences, is evidence of a widespread interest in this country as well. The topic has appeared frequently on the editorial pages of newspapers.

All these discussions are much alike. They point out that the production of wealth has increased more rapidly than the population. There is therefore more wealth per inhabitant than before. As a reason for this increase is advanced the fact that more machinery is being used to-day in production; human labor is being supplanted by mechanical devices.

In the 50 years from 1869 to 1919 the population of the United States increased 2.76 times. In spite of the shift in population from the country to the city, so that only one-quarter of those in gainful occupations were employed in agriculture in 1919, while nearly one-half were so engaged in 1869, the agricultural production increased 4.94 times, or 80 per cent more rapidly than the population. During the same 50 years the products of mines increased 18.81 times, or nearly seven times more rapidly than the population. The manufactured products increased 9.61 times, or about 3.5 times more rapidly than the population. While many factors contributed to these increased outputs, the most important factor is undoubtedly the increased production and utilization of mechanical power by machinery. To-day the drudgery of the struggle for existence has largely been transferred to machinery vitalized by mechanical power, thus making universal education possible by sparing youth from the farm and the factory.[1]

And again,

All this power increases output and decreases sweat. While we have increased our manufacturing employees 65 per cent in the last quarter of a century, we have swelled productivity on a quantity basis in the neighborhood of 170 per cent. Our farms produce 37 per cent more with about 20 per cent more farmers; our railways carry about 170 per cent more traffic with 61 per cent more men. And with all we have in 25 years decreased the weekly hours of labor by about 9 per cent, while real wages have increased 40 or 50 per cent. The terrors of unemployment have been lessened.[2]

These statements reflect the general belief and attitude on the subject. It is undoubtedly true that more machinery and more power are at the service of the people of the United States than ever before; but there has never, it is believed, been a complete survey or

[1] De Baufre, W. L., address as retiring president of the Nebraska chapter of Sigma Xi, May 15, 1925; Science, new ser., vol. 62, p. 381, Oct. 30, 1925.

[2] Hoover, Herbert, The Nation's Business, June 5, 1926, p. 14.

exact measurement of these mechanical devices which are so greatly increasing our per capita output.

It is manifestly impossible, or at least impracticable, to make a census of the machines themselves. They change and become obsolete too rapidly, and they can not be reduced to any satisfactory common unit. But there is one way whereby an index of the installation of machinery may be obtained—by ascertaining the total horsepower of the engines that drive the different kinds of machinery. The engines may be of many different types, but their ability to operate machines may be expressed in terms of a single unit, the horsepower. The amount of mechanization of industry as a whole or of any one industry over a period of time may be judged by the horsepower capacity of the engines installed to drive the machinery in relation to the number of employees. If the total horsepower of the country's engines is appreciably greater now than it was 10 years ago, it may be said that there has been an increase in machinery installed. It is recognized that improvements in the technique of production or in transmission mechanism may increase the amount of machinery which can be operated by the same amount of horsepower. Nevertheless, it is believed that this difference is not large enough to impair the use of total horsepower as an index of the relative amounts of machinery in use over a period of years. Moreover, horsepower is the only index that can be used at the present time.

The aggregate horsepower of engines or motors, then, is roughly indicative of the amount of machinery installed and will be indicated by the term "horsepower equipment." It is figured only on engines that are properly designated "prime movers." A prime mover may be defined as an engine that utilizes the potential energy from some natural source (such as coal, wood, petroleum, or water) and converts it into the energy of motion. Thus steam engines and turbines, internal-combustion engines, and water wheels and turbines are prime movers. Electric motors, however, are not classified as prime movers because they do not utilize the original source of energy. They are run by electricity generated in dynamos, after the dynamos are set in motion by some prime mover.[3]

The purpose of this study is to present statistics of horsepower equipment as nearly as possible complete for all fields of productive activity in the United States. These statistics cover nine separate years spread over a period of seven and one-half decades, from 1849 to 1923. Naturally the censuses of the more recent years have yielded more exact information; there was less need for estimating for 1909, 1919, and 1923 than for the earlier years.

[3] In dealing with manufactures alone the United States Census treats the horsepower of motors driven by purchased electricity as "primary power," because for the purposes of the census of manufactures such power is in the same category as that obtained directly from prime movers.

This is not the first attempt to show the amount of horsepower equipment installed in certain fields,[4] nor is it the first time that an effort has been made to estimate the total amount existing in the country.[5] But it is believed that no information has yet been made available which is the result of a careful, thorough survey and analysis of all the primary horsepower equipment existing in all the chief fields of productive activity over a period of years.

In the present survey the equipment was apportioned among 10 fields of activity. For each census year horsepower data were gathered for manufactures, mines and quarries, agriculture, irrigation and drainage, electric central stations, electric railroads, steam railroads, ships, automobiles, and work animals not on farms. This apportionment made it possible to notice the trend in the use of equipment in any one field of endeavor and to determine the relative rank of any field at any one time.

The equipment was further classified, for the country as a whole and for each of the above-mentioned fields of activity, as to type of prime mover—steam, internal combustion, and water. Purchased electricity was also recorded for certain fields in which it stands in the same category as primary power, but the duplication thus involved was eliminated in computing the totals for the whole country. This classification made possible an analysis of the distribution and importance of the several types of prime movers at any one time and of the trend throughout the 75-year period.

Still another classification divided the equipment into three larger groups—"manufactures," including the horsepower in manufactures and that portion of electric central station equipment which is used for light and heat by consumers; "materials" (and food), including the horsepower in mines and quarries, agriculture, and irrigation and drainage; and "transportation," including the horsepower in electric and steam railroads, ships, automobiles, and work animals not on farms. "Manufactures" and "materials" were then combined for the sake of comparing equipment used to produce "form utilities" with that employed for the production of "place utilities." "Form utilities" are products which are changed in shape or form by the use of power. "Place utilities" are products which have value added to them by transportation. A further division of transportation horsepower was made in order to distinguish between "light" and "heavy" types, electric and steam railroads and ships being included under the latter and automobiles and work animals not on farms under the former. Finally, in order to portray the growth of

[4] See National Industrial Conference Board, A graphic analysis of the census of manufactures of the United States, pp. 139-202, New York, 1923; and Kinsman, C. D., An appraisal of power used on farms in the United States; U. S. Dept. Agr. Bull. 1438, 1925.

[5] See De Baufre, W. L., op. cit., p. 382; Mulhall's "Dictionary of Statistics," p. 549, 1892, for years before 1888; Low, F. R., Power resources past and present: Mechanical Engineering, January, 1925, p. 2.

electric equipment, the horsepower of electric central stations, of electric railroads, and of motors used in manufactures and mines to generate their own power was summed up in one group.

These statistics are presented for the 9 years in the 75-year period not only for the United States as a whole, but, as far as possible, for each of the 48 States and the District of Columbia and for each of the 9 major geographic districts into which the country is divided. This analysis discloses the growth of the different fields of activity over the several sections of the country.

This survey is primarily statistical. No effort is made to employ the different indices of horsepower equipment in any particular way, but a number of uses at once suggest themselves to the student. Some of these are pointed out on pages 36–42, but the actual development is left to subsequent studies.

It should be constantly borne in mind that the statistics here presented show horsepower equipment, not horsepower produced—that is, they show capacity, not use. None of the equipment is used 24 hours of every day. On the contrary, most of it is in use only a small fraction of the time. The figures, therefore, are an indication of what could have been, not a record of what was. This idea of the "use factor," as it is called, will be more fully developed in the following text, but it should be remembered throughout the discussion.

SOURCES AND ACCURACY OF THE DATA

Inasmuch as the aim of this study is chiefly statistical—that is, to present data of horsepower equipment that may be used by the student of economics—the sources of the material and the method of obtaining the results should first be indicated. The data for certain years are more accurate and reliable than those for others, as explained in detail below. Facts of this nature will aid in the use of the statistics and in an evaluation of the results.

The totals for the United States are made up of statistics procured for each of 10 fields of activity—manufactures, mines and quarries, agriculture, irrigation and drainage, electric central stations, electric railroads, steam railroads, ships, automobiles, and work animals not on farms. The horsepower equipment in each one of these fields is engaged in some sort of productive activity. The last two, however, deserve special mention.

The field of automobiles is made up of passenger cars, motor cycles, and trucks. In 1923 the motor bus had not yet become an important factor in transportation, and the busses in use were generally included with passenger cars in registration figures.[6] Obviously the

[6] Facts and figures of the automotive industry for 1923, New York City, National Automobile Chamber of Commerce.

productive activities of passenger automobiles and motor cycles are as a whole very slight; it is only trucks that are used primarily for producing "place utilities" in goods to be consumed. The other cars are used chiefly for pleasure, as consumer's goods. Therefore, it has seemed wise to present figures both including pleasure cars and excluding them wherever their inclusion might distort the result and convey a false impression regarding the amount of equipment actually used in production.

Work animals not on farms were classed separately because it was impossible to apportion them among the other fields. Undoubtedly many are used in mines and others for general hauling.

In each field the total amount of horsepower equipment for each year was apportioned, so far as possible, among the different types of prime movers—steam engines, internal-combustion engines, water wheels, windmills, and work animals—and also purchased electricity, which is equivalent to primary power to the field using it. These details of prime-mover equipment in each field (exclusive of the purchased electricity, which would involve duplication) were then added to form totals for the country as a whole.

The data presented for the field of manufactures were obtained from the census reports, beginning with the year 1870. These volumes contain power figures for the United States as a whole and by States and for certain individual industries. Since 1920 the census of manufactures has been taken biennially. Not only are totals given, but also the amount of power installed by types of prime movers. There are no census figures of power for the years 1849 and 1859, and those here presented are pure estimates arrived at by plotting the increases of later decades and by extrapolation from the curve thus obtained, as well as by a consideration of other items that are reported for those years, such as number of employees and value of product. The data for 1849 and 1859 have thus less claim to accuracy than those for the later years; they are included as being of historical interest and indicating the small amount of power employed before the Civil War.

In the field of mines and quarries the census reports were again the source of material. No power analyses relating to this field are available for years before 1902. For these early years the data are scattered and incomplete. Figures for 1899 were based on the report for 1902, and those for the earlier years were estimated on the basis of the scattered material available and by extrapolation.

The material given for the field of agriculture was taken from an exhaustive study and analysis of power equipment used on farms made recently by C. D. Kinsman, agricultural engineer, of the United States Department of Agriculture.[7] Kinsman presents power sta-

[7] An appraisal of power used on farms in the United States: U. S. Dept. Agr. Bull. 1348, 1925.

tistics for the country as a whole from 1849 to 1924. His analysis is detailed in that he gives power equipment by types of prime movers as well as totals. He does not, however, offer data for separate States except for 1924, and the State figures included in the present study are estimated from the total for the country on the basis of improved farm acreage in each State, figures of which are available in the decennial reports of the census from 1850 to 1920. This basis seems to be more closely related to horsepower than merely all land in farms, inasmuch as power equipment is used almost wholly on land that is in crops or pasture. Improved acreage is of course not entirely indicative of the use of power as among States, for in some sections of the country certain types of farm activity are carried on which undoubtedly require a larger power installation than those of other sections. Nevertheless, it is believed that such discrepancy is not great enough to invalidate the results.

The census report for 1920 on irrigation and drainage contains data which give the equipment of pumping stations in this field for 1909 and 1919, both for the country as a whole and by States. These horsepower figures, however, are not separated according to types of prime movers. Effort was made to obtain such separate figures by correspondence with the Department of Agriculture, but they were not available. As the total amount is relatively small, an arbitrary separation was made so as to aid in forming the United States total for power by types of prime movers. The data for the years before 1909 are estimates based on the increase between 1909 and 1919 and correlated as far as possible with the census figures showing the acreage of land irrigated or drained.

In the fields of electric central stations and electric railroads total horsepower equipment and equipment by types of prime movers are given in the special census reports of 1902, 1907, 1912, 1917, and 1922. Figures for 1899, 1909, 1919, and 1923 were obtained by plotting the data given and then by extrapolation and interpolation, for the country as a whole and for the several States. No horsepower statistics are available for the years before 1902, but the number of electric central stations is given as far back as 1881; from these a power factor per central station was obtained and used in estimating power equipment for 1889 and 1899, to check the results obtained by extrapolation. A similar check was applied in the field of electric railroads by using the data given regarding number of companies, miles of track, and number of employees. Figures for the electrified divisions and tunnels of steam railroads are available in the later reports; these were included with electric railroads for 1909, 1919, and 1923. All material for the separate States in these two fields were obtained in the same way.

The statistics presented for the horsepower equipment of steam railroads for 1909, 1919, and 1923 are based on material issued by the Interstate Commerce Commission, giving average number of locomotives in service as far back as 1890 and average pounds of tractive force as far back as 1903. These two sets of figures for 1909, 1919, and 1923 were multiplied, the result expressing total tractive force in pounds for locomotives in those years. Horsepower figures are not given in the statistical reports of the Interstate Commerce Commission, inasmuch as horsepower varies with the speed of the locomotive. A formula supplied by the Commission's Bureau of Locomotive Inspection, however, was used to convert tractive force into horsepower. This formula, which assumes the average speed of all locomotives to be 11 miles an hour, is $\frac{T \times 11}{375}$, where T is the tractive force in pounds

The horsepower equipment on steam railroads for the years 1849, 1859, 1869, 1879, 1889, and 1899 was estimated as follows: Poor's "Manual of railroads" gives the number of locomotives back to 1877 and track mileage back to the beginning of construction. An average factor was obtained expressing the relationship between these two items. This factor was applied to the track mileage for the early decades, as it was fairly constant over a period of years and it was assumed to be applicable as far back as 1849. The number of locomotives having thus been estimated, the average tractive force for the same years was computed by means of the formula given in the handbooks issued by the Baldwin Locomotive Works, namely $\frac{C^2 \times S \times P}{D}$, where C equals the diameter of the cylinder in inches, S is the stroke of the piston in inches, P the mean effective boiler pressure in pounds, and D the diameter of the drive wheels in inches. A number of books were read in order to get these dimensions in early locomotives representative of their time. The figures for tractive force thus obtained were then converted into horsepower by means of the first formula given above. It was found impossible to estimate steam-railroad horsepower equipment by States. No data are available giving number of locomotives or ton-miles of freight for each State, inasmuch as most lines operate in more than one State. Track mileage per State was considered unsuitable as a basis for estimates, because it fails to indicate heaviness of traffic—that is, the amount of power used in different sections of the country varies widely over similar lengths of track, owing to differences in the density of traffic and in grade of road bed.

Horsepower figures for vessels engaged in river, canal, lake, and coastwise transportation were tabulated from statistics contained in the annual list of merchant vessels compiled by the Bureau of Navigation of the Department of Commerce. The figures in the lists for

1909 and 1919 were added, giving totals for horsepower and gross tonnage. Separate statistics for vessels using steam and internal-combustion engines were not obtainable before 1915. A horsepower factor per gross ton for each of these types of vessels, however, was worked out for 1919 and 1923. For 1909 a horsepower factor per gross ton of all vessels was used, and as horsepower data were very incomplete for vessels before 1910 it was assumed that the same factor was applicable to the earlier years. These factors were then applied to figures of gross tonnage, obtained from the annual reports of the Commissioner of Navigation, for the United States as a whole back to 1849 and for States back to 1889, thus yielding data for horsepower equipment in this field.

Perhaps the greatest difficulty was experienced in obtaining trustworthy estimates of horsepower equipment in the field of automobiles. Two items were necessary—the number of passenger cars, motorcycles, and trucks for the four years covered (1899, 1909, 1919, and 1923), and the average horsepower of these vehicles. The first item was obtained as follows: Total figures of registration from 1895 to 1923 were given in the 1924 issue of "Facts and figures of the automotive industry," published by the National Automobile Chamber of Commerce. These were checked by similar data furnished by the Bureau of Public Roads of the Department of Agriculture, and by the statistical issues of the magazine Motor. Unfortunately, no one of these sources gave any indication of separate registration by passenger cars, motor cycles, and trucks for the years before 1914. Figures for production of passenger cars and trucks, however, were available as far back as 1899, and an approximation of correctness was effected by applying to the registration for the early years the ratio of such production to total registration for the later years. The second essential item, the horsepower average to be applied to the number of vehicles, was found in this fashion: At first it was thought that the figures of horsepower published by Automotive Industries would be adequate, but it was discovered that many of these figures, which represent "rated" horsepower and are used only for purposes of taxation, were much lower than the actual horsepower capable of being developed in automobile engines, known as "brake" horsepower. Data for computing "brake" horsepower were then obtained in two ways—by writing to the leading car and truck manufacturers of the country in order to ascertain the horsepower of all old and recent models, and by consulting the engine specifications of cars in the statistical issues of Motor for the years 1910, 1920, and 1924. The final problem was to give due weight, as far as possible, to the horsepower of the different types of cars. Most weight naturally belonged to the cars that were most numerous. Study of volumes of production given in Motor led to the conclusion that

about half of the automobiles represented in the registration figures were Fords and that the other half was made up in general of three types of cars—the high-priced, luxury car, of which there were fewest in use; the middle-class, medium-priced car; and the most used, low-priced car. An average horsepower figure was struck for each group. The first was weighted 1, the second 3, and the third 5. The weighted mean then obtained was applied to the other half of the registration total. The total horsepower obtained by this means is believed to be fairly reliable. It is at least indicative of the enormous growth in the use of this kind of transportation. Registration by States has been reported only after 1914, so that horsepower data for different sections of the country could be presented only for 1919 and 1923.

The material for work animals not on farms came from the report by C. D. Kinsman already cited. The figures are available for every year covered by the tables, but apportionment among States was impossible.

After the data had been collected and classified for each field in the manner just indicated, they were combined and used in a number of different ways. The amounts of horsepower equipment in the different types of prime movers in each field were summed up in order to show their relative importance and rates of increase for the country as a whole. The figures thus obtained indicated what kinds of energy were being most used in any one decade and disclosed any changes in their relative proportions. There is much concern at present as to the past importance and the probable future significance of coal and fuel oils compared with such other sources of energy as water and wind. It is hoped that the analysis discussed above throws some light on this question.

The amounts of equipment in each field were combined for each decade in larger groups, chiefly for the purpose of comparing power used in the different types of industry—manufacturing, mining, and agriculture—with that used in transportation.

It is believed that the chief value of the statistics presented in this study will be to show that horsepower equipment has increased more rapidly than population or number of wage earners—in other words, that there has been a steady growth in the horsepower equipment per capita and per wage earner over the entire 75-year period, both for the country as a whole and for those fields of activity in which number of wage earners can be separately ascertained. An index of this increase may then be used for comparison with indices for other ratios, such as volume of production per wage earner or amount of wages per wage earner.

The population and total number of wage earners in the country were obtained from the census reports for each year except 1923 and

compared with total horsepower by means of index numbers. The figures for 1923 are estimated on the basis of past growth and on the basis of a similar estimate made by the National Electric Light Association. Numbers of wage earners were ascertained for 7 of the 10 fields of activity—manufactures, mines and quarries, agriculture, electric central stations, electric railroads, steam railroads, and ships. The data on manufactures for the whole period are obtainable in the census reports on manufactures. Those on mines and quarries come from census reports on occupations up to and including 1919; the figure for 1923 is estimated from past growth, no other complete sources being available. The material in the column of agriculture is taken from the work of Kinsman. The number of wage earners in electric central stations and electric railroads was determined from material in the special census reports by extrapolation and interpolation. The statistics issued by the Interstate Commerce Commission give for each year the number of wage earners on steam railroads. The census reports on occupations furnish the basis for the statistics of wage earners on ships up to and including 1919, and the figure for 1923 is an estimate based on past growth and compared with tonnage.

In general the accuracy of the statistics presented in this study increases with each successive decade. The data for the early years are almost wholly estimated, but it is believed that the estimates are supported by bases accurate enough to lend a degree of authenticity to them. Census taking in the later years has become more efficient and more inclusive, and consequently the most accurate figures are those for 1909 and 1919. Estimates had to be made in certain fields for 1923, as 1920 was the most recent census year, but these estimates are relatively reliable because their bases come from recent trustworthy sources. The latest year for which accurate statistics are available in most of the 10 fields of activity is 1923, and for that reason the study has not been extended into more recent years. Any material presented for years later than 1923 would be almost wholly estimated from incomplete sources. There are no statistics for manufactures after 1923, for mines after 1920, for agriculture after 1924, for irrigation and drainage after 1920, for electric central stations and electric railroads after 1922, for steam railroads after 1924, for ships after 1926, for automobiles after 1926, and for work animals not on farms after 1920.

Every effort was made to include in this survey all the horsepower equipment in the country. However, there are some items for which no data were available nor even any material that could be made the basis for a fairly accurate estimate. For example, no information could be obtained from any source on the amount of equipment in use in the field of building and construction. De Baufre, in his

article cited above, makes an estimate of 4,000,000 horsepower in nonindustrial fields, but he does not state what is included in or formed the basis for this figure. Again, no information was available regarding the amount of equipment owned and used by hotels, office buildings, and public buildings, some of which generate their own heat and light and furnish the power for their own elevators.

On the other hand, data were obtained for some other items as set forth in the following paragraphs, but they are not included in the grand total, chiefly because they are of little or no importance in production.

There is about 700,000 horsepower in engines used for pumping in the cities of the United States. This figure was arrived at by obtaining from 10 of the largest cities the rated capacity of their pumping equipment and then applying this total so as to get the equipment of the whole urban population. The details are presented in Table 35.

The horsepower of engines used in the airplanes of the United States Army amounted in 1925 to about 475,000. It was impossible to obtain data for commercial flying machines, as no registration is required for them.

The United States Navy commands a large horsepower equipment. In 1924 there was 11,000,000 horsepower in the navy battleships, cruisers, destroyers, submarines, patrol vessels, auxiliaries, aircraft, and district craft.

Another place where horsepower equipment might be found is in amusement parks and similar resorts. Inquiry has elicited the fact, however, that most of the power used in such places is purchased, in the form of central-station electricity.

There are some small items of horsepower which are not included in the totals published in the census of manufactures. The statistics of manufactures up to and including those of 1900 took in neighborhood hand and building industries, as well as factory industries, but all later censuses have embraced only the statistics on factories. In the later reports the data before 1910 have been reduced to the new basis for purposes of comparison.

On page 521 of volume 8 of the Census for 1920 is found a list of classes of establishments that were not canvassed for horsepower. Places having an annual output valued at less than $500 were not reported. No data were obtained for the various building industries—architects' work, bridge building, building and construction work, carpenter shops and contracting carpenters, electric wiring and construction work, excavating and well digging, masonry, brick and stone work—or for moving and raising buildings, paving and laying stone and concrete, plumbing, gas and steam fitting, roofing, or railroad construction. Establishments making building supplies and

materials, however, were included. Other industries omitted in the census, which might have had a small amount of mechanical power, are bicycle-repairing shops; blacksmith shops; locksmith and gunsmith shops; garages; various other repair shops; establishments making costumes for rent only; cotton cleaning and rehandling; cotton compressing and cotton ginning; dentistry; packing, dressing, and shipping poultry except as done on a large scale by meat-packing firms; fisheries; hay and straw baling; ice harvesting (ice manufacturing is reported); rectifying and blending liquors; salting hides; stone crushing in connection with construction work (stone crushing as a business for selling to public is reported); tobacco stemming and rehandling; bottling, unless done by establishments in which beverages or sirups are made; dairies; and manufacturing carried on in educational, eleemosynary, and penal institutions. Most of the establishments enumerated above, however, are so small that in all probability they use purchased electricity to run their few machines. This electricity would be reported under electric central stations.

Finally, the census reports the horsepower equipment of the following establishments but does not include it in the total for manufactures; Governmental manufacturing establishments, 173,000 horsepower; power laundries, 197,000 horsepower; dyeing and cleaning, 24,000 horsepower; custom sawmills, 131,000 horsepower; custom gristmills, 219,000 horsepower. The total is 744,000 horsepower, a not unimportant amount. These figures are for 1919. (See Table 34.)

DEVELOPMENT OF PRIME MOVERS

Two obvious but significant considerations must be remembered in the study of the phenomenal growth in the use of prime movers. First, without inventions and improvements in prime movers, including advances made in fuel utilization, there could have been no substitution of mechanical for hand labor, with the resulting reduction in the cost of power and product. Second, inventions and improvements were necessary also in the machines that used the power, for even if power was available it could not be employed unless machines were ready. In general, however, it is true that improvements in both fields have kept pace with each other.

A few of the chief technical advances that have been made, mainly in this country, in the improvement of prime movers will be briefly set forth. The writer makes no claim to original research on this topic. The material presented is well known to most students and is introduced to serve as a background for the ensuing discussion. No attempt will be made to cover the field suggested under the second point above.

The technical side of a discussion on horsepower equipment may be divided into two parts—generation of power and transmission of

power. The first deals with the making of kinetic energy out of the potential energy of natural resources such as coal, oil, and water. The second deals with devices that connect this energy of motion to machines which do man's work. The story of each of these phases falls roughly into three periods—the colonial period, lasting till 1790; the period from 1790 to 1860; the period from 1860 to the present time.

During the colonial period the industrial situation in this country was similar to that existing in England before the industrial revolution. The manufacturer was a man who owned a small mill or operated a forge, and in colonial parlance a mill meant either a grinding contrivance or any machinery operated by hand, animal, wind, or water.[8] These were the chief types of power in use at that time, and they came to be employed in the order named. Hand power was first used everywhere in forges and for grinding. The utilization of animal power came next, horses and cattle being used where absence of water power, pecuniary inability, or sparseness of population made it impracticable to use power of any other type.[9] Wind was used to turn the wheels of gristmills and sawmills at an early date. Windmills were found chiefly among the Dutch settlers in New York, although there were a considerable number in New England. Indeed, the first mill to be operated in that section of the country was one propelled by wind near Watertown, Mass., in 1632.[10] Most of the small colonial establishments, however, were operated by water power. The ample fall and precipitation of the Atlantic slope provided many watercourses on which power could be developed. At that time the smaller creeks and rivers of New England and the central colonies were used much more for power than now. The larger water powers were not developed till after the Revolutionary War. Small enterprises were the rule. In these mills "most of the wheels were undershot and utilized only a fraction of the water power applied to them. Power transmission was so little understood that a separate wheel was generally necessary for each unit of machinery. The wheels and most of the mechanism were of wood. The invention of improvements by which several kinds of apparatus—threshing and winnowing machines, grist and bolting mills, flax beating and cleaning machinery—could be operated by a single wheel is attributed to a Connecticut mechanic [Joel Harvey], who not long before the Revolution received a prize from the London Society of Arts for his devices. Any part of the machinery could be discontinued without impeding the rest."[11]

[8] Clark, V. S., History of manufactures in the United States: Carnegie Inst. Washington Pub. 215, p. 174, 1916.

[9] Bishop, G. L., History of American manufactures from 1608 to 1860, vol. 1, p. 116, 1861.

[10] Idem, p. 117.

[11] Clark, V. S., op. cit., p. 175.

The steam engine was of no importance as a prime mover in colonial manufactures. It had only just been proved practicable and was yet in the experimental stage. Watt's engine was patented in 1769, but it did not become a really established factor in the economic life of Great Britain until the colonies had won their freedom. On this side of the water a number of men were working on production of power by steam. Jonathan Hornblower, Christopher Colles, Barnabas Deane, James Fitch, Henry Voight, and Oliver Evans are the names of pioneers in this field. The work of Evans is particularly worthy of note. It was he who first experimented successfully with the high-pressure steam engine about 1775. This type of engine was far superior to the former low-pressure devices, although it required much more careful handling. The mechanical horsepower equipment used in the colonial period was thus scarcely advanced beyond the experimental stage.

In the second period, however, up to the Civil War, the factory system of manufacture began to develop, and a number of improvements were effected. At first the very fact that water power was so plentiful and inexpensive led to wastefulness in its use. Managers of enterprises chose to employ cheap water wheels rather than invest in more expensive ones which by their more economical utilization of water would have amply justified the extra cost. Until 1840, for example, wooden pitchback wheels were used which turned inward toward the fall, the water striking them just short of their highest point, the impact or kinetic energy of the falling water being thus lost. Eight such wheels 30 feet in diameter, with buckets 12 feet long to catch the water, constituted the power equipment of the Merrimac Co. at Lowell, Mass.[12] These wheels utilized about three-fourths of the power applied to them. This Lowell development was typical of the way in which cotton manufacturers had been using water power ever since the initial successful use of wheels of this type for cotton manufacture in 1790 at Pawtucket Falls.[13] The larger streams were developed. A system of canals was built on the inner side of a bend in a river, enabling the running of many wheels at different levels by the same stream. The wheels were all of the overshot type.

It is believed that the introduction of the first steam-engine mill at Providence, R. I., in 1830 stimulated the search for a more efficient way to utilize water power. Interest turned to the hydraulic turbine. This prime mover had reached its greatest perfection in France. It had been tried in this country in 1790, but the experiment was a failure. Soon after 1840 the Franklin Institute of Philadelphia published accounts of the French wheels which led to

[12] Clark, V. S., op. cit., p. 406.
[13] Lucke, C. E., Power, p. 230, Columbia Univ. Press, 1911.

experimentation and resulting proof of their greater efficiency and cheapness.[14]

There is some difference of opinion as to when the hydraulic turbine was first used in this country,[15] but it is safe to say that by 1845 there were two or three in successful operation. Ten years later hydraulic turbines had displaced most of the pitchback wheels at Lowell and had been introduced from the first in the new factories at Lawrence. Their use added about one-fourth to the power utilized at these cities.[16] The introduction of the turbine was the first step toward the modern hydraulic plant. Although invented in France, the modern turbine owes its development chiefly to improvements made by American engineers. Turbine development, however, was forced to wait upon advances in the technique of metal working.[17]

Steam engines, to the introduction of which was partly due the marked improvement in the economical utilization of water power, were installed slowly at first. During the first third of the nineteenth century the location of factories was determined chiefly with reference to water power. But improvements in the steam engine led to their increasing use during the later half of this period.

Two general designs of engine came into early use—the low-pressure Boulton & Watt type, imported from England and also built in America, and the high-pressure type, made by Oliver Evans in Philadelphia, which was able to compete actively with the low-pressure engine and which was in some respects superior. The high-pressure engine was more satisfactory for use in factories, and, although it required more fuel, was simpler to build.[18]

The invention of the crank shaft by Watt in 1784 changed the reciprocating motion of the engine piston to the rotary motion of a shaft, and the use of all the expanding power of steam in triple-expansion engines is another outstanding improvement in this period. But perhaps the greatest advance, so far as factory use is concerned, was that made in the new Corliss engine of 1849. This engine possessed a much more sensitive governor, called variously a "valve gear" or "rotary valve" or "drop cut-off," which enabled engineers not only to keep the speed of the engine much more uniform than before but to regulate the speed in accordance with the require-

[14] Clark, V. S., op. cit., p. 407.

[15] Clark (op. cit., p. 407) says that the first to be used practicably in New England was built in 1843 by George Kilburn for the Fall River plant of Robeson & Sons. He also mentions the turbine installed at the Appleton Mills, in Lowell, Mass., designed by Uriah Boyden. This 75-horsepower turbine could reach an efficiency of 88 per cent. In 1845 another Fall River mill was equipped with a turbine. C. E. Lucke gives Boyden's 1844 engine as the first installation.

[16] Clark, V. S., op. cit., p. 408.

[17] Freeman, J. R., Water-power production in the United States: World Power Conference Rept., vol. 2, p. 374, 1924.

[18] Clark, V. S., op. cit., p. 409. Kaempffert, Waldemar, A popular history of invention, vol. 2, p. 484, 1924.

ments of the particular factory. Spindles and looms, for example, could be driven continuously at the speed required for the best type of product. In addition to affording evenness of operation, the Corliss engine permitted appreciable economies in fuel utilization.

The third chief type of prime mover, the internal-combustion engine, was not developed to practical use during the period before the Civil War, but a great deal of experimentation was being done with the idea of moving a piston by means of expanding gases. In fact, ever since 1678, when the Abbé de Hautefeuille used an explosion of gunpowder to drive a piston in a cylinder, men had been working on the problem.

In considering the progress made during this period, it must be remembered that the difficulty of working metal to exact dimensions retarded the development of prime movers. In the early steam engines, for example, the lever beams, the arms and shafts of the fly wheels, the bearings, and even the boilers and other parts were made of wood. Advances in engine design depended in part on improvements in iron working.

It is since 1860 that the most rapid strides have been made in power development. Technical advances in subsidiary industries and new demands for power made by the growing industrialism of the country have furnished ample impetus.

One outstanding invention has appeared in the field of water power. This was the Pelton wheel, first used successfully in 1884 at the Chollar mine, in the Sierra Nevada.[19]

The steam turbine was the major development in steam utilization during the later half of the nineteenth century. Engineers had experimented with the idea ever since Hero, of Egypt, had made his crude toy about 100 B. C., but it had never been of practical use because of its high speed. Not until the high-speed electric generator was invented did it find extensive employment.

An extremely interesting development of recent date is the use of mercury vapor instead of steam to operate turbines. Mercury is vaporized in a specially constructed boiler, passes through a turbine, where it does useful work, and exhausts into a surface condenser, where its latent heat is used to make steam that drives an ordinary turbine. The condensed mercury is returned to the boiler and used again. The advantage of this system is due to the facts that mercury can be heated to a high temperature without developing excessive pressure and that the heat of condensation can be utilized for making steam at pressure desirable for use. The utmost care, however, must be exercised to prevent the escape of the highly poisonous mercury vapor. A system of this type was installed in 1923 by the Hartford (Conn.) Electric Light & Power Co. It is reported that the

[19] Kaempffert, Waldemar, op. cit., p. 536.

experiment has proved highly successful and that the fuel bill has been about halved.[20]

The internal-combustion engine was developed about the time of the Civil War. The Lenoir motor, which marked a distinct epoch in gas-engine construction, appeared in 1860 and was the first engine of this type that performed with relative smoothness and efficiency; but it used fuel rather wastefully. The Lenoir engine was followed in 1862 by an engine invented by Beau de Rochas, who introduced the modern system of four-cycle operation. This engine was placed on the market in 1878 by Otto, after whom the four-cycle idea is sometimes named. In 1879 Clerk brought out his two-cycle engine. Both these types are used to-day, but the four-cycle engine is the prevailing type.

Many small improvements have been effected in these engines, but there has been only one notable and significant development in the internal-combustion field since 1880—the Diesel engine, which utilizes the four-cycle principle. The chief difference of the Diesel from other internal-combustion engines is that instead of an electric spark being used to ignite a charge of fuel vapor, injected air is so greatly compressed in the cylinder that its heat fires the fuel, which is injected into the cylinder at the completion of compression.[21] Great economies are claimed for the Diesel motor, one of which is that heavy oils may be used to advantage.

The chief use of the internal-combustion engine has been in the province of transportation, where its advantages are obvious. It has failed to advance as a source of electric generation, mainly because to build it in the large units required in central stations has been impossible. Diesel engines, however, are gradually being increased in size and are successfully competing with steam-driven prime movers.

Remarkable as has been the growth in the total capacity of this kind of prime mover and supreme as it is in its own field, another equally outstanding power achievement since 1860 has been the development of electricity. In many ways electricity is unsurpassed as a form of power. The electric generator and the electric motor are, of course, not prime movers, but the current produced by one and used by the other has enabled this country to use sources of power which otherwise would be largely untouched and to put this energy at the disposal of almost every inhabitant.

Although the relation between electricity and magnetism was discovered and known in the first half of the nineteenth century, it was not until 1870 that these principles were used in a practical way. At this time Gramme, a Belgian, produced a workable generator yield-

[20] Kaempffert, Waldemar, op. cit., p. 502.

[21] Hogle, W. H., Internal-combustion engines, p. 17, 1909.

ing a direct, continuous current. Three years later, at a Gramme exposition in Vienna, it was accidentally discovered that a dynamo is also a motor if electric current is applied to it. This was the curious beginning of the electric power industry.

The first electric central station in the United States was the one built by Edison at New York City in 1882. The current in this and all the other early plants was used for lighting. Industrial uses were to come later. The first hydroelectric station began operation in the same year at Appleton, Wis. In 1885, at Great Barrington, Mass., a notable advance was made in the first successful commercial use of alternating current for lighting. The year 1887 saw the first electric street railway in this country in operation at Richmond, Va.

Most of the developments in the field of electricity, however, have been made in connection with transmission. These improvements have paved the way for what some choose to call "the second industrial revolution" and have made possible the location of factories at comparatively long distances from the sources of power. The transformer idea was contributed by Faraday about 1845, but it was of no practical use until 1888, when Tesla invented both the multiple transformer and the polyphase electric motor for alternating current of high frequency. Alternating current being far superior to direct current for transmission, the way lay open for subsequent advances. There have been no unusual or radical changes since then—merely the gradual improvements which so often follow in the wake of a great invention. The chief of these improvements have been protection against lightning and better insulation to guard against loss of current.[22]

Long-distance electrical transmission of energy in the United States dates from 1893, when the polyphase system was first used for carrying a current of high voltage from the plant of the San Antonio Light & Power Co., at Pomona, Calif., to San Bernardino, a distance of about 19 miles. The original current of 1,000 volts was stepped up to 10,000 volts. This pioneer effort was followed by other plants. To California, with its ample water power in the Sierra Nevada many miles from centers of population, belongs the credit for the biggest development in electrical transmission. By 1900 a pressure of 40,000 volts had been attained. In 1909 this was increased to 110,000 volts, and in 1923 a high-tension line transporting 220,000 volts was put in operation in this State.[23]

But there were achievements in the transmission of electric current in other sections also.[24] Niagara River, although furnishing a much smaller "head" than was often found on the Pacific coast, provided a larger volume of water. Electricity generated by turbines at

[22] World Power Conference Trans., vol. 3, p. 1110, 1924.
[23] Idem, p. 1111.
[24] Census of Manufactures, 1900, vol. 7, p. cccxxii.

Niagara Falls was transmitted 23 miles to Buffalo in 1895. Another noteworthy contemporary performance was that at Sault Ste. Marie, where a canal about 2 miles long developing a head of about 20 feet was constructed along St. Marys Falls, at the outlet of Lake Superior into Lake Huron.

Although electricity furnishes the most striking attainments in the field of transmission, the other methods of hooking up machinery to the power afforded by prime movers must not be overlooked. There are three main means of transmission.[25] First, the motion of a prime mover may be carried over directly by such devices as gears, belts, sprockets, or ropes and pulleys. Second, it may be transmitted over longer distances by pressure. Water, in hydraulic mains, and air, used like steam to run engines or drills, come under this classification. The third system is not dependent on push or pull but involves a transformation of energy from a form not easily transmitted to another that is—for example, electricity stepped up in voltage by means of transformers and sent over long distances and gas sent through pipes to engines.

As regards the first method, there is only the need to note that during colonial times wooden cogs and shafts were used. These were followed by metal gears, but by 1830 it was proved that belting was superior. Although gearing is most suitable under some circumstances, belting still remains the best means of transmitting power over short spaces. Much study on the subject has resulted in numerous improvements, perhaps inspired chiefly by the high speeds necessary for metal cutting.

The transmission of power over distances by water, air, or gas is not important industrially and is of only local significance.

CERTAIN FINDINGS OF THE STUDY

A number of interesting trends appear from a survey of the accompanying tables and charts. Although the chief aim of this study is the presentation of the data as a reference compilation of material from a number of scattered sources, an outline of certain chief findings to which the statistics point is not entirely beyond its scope.

In Table 1 and Figure 1 is shown the total horsepower of prime movers installed in the different industrial activities in this country for each census year from 1849 to 1923. From 10 millions it has grown to the astonishing total of 684 millions of horsepower, more than sixty-eight times as much. Each decade has witnessed a steady increase, but since 1899 the development has been marvelous. Before that time the increase in any 20-year period had never been much more than twofold, but in the 20 years from 1899 to 1919 the growth

[25] Lucke, C. E., op. cit., p. 266.

was more than sixfold. Only four years later, in 1923, the total was over ten times that for 1899.

The chief reason for this recent enormous growth is the increasingly extensive use of the internal-combustion engine in the pleasure automobile. Over 450 million horsepower, or almost two-thirds of the 1923 total, belongs to this class. This equipment is, for the most part, not really productive. Therefore the table also presents figures for the later years which show the amount of equipment exclusive of that assignable to pleasure vehicles. Here the growth, though pronounced and rather more rapid than before 1899, is more even. The total in 1923 was about twenty-three times that in 1849 and more than three and one-half times that in 1899.

Table 1 furnishes a picture of the continual growth of the capacity of prime movers over a long period of time, gathering speed and momentum with each decade. A more detailed inquiry, however, is necessary to determine the exact nature and trend of this increase.

Table 2 shows the installed capacity of prime movers in the different industrial activities, the distribution of the total horsepower of prime movers in each census year in percentages of the yearly total among the different activities, and the relative growth of the capacity of prime movers installed in each activity. The capacity as given in this table represents the horsepower of prime movers owned by the establishments reporting them. The capacity of any prime mover is included but once and only in the activity reporting it. There is therefore no duplication of horsepower capacity in this table.

Table 3 shows the horsepower utilized in the activities given in Table 2. The figures in this table include the horsepower of owned or installed prime movers in each activity and the horsepower of electric motors or other equipment in each activity driven by purchased electrical and mechanical power. This table therefore contains some duplication, the amount of which may be ascertained by comparing the figures with those in Table 2 for the same activities.

It is at once apparent from an examination of these tables that there has been a remarkable increase in motor-driven vehicles. Although the automobile was in its infancy as recently as 1899, its growth has been tremendous, there being nearly sixteen thousand times as much horsepower in automobile engines in 1923 as in 1899. This remarkable increase in automobiles is due mainly to the use of the automobile for pleasure. Passenger cars and motorcycles, which may be considered as being used mainly for recreation, represent about 90 per cent of the total horsepower as well as of the total number of automobiles in 1923. (See Table 31.) This rapid increase in automobiles since 1899 so distorts comparisons of the relative amount and growth of power in other activities that figures of capacity are given with the horsepower of pleasure automobiles omitted.

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The next largest increase in capacity of prime movers is in electric central stations, which show a gain from 120,000 horsepower in 1899 to 22,000,000 in 1923. Second in rank in total capacity to automobiles come steam locomotives, indicating the importance of railroad transportation.

Agriculture ranks third in capacity of prime movers. Up to 1869 and later more than half of the total capacity of prime movers in all activities was installed and utilized in agriculture. The vast industrial development in the United States that was well under way at the beginning of the century called for so much power that prime movers in agriculture gradually became of relatively less importance in each decade, but nevertheless the capacity of prime movers in agriculture still holds third place.

In general, transportation activities have increased more rapidly than the activities that produce "form utilities"—manufactures, mines and quarries, and agriculture.

The use of purchased power has increased rapidly, and to this development in the power field is due the rapid growth of electric central stations. A comparison of Tables 2 and 3 shows how extensive the use of purchased power has become. For example, manufactures in 1923 purchased power to operate more than 13,000,000 horsepower of electric motors, and electric railways purchased power to operate about 2,500,000 horsepower of motors. The utilization of purchased power [26] will probably continue to increase, as power can be produced more economically in a large central station with its high load factor resulting from large diversified load than in small plants with the low load factors that are the rule in such plants.

It may be interesting to compare the figures in Table 1 with a previous estimate of horsepower over a period of years, given in Mulhall's "Dictionary of statistics," page 549, 1892:

[26] The following figures are given in the Electrical World, Jan. 2, 1926, pp. 28, 44:

	Jan. 1, 1924	Jan. 1, 1925	Jan. 1, 1926
Total domestic lighting customers	11, 623, 644	13, 406, 777	14, 532, 930
Total commercial lighting customers	2, 258, 347	2, 588, 983	2, 781, 280
Total industrial power customers	502, 736	570, 844	622, 950
	14, 384, 727	16, 566, 604	17, 937, 160

The lowering in the rate of increase of lighting consumers is laid to the decrease in building operations and the approach toward saturation point; but industry is said to be far from saturated (p. 44), as it is only 65 per cent electrified, and of this 32.4 per cent comes from privately owned generating plants. In the whole manufacturing power field, therefore, the maximum potential load of the country's central stations has been only 44 per cent developed.

Some industries, of course, present an almost impossible barrier to electrification. Such are those which use coal for heat as well as for steam power—for example, blast furnaces, factories making clay and glass products, oil refineries, and textile finishing mills.

Estimated horsepower of prime movers, 1840–1888

Year	Fixed	Locomotives	Steamboats	Total
1840	360,000	200,000	200,000	760,000
1850	600,000	600,000	500,000	1,700,000
1860	800,000	1,800,000	900,000	3,500,000
1870	1,216,000	3,300,000	1,100,000	5,616,000
1880	2,186,000	5,700,000	1,200,000	9,086,000
1888	3,300,000	9,300,000	1,800,000	14,400,000

In this table locomotives are arbitrarily considered as being of 300 horsepower each, and the horsepower of steamboats is considered equivalent to their tonnage. "Fixed horsepower" evidently means manufactures, as it is estimated before 1870 on the basis of "number of hands."

W. L. De Baufre (Science, Oct. 30, 1925, p. 328) estimates the grand total to be about 500,000,000 horsepower for 1925. F. R. Low (Mechanical Engineering, January, 1925, p. 2) makes an estimate of about 700,000,000 horsepower for the same year. (See p. 35.)

A second manner of analysis concerns itself with the growth of horsepower equipment among the different types of prime movers. In Table 4 (A and C) and Figure 5 it is evident that the most rapid development has taken place in internal-combustion engines. This was to be expected from what is known about the large number of automobiles in existence, but even if the capacity of pleasure cars is deducted from the total, the item of trucks is still great enough to give this type of prime mover first place in rate of increase. Steam power, which is still the country's greatest single prime mover, has developed steadily but not so rapidly as water power. Undoubtedly hydroelectric developments have caused the rapid rate of growth since 1899. Windmills have never been of much importance, although their use has gradually increased. An interesting story is told in the column showing the decreasing number of work animals since 1909. This decrease is coincident with the use of mechanical devices on farms and in transportation.

Table 4 (B) and Figure 5 picture the transition of the country from the early stage, in which animals were chiefly used to perform the work of man, to the present time, when work animals have been supplanted by machines. Nevertheless work animals still represent more horsepower than water wheels. If the item of pleasure automobiles is subtracted from the internal-combustion quota, steam power has made up over half of the total since 1889. In 1923, however, its rank was reduced by internal-combustion power, which amounted to almost one-third of the total.

Several main points of interest come to light in the presentation in Table 5 and Plate 1 of the percentage distribution of prime movers in each of the fields of activity. The increasing use of purchased

electricity in manufactures and in mines and quarries is worthy of note. In agriculture work animals are still almost of first importance, being topped in 1923 only by internal-combustion equipment. Steam and purchased electricity are little used in agriculture, because they involve stationary power units, and most of the work on farms requires tractive force. Steam-driven prime movers form the chief type in electric central stations and electric-railroad power plants, although in the central stations water wheels amount to almost one-third of the total. The sailing vessel has been supplanted by the steam-driven ship ever since the Civil War. The use of internal-combustion engines for driving ships is increasing, and the horsepower of Diesel engines used to operate ships may reach a considerable figure, especially if there is no pronounced increase in the cost of fuel oil.

Certain major groupings of horsepower equipment are shown in Table 6 and Figures 6 and 7. Power in the division "manufactures" has increased at a more rapid pace than in the division "materials," although the latter exceeds the former in absolute amount in every census year. But, as would be expected from the inclusion of pleasure automobiles, the division "transportation" has grown most rapidly of all. After 1899 it also exceeds the others in absolute amount. The rate of development in "manufactures and materials" shows an average of the rates of the two groups of which it is composed and is more satisfactory for comparison with the "transportation" division, for it represents all the equipment used in producing "form utilities," whereas the equipment credited to "transportation" is used in producing "place utilities." In absolute amount the "manufactures and materials" group exceeds the "transportation" group up to and including 1899, but after that "transportation" forges ahead. The increase in "manufactures and materials" from 1849 to 1923 is over eleven and one-half times, and from 1899 to 1923 almost two and one-half times.

It is a striking fact that for more than 15 years so much more equipment has been installed for moving persons and goods from place to place than for making things. In so far as this difference is caused by equipment used for carrying the products of manufactures, mines and quarries, and agriculture, the conclusion that geographic specialization of production has gone far in this country is verified. And in so far as it is the result of equipment used for transporting persons, it may be cited as evidence supporting the conclusion that the citizens of this nation are enjoying unprecedented wealth and leisure, as shown especially by the figures for pleasure automobiles. (See Table 31.) Both conclusions are justified. It is interesting to speculate as to whether or not this immense amount of transportation equipment will not work toward a relocation of manufacturing industries with respect to markets and raw materials.

A better comparison of "form utility" equipment with "place utility" equipment, however, may be obtained if the horsepower of pleasure automobiles is subtracted from the "transportation" group, which will then include only equipment that is mostly "productive"—that is, equipment that transports raw materials and finished products or carries people engaged in production. If the figures thus obtained are compared with those for "manufactures and materials," they will still show a much more rapid rate of increase. Moreover, after 1919, "transportation" minus pleasure automobiles appreciably exceeds "manufactures and materials" even in absolute amount of equipment.

Table 7 presents statistics of population and wage earners for the country as a whole and for those fields of activity for which it was possible to obtain data. Figures 8, 9, and 10 compare the index numbers of population and wage earners with index numbers of horsepower equipment. It is evident that both before and after 1899 the amount of power equipment has increased more rapidly than the number of wage earners. This means that for each inhabitant and worker every successive decade has witnessed a larger installation of power.

There is another, more direct way of arriving at this conclusion. By dividing the capacity of prime movers by the number of wage earners, the amount of horsepower per wage earner may be obtained directly for each census year and index numbers constructed therefrom. This is done in Table 8 and portrayed graphically in Figure 11.[27]

The amount of equipment at the command of each inhabitant and wage earner in the country and in the several fields of activity has increased steadily. The absolute amount in any field of course depends on the expenditure of effort required to produce a given result; a larger installation per wage earner would be expected in the field of steam railroads than in the field of manufactures.

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[27] Estimates of horsepower equipment by fields and horsepower equipment per wage earner are available from other sources. F. R. Low (Mechanical Engineering, January, 1925, p. 2) gives the following figures for installed capacity in horsepower in 1924:

Central stations and industrial	45,000,000
Electric railways	4,119,000
Mining	5,147,000
Stationary (nonindustrial)	4,000,000
Steam railroads	130,000,000
Navigation	16,000,000
Agriculture and traction	200,000,000
Automotive	300,000,000
	704,266,000

"If these figures are correct, there is installed for each unit of our population prime-mover capacity capable of generating about 7 horsepower."

W. L. De Baufre (Science, Oct. 30, 1925, p. 182) says: "The total of these figures [for 1919] is over 500,000,000 horsepower available for a population of 105,000,000 people, or about 5 horsepower for each man, woman, and child."

In the present study the 1919 total is 396,000,000 horsepower, and the horsepower per inhabitant 3.75.

The important generalization that proceeds from a study of Table 8 is that human effort is continually being supplanted by machinery and mechanical devices operated by prime movers. The work that man has to do is being performed more and more by the machine which he makes.

Tables 9 to 20 present figures of horsepower equipment for States and geographic districts. The study of power in this manner is profitable in a number of respects. It may not tell anything particularly new about a section of the country, but it should serve to reinforce what is already known. For any one decade it will indicate the part of the country to which a certain field of activity, such as agriculture, is chiefly confined. It will also show any changes that have occurred from decade to decade. As far as possible, it will do the same thing for types of equipment. Not only are actual amounts of power shown for each State, but for 1923, in order to offset any advantages or disadvantages resulting from differences in size of States, the amount of horsepower per square mile for the total amount of primary power, for horsepower in manufactures, and for horsepower in agriculture is given by States in Table 10. Power in such States as Rhode Island, Massachusetts, and Texas is thus shown in its true light as to "density" of use.

SOME USES FOR THE POWER INDEX

Certain conspicuous trends appear from the foregoing analysis. Power as a whole has increased tremendously from 1849 to 1923. Among the activities using power, manufactures and transportation have increased in relative importance while agriculture has decreased. The capacity of prime movers used to generate electric power has advanced with enormous strides since the beginning of the present century. In general, during the period of 75 years the country has changed from one that was predominantly agricultural to one whose chief interests are industrial. More detailed surveys of the types of prime movers and of the amounts of power installed in States and geographic districts serve to substantiate these chief conclusions. Furthermore, the amount of horsepower equipment has grown at a more rapid pace than the number of wage earners. In other words, the number of horsepower units installed per worker in the country has steadily increased.

Thus, as the capacity of prime movers may be considered an index of the use of machinery in production, it must be concluded that human labor is continually being supplemented by mechanical devices. It is important, however, in any consideration of this notable trend, to bear in mind one especially significant qualification. The statistics in this study portray the rated capacity of prime movers—that is, they indicate the amount of equipment which is

available for use for 24 hours of every day, but they throw no light on the question concerning how much of the time this equipment is actually used in production. They are a record of what can be done, not of what really is done. This is a very important distinction. It is obvious that if all the primary power of manufacturing plants and mines and farms and railroads were operated to capacity every hour of every day, the resulting volume of production would dwarf any past achievements. But the fact that it is not and in the nature of things never could be so operated must be considered in any study of power equipment.

The relation that exists between capacity and actual use of prime movers is expressed by the figure called "capacity factor" or "use factor," which is the ratio of the actual output of power to that which would be produced if the prime mover were operated at full capacity during the entire period under consideration. For example, if a 20-horsepower steam engine is operated at full capacity 2,000 hours during a year, its output would be 40,000 horsepower-hours. If it were operated at full capacity the entire year, or 8,760 hours, the output would be 175,200 horsepower-hours. The ratio between the actual output and the output that could have been produced is the use or capacity factor—in this case 22.8 per cent. This ratio must not be confused with "load factor," which is a somewhat different ratio. The "load factor" is the ratio between the average load and the peak load of a given capacity of prime movers—that is, between the average of all demands and the greatest or highest demand made on the equipment. It is evident that the load factor may be and usually is larger than the use factor, for the peak load may not tax the prime movers to their full capacity.

It is desirable to obtain some idea regarding the use factors of equipment in the different fields of activity that have been the subjects of consideration in this study. In manufactures one authority gives the use factor as about 13.7 per cent.[28] Data from another source [29] provide the basis for the calculation of the average use factor for manufactures, mines and quarries, and Government institutions as about 20 per cent. In mines and quarries it has variously been estimated from about 14.3 per cent for all mines to 24 per cent for anthracite mines and 12 per cent for all other mines and quarries.[30]

The lowest use factor among all activities but automobiles is found in agriculture. "The necessity of keeping a large primary power plant available to take care of the occasional peak loads that occur

[28] Kinsman, C. D., An appraisal of power used on farms: U. S. Dept. Agr. Bull. 1438, p. 4, 1925. Based on 1919 census.

[29] Murray, W. S., and others, A superpower system for the region between Boston and Washington: U. S. Geol. Survey Prof. Paper 123, Table 48, following p. 141, 1921. Based on 1919 census. The region considered is large enough to be representative of the entire country.

[30] The first is Kinsman's estimate. The other two are based on the superpower report, in which it was impossible to combine the two groups.

in most types of farming results in an average load factor of only about 4 per cent." [31] Power equipment on farms is idle most of the time. This disadvantage is of course inherent in the nature of the work to be performed on farms.

In the field of electric central stations the use factor is much higher. In 1922 it was 30.9 per cent, while that of electric railroads was 24.0 per cent.[32] Central-station power is called upon by its consumers, industrial or general public, more frequently and more steadily. This more even demand and the diversity of the activities supplied by central stations explain why prime movers of this activity have relatively high use factors.

Only one estimate is available regarding the use factor of railroad equipment.[33] The figure, 6.8 per cent, is much lower than that given for electric railroads. This low use factor is due to the intermittent use of steam locomotives and to the necessity for frequent inspections and repairs.

Another item of "heavy" transportation, however, was found to be much more frequently used. In general, it may be said that ships are engaged in productive work about 50 per cent of the time.[34] This is a general average: many types of vessels have a use factor as high as 70 per cent, and others may be employed only 30 per cent of the time. Much depends on the type of vessel, the rates of chartering, the ports of destination, and a number of other elements.

The use factor of automobiles is said to be about 3 per cent.[35] This low use factor should be kept in mind in comparing the total horsepower of automobiles with the total horsepower of prime movers in other activities. The accuracy of the estimate is questionable, but it is certain that pleasure automobiles are used but a very small fraction of the time throughout a year, and 3 per cent is probably very close to the true figure, especially as the actual or brake horsepower is used as the capacity of automobile engines. (See p. 75.) Trucks engaged in productive carriage doubtless have a much higher use factor.

This general concept of the use factor should be taken into account in any presentation of the results and benefits of increased power installation. Low,[36] after pointing out that every inhabitant in this country has at present at his command the equivalent in power of

[31] Kinsman, C. D., op. cit., p. 43. Other data given in this study show the use factor also to be about 4 per cent.

[32] Census of electrical industries, 1922, pp. 8, 66.

[33] Kinsman, C. D., op. cit., p. 4.

[34] This ratio was obtained by writing to all the important passenger lines and to the research bureau of the United States Shipping Board.

[35] The National Automobile Chamber of Commerce has made an effort to get annual mileage figures for automobiles. As a whole the replies have averaged about 6,000 miles. Truck mileage may be double this. But the returns are not large enough to serve as the basis for a nation-wide estimate. The use factor could of course be obtained by dividing 6,000 by a possible yearly mileage, but it is out of the question to think of obtaining the factor by the same method which is applied in other fields.

[36] Low, F. R., Mechanical Engineering, January, 1925, p. 2.

nearly 150 slaves, says: "That is what we could have if we had to, with the power-producing machinery already at our service; but it is not running all the time or at full load when it does run. Mills run only 40-odd hours a week; the load factor of most central stations is less than 40 per cent. * * * It is impossible, therefore, to tell how hard our mechanical slaves are working or how many horsepower-hours of actual service are actually produced by them per year."

It is important to note also that over a period of years the capacity factor for a certain field or for a certain industry may change—that is, the installed equipment may be used to a greater or less extent. It is entirely possible for capacity to increase and for actual use to decrease at the same time. This is an element worthy of consideration when an index of power equipment is compared with an index of volume of production. If the former outstrips the latter the reason may be partly that the use factor has decreased over the period. In almost all manufacturing industries some of the equipment included in the census is used only during times of exceptional business activity. For example, there are many blast furnaces of antiquated type in the country, which were used only during the recent war. Similarly there are many cotton spindles and flour-milling machines which have been idle for some time; but the engines which drive them have been included in the census. Mere horsepower capacity in itself, then, falls short of presenting a complete picture of the actual conditions in any field and at any one time.

The purpose of this study is primarily to set forth the trends manifested in horsepower equipment, but in conclusion it may not be out of place to suggest a number of ways in which the power index may be employed. They may be enumerated as follows:

1. As a measure of general industrial growth.
2. As a measure of capital accumulation.
3. As a measure of mechanical development, by comparing the index of power equipment with indices or measures of (*a*) the supply of labor (or number of wage earners); (*b*) the volume of production; (*c*) the volume of production per wage earner; (*d*) the area of agricultural land in use; (*e*) the amount of wages per wage earner; (*f*) the capital invested per wage earner.
4. As a means of comparing these items for the United States as a whole with those for other countries and with those for individual States or districts of this country.

Three of these uses have been developed in the preceding pages. Frequent reference has been made to the one which heads the list. The same is true for the second one, if "capital" is taken to mean instruments of production, particularly machinery. It is recognized, of course, that the power index tells nothing about the degree of intricacy or the value of the machines and their products. For example, a dentist's machine uses much less power in relation to the

value of the machine than a textile-weaving machine. The growth in power equipment has also been compared with the growth in population and in number of wage earners and found to have advanced much more rapidly—in other words, the amount of horsepower per wage earner has shown a steady and decided rise since 1849.

The increase in equipment may also be compared with the increase in volume of production. This is perhaps the chief use of the power index and certainly its chief claim to interest in the minds of contemporary business men and economists. The articles already cited and quoted are indicative of the present concern over this subject. In addition, the National Industrial Conference Board, which has made an extensive survey of power in manufactures, has released several press notices in which it stresses the increased productivity of labor and offers as the cause thereof the rapid growth of horsepower equipment. If the volume of output has grown faster than the number of wage earners, the inference safely follows that production per wage earner has increased throughout the period. And if, at the same time, the amount of power equipment has increased, it may be assumed that this item, so closely associated with human labor in production, has been at least partly responsible for the increase in output. A still better way of getting at this correlation is to compare directly the growth in power per wage earner with growth in volume of production per wage earner, as suggested on page 39. If both have increased together, it is safe to assume that a correlation exists—that the growth in power is to be largely credited with the growth in production.

It is realized that other elements may also enter into the matter of increased output. The wider employment of approved management methods, the campaign against waste, improved organization, and better industrial relations have all undoubtedly helped to effect the general result. But these elements were used in conjunction with more and better mechanical equipment.

The use of the power index in this connection is so significant that space may well be taken in illustrating it. Table 21 presents a summary of special items for comparison. These items have been selected because index numbers of volume of production are available for them. W. W. Stewart [37] has presented indices of production for "manufactures," "materials," "transportation," "mines and quarries," "agriculture," and the sum of these five from 1889 to 1919. The index numbers of "manufactures" are based upon 50 commodities. Those for "materials" are based upon 39 of the products of mines and agriculture. The indices of "transportation" are derived from a consideration of two factors on steam railroads—ton-miles of freight and passenger-miles. The "materials" group is subdivided into "mines

[37] Am. Econ. Review, March, 1920, p. 57.

and quarries" and "agriculture." Finally the sum of "manufactures," "materials," and "transportation" is expressed in the item "all commodities," made up of the total of 91 products. The index numbers do not merely represent production for the years indicated. They are five-year averages, thus giving consideration to the two years before and the two years after 1889, 1899, and 1909. It was impossible to take more than a three-year average for 1919, as Stewart's figures ended with that year.

The index numbers follow this classification in Table 21, which shows amount of equipment, number of wage earners, and volume of production and also makes the more direct comparison between horsepower per wage earner and production per wage earner. Figure 34 pictures the relative rates of growth graphically.

The table shows that in almost every group, from 1889 to 1919, horsepower equipment registered the fastest growth. Volume of production is next, and number of wage earners third. This record points clearly to only one conclusion—volume of production per wage earner has grown steadily, accompanied by an even greater increase in power. The fact that in all items except "mines and quarries" power has grown much faster than volume of production, however, might seem to indicate a condition of diminishing returns—that is, volume of production has increased with the growth of power, but not in as great a proportion. Plausible as this inference seems the fact must not be forgotten that the power index merely shows capacity, not actual use. It might be that a decrease in rapidity of growth of actual use of power would be shown if it were possible to ascertain the figures. It is possible even that in certain items use of power might be outstripped by volume of production.

The indices showing volume of production per wage earner are obtained by dividing the indices of volume of production by the indices of number of wage earners. They show even more plainly the continuous increase in the productivity of labor. But when compared with installed horsepower per wage earner the volume of production per wage earner is seen to have risen less rapidly, especially since 1899. Before that year productivity led in none of the items except "manufactures" and "mines and quarries." Once more the fact that only capacity of prime movers is being considered precludes any conclusions concerning diminishing returns, but it seems fairly evident that increasing returns may have existed before 1899 in all but the two items noted. After that year only two of the indices, both for "mines and quarries," show a similar state of affairs; in 1909 the index of productivity exceeds the index of power by 14 per cent and in 1919 by 11 per cent. This increase may show the influence of the new cutting machinery in mines.

There seems, then, to be a marked correlation between productivity and power. This relation may be determined with a much greater degree of exactitude when more accurate and fuller information concerning power equipment and volume of production becomes available. One obvious weakness of index numbers of production extending backward a score or more of years is their failure to take into consideration the tremendous improvement in utility of the unit considered. It is plain that an automobile of 1909 or even of 1919 is not the equal in utility of an automobile of 1923, and similar comparisons may be made with reference to the units of other commodities. This means that the increase in productivity portrayed in Table 21 falls short of measuring the actual increase in total utility of the immense volume of goods that is poured forth year after year. The curve of total utility would rise even more sharply.

The power index also admits of comparison with an index showing the increase in amount of improved farm land. This comparison would emphasize the growth of the United States as a manufacturing country and bring out the relative retrogression of agriculture. It is made in Table 22. From 1849 to 1919 the acreage of improved land increased only four and one-half times, while the power capacity increased more than seventeen times.

A basis is thus furnished for a little excursion into the field of economic theory. Those who embrace the classical theory of marginal productivity will see in the development of horsepower equipment the growth of instrumental capital at a pace much more rapid than that shown by labor and by land. They will find, then, that the marginal productivity of labor and land has increased relatively to that of capital, with resultant high wages per man and high rents to the landowner. Furthermore, the absolute amount of instrumental capital is so great that it takes a large absolute share of the product of industry.

Two other interesting uses of the power index for comparison are thus suggested. It may be compared with the growth in amount of wages per wage earner and with the amount of capital invested per wage earner.

The most inviting use to which the index of horsepower equipment in the United States could be put seems to be a comparison with indices based on similar studies made in other countries, such as Germany, France, and England. Europe is immensely interested in and perhaps apprehensive of the unprecedented prosperity of this country. It would be extremely interesting to see if the greater volume of production and higher wages in the United States coincide with a correspondingly greater amount and growth of horsepower equipment than can be found in the Old World.

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TABLES

TABLE 1.—*Total horsepower of prime movers [a] in the United States, 1849–1923*

Total

Year	Horsepower	Index No. (1899=100)
1849	[b] 10,066,000	16
1859	[b] 15,793,000	25
1869	19,147,000	30
1879	28,820,000	45
1889	47,697,000	74
1899	64,193,000	100
1909	120,331,000	187
1919	396,118,000	617
1923	684,044,000	1066

Exclusive of pleasure automobiles

1899	64,161,000	100
1909	112,873,000	176
1919	176,650,000	275
1923	230,514,000	359

[a] Work animals are considered to be prime movers and therefore are included in the totals in this table and in columns "Agriculture" and "Work animals not on farms" of Table 2.
[b] Data for first two decades very incomplete and almost wholly estimated.

TABLE 2.—*Horsepower of prime movers installed in different activities, 1849–1923* [a]

Horsepower (thousands)

Year	Manufactures [b]	Mines and quarries [c]	Agriculture [d]	Irrigation and drainage [e]	Electric central stations [f]	Electric railroads [g]	Steam railroads [h]	Ships [i]	Automobiles [j]	Work animals not on farms [k]	Total
1849	1,100	50	6,597				435	734		1,150	10,066
1859	1,600	150	9,655				1,940	1,142		1,306	15,793
1869	2,346	350	9,588				4,100	1,076		1,687	19,147
1879	3,411	650	13,764	5			7,720	1,110		2,160	28,820
1889	5,850	1,300	19,835	33	120	140	16,300	1,444		2,675	47,697
1899	9,778	2,754	23,519	120	1,200	935	20,900	1,900	32	3,055	64,193
1909	16,803	4,403	30,807	361	5,225	3,091	45,400	3,122	7,714	3,405	120,331
1919	20,063	5,112	39,222	816	15,250	4,360	72,300	6,584	230,432	1,979	396,118
1923	19,728	5,000	38,100	1,300	22,000	4,100	74,600	10,262	507,254	1,700	684,044

Horsepower, exclusive of pleasure automobiles (thousands)

1899	9,778	2,754	23,519	120	1,200	935	20,900	1,900	0	3,055	64,161
1909	16,803	4,403	30,807	361	5,225	3,091	45,400	3,122	256	3,405	112,873
1919	20,063	5,112	39,222	816	15,250	4,360	72,300	6,584	10,964	1,979	176,650
1923	19,728	5,000	38,100	1,300	22,000	4,100	74,600	10,262	53,724	1,700	230,514

[a] No duplication in this table.
[b] Data for all years except 1849 and 1859 from census reports; estimated for these years on basis of number of wage earners and by extrapolation.
[c] Data from census reports, except for 1849, 1859, 1869, 1879, and 1889; estimated for these years from scattered census sources.
[d] Data from study of C. D. Kinsman, agricultural engineer (An appraisal of power on farms in the United States: U. S. Dept. Agr. Bull. 1348, 1925). Includes work animals.
[e] Data from census reports, except for 1879, 1889, and 1899; estimated for these years on basis of acreage.
[f] Special census reports give data for 1902, 1907, 1912, 1917, and 1922. Data for 1889 and 1899 estimated on basis of historical facts in these reports and carried back by extrapolation. Data for 1909 and 1919 estimated from neighboring years by interpolation, for 1923 by extrapolation.
[g] Same sources and methods as for electric central stations.
[h] Estimated from 1899 to 1923 on basis of pounds of tractive force reported by Interstate Commerce Commission. For previous years, estimated on basis of track mileage. See Table 29.
[i] Estimated from tonnage of vessels. See Table 30.
[j] Estimated from registration figures to which horsepower figures were applied. See Table 33.
[k] From Kinsman's figures.

TABLE 2.—*Horsepower of prime movers installed in different activities, 1849–1923*—Continued

Percentage of each year's total

Year	Manufactures	Mines and quarries	Agriculture	Irrigation and drainage	Electric central stations	Electric railroads	Steam railroads	Ships	Automobiles	Work animals not on farms	Total
1849	10.90	0.50	65.52	-------	-------	-------	4.30	7.30	-------	11.48	100.00
1859	10.12	.94	61.18	-------	-------	-------	12.26	7.24	-------	8.26	100.00
1869	12.24	1.83	50.03	-------	-------	-------	21.37	5.72	-------	8.81	100.00
1879	11.82	2.26	47.77	0.02	-------	-------	26.81	3.86	-------	7.46	100.00
1889	12.24	2.73	41.60	.07	0.25	0.29	34.19	3.03	-------	5.60	100.00
1899	15.23	4.28	36.63	.19	1.87	1.46	32.57	2.96	0.05	4.76	100.00
1909	13.98	3.66	25.62	.30	4.33	2.57	37.73	2.59	6.41	2.83	100.00
1919	5.05	1.29	9.90	.21	3.85	1.10	18.25	1.66	58.20	.49	100.00
1923	2.89	.73	5.57	.19	3.22	.60	10.91	1.50	74.14	.25	100.00

Percentage, exclusive of pleasure automobiles

1899	15.24	4.29	36.66	0.19	1.87	1.46	32.57	2.96	0	4.76	100.00
1909	14.89	3.90	27.29	.32	4.63	2.73	40.22	2.77	.23	3.02	100.00
1919	11.32	2.88	22.23	.46	8.63	2.47	40.92	3.76	6.21	1.12	100.00
1923	8.57	2.17	16.51	.57	9.55	1.78	32.34	4.46	23.31	.74	100.00

Index numbers (1899=100)

1849	11	2	28	-------	-------	-------	2	39	-------	38	16
1859	16	5	41	-------	-------	-------	9	60	-------	43	25
1869	24	13	41	-------	-------	-------	20	57	-------	55	30
1879	36	24	59	4	-------	-------	37	58	-------	71	45
1889	60	47	84	28	10	15	78	76	-------	88	74
1899	100	100	100	100	100	100	100	100	100	100	100
1909	172	160	131	301	435	330	217	164	24,106	111	187
1919	205	186	167	680	1,271	466	346	347	720,100	65	617
1923	202	182	162	1,083	1,832	438	357	540	1,585,169	56	1,065

Index numbers, exclusive of pleasure automobiles

1899	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	100
1909	-------	-------	-------	-------	-------	-------	-------	-------	100	-------	176
1919	-------	-------	-------	-------	-------	-------	-------	-------	4,283	-------	275
1923	-------	-------	-------	-------	-------	-------	-------	-------	20,986	-------	359

TABLE 3.—*Horsepower utilized in each field of activity, 1849–1923* [a]

Horsepower (thousands)

Year	Manufactures	Mines and quarries	Agriculture	Irrigation and drainage	Electric central stations	Electric railroads	Steam railroads	Ships	Automobiles	Work animals not on farms	Total	Total exclusive of pleasure automobiles
1849	1,100	50	6,597	------	------	------	435	734	----------	1,150	10,066	10,066
1859	1,600	150	9,655	------	------	------	1,940	1,142	----------	1,306	15,793	15,793
1869	2,346	350	9,588	------	------	------	4,100	1,076	----------	1,687	19,147	19,147
1879	3,411	650	13,764	5	------	------	7,720	1,110	----------	2,160	28,820	28,820
1889	5,939	1,300	19,835	33	120	140	16,300	1,444	----------	2,675	47,786	47,786
1899	10,098	2,868	23,519	120	1,200	1,079	20,900	1,900	32	3,055	64,771	64,739
1909	18,675	4,608	31,107	361	5,225	3,718	45,400	3,122	7,714	3,405	123,335	116,877
1919	29,505	6,724	43,722	816	15,250	6,327	72,300	6,584	230,432	1,979	413,639	194,171
1923	33,094	7,500	47,420	1,300	22,000	6,784	74,600	10,262	507,254	1,700	711,914	258,384

Index numbers (1899=100)

1849	11	2	28	------	------	------	2	39	----------	38	16	16
1859	16	5	41	------	------	------	9	60	----------	43	24	24
1869	23	12	41	------	------	------	20	57	----------	55	30	30
1879	34	23	59	4	------	------	37	58	----------	71	44	44
1889	59	45	84	27	10	13	78	76	----------	88	74	74
1899	100	100	100	100	100	100	100	100	100	100	100	100
1909	185	161	132	301	435	345	217	164	24,100	111	190	181
1919	292	234	186	680	1,271	586	346	347	720,100	65	639	300
1923	328	262	202	1,083	1,832	629	357	540	1,585,168	56	1,099	399

[a] Horsepower purchased or rented is counted in the field of activity using it and also where it is installed. Autotrucks are included under both "Agriculture" and "Automobiles." There is therefore some duplication in the figures in this table. The amount of duplication is indicated by the difference between the figures for the corresponding activities in Tables 2 and 3. For sources of data see Table 2.

TABLE 4.—*Horsepower of prime movers, 1849–1923, by types of prime movers*

Total

Year	A. Horsepower (thousands)						B. Percentage of each year's total					C. Index numbers (1899=100)				
	Steam engines and turbines	Internal-combustion engines [a]	Water wheels	Windmills	Work animals [b]	Total	Steam engines and turbines	Internal-combustion engines	Water wheels	Windmills	Work animals	Steam engines and turbines	Internal-combustion engines	Water wheels	Windmills	Work animals
1849	[c] 1,228	-------	[c] 662	429	7,747	10,066	12.19	-------	6.58	4.26	76.97	3	-------	36	65	35
1859	[c] 3,263	-------	[c] 930	639	10,961	15,793	20.66	-------	5.88	4.05	69.41	8	-------	50	97	49
1869	[c] 6,215	-------	[c] 1,205	452	11,275	19,147	32.51	-------	6.21	2.36	58.92	16	-------	65	69	50
1879	[c] 11,636	-------	[c] 1,353	507	15,324	28,820	40.38	-------	4.69	1.76	53.17	30	-------	73	77	69
1889	[c] 24,281	17	[c] 1,522	566	21,311	47,697	50.89	0.03	3.20	1.19	44.69	63	2	82	86	96
1899	[c] 38,445	956	[c] 1,860	658	22,274	64,193	59.84	1.49	2.90	1.02	34.75	100	100	100	100	100
1909	77,055	13,170	4,022	822	25,262	120,331	63.99	10.94	3.34	.68	21.05	200	1,378	216	125	113
1919	116,380	247,031	7,650	836	24,221	396,118	29.43	62.32	1.92	.21	6.13	303	25,840	411	127	109
1923	125,773	526,322	9,598	851	21,500	684,044	18.33	77.00	1.41	.12	3.14	327	55,055	516	129	97
Exclusive of pleasure automobiles																
1899	[c] 38,445	924	[c] 1,860	658	22,274	64,161	59.87	1.44	2.90	1.02	34.77	100	100	100	100	100
1909	77,055	5,712	4,022	822	25,262	112,873	68.26	5.07	3.57	.73	22.37	200	618	216	125	113
1919	116,380	27,563	7,650	836	24,221	176,650	66.00	15.56	4.33	.47	13.64	303	2,983	411	127	109
1923	125,773	72,792	9,598	851	21,500	230,514	54.57	31.57	4.16	.37	9.33	327	7,878	516	129	97

[a] Estimated or calculated in part.
[b] Data furnished by C. D. Kinsman, U. S. Department of Agriculture.
[c] Estimated.

TABLE 5.—*Horsepower of prime movers utilized, 1849–1923, by types of prime movers and fields of activity*

Manufactures

Year	Horsepower (thousands)						Percentage of each year's total				
	Steam engines and turbines	Internal-combustion engines	Water wheels	Operated by purchased power		Total	Steam engines and turbines	Internal-combustion engines	Water wheels	Operated by purchased power	
				Electric motors	Other equipment					Electric motors	Other equipment
1849	a 450		a 650			1,100	41.00		59.00		
1859	a 700		a 900			1,600	43.70		56.30		
1869	1,216		1,130			2,346	51.80		48.20		
1879	2,185		1,225			3,410	64.10		35.90		
1889	4,586	9	1,255		89	5,939	77.23	0.15	21.13		1.49
1899	8,190	135	1,454	183	137	10,099	81.10	1.33	14.40	1.81	1.36
1909	14,229	751	1,823	1,749	124	18,676	76.19	4.02	9.76	9.37	.66
1919	17,040	1,259	1,765	9,348	95	29,507	57.75	4.27	5.98	31.68	.32
1923	16,701	1,224	1,803	13,365		33,093	50.47	3.71	5.45	40.37	

Mines and quarries

1849	a 38		a 12			50	77.00		23.00		
1859	a 120		a 30			150	79.50		20.50		
1869	a 275		a 75			350	79.00		21.00		
1879	a 525		a 125			650	81.00		19.00		
1889	a 1,050		a 250			1,300	81.00		19.00		
1899	2,433	260	61	114		2,868	84.83	9.07	2.13	3.97	
1909	3,787	519	97	206		4,609	82.20	11.20	2.10	4.50	
1919	3,712	1,361	38	1,603	9	6,723	55.10	20.30	.60	23.90	0.1
1923	a 3,275	a 1,700	a 25	2,500		7,500	43.70	22.70	.30	33.30	

a Estimated.

TABLE 5.—*Horsepower of prime movers utilized, 1849–1923, by types of prime movers and fields of activity*—Continued

Irrigation and drainage [b]

Year	Horsepower (thousands)						Percentage of each year's total				
	Steam engines and turbines	Internal-combustion engines	Water wheels	Operated by purchased power		Total	Steam engines and turbines	Internal-combustion engines	Water wheels	Operated by purchased power	
				Electric motors	Other equipment					Electric motors	Other equipment
1878	2.5		2.5			5	50.0		50.0		
1889	8	8	16.5			32.5	24.6	24.6	50.8		
1899	30	30	60			120	25.0	25.0	50.0		
1909	90	90	181			361	24.9	24.9	50.2		
1919	200	200	416			816	24.5	24.5	51.0		
1923	300	300	700			1,300	23.0	23.0	54.0		
Electric central stations [c]											
1889	120					120	100.0				
1899	950		250			1,200	79.0		21.0		
1909	3,450	75	1,700			5,225	66.0	1.4	32.6		
1919	10,100	250	4,900			15,250	66.2	1.7	32.1		
1923	15,000	350	6,650			22,000	68.2	1.6	30.2		
Electric railroads [c]											
1889	140					140	100.0				
1899	900		35	144		1,079	83.4		3.2	13.4	
1909	2,850	21	220	627		3,718	76.6	0.6	5.9	16.9	
1919	3,800	30	530	1,967		6,327	60.0	.5	8.4	31.1	
1923	3,650	30	420	2,684		6,784	53.8	.4	6.2	39.6	

[b] Segregation arbitrary. Data for 1879, 1889, 1899, and 1923 estimated on basis of acreage.
[c] All power in 1889 assumed to be steam engines. Estimated from census reports for other years.

Agriculture [d]

Year	Horsepower (thousands)						Percentage of each year's total				
	Steam engines and turbines	Internal-combustion engines	Windmills	Work animals	Operated by purchased power (electric motors)	Total	Steam engines and turbines	Internal-combustion engines	Windmills	Work animals	Operated by purchased power (electric motors)
1849				6,597		6,597				100.0	
1859				9,655		9,655				100.0	
1869				9,588		9,588				100.0	
1879	500		100	13,164		13,764	3.1		0.5	96.4	
1889	1,000		200	18,636		19,836	4.4		.8	94.8	
1899	2,500	500	300	19,219		22,519	9.8	2.0	.9	87.3	
1909	4,500	4,000	450	21,857	300	31,107	13.0	11.7	1.3	73.2	0.8
1919	3,500	16,000	480	22,242	1,500	43,722	8.0	36.6	1.1	50.9	3.4
1923	3,000	21,920	500	19,800	2,200	47,420	6.3	46.3	1.1	41.7	4.6

Ships [e]

Year	Horsepower (thousands)				Percentage of each year's total			Year	Horsepower (thousands)				Percentage of each year's total		
	Steam engines and turbines	Internal-combustion engines	Sails	Total	Steam engines and turbines	Internal-combustion engines	Sails		Steam engines and turbines	Internal-combustion engines	Sails	Total	Steam engines and turbines	Internal-combustion engines	Sails
1849	305		429	734	41.6		58.4	1899	1,542		358	1,900	81.2		18.8
1859	503		639	1,142	44.0		56.0	1909	2,750		372	3,122	88.0		12.0
1869	624		452	1,076	58.1		41.9	1919	5,734	495	356	6,585	87.0	7.6	5.4
1879	703		407	1,110	63.3		36.7	1923	9,247	664	351	10,262	90.1	6.5	3.4
1889	1,078		366	1,444	74.7		25.3								

[d] Data furnished by C. D. Kinsman, U. S. Department of Agriculture.
[e] See Table 30.

NOTE.—Steam railroads are considered as having steam equipment only, electric power used on electrified divisions and tunnels being included with electric railroads. All automobiles are considered as having internal-combustion engines. Work animals not on farms are not apportioned among the other fields but are treated separately. For horsepower in these fields see other tables.

TABLE 6.—*Horsepower of prime movers, 1849–1923, by special groups*

Horsepower (thousands)

Year	"Manufactures" [a]	"Materials" [b]	"Transportation" [c]	"Manufactures" and "materials"	"Transportation" exclusive of pleasure automobiles	"Heavy transportation" [d]	"Light transportation" [e]	"Electric motors" [f]
1849	1,100	6,647	2,319	7,747	2,319	1,169	1,150	----------
1859	1,600	9,805	4,388	11,405	4,388	3,082	1,306	----------
1869	2,346	9,938	6,863	12,284	6,863	5,176	1,687	----------
1879	3,411	14,419	10,990	17,830	10,990	8,830	2,160	----------
1889	5,970	21,168	20,559	27,138	20,559	17,884	2,675	----------
1899	10,720	26,507	26,966	37,227	26,934	23,879	3,087	2,575
1909	20,894	36,076	63,359	56,970	55,936	52,240	11,119	11,878
1919	30,243	51,262	317,622	81,505	100,202	85,211	232,411	27,839
1923	34,344	56,220	600,600	90,564	148,612	91,646	508,954	34,922

Index numbers (1899=100)

1849	10	25	9	21	9	5	37	----------
1859	15	37	16	31	16	13	42	----------
1869	22	37	25	33	25	22	55	----------
1879	32	54	41	48	41	37	70	----------
1889	56	80	76	73	76	75	87	----------
1899	100	100	100	100	100	100	100	100
1909	195	136	235	153	208	219	360	461
1919	282	193	1,178	219	372	357	7,529	1,081
1923	320	212	2,227	243	552	384	16,487	1,356

[a] Includes prime movers installed in manufactures and electric central stations minus the estimated prime movers of central stations utilized in mines and quarries, agriculture, and electric railroads. (See Tables 2, 3, and 5.)

[b] Includes prime movers utilized in mines and quarries, agriculture, and irrigation and drainage. (See Table 3.)

[c] Includes prime movers utilized in electric railroads, steam railroads, ships, automobiles, and work animals not on farms. (See Table 3.)

[d] Includes prime movers utilized in electric railroads, steam railroads, and ships. (See Table 3.)

[e] Includes horsepower of automobiles and work animals not on farms. (See Table 3.)

[f] Includes prime movers installed in central stations, electric railroads, and electric motors driven by the prime movers in manufactures and mines and quarries. (See Tables 2, 23, and 24.) No information available for mines and quarries in 1923.

TABLE 7.—*Population and wage earners in the United States, 1849–1923*

Thousands

Year	Population [a]	Total wage earners [a]	Wage earners in—											
			Manufactures [b]	Mines and quarries [a]	Agriculture [c]	Electric central stations [d]	Electric railroads [d]	Steam railroads [e]	Ships	"Manufactures" [f]	"Materials" [f]	"Heavy transportation" [f]	"Manufactures" and "materials" [f]
1849	23,192	7,000	1,200	82	5,000	----------	----------	180	105	1,200	5,082	285	6,300
1859	31,443	10,500	1,500	158	5,600	----------	----------	250	102	1,500	5,758	352	7,200
1869	38,558	12,506	2,054	166	5,872	----------	----------	400	89	2,054	6,038	489	8,100
1879	50,156	17,392	2,733	249	7,663	----------	----------	550	89	2,733	7,912	639	10,645
1889	62,622	23,318	4,252	387	8,451	5	71	749	77	4,257	8,838	897	13,095
1899	75,995	29,073	5,306	620	10,249	25	132	929	78	5,331	10,869	1,139	16,200
1909	91,972	38,167	6,615	965	12,365	55	250	1,501	121	6,670	13,330	1,874	20,000
1919	105,711	41,614	9,041	1,090	10,646	120	296	1,913	173	9,116	11,736	2,382	20,950
1923 [g]	110,000	43,500	8,778	1,150	10,000	140	305	1,850	200	8,918	11,150	2,455	20,068
Index numbers (1899=100)													
1849	30	24	23	13	49	----------	----------	19	135	22	47	25	39
1859	41	36	28	25	55	----------	----------	27	131	28	53	31	44
1869	51	43	39	27	57	----------	----------	43	114	39	56	43	50
1879	66	60	52	40	75	----------	----------	59	114	51	73	56	66
1889	82	80	80	62	82	20	54	81	99	80	81	79	81
1899	100	100	100	100	100	100	100	100	100	100	100	100	100
1909	121	131	125	156	120	220	189	162	155	125	123	165	123
1919	139	143	170	176	104	480	224	206	222	171	108	209	129
1923	145	150	165	185	98	560	231	199	256	167	103	216	124

[a] Census reports.
[b] Census of manufactures.
[c] C. D. Kinsman, U. S. Department of Agriculture.
[d] Estimated from data in special census reports.
[e] Reports of Interstate Commerce Commission and U. S. Census.
[f] Groups are defined in footnotes to Table 6.
[g] Data for 1923, except for manufactures and agriculture, are estimated mainly from past growth.

TABLE 8.—*Horsepower of prime movers installed per inhabitant and per wage earner and utilized per wage earner in different activities and groups, 1849–1923* [a]

Horsepower

Year	Installed [b] per—				Utilized [c] per wage earner in—										
	Inhabitant	Wage earner	Inhabitant, exclusive of pleasure automobiles	Wage earner, exclusive of pleasure automobiles	Manufactures	Mines and quarries	Agriculture	Electric central stations	Electric railroads	Steam railroads	Ships	"Manufactures"	"Materials"	"Heavy transportation"	"Manufactures and "materials"
1849	0.43	1.44	0.43	1.44	0.92	0.61	1.32	----------	----------	2.4	7.0	0.92	1.31	4.1	1.23
1859	.50	1.50	.50	1.50	1.07	.95	1.72	----------	----------	7.8	11.2	1.07	1.70	8.8	1.58
1869	.50	1.53	.50	1.53	1.14	2.11	1.63	----------	----------	10.2	12.1	1.14	1.65	10.6	1.52
1879	.58	1.66	.58	1.66	1.25	2.61	1.80	----------	----------	14.0	12.5	1.25	1.82	13.8	1.68
1889	.76	2.05	.76	2.05	1.40	3.36	2.32	24.0	1.97	21.8	18.8	1.40	2.39	19.9	2.08
1899	.85	2.21	.85	2.21	1.90	4.63	2.29	48.0	8.18	22.5	24.3	2.02	2.44	21.0	2.30
1909	1.31	3.16	1.23	2.96	2.82	4.77	2.52	95.0	14.87	30.2	25.8	3.13	2.70	27.9	2.85
1919	3.75	9.52	1.67	4.25	3.26	6.17	4.10	127.5	21.40	37.8	38.1	3.32	4.37	35.8	3.90
1923	6.21	15.70	2.10	5.31	3.76	6.52	4.74	157.0	22.25	40.3	51.3	3.85	5.05	37.4	4.51

Index numbers (1899=100)

1849	51	65	51	65	48	13	58	----------	----------	11	29	46	54	20	53
1859	59	68	59	68	56	21	75	----------	----------	35	46	53	70	42	69
1869	59	69	59	69	60	46	71	----------	----------	45	50	56	68	50	66
1879	68	75	68	75	66	56	79	----------	----------	62	51	62	75	66	73
1889	89	93	89	93	74	73	101	50	24	97	77	69	98	95	90
1899	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1909	154	143	145	134	148	103	110	198	182	134	106	155	111	133	124
1919	441	431	196	192	172	133	179	266	262	168	157	164	179	170	170
1923	731	710	247	240	198	141	207	327	272	179	211	190	207	178	196

[a] See Table 7 for sources of information.
[b] See Table 1 for total horsepower of prime movers.
[c] See Tables 3 and 6 for horsepower of prime movers utilized in the different activities and groups.

TABLE 9.—*Total horsepower, in thousands, of prime movers,[a] 1869–1923, by States and geographic divisions*

Division and State	1869		1879		1889		1899		1909		1919		1923		Exclusive of pleasure automobiles			
															1919		1923	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
United States	-------	11,934	-------	17,175	-------	27,129	-------	40,086	-------	63,812	-------	321,839	-------	607,745	-------	102,371	-------	154,215
New England	6	1,128	6	1,375	6	1,941	6	2,461	7	4,087	7	21,838	7	38,195	7	6,422	7	11,065
Middle Atlantic	2	2,232	3	2,665	3	4,204	3	7,083	3	11,933	3	55,523	2	111,988	2	20,381	2	33,410
East North Central	1	3,325	1	4,468	2	6,015	1	8,835	1	13,306	1	72,431	1	146,940	1	21,017	1	34,500
West North Central	5	1,316	2	3,179	1	6,328	2	8,756	2	12,820	2	61,560	3	98,274	3	18,312	3	23,809
South Atlantic	3	1,742	4	2,031	4	2,890	4	4,230	4	6,207	4	29,924	5	55,256	4	9,677	4	14,240
East South Central	4	1,335	5	1,641	5	2,317	5	3,111	6	4,316	8	14,352	8	25,026	8	5,986	8	6,765
West South Central	8	390	7	981	7	1,816	7	2,962	5	5,138	6	24,241	6	50,687	5	8,440	5	12,815
Mountain	9	47	9	137	9	346	9	867	9	2,126	9	13,837	9	21,486	9	4,431	9	6,195
Pacific	7	419	8	698	8	1,272	8	1,781	8	3,879	5	28,133	4	59,893	6	7,705	6	11,416
New England:																		
Maine	18	234	23	265	24	371	31	453	31	779	36	2,560	36	4,558	37	910	36	1,398
New Hampshire	21	202	29	198	35	217	36	299	39	331	42	1,315	42	2,475	42	402	42	630
Vermont	20	204	24	228	33	259	38	268	38	346	45	1,121	44	2,181	43	381	44	511
Massachusetts	17	270	17	404	16	684	17	909	13	1,747	9	10,681	10	19,370	10	3,061	8	5,530
Rhode Island	33	61	34	79	38	137	41	160	41	296	39	1,921	39	3,131	40	530	39	1,011
Connecticut	26	157	28	201	31	273	34	372	35	588	26	4,190	28	6,480	32	1,138	23	1,985
Middle Atlantic:																		
New York	1	1,118	1	1,308	1	2,080	2	2,858	2	4,945	1	25,102	1	51,015	1	9,620	1	16,935
New Jersey	24	165	30	198	29	313	27	546	26	949	16	7,335	14	16,123	21	1,775	10	4,525
Pennsylvania	3	949	3	1,159	2	1,811	1	3,679	1	6,039	2	23,086	2	44,850	2	8,986	2	11,950
East North Central:																		
Ohio	4	903	4	1,142	4	1,535	3	2,457	3	4,006	3	21,651	4	42,315	3	6,559	3	10,885
Indiana	5	618	7	757	9	1,026	10	1,401	12	1,961	13	9,578	9	21,580	13	3,012	9	5,300
Illinois	2	1,076	2	1,459	3	1,769	4	2,385	4	3,647	4	19,352	5	37,884	4	5,532	4	9,174
Michigan	12	366	10	564	10	935	7	1,544	9	2,163	8	12,456	6	27,510	7	3,514	7	5,780
Wisconsin	13	362	11	546	13	750	14	1,048	15	1,529	14	9,394	13	17,651	15	2,400	15	3,361
West North Central:																		
Minnesota	28	135	18	398	15	730	9	1,410	11	2,049	12	9,664	12	17,995	8	3,214	12	4,475
Iowa	6	519	5	1,032	5	1,473	5	1,847	10	2,150	6	13,821	8	22,135	11	3,033	13	4,030
Missouri	7	516	6	893	7	1,271	6	1,672	6	2,263	10	10,265	11	19,094	9	3,125	11	4,514
North Dakota	-------	-------	46	1	32	262	26	552	16	1,351	21	4,491	33	5,644	18	1,999	22	2,057
South Dakota	-------	-------	38	42	23	403	23	653	22	1,059	22	4,465	30	5,860	26	1,425	28	1,757
Nebraska	36	32	21	270	11	877	12	1,110	14	1,669	15	8,686	17	11,868	14	2,494	16	3,073
Kansas	30	114	12	543	6	1,312	8	1,512	5	2,279	11	10,168	15	15,678	12	3,022	14	3,903

[a] Manufactures and agriculture, 1869–1923; plus mines and quarries, central stations, electric railroads, 1899–1923; plus irrigation and drainage, 1909–1923; plus automobiles, 1919–1923. Steam railroads and work animals not on farms not included. No duplication in figures.

TABLE 9.—*Total horsepower, in thousands, of prime movers, 1869–1923, by States and geographic divisions*—Continued

Division and State	1869		1879		1889		1899		1909		1919		1923		Exclusive of pleasure automobiles			
															1919		1923	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
South Atlantic:																		
Delaware	34	47	37	42	41	50	45	54	48	81	48	628	49	1,230	49	161	47	384
Maryland	22	176	26	215	28	315	32	440	33	645	28	3,766	24	7,059	36	1,004	29	1,712
District of Columbia	43	2	45	3	48	17	49	23	49	41	43	1,230	41	2,728	47	203	45	444
Virginia	8	464	14	468	19	607	19	780	21	1,131	23	4,428	20	9,274	22	1,740	18	2,890
West Virginia	25	161	27	215	27	319	22	672	25	1,016	33	3,024	25	6,764	24	1,624	30	1,675
North Carolina	15	302	19	360	21	514	21	685	27	937	20	4,753	19	9,624	27	1,373	24	1,975
South Carolina	23	168	25	218	25	349	30	488	30	782	30	3,508	34	5,497	33	1,121	32	1,569
Georgia	11	380	16	462	17	635	16	916	19	1,255	18	6,390	22	7,369	19	1,840	21	2,240
Florida	35	42	36	48	39	84	40	172	40	319	38	2,197	31	5,711	38	611	37	1,351
East South Central:																		
Kentucky	9	448	9	580	14	749	15	994	18	1,288	25	4,252	21	7,897	23	1,641	27	1,870
Tennessee	10	385	15	465	18	608	18	795	23	1,058	27	3,841	23	7,104	25	1,496	26	1,879
Alabama	16	279	20	330	20	544	20	760	20	1,140	31	3,465	32	5,706	20	1,801	25	1,882
Mississippi	19	223	22	266	22	416	24	562	29	830	34	2,794	37	4,319	35	1,048	38	1,134
West South Central:																		
Arkansas	31	104	31	195	26	336	28	523	32	749	37	2,545	35	4,895	34	1,092	35	1,428
Louisiana	29	131	32	135	30	278	25	561	28	842	35	2,698	29	6,199	29	1,222	20	2,267
Oklahoma					43	40	29	505	17	1,336	19	5,460	16	12,515	17	2,159	19	2,775
Texas	27	155	8	651	3	1,162	11	1,373	7	2,211	7	13,538	7	27,078	6	3,967	6	6,345
Mountain:																		
Montana	42	2	43	15	40	63	39	218	37	525	32	3,044	38	3,831	28	1,252	31	1,612
Idaho	44	1	41	16	42	42	42	100	42	277	40	1,841	40	2,805	39	607	40	871
Wyoming			47	1	45	22	44	72	46	137	46	900	46	1,627	45	275	46	433
Colorado	37	21	35	59	37	151	37	285	36	562	24	4,268	26	6,720	31	1,146	34	1,453
New Mexico	39	11	44	11	46	22	47	38	45	141	47	765	47	1,355	46	232	48	337
Arizona			48	1	49	1	46	45	44	171	44	1,212	45	2,128	44	381	41	683
Utah	41	3	40	19	44	25	43	77	43	221	41	1,435	43	2,362	41	440	43	612
Nevada	40	9	42	15	47	20	48	32	47	92	49	372	48	658	48	98	49	194
Pacific:																		
Washington	38	13	39	32	36	162	33	389	24	1,050	17	6,713	18	10,588	16	2,333	17	3,068
Oregon	32	66	33	124	34	257	35	319	34	635	29	3,595	27	6,677	30	1,185	33	1,500
California	14	340	13	542	12	853	13	1,073	8	2,194	5	17,825	3	42,628	5	4,187	5	6,848

TABLE 10.—*Horsepower of prime movers per square mile, 1923, by States and geographic divisions*[a]

Division and State	Total	Manufactures	Agriculture
United States	204.4	11.1	12.8
New England	616.3	67.0	8.9
Middle Atlantic	1,120.0	96.3	20.1
East North Central	598.0	37.0	27.7
West North Central	192.4	3.4	26.3
South Atlantic	205.4	11.7	11.8
East South Central	139.5	8.1	14.1
West South Central	118.0	3.0	11.8
Mountain	25.0	.9	2.9
Pacific	188.3	5.9	6.4
New England:			
Maine	152.5	19.1	6.3
New Hampshire	274.1	39.1	-------
Vermont	239.0	19.4	13.9
Massachusetts	2,409.5	240.4	13.3
Rhode Island	2,934.4	367.4	-------
Connecticut	1,344.4	150.8	26.1
Middle Atlantic:			
New York	1,070.5	68.5	19.7
New Jersey	2,145.7	167.2	19.7
Pennsylvania	1,001.4	113.9	20.5
East North Central:			
Ohio	1,038.7	81.2	34.5
Indiana	598.7	38.1	35.2
Illinois	676.0	35.3	37.0
Michigan	478.6	25.6	17.9
Wisconsin	319.4	16.8	18.6
West North Central:			
Minnesota	222.6	5.7	19.8
Iowa	398.2	5.1	39.7
Missouri	277.8	8.0	29.6
North Dakota	80.4	.2	26.9
South Dakota	76.2	.2	17.4
Nebraska	154.5	1.7	25.3
Kansas	191.7	3.1	29.5
South Atlantic:			
Delaware	626.0	57.0	-------
Maryland	710.1	50.1	21.7
District of Columbia	45,466.7	533.3	-------
Virginia	230.3	10.7	17.5
West Virginia	281.6	15.5	14.9
North Carolina	197.5	14.5	11.9
South Carolina	180.2	13.4	13.7
Georgia	125.5	7.7	13.3
Florida	104.1	2.5	2.4
East South Central:			
Kentucky	196.5	6.3	19.0
Tennessee	170.4	9.4	17.5
Alabama	111.3	12.5	9.7
Mississippi	93.4	3.8	11.7
West South Central:			
Arkansas	93.2	3.1	13.6
Louisiana	136.5	8.9	10.1
Oklahoma	180.3	2.2	20.8
Texas	103.2	2.1	9.4
Mountain:			
Montana	26.2	1.3	5.9
Idaho	33.6	.9	6.1
Wyoming	16.7	.2	1.7
Colorado	64.8	1.7	6.0
New Mexico	11.1	.1	1.0
Arizona	18.7	1.1	1.0
Utah	28.7	1.7	1.6
Nevada	6.0	.3	.6
Pacific:			
Washington	158.4	8.9	9.8
Oregon	69.8	3.4	3.8
California	273.9	6.1	6.6

[a] Based on land area of the United States, horsepower as given in Table 9 for total, Table 11 for manufactures, and Table 14 for agriculture.

TABLE 11.—*Horsepower, in thousands, of prime movers utilized by manufactures, 1869–1923, by States and geographic divisions*[a]

Division and State	1869		1879		1889		1899		1909		1919		1923	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
United States	------	2,346	------	3,411	------	5,939	------	10,098	------	18,675	------	29,505	------	33,094
New England	3	514	3	743	3	1,158	3	1,531	3	2,715	3	3,797	3	4,151
Middle Atlantic	1	757	1	1,067	1	1,935	1	2,834	1	5,534	1	8,538	1	9,627
East North Central	2	530	2	808	2	1,329	2	2,304	2	4,381	2	7,735	2	9,062
West North Central	5	132	5	220	5	416	7	655	5	1,101	6	1,594	6	1,714
South Atlantic	4	210	4	293	4	466	4	1,030	4	1,832	4	2,796	4	3,144
East South Central	6	109	6	153	6	303	5	677	6	1,036	7	1,416	7	1,462
West South Central	7	46	7	58	8	136	6	664	7	873	8	1,186	8	1,269
Mountain	9	12	9	18	9	48	9	125	9	401	9	686	9	778
Pacific	8	36	8	51	7	148	8	278	8	802	5	1,757	5	1,887
New England:														
Maine	9	80	10	100	11	150	12	239	10	460	15	547	15	570
New Hampshire	10	77	12	88	13	117	17	199	19	294	24	349	27	353
Vermont	14	51	15	63	17	98	26	127	33	159	35	185	34	177
Massachusetts	3	184	3	310	3	516	4	603	4	1,175	4	1,730	5	1,932
Rhode Island	16	42	14	64	14	113	25	132	26	227	27	321	24	392
Connecticut	8	80	8	118	10	164	13	231	11	400	12	665	11	727
Middle Atlantic:														
New York	2	334	2	454	2	773	2	1,004	2	2,020	2	2,937	3	3,263
New Jersey	12	59	11	100	8	178	7	335	7	612	7	1,147	8	1,257
Pennsylvania	1	364	1	513	1	984	1	1,495	1	2,902	1	4,454	1	5,107
East North Central:														
Ohio	4	174	4	261	4	417	3	805	3	1,583	3	2,897	2	3,308
Indiana	6	100	7	132	7	191	8	297	6	633	8	1,096	7	1,372
Illinois	7	86	6	144	5	286	5	514	5	1,013	5	1,661	4	1,980
Michigan	5	106	5	165	6	257	6	398	8	598	6	1,202	6	1,472
Wisconsin	11	64	9	106	9	178	9	290	9	554	9	879	10	930
West North Central:														
Minnesota	26	20	18	54	15	113	18	189	18	298	17	474	19	460
Iowa	17	40	19	54	22	78	29	121	34	155	30	243	29	283
Missouri	13	55	13	81	12	149	15	210	15	340	16	477	16	553
North Dakota	------	------	42	1	42	4	45	8	47	13	47	18	47	17
South Dakota	------	------	43	1	40	6	41	12	44	18	45	22	49	16
Nebraska	31	9	35	8	37	23	36	44	39	64	39	126	40	129
Kansas	33	8	29	21	29	43	33	71	29	213	31	234	30	256
South Atlantic:														
Delaware	32	9	32	15	36	26	37	41	40	53	42	85	42	112
Maryland	22	32	21	51	23	73	24	138	27	218	21	407	18	498
District of Columbia	41	2	40	3	39	11	42	10	45	17	44	33	44	32

Virginia	15	50	16	57	20	82	21	165	21	284	20	420	21	431
West Virginia	23	27	24	38	27	55	31	106	28	217	26	329	26	372
North Carolina	21	33	23	45	24	73	16	201	12	379	14	550	12	703
South Carolina	28	15	28	26	28	46	23	140	23	276	22	396	22	468
Georgia	19	38	22	51	18	84	19	189	20	298	19	437	20	450
Florida	35	4	36	7	38	16	39	40	37	90	38	139	39	138
East South Central:														
Kentucky	18	40	17	55	21	82	22	163	25	230	29	248	31	252
Tennessee	20	38	20	52	19	84	20	168	24	242	25	339	25	391
Alabama	27	19	27	28	16	102	14	222	13	358	13	628	13	641
Mississippi	30	12	30	18	32	35	28	124	30	206	34	201	33	178
West South Central:														
Arkansas	34	8	31	16	31	38	30	120	32	173	32	214	36	165
Louisiana	24	25	34	11	35	30	11	256	14	347	28	389	23	403
Oklahoma							44	9	38	71	37	140	37	153
Texas	29	13	26	31	26	68	10	279	22	282	18	443	17	548
Mountain:														
Montana	39	2	44	1	43	3	38	41	36	90	36	153	32	191
Idaho	42	1	41	2	44	2	46	7	41	43	43	74	43	72
Wyoming			45	1	45	2	47	4	48	8	48	18	46	24
Colorado	40	2	37	6	33	33	35	44	35	155	33	206	35	176
New Mexico	43	1	46	1	46	2	48	4	46	15	49	17	48	17
Arizona			47	1	47	1	43	9	43	39	40	104	41	129
Utah	36	3	38	5	41	5	40	14	42	43	41	94	38	141
Nevada	37	3	48	1			49	2	49	8	46	20	45	28
Pacific:														
Washington	38	3	39	4	30	43	32	88	17	298	11	687	14	593
Oregon	33	8	33	14	34	32	34	63	31	175	28	304	28	322
California	25	25	25	33	25	73	27	127	16	329	10	766	9	972

[a] From census of manufactures; includes horsepower of motors operated by purchased power.

TABLE 12.—*Percentage of total horsepower of prime movers utilized in manufactures, 1923, by types of prime movers*[a]

Division and State	Steam engines and turbines	Internal-combustion engines	Water wheels	Motors operated by purchased electricity
United States	50.47	3.71	5.45	40.37
New England	42.80	1.13	18.33	37.14
Middle Atlantic	54.85	4.23	4.04	36.88
East North Central	50.40	4.93	2.63	42.04
West North Central	44.88	5.13	4.27	45.72
South Atlantic	46.90	2.66	8.23	42.21
East South Central	60.65	1.38	1.13	36.84
West South Central	66.12	6.78	.56	26.54
Mountain	45.93	2.97	1.18	49.92
Pacific	39.77	1.48	2.65	56.10
New England:				
Maine	28.55	1.13	46.15	24.17
New Hampshire	41.03	.97	43.70	14.30
Vermont	27.02	.66	36.45	35.87
Massachusetts	47.96	.77	9.80	41.47
Rhode Island	47.84	3.11	6.95	42.10
Connecticut	42.55	.95	8.58	47.92
Middle Atlantic:				
New York	38.10	3.64	10.66	47.60
New Jersey	62.35	2.79	.86	34.00
Pennsylvania	63.63	.57	4.84	30.96
East North Central:				
Ohio	55.72	4.27	.38	39.63
Indiana	49.98	12.27	.62	37.13
Illinois	47.64	3.90	.51	47.95
Michigan	45.70	3.09	2.91	48.30
Wisconsin	45.37	1.73	17.74	35.16
West North Central:				
Minnesota	45.05	4.17	13.65	37.13
Iowa	44.22	1.69	.67	53.42
Missouri	41.81	3.75	.34	54.10
North Dakota	62.12	10.62	.54	26.72
South Dakota	35.50	6.70	1.78	56.02
Nebraska	41.45	11.90	2.40	44.25
Kansas	52.86	9.82	1.22	36.10
South Atlantic:				
Delaware	60.45	1.17	1.63	36.75
Maryland	34.22	2.19	1.13	62.46
District of Columbia	35.65	2.81	3.05	58.49
Virginia	53.35	2.56	10.95	33.14
West Virginia	58.58	9.51	1.27	30.64
North Carolina	34.90	.84	20.90	43.36
South Carolina	48.05	1.84	6.95	43.16
Georgia	51.03	.80	5.10	43.07
Florida	77.15	4.88	.11	17.86
East South Central:				
Kentucky	46.20	2.80	.98	50.02
Tennessee	56.41	1.12	1.07	41.40
Alabama	61.80	.51	1.48	36.21
Mississippi	86.30	3.04	.23	10.43
West South Central:				
Arkansas	81.42	3.66	.22	14.70
Louisiana	82.91	4.19	.08	12.82
Oklahoma	55.23	12.20	.14	32.43
Texas	52.07	8.09	1.14	38.80
Mountain:				
Montana	15.80	.77	2.37	81.06
Idaho	64.82	2.38	.58	32.22
Wyoming	58.64	7.92	.41	33.03
Colorado	62.15	1.22	.38	36.25
New Mexico	38.37	5.71	1.84	14.08
Arizona	66.40	10.56	.05	22.99
Utah	27.07	.36	1.77	70.80
Nevada	72.62	3.36	2.25	21.77
Pacific:				
Washington	60.54	1.77	1.05	36.64
Oregon	52.67	.51	10.28	36.54
California	22.60	1.62	1.12	74.66

[a] Based on Table 37.

TABLE 13.—*Horsepower, in thousands, of prime movers utilized in mines and quarries, 1899–1923, by States and geographic divisions* [a]

Division and State	1899		1909		1919		1923	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
United States	-------	2,868	-------	4,608	-------	6,724	-------	7,500
New England	8	45	9	61	9	62	9	76
Middle Atlantic	1	1,302	1	1,760	1	2,125	1	2,211
East North Central	2	657	2	914	2	1,151	2	1,236
West North Central	5	135	5	371	6	426	7	462
South Atlantic	3	309	3	536	3	850	4	920
East South Central	7	67	7	180	8	352	8	416
West South Central	9	24	8	149	5	684	5	775
Mountain	4	237	4	446	4	717	3	921
Pacific	6	92	6	191	7	357	6	483
New England:								
Maine	35	7	39	8	39	6	41	8
New Hampshire	42	3	43	4	43	4	42	7
Vermont	23	15	25	26	31	28	31	35
Massachusetts	30	11	33	15	37	12	35	15
Rhode Island	45	1	44	2	44	3	44	2
Connecticut	34	8	42	6	38	9	39	9
Middle Atlantic:								
New York	8	85	10	102	18	92	18	110
New Jersey	15	22	30	18	28	34	29	40
Pennsylvania	1	1,195	1	1,640	1	1,999	1	2,061
East North Central:								
Ohio	3	211	3	295	5	338	5	358
Indiana	5	132	12	95	14	130	15	141
Illinois	6	96	5	225	6	318	7	346
Michigan	4	205	4	274	4	338	6	355
Wisconsin	26	13	26	25	32	27	30	36
West North Central:								
Minnesota	13	30	8	152	12	144	12	160
Iowa	24	15	27	23	29	32	32	32
Missouri	11	52	9	110	17	100	20	105
North Dakota	44	1	45	2	45	2	46	1
South Dakota	25	14	31	16	36	12	37	12
Nebraska	-------	-------	46	1	46	2	45	2
Kansas	14	23	15	67	13	134	14	150
South Atlantic:								
Delaware	43	2	47	1	47	1	47	1
Maryland	22	15	29	18	34	19	34	17
District of Columbia	-------	-------	-------	-------	-------	-------	-------	-------
Virginia	18	19	20	35	23	58	23	74
West Virginia	2	244	2	416	2	704	2	750
North Carolina	41	4	41	6	41	5	40	9
South Carolina	38	5	40	7	42	5	43	6
Georgia	31	10	35	11	35	13	36	14
Florida	32	10	19	42	26	45	27	49
East South Central:								
Kentucky	17	20	16	53	9	149	10	174
Tennessee	21	15	21	35	24	57	25	67
Alabama	12	32	14	92	10	146	9	175
Mississippi	-------	-------	-------	-------	-------	-------	-------	-------
West South Central:								
Arkansas	36	7	34	14	33	21	33	26
Louisiana	40	4	38	8	20	86	21	90
Oklahoma	-------	-------	13	95	3	448	3	503
Texas	27	13	22	32	15	129	13	156
Mountain:								
Montana	10	67	6	174	11	144	8	180
Idaho	19	19	24	26	30	31	28	43
Wyoming	16	21	36	10	21	63	22	80
Colorado	7	89	11	99	16	116	17	125
New Mexico	33	9	32	16	22	60	16	140
Arizona	29	11	17	47	8	166	11	174
Utah	20	16	18	47	19	86	19	109
Nevada	37	5	23	27	25	51	24	70
Pacific:								
Washington	28	12	28	21	27	38	26	51
Oregon	39	4	37	8	40	6	38	11
California	9	76	7	162	7	313	4	421

[a] From census reports. The figures for 1899 are those reported for 1902. The figures for 1923 are estimated on the basis of past growth. Motors operated by purchased power are included.

TABLE 14.—*Horsepower, in thousands, of prime movers utilized in agriculture, 1869–1923, by States and geographic divisions*[a]

Division and State	1869		1879		1889		1899		1909		1919		1923	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
United States	------	9,588	------	13,764	------	19,835	------	23,519	------	30,807	------	39,222	------	38,100
New England	6	614	8	632	8	595	8	470	9	462	9	471	9	549
Middle Atlantic	3	1,476	4	1,598	5	1,764	6	1,755	6	1,887	7	2,079	8	2,009
East North Central	1	2,794	1	3,660	2	4,381	2	4,937	2	5,773	2	6,870	2	6,803
West North Central	5	1,190	2	2,959	1	5,871	1	7,697	1	10,590	1	13,370	1	13,411
South Atlantic	2	1,532	3	1,748	3	2,321	3	2,615	4	3,108	4	3,763	4	3,184
East South Central	4	1,226	5	1,488	4	1,984	4	2,288	5	2,838	5	3,453	5	2,533
West South Central	8	344	6	923	6	1,647	5	2,208	3	3,717	3	4,976	3	5,089
Mountain	9	29	9	109	9	299	9	470	8	1,015	6	2,358	6	2,472
Pacific	7	383	7	647	7	973	7	1,079	7	1,417	8	1,882	7	2,050
New England:														
Maine	18	154	26	165	30	159	32	140	33	194	36	157	35	189
New Hampshire	24	125	30	110	35	99	39	71						
Vermont	19	153	27	165	31	159	35	117	35	132	38	126	40	127
Massachusetts	30	86	32	94	36	89	38	71	41	74	42	99	44	107
Rhode Island	36	19	39	15	47	10								
Connecticut	31	77	33	83	37	79	41	71	42	62	43	89	41	126
Middle Atlantic:														
New York	2	784	4	853	7	913	10	916	13	955	13	1,059	16	941
New Jersey	26	107	31	98	33	117	34	117	38	123	39	118	37	148
Pennsylvania	4	585	6	647	10	734	12	722	17	809	19	902	17	920
East North Central:														
Ohio	3	729	3	881	6	993	6	1,079	9	1,230	9	1,450	10	1,404
Indiana	5	518	7	625	9	833	9	940	11	1,078	12	1,285	12	1,268
Illinois	1	990	1	1,315	1	1,465	2	1,579	3	1,832	4	2,096	4	2,071
Michigan	16	259	16	399	14	555	13	681	15	863	15	1,058	13	1,031
Wisconsin	13	298	12	440	15	535	15	658	18	770	17	981	14	1,029
West North Central:														
Minnesota	25	115	17	344	13	615	5	1,079	8	1,261	8	1,675	8	1,600
Iowa	6	479	2	978	2	1,389	1	1,673	2	1,887	3	2,149	3	2,206
Missouri	7	461	5	812	5	1,090	4	1,314	5	1,601	5	2,000	5	2,032
North Dakota					26	258	20	541	7	1,323	7	1,921	7	1,888
South Dakota			36	41	21	397	17	624	12	1,016	11	1,311	11	1,336
Nebraska	35	29	20	262	8	853	8	1,056	6	1,561	6	1,921	6	1,940
Kansas	27	106	10	522	3	1,269	3	1,410	1	1,941	2	2,393	2	2,409
South Atlantic:														
Delaware	34	38	37	28	42	20								
Maryland	21	144	25	165	29	198	31	188	32	216	34	236	34	216
District of Columbia														

Virginia	8	414	13	413	17	515	19	564	21	647	24	746	23	703
West Virginia	23	134	23	179	25	258	27	306	28	339	30	432	33	358
North Carolina	14	269	18	316	20	437	23	469	24	554	27	628	26	579
South Carolina	20	153	22	193	23	298	26	329	26	401	29	471	30	419
Georgia	11	342	14	413	16	535	14	665	16	828	16	1,054	19	779
Florida	33	38	35	41	38	60	36	94	37	123	35	196	38	130
East South Central:														
Kentucky	9	408	9	525	12	655	11	785	14	928	14	1,059	20	763
Tennessee	10	347	15	413	18	515	18	587	20	708	20	863	21	728
Alabama	15	260	19	302	19	437	21	493	22	616	22	785	28	499
Mississippi	17	211	21	248	22	377	24	423	23	586	23	746	27	543
West South Central:														
Arkansas	29	96	24	179	24	298	25	398	25	523	25	706	22	713
Louisiana	28	106	28	124	27	218	28	259	29	339	31	432	29	460
Oklahoma					41	40	22	493	10	1,139	10	1,410	9	1,441
Texas	22	142	8	620	4	1,091	7	1,058	4	1,716	1	2,428	1	2,475
Mountain:														
Montana			40	14	39	60	37	94	31	246	21	863	18	858
Idaho			41	14	40	40	40	71	35	185	33	353	31	388
Wyoming					43	20	42	47	39	92	37	157	36	167
Colorado	37	19	34	53	32	119	33	139	33	215	26	671	25	626
New Mexico	38	10			44	20	44	24	41	92	40	118	42	122
Arizona							45	24	45	31	44	39	43	114
Utah			42	14	45	20	43	47	40	92	41	118	39	129
Nevada			43	14	46	20	46	24	44	62	45	39	45	68
Pacific:														
Washington	39	10	38	28	34	99	29	211	27	401	28	549	24	654
Oregon	32	58	29	110	28	198	30	211	30	277	32	353	32	368
California	12	315	11	509	11	676	16	657	19	739	18	980	15	1,028

* Estimated on the basis of acreage of improved farm land. Purchased power and trucks not included.

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TABLE 15.—*Horsepower, in thousands, of prime movers installed in irrigation and drainage, 1909–1923, by States and geographic division*[a]

Division and State	1909		1919		1923	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
United States	-------	361	-------	816	-------	1,300
East North Central	-------	-------	4	20	4	23
West North Central	4	4	5	16	5	18
South Atlantic	-------	-------	6	1	6	2
West South Central	2	139	2	235	2	370
Mountain	3	73	3	90	3	103
Pacific	1	145	1	454	1	784
East North Central:						
Indiana	-------	-------	18	1	21	1
Illinois	-------	-------	8	18	9	20
Michigan	-------	-------	20	1	17	2
West North Central:						
Iowa	-------	-------	15	3	15	4
Missouri	-------	-------	16	3	16	3
North Dakota	13	2	17	2	-------	-------
South Dakota	-------	-------	-------	-------	22	1
Nebraska	-------	-------	21	1	23	1
Kansas	14	2	14	7	14	9
South Atlantic:						
North Carolina	-------	-------	22	1	18	2
West South Central:						
Arkansas	7	12	4	61	4	90
Louisiana	3	58	2	93	2	150
Texas	2	69	3	81	3	130
Mountain:						
Montana	10	4	11	10	11	12
Idaho	9	7	5	29	7	30
Wyoming	15	1	19	1	19	2
Colorado	8	8	12	9	12	10
New Mexico	5	14	13	8	13	10
Arizona	4	36	7	22	8	25
Utah	12	2	10	11	10	13
Nevada	16	1	-------	-------	20	1
Pacific:						
Washington	6	14	6	23	5	60
Oregon	11	3	9	16	6	40
California	1	128	1	415	1	684

[a] Figures for 1909 and 1919 from census reports; for 1923 estimated on basis of past growth.

TABLE 16.—*Horsepower, in thousands, of prime movers in electric central stations, 1899–1923, by States and geographic divisions*[a]

Division and State	1899		1909		1919		1923	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
United States	-------	1,200	-------	5,225	-------	15,250	-------	22,000
New England	3	156	4	475	4	1,490	4	2,200
Middle Atlantic	1	384	1	1,420	1	4,200	1	6,010
East North Central	2	252	2	1,145	2	3,365	2	5,000
West North Central	5	100	5	410	6	1,274	6	1,700
South Atlantic	7	57	6	345	5	1,337	5	2,000
East South Central	8	38	9	147	8	604	8	740
West South Central	9	36	8	154	9	500	9	650
Mountain	6	58	7	274	7	775	7	1,100
Pacific	4	119	3	855	3	1,705	3	2,600
New England:								
Maine	19	15	20	58	33	110	37	140
New Hampshire	12	25	21	55	38	80	40	84
Vermont	26	9	28	37	36	90	35	152
Massachusetts	5	80	6	220	5	800	6	1,192
Rhode Island	24	12	29	35	24	160	24	243
Connecticut	18	15	18	70	20	250	15	389
Middle Atlantic:								
New York	1	226	1	870	1	2,100	1	2,930
New Jersey	7	40	8	130	9	400	10	520
Pennsylvania	2	118	4	420	2	1,700	2	2,560
East North Central:								
Ohio	6	68	7	220	7	700	5	1,310
Indiana	9	31	9	130	10	370	12	495
Illinois	4	90	3	480	4	1,100	4	1,540
Michigan	8	40	5	230	6	745	7	1,125
Wisconsin	14	23	14	85	8	450	9	530
West North Central:								
Minnesota	10	28	11	120	16	260	18	338
Iowa	13	24	25	53	15	280	16	342
Missouri	11	26	10	125	13	300	13	450
North Dakota	46	2	44	12	45	34	45	47
South Dakota	39	4	42	15	43	40	43	58
Nebraska	29	8	36	30	28	130	34	155
Kansas	30	8	22	55	21	230	21	310
South Atlantic:								
Delaware	35	5	48	5	49	5	49	10
Maryland	21	14	26	52	30	120	22	300
District of Columbia	-------	-------	-------	-------	32	110	31	165
Virginia	40	4	35	30	29	120	29	180
West Virginia	31	7	37	28	19	250	19	330
North Carolina	36	5	31	35	22	230	23	250
South Carolina	27	9	12	120	14	300	11	500
Georgia	28	8	23	55	27	130	32	160
Florida	37	5	40	20	39	72	38	105
East South Central:								
Kentucky	23	12	24	55	34	110	36	145
Tennessee	20	15	27	40	23	202	26	210
Alabama	34	6	32	32	18	250	20	320
Mississippi	38	5	39	20	42	42	41	65
West South Central:								
Arkansas	32	7	41	18	41	42	42	60
Louisiana	33	6	38	24	44	38	44	50
Oklahoma	43	3	33	32	35	110	33	160
Texas	17	20	15	80	12	310	14	380
Mountain:								
Montana	15	23	16	75	17	260	17	340
Idaho	41	4	34	30	31	115	25	230
Wyoming	44	3	47	7	46	32	46	44
Colorado	16	20	13	95	26	134	30	167
New Mexico	47	1	46	7	47	18	47	22
Arizona	45	2	43	15	40	50	39	90
Utah	42	4	30	35	25	150	27	190
Nevada	48	1	45	10	48	16	48	17
Pacific:								
Washington	25	10	19	65	11	320	8	564
Oregon	22	14	17	70	37	85	28	180
California	3	95	2	720	3	1,300	3	1,856

[a] Based on census reports for 1902, 1907, 1912, 1917, and 1922.

TABLE 17.—*Horsepower, in thousands, of prime movers in electric railroads, 1899–1923, by States and geographic divisions* [a]

Division and State	1899		1909		1919		1923	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
United States		935		3,091		4,360		4,100
New England	3	130	3	386	4	489	4	463
Middle Atlantic	1	280	1	843	1	1,167	1	1,287
East North Central	2	270	2	710	2	982	2	777
West North Central	4	84	5	289	5	483	5	452
South Atlantic	5	81	4	340	3	574	3	586
East South Central	7	25	7	114	8	129	8	111
West South Central	8	16	8	85	7	188	6	218
Mountain	9	9	9	54	9	59	9	60
Pacific	6	40	6	270	6	289	7	146
New England:								
Maine	24	7	25	27	21	49	17	5
New Hampshire	32	3	40	4	40	3	40	2
Vermont	38	1	39	6	39	5	39	2
Massachusetts	4	93	4	270	3	320	3	300
Rhode Island	26	6	23	33	20	52	20	47
Connecticut	11	20	19	46	16	60	18	55
Middle Atlantic:								
New York	1	175	1	500	1	850	1	1,000
New Jersey	14	15	17	50	33	24	27	32
Pennsylvania	5	90	2	293	4	293	4	255
East North Central:								
Ohio	3	96	3	290	2	560	2	386
Indiana	13	16	9	90	6	167	8	149
Illinois	2	99	5	180	9	148	9	147
Michigan	7	33	13	60	17	60	19	55
Wisconsin	9	26	8	90	22	47	22	40
West North Central:								
Minnesota	16	14	11	85	10	142	11	122
Iowa	15	15	18	50	12	138	10	134
Missouri	6	50	7	120	7	165	7	162
North Dakota								
South Dakota								
Nebraska	33	3	31	19	30	27	29	27
Kansas	34	2	35	15	37	11	35	7
South Atlantic:								
Delaware	28	4	33	17	28	32	23	35
Maryland	12	19	12	77	25	40	34	15
District of Columbia	20	8	30	21	34	22	31	25
Virginia	17	11	10	88	11	140	6	170
West Virginia	25	7	26	27	18	60	14	82
North Carolina	29	4	32	18	35	15	37	4
South Carolina	30	4	36	15	29	28	33	15
Georgia	10	22	14	60	5	204	5	208
Florida	35	2	34	17	27	33	26	32
East South Central:								
Kentucky	18	10	27	27	24	42	21	44
Tennessee	27	6	20	44	23	44	24	35
Alabama	21	8	22	34	26	34	28	28
Mississippi	39	1	38	9	38	9	38	4
West South Central:								
Arkansas	36	2	37	12	32	25	25	35
Louisiana	19	10	21	42	14	80	13	95
Oklahoma			41	4	36	15	32	18
Texas	31	4	28	27	15	68	15	70
Mountain:								
Montana	40	1	42	1				
Idaho								
Wyoming								
Colorado	22	8	24	30	19	59	16	60
New Mexico			43	1				
Arizona								
Utah			29	22				
Nevada								
Pacific:								
Washington	23	8	6	160	8	150	30	25
Oregon	37	2	15	58	13	114	12	116
California	8	30	16	52	31	25	36	5

[a] Based on census reports for 1902, 1907, 1912, 1917, and 1922.

TABLE 18.—*Horsepower, in thousands, of prime movers in central electric stations and electric railroads plus horsepower of electric motors driven by electricity generated in manufactures and in mines and quarries, 1899–1923, by States and geographic divisions* [a]

Division and State	1899		1909		1919		1923 [b]	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
United States	-------	2,575	-------	11,878	-------	27,839	-------	34,922
New England	3	322	3	1,310	3	2,776	3	3,766
Middle Atlantic	1	827	1	3,621	1	8,467	1	10,375
East North Central	2	637	2	2,860	2	6,861	2	8,729
West North Central	4	203	6	871	6	2,138	6	2,519
South Atlantic	6	176	5	957	4	2,560	4	3,182
East South Central	8	72	8	370	8	979	9	1,003
West South Central	9	56	9	291	9	835	8	1,064
Mountain	7	100	7	415	7	1,069	7	1,285
Pacific	5	182	4	1,183	5	2,154	5	2,999
New England:								
Maine	23	24	26	112	30	231	28	294
New Hampshire	20	29	31	83	35	150	32	228
Vermont	32	13	36	56	41	108	38	184
Massachusetts	5	192	6	783	5	1,544	5	2,038
Rhode Island	27	20	29	96	26	278	24	394
Connecticut	13	44	14	180	16	465	13	628
Middle Atlantic:								
New York	1	435	1	1,684	2	3,471	2	4,623
New Jersey	9	67	9	332	9	851	9	1,058
Pennsylvania	2	325	2	1,605	1	4,145	1	4,694
East North Central:								
Ohio	4	203	4	874	3	2,120	3	2,676
Indiana	11	56	7	398	8	859	8	1,294
Illinois	3	231	3	957	4	1,929	4	2,326
Michigan	7	87	8	366	7	1,191	7	1,629
Wisconsin	10	60	11	265	10	762	10	864
West North Central:								
Minnesota	12	45	13	232	13	503	14	567
Iowa	14	43	23	126	15	477	17	545
Missouri	8	85	10	319	11	588	11	707
North Dakota	49	2	47	14	48	35	46	49
South Dakota	44	4	46	16	45	53	45	58
Nebraska	33	13	35	57	32	184	34	209
Kansas	34	11	28	107	24	298	25	384
South Atlantic:								
Delaware	37	10	41	35	44	62	44	79
Maryland	16	36	18	158	22	323	19	468
District of Columbia	39	8	44	23	39	134	37	193
Virginia	25	22	19	158	21	346	20	445
West Virginia	17	31	15	167	14	497	18	540
North Carolina	35	11	33	79	23	309	26	333
South Carolina	28	19	16	161	20	365	15	565
Georgia	18	31	20	135	18	375	22	407
Florida	40	8	37	41	37	149	39	152
East South Central:								
Kentucky	21	26	24	114	28	244	33	222
Tennessee	24	23	25	114	25	292	29	276
Alabama	29	17	27	108	19	371	21	418
Mississippi	42	6	42	34	43	72	43	87
West South Central:								
Arkansas	36	11	39	37	42	84	42	110
Louisiana	30	17	30	84	34	162	36	202
Oklahoma	45	3	38	41	36	150	35	205
Texas	22	25	22	129	17	439	16	547
Mountain:								
Montana	19	30	32	81	27	271	23	397
Idaho	41	6	40	35	40	128	31	241
Wyoming	43	4	49	9	47	38	47	49
Colorado	15	43	17	160	29	235	30	256
New Mexico	46	3	48	14	46	43	49	26
Arizona	47	3	43	24	38	146	41	135
Utah	38	9	34	74	33	176	40	150
Nevada	48	2	45	18	49	32	48	31
Pacific:								
Washington	26	21	12	244	12	543	12	692
Oregon	31	17	21	135	31	225	27	296
California	6	144	5	804	6	1,386	6	2,011

[a] Figures in table represent total horsepower of all electric generators.
[b] No information available for horsepower of electric motors in mines and quarries in 1923.

TABLE 19.—*Horsepower, in thousands, of prime movers installed in ships, 1889–1923, by States and geographic divisions* [a]

Division and State	1889		1899		1909		1919		1923	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
United States	-------	1,444	-------	1,900	-------	3,122	-------	6,584	-------	10,262
New England	3	211	4	193	4	250	6	279	6	557
Middle Atlantic	1	541	1	668	1	1,150	1	2,527	1	4,298
East North Central	2	321	2	500	2	790	3	1,003	4	966
West North Central	6	50	6	112	6	185	5	479	7	437
South Atlantic	5	104	5	162	5	236	4	549	3	1,499
East South Central	8	30	8	28	8	44	8	47	8	102
West South Central	7	33	7	31	7	57	7	182	5	731
Mountain	-------	-------	9	1	-------	-------	-------	-------	-------	-------
Pacific	4	154	3	205	3	410	2	1,518	2	1,672
New England:										
Maine	7	64	10	53	12	61	16	59	20	56
New Hampshire	34	2	34	2	33	1	-------	-------	28	15
Vermont	35	2	35	2	32	2	32	2	33	1
Massachusetts	6	94	6	83	7	128	11	149	9	385
Rhode Island	17	16	21	15	22	16	24	17	23	33
Connecticut	11	33	12	38	15	42	17	52	18	67
Middle Altantic:										
New York	1	423	1	538	1	928	1	2,425	1	3,575
New Jersey	16	19	19	21	13	58	13	111	22	35
Pennsylvania	5	99	5	109	6	164	6	391	4	688
East North Central:										
Ohio	2	131	2	216	2	492	3	648	3	750
Indiana	32	4	32	4	31	3	31	4	32	3
Illinois	14	25	13	35	14	45	15	63	19	59
Michigan	3	125	3	203	4	216	8	255	14	131
Wisconsin	10	36	11	42	17	34	20	33	24	23
West North Central:										
Minnesota	31	4	7	77	5	167	5	457	7	416
Iowa	23	7	33	3	34	1	34	1	34	1
Missouri	9	38	14	31	23	16	23	19	27	18
North Dakota	-------	-------	-------	-------	-------	-------	33	2	35	1
South Dakota	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Nebraska	36	1	36	1	35	1	-------	-------	36	1
Kansas	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
South Atlantic:										
Delaware	30	4	29	5	25	10	21	31	15	93
Maryland	8	45	8	70	9	83	10	186	5	599
District of Columbia	24	6	25	6	28	6	29	6	30	5
Virginia	20	11	20	19	10	62	9	223	6	509
West Virginia	25	5	26	6	-------	-------	-------	-------	-------	-------
North Carolina	29	4	30	4	26	8	26	12	21	37
South Carolina	26	5	27	5	29	6	27	9	26	19
Georgia	18	16	17	25	19	30	19	35	16	86
Florida	21	8	18	22	18	31	18	47	12	151
East South Central:										
Kentucky	19	12	22	8	27	8	28	7	29	7
Tennessee	21	9	23	8	30	5	30	5	31	4
Alabama	28	4	28	5	21	20	22	23	17	70
Mississippi	27	5	24	7	24	11	25	12	25	21
West South Central:										
Arkansas	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Louisiana	12	30	15	27	16	37	14	67	8	393
Oklahoma	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Texas	33	3	31	4	20	20	12	115	10	338
Mountain:										
Montana	-------	-------	37	1	-------	-------	-------	-------	-------	-------
Idaho	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Wyoming	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Colorado	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
New Mexico	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Arizona	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Utah	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Nevada	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Pacific:										
Washington	15	20	9	63	8	123	4	540	13	143
Oregon	13	27	16	27	11	62	7	274	11	224
California	4	107	4	115	3	225	2	704	2	1,305

[a] Computed on the basis of tonnage figures contained in Merchant Marine Statistics (reports of the Commissioner of Navigation). See Table 30 for method of ascertaining totals.

TABLE 20.—*Horsepower, in thousands, of prime movers in motor-driven vehicles, 1919 and 1923, by States and geographic divisions* [a]

Division and State	Total				Exclusive of pleasure automobiles			
	1919		1923		1919		1923	
	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower	Rank	Horsepower
United States	-------	230,432	-------	507,254	-------	10,964	-------	53,724
New England	7	16,430	7	31,820	4	1,014	4	4,679
Middle Atlantic	3	37,770	2	90,678	2	2,628	2	12,100
East North Central	1	54,230	1	127,210	1	2,816	1	14,770
West North Central	2	44,590	3	80,985	3	1,342	3	6,520
South Atlantic	4	21,209	5	45,670	5	962	5	4,654
East South Central	9	8,783	8	20,367	8	416	8	2,107
West South Central	6	16,554	6	42,003	6	754	6	4,131
Mountain	8	9,736	9	16,966	9	330	9	1,685
Pacific	5	21,130	4	51,555	7	702	7	3,078
New England:								
Maine	34	1,728	36	3,675	30	78	27	515
New Hampshire	43	965	42	2,075	35	52	41	230
Vermont	45	816	44	1,780	43	26	46	110
Massachusetts	9	8,140	10	16,250	5	520	8	2,400
Rhode Island	39	1,469	38	2,580	31	78	28	460
Connecticut	21	3,312	27	5,460	11	260	17	964
Middle Atlantic:								
New York	1	17,250	1	40,800	1	1,768	1	6,720
New Jersey	16	5,820	14	14,528	12	260	4	2,930
Pennsylvania	3	14,700	7	35,350	3	600	6	2,450
East North Central:								
Ohio	2	16,080	3	36,210	2	988	2	4,780
Indiana	13	6,930	9	18,700	8	364	7	2,420
Illinois	4	14,600	5	32,750	4	780	3	4,040
Michigan	8	9,410	6	24,130	7	468	9	2,400
Wisconsin	12	7,210	12	15,420	17	216	15	1,130
West North Central:								
Minnesota	14	6,710	13	15,120	13	260	10	1,600
Iowa	6	11,100	8	19,300	9	312	14	1,195
Missouri	10	7,400	11	16,100	14	260	11	1,520
North Dakota	28	2,518	35	3,695	44	26	47	108
South Dakota	23	3,092	31	4,450	36	52	35	347
Nebraska	15	6,400	17	9,670	18	208	19	875
Kansas	11	7,370	15	12,650	16	224	18	875
South Atlantic:								
Delaware	48	493	48	1,020	45	26	43	174
Maryland	24	2,918	24	5,730	20	156	32	383
District of Columbia	41	1,079	39	2,520	37	52	40	236
Virginia	25	2,870	20	7,400	19	182	16	1,016
West Virginia	37	1,530	28	5,335	21	130	39	246
North Carolina	19	3,510	19	8,350	22	130	22	701
South Carolina	30	2,439	32	4,310	38	52	33	382
Georgia	17	4,680	22	5,870	23	130	21	741
Florida	35	1,690	29	5,135	27	104	20	775
East South Central:								
Kentucky	26	2,742	21	6,703	24	130	24	676
Tennessee	29	2,449	23	5,857	28	104	25	632
Alabama	33	1,794	33	4,280	25	130	29	456
Mississippi	32	1,798	37	3,527	39	52	36	343
West South Central:								
Arkansas	38	1,505	34	3,804	40	52	34	373
Louisiana	36	1,554	30	4,610	32	78	23	678
Oklahoma	20	3,405	16	10,350	29	104	26	610
Texas	7	10,090	7	23,239	6	520	5	2,470
Mountain:								
Montana	31	1,808	40	2,495	48	16	37	276
Idaho	40	1,286	41	2,105	41	52	44	171
Wyoming	46	651	46	1,343	46	26	45	149
Colorado	22	3,200	25	5,705	33	78	30	448
New Mexico	47	551	47	1,117	47	18	48	99
Arizona	44	883	45	1,661	42	52	42	216
Utah	42	1,073	43	2,010	34	78	38	260
Nevada	49	284	49	530	49	10	49	66
Pacific:								
Washington	18	4,640	18	8,740	15	260	13	1,220
Oregon	27	2,540	26	5,605	26	130	31	428
California	5	13,950	2	37,210	10	312	12	1,430

[a] Based on registration figures by States from reports of National Automobile Chamber of Commerce. Automobiles, motor cycles, and trucks are included. See Table 33 for average horsepower of automobiles.

TABLE 21.—*Index numbers of horsepower of prime movers, number of wage earners, and volume of production, 1889–1919, by special groups*

[1899=100]

	Horsepower of prime movers				Number of wage earners [a]				Volume of production [b]			
	1889	1899	1909	1919	1889	1899	1909	1919	1889	1899	1909	1919
All commodities [c]	75	100	176	265	81	100	126	133	73	100	140	190
"Manufactures"	[d] 56	100	195	282	80	100	125	170	75	100	150	220
"Materials"	[d] 80	100	136	193	81	100	123	108	72	100	125	145
Steam railroads	[e] 78	100	217	346	81	100	162	206	67	100	190	306
Agriculture	[e] 84	100	132	186	82	100	120	104	75	100	122	137
Mines and quarries	[e] 45	100	161	234	62	100	156	176	60	100	183	260

	Horsepower per wage earner [f]				Production per wage earner [g]			
	1889	1899	1909	1919	1889	1899	1909	1919
All commodities	92	100	140	199	90	100	111	143
"Manufactures"	69	100	155	164	94	100	120	129
"Materials"	98	100	111	179	89	100	102	134
Steam railroads	97	100	134	168	83	100	117	149
Agriculture	101	100	110	179	92	100	102	132
Mines and quarries	73	100	103	133	97	100	117	148

[a] Table 7.
[b] Stewart, W. W., Am. Econ. Review, March, 1920, p. 57. Figures represent five-year averages.
[c] Comprise "manufactures," "materials," and "transportation." See footnotes to Table 6 for definitions of these groups.
[d] Table 6.
[e] Table 3.
[f] Table 8.
[g] Ratio of index numbers of volume of production to index numbers of number of wage earners.

TABLE 22.—*Index numbers of total horsepower of prime movers and acreage of improved land, 1849–1923*

[1899=100]

Year	Horsepower of prime movers		Acreage of improved land [a]
	Total	Exclusive of pleasure automobiles	
1849	16	----------	27
1859	25	----------	39
1869	30	----------	46
1879	45	----------	69
1889	74	----------	86
1899	100	100	100
1909	188	176	115
1919	617	275	122
1923	1,065	359	----------

[a] Census reports.

TABLE 23.—*Horsepower, in thousands, of prime movers utilized in manufactures, 1849–1923* [a]

Year	Total horsepower	Owned				Driven by purchased power			Electric motors		
		Total	Steam engines and turbines	Internal-combustion engines	Water wheels	Total	Electric motors	Other	Total	Driven by	
										Purchased power	Owned power
1849 [b]	1,100	1,100	450		650						
1859 [b]	1,600	1,600	700		900						
1869	2,346	2,346	1,216		1,130	(c)					
1879	3,411	3,411	2,185		1,226	(c)					
1889	5,939	5,850	4,586	9	1,255	89	(c)	89	16	(c)	
1899	10,098	9,778	8,190	134	1,454	320	182	137	493	182	311
1909	18,675	16,803	14,229	751	1,823	1,872	1,749	123	4,817	1,749	3,068
1919	29,505	20,063	17,038	1,259	1,765	9,442	9,348	94	16,317	9,348	6,969
1923	33,094	19,729	16,701	1,224	1,803	13,365	13,365	(d)	22,187	13,365	8,822

[a] Census reports.
[b] Estimated.
[c] Figures not available.
[d] Not reported.

TABLE 24.—*Horsepower, in thousands, of prime movers utilized in mines and quarries, 1849–1923* [a]

Year	Total horsepower	Owned				Driven by purchased power			Electric motors		
		Total	Steam engines and turbines	Internal-combustion engines	Water wheels	Total	Electric motors	Other	Total	Driven by	
										Purchased power	Owned power
1849 [b]	50	50	38		12						
1859 [b]	150	150	120		30						
1869 [b]	350	350	275		75						
1879 [b]	650	650	525		125						
1889 [b]	1,300	1,300	1,050		250						
1899	2,868	2,754	2,433	260	61	114	114		114	114	
1909	4,608	4,403	3,787	519	97	206	206		700	206	494
1919	6,724	5,112	3,713	1,361	38	1,612	1,603	9	2,862	1,603	1,259
1923 [c]	7,500	5,000	3,275	1,700	25	2,500	2,500		2,500	2,500	

[a] Census reports.
[b] Estimated from data in census reports.
[c] Estimated.

TABLE 25.—*Horsepower, in thousands, of prime movers utilized in agriculture, 1849–1923* [a]

Year	Oxen	Mules	Horses	Total animals	Windmills	Steam engines	Stationary gas engines	Electric motors	Gas tractors	Trucks	Grand total
1849	1,701	559	4,337	6,597							6,597
1859	2,255	1,151	6,249	9,655							9,655
1869	1,317	1,125	7,146	9,588							9,588
1879	994	1,812	10,358	13,164	100	500					13,764
1889	1,117	2,252	15,267	18,636	200	1,000					19,836
1899	960	2,753	15,506	19,219	300	3,500	500				23,519
1909	640	3,787	17,430	21,857	450	4,500	3,500	300	500		31,107
1919	370	4,652	17,220	22,242	480	3,500	7,000	1,500	6,000	3,000	43,722
1923	100	3,700	16,000	19,800	500	3,000	6,800	2,200	8,000	7,120	47,420

[a] C. D. Kinsman, U. S. Dept. Agriculture.

TABLE 26.—*Approximate number, in thousands, of draft animals in the United States, 1849–1923* [a]

Year	Grand total	On farms				Not on farms		
		Total	Oxen	Mules	Horses	Total	Mules	Horses
1849	7,747	6,597	1,701	559	4,337	1,150	100	1,050
1859	10,961	9,655	2,255	1,151	6,249	1,306	120	1,186
1869	11,275	9,588	1,317	1,125	7,146	1,687	140	1,547
1879	15,324	13,164	994	1,812	10,358	2,160	160	2,000
1889	21,311	18,636	1,117	2,252	15,267	2,675	175	2,500
1899	22,274	19,219	960	2,753	15,506	3,055	182	2,873
1909	25,262	21,857	640	3,787	17,430	3,405	269	3,136
1919	24,221	22,242	370	4,652	17,220	1,979	344	1,635
1923 [b]	21,500	19,800	100	3,700	16,000	1,700	400	1,300

[a] C. D. Kinsman, U. S. Dept. Agriculture. [b] Estimated.

TABLE 27.—*Horsepower, in thousands, of prime movers in central stations and electric railroads, 1889–1923* [a]

Year	Electric central stations				Electric railroads			
	Total	Steam engines and turbines	Internal-combustion engines	Water wheels	Total	Steam engines and turbines	Internal-combustion engines	Water wheels
1889	120	120	----------	----------	140	140	----------	----------
1899	1,200	950	----------	250	935	900	----------	35
1909	5,225	3,450	75	1,700	3,091	2,850	21	220
1919	15,250	10,100	250	4,900	4,360	3,800	30	530
1923	22,000	15,000	350	6,650	4,100	3,650	30	420

[a] Based on census of electrical industries for 1902, 1907, 1912, 1917, and 1922.

TABLE 28.—*Horsepower, in thousands, of prime movers utilized in irrigation and drainage, 1879–1923* [a]

Year	Total	Steam engines and turbines	Internal-combustion engines	Water wheels	Year	Total	Steam engines and turbines	Internal-combustion engines	Water wheels
1879	5	2.5	----------	2.5	1909	361	90	90	181
1889	33	8	8	17	1919	816	200	200	416
1899	120	30	30	60	1923	1,300	300	300	700

[a] Data for 1879, 1889, and 1923 estimated; for other years from census reports. Division among different types of prime movers was estimated.

TABLE 29.—*Horsepower of locomotives of steam railroads, 1849–1923*

Year	Horsepower [a]	Tractive force (pounds)		Number of locomotives [d]	Miles of track [e]
		Total [b]	Average per locomotive [c]		
1849	435,000	14,850,000	8,250	1,800	9,021
1859	1,940,000	66,400,000	10,850	6,120	30,635
1869	4,100,000	139,600,000	13,200	10,580	52,914
1879	7,720,000	263,000,000	15,600	17,084	86,497
1889	16,300,000	555,000,000	17,900	31,062	161,397
1899	20,900,000	712,000,000	19,443	36,703	190,818
1909	45,400,000	1,548,000,000	26,601	58,219	235,402
1919	72,300,000	2,462,000,000	35,789	68,977	256,572
1923	74,600,000	2,544,000,000	39,177	64,939	----------

[a] Derived from "Tractive force" by the following formula furnished by the bureau of locomotive inspection, Interstate Commerce Commission: $\frac{T \times V}{375}$ = horsepower, where T = tractive force and V = average speed in miles per hour.

[b] Result of multiplying "average per locomotive" by number of locomotives for each year.

[c] Data for 1909, 1919, and 1923 from statistical reports of Interstate Commerce Commission. Other figures are estimated from dimensions of representative locomotives (found in histories of locomotives), as applied to the Baltimore locomotive formula for tractive force: $T = \frac{C^2SP}{D}$, where C = diameter of cylinder in inches, S = stroke of piston in inches, P = mean effective boiler pressure in pounds, and D = diameter of driving wheel in inches.

[d] Data for 1879 and 1889 in Poor's "Manual of railroads"; for 1899, 1909, 1919, and 1923 in statistical reports of Interstate Commerce Commission. Figures for 1849, 1859, and 1869 obtained by applying factor 0.20 to miles of railroad. This factor was selected as representative for those years, after factors for available data had been worked out.

[e] Poor's "Manual of railroads."

TABLE 30.—*Horsepower, in thousands, of prime movers in ships, 1849–1923* [a]

Year	Total horsepower	Steam engines and turbines		Internal-combustion engines [b]		Wind (sail) [c]	
		Tonnage	Horsepower	Tonnage	Horsepower	Tonnage	Horsepower
1849	734	526	[d] 305			3,010	429
1859	1,142	868	[d] 503	----------	----------	4,486	639
1869	1,076	1,075	[d] 624	----------	----------	3,171	452
1879	1,110	1,212	[d] 703	----------	----------	2,856	407
1889	1,444	1,859	[d] 1,078	----------	----------	2,566	366
1899	1,900	2,658	[d] 1,542	----------	----------	2,507	358
1909	3,122	4,741	[d] 2,750	----------	----------	2,608	372
1919	6,584	10,059	[e] 5,734	356	[f] 494	2,492	356
1923	10,262	15,358	[e] 9,247	464	[f] 664	2,463	351

[a] Data obtained from annual "List of merchant vessels of the United States" and from "Merchant marine statistics of 1924" issued by the Bureau of Navigation.

[b] Internal-combustion engines in ships not separable from total before 1915.

[c] Estimated, by assuming 4 tons in a sailing vessel equivalent to 1 ton in a steam vessel and applying the appropriate factor.

[d] Estimated, by assuming 0.58 horsepower per gross ton, the ratio found for steam vessels in 1910.

[e] Estimated, by assuming 0.57 horsepower per gross ton, the ratio found for steam, vessels in 1920.

[f] Estimated, by assuming 1.39 horsepower per gross ton, the ratio found for "gas" vessels in 1920.

TABLE 31.—*Horsepower, in thousands, of prime movers of motor-driven vehicles (automobiles), 1899–1923* [a]

Horsepower

Year	Passenger cars			Trucks	Motor cycles	Total
	Fords [a]	All others	Total			
1899			32			32
1909	2,969	4,454	7,423	256	35	7,714
1919	69,027	148,393	217,420	10,964	2,048	230,432
1923	132,932	319,056	451,988	53,724	1,542	507,254

Index numbers (1899=100)

1899			100			100
1909			23,200			24,100
1919			679,000			721,000
1923			1,412,000			1,585,000

Index numbers (1909=100)

1899			4			4
1909	100	100	100	100	100	100
1919	2,325	3,332	2,929	4,283	5,851	2,987
1923	4,477	7,163	60,892	20,986	4,206	65,758

[a] Horsepower of a Ford considered 20. Half of passenger cars registered considered to be Fords. Average horsepower of all other passenger cars and trucks given in Table 33.

TABLE 32.—*Number of automobiles registered, 1899–1923* [a]

Total

Year	Passenger cars			Trucks	Motor cycles	Total
	Fords [a]	All others	Total			
1899			3,200			3,200
1909	148,450	148,450	296,900	[b] 13,500	[b] 7,000	[b] 317,460
1919	3,451,358	3,451,358	6,902,716	421,692	241,038	7,565,446
1923	6,646,618	6,646,618	13,293,236	1,627,569	171,372	15,092,177

Index numbers (1899=100)

1899			100			100
1909			9,278			9,919
1919			215,709			236,419
1923			415,412			471,631

Index numbers (1909=100)

1899			1			1
1909	100	100	100	100	100	100
1919	2,325	2,325	2,325	3,124	3,443	2,384
1923	4,477	4,477	4,477	12,056	2,448	4,755

[a] Registration figures as given in annual reports of National Automobile Chamber of Commerce.
[b] Proportion of trucks and motor cycles estimated from registration in 1914 and subsequent years.

TABLE 33.—*Average horsepower used in determining total horsepower of automobile engines in 1909, 1919, and 1923* [a]

	1909	1919	1923
Passenger cars, other than Fords [b]	30	43	48
Trucks	19	26	33
Motorcycles	5	8.5	9.0

[a] Based on actual or brake horsepower of automobile engines as furnished by the different automobile manufacturers compared with similar figures published in the January numbers of "Motor." The average horsepower of the engines of passenger cars for the different years was obtained by arranging the different makes of automobiles in groups according to volume of production. The average horsepower of each group was obtained, and the average of the groups for each year was then found by weighting the average of each group according to volume of production of all the makes included in the group. The average horsepower of trucks is the average of the horsepower of the engines of the different makes of trucks.
[b] See Table 31.

TABLE 34.—*Number of wage earners and horsepower of prime movers in certain industrial establishments not included in census totals for manufactures, 1909 and 1919* [a]

	1909			1919		
	Number of establishments	Number of wage earners	Horsepower	Number of establishments	Number of wage earners	Horsepower
Governmental manufacturing establishments	40	32,519	47,787	83	106,763	172,998
Power laundries	5,186	109,484	123,477	5,678	131,879	196,793
Dyeing and cleaning				2,156	18,807	23,946
Custom sawmills	4,133	7,090	93,280	5,396	3,175	130,916
Custom gristmills	11,961	7,014	272,763	10,427	2,134	218,894

[a] Census of manufactures, 1920.

TABLE 35.—*Horsepower of prime movers of municipal water-supply plants of certain cities for 1926* [a]

City	Population (estimated)	Horsepower				
		Total	Steam engines	Internal-combustion engines	Water wheels	Electric motors driven by purchased power
Baltimore	734,000	9,070	2,725		200	6,145
Boston	748,000	5,847	5,847			
Chicago	2,702,000	18,160	18,160			
Kansas City	324,000	6,200	6,200			
Minneapolis	381,000	11,600	1,400			10,200
New Orleans	387,000	19,880	19,880			
New York	5,620,000	37,945	21,300	525		16,120
Pittsburgh	588,000	10,462	10,462			
St. Louis	773,000	12,540	12,540			
Seattle	315,000	1,980			180	1,800
	12,572,000	133,684	98,514	525	380	34,265

[a] On the basis of this table, with an estimated urban population for the United States of 65,700,000 in 1926, the horsepower of prime movers in all municipal water-supply plants in the United States was about 700,000.

TABLE 36.—*Horsepower of prime movers of aircraft of the Army and Navy and of the ships of the Navy*

Craft	Horsepower	Craft	Horsepower
Battleships	555,131	Submarines	184,920
Cruisers	1,362,517	Aircraft (Navy) [a]	236,960
Mine layers	423,731	Aircraft (Army) [b]	475,185
Destroyers	7,199,868	District craft	45,866
Auxiliaries	526,305		
Aircraft carriers	367,152		11,560,570
Patrol vessels	182,935		

[a] Compiled from "Ships' data, U. S. naval vessels, July 1, 1924," U. S. Navy Department.
[b] Annual report of the Chief of Air Service, 1925.

TABLE 37.—*Prime movers utilized in manufactures in the United Stated in 1923, by geographic divisions and States*[a]

Division and State	Number of establishments reporting power	Prime movers									Electric motors driven by current generated in establishments reporting	
		Total primary horsepower[b]	Steam engines and turbines		Internal-combustion engines		Water wheels		Electric motors driven by purchased current			
			Number	Horsepower	Number	Horsepower	Number	Horsepower	Number	Horsepower	Number	Horsepower
United States	173,475	33,094,228	90,057	16,700,993	15,721	1,224,262	9,293	1,803,310	1,445,003	13,365,663	616,422	8,821,551
New England	17,531	4,151,136	7,593	1,777,813	784	46,933	3,454	761,211	179,192	1,565,179	97,791	1,102,422
Middle Atlantic	58,433	9,627,808	23,430	5,279,302	3,592	400,768	2,397	388,503	470,296	3,559,235	221,661	3,077,216
East North Central	37,274	9,061,680	20,641	4,568,174	4,530	447,735	1,491	238,676	391,343	3,807,095	195,502	2,951,857
West North Central	15,070	1,714,030	5,770	768,857	1,363	88,045	316	73,346	91,105	783,782	25,752	368,045
South Atlantic	14,922	3,143,936	12,502	1,475,792	2,012	83,603	1,017	258,558	131,464	1,325,983	41,181	596,193
East South Central	7,017	1,461,604	6,353	886,286	856	20,138	202	16,542	39,629	538,638	7,667	151,746
West South Central	7,223	1,269,347	6,591	838,409	1,396	85,942	76	7,170	29,186	337,826	8,673	195,707
Mountain	3,476	777,745	2,066	357,247	353	23,192	107	9,212	21,094	388,094	5,808	125,329
Pacific	12,529	1,886,942	5,111	749,113	835	27,906	233	50,092	91,694	1,059,831	12,387	253,036
New England:												
Maine	1,519	570,532	1,171	162,546	134	6,439	645	263,705	10,157	137,842	5,373	91,730
New Hampshire	1,029	352,656	649	144,670	57	3,437	503	154,056	8,568	50,493	8,611	146,901
Vermont	951	177,212	467	47,839	67	1,167	395	64,691	5,370	63,515	2,203	29,889
Massachusetts	9,639	1,931,787	3,312	925,490	335	16,827	1,196	189,105	99,734	800,365	50,810	546,225
Rhode Island	1,513	391,928	586	187,655	50	12,184	198	27,201	20,733	164,888	12,813	103,746
Connecticut	2,880	727,021	1,408	309,613	141	6,879	517	62,453	34,630	348,076	17,981	183,931
Middle Atlantic:												
New York	33,606	3,263,325	7,524	1,242,198	1,358	118,437	1,363	348,818	239,355	1,553,872	73,162	692,478
New Jersey	7,935	1,256,890	3,938	784,046	803	35,028	188	10,786	58,186	427,030	46,398	505,600
Pennsylvania	16,892	5,107,593	11,968	3,253,058	1,431	247,303	846	28,899	172,255	1,578,333	102,101	1,879,138
East North Central:												
Ohio	10,255	3,307,726	6,166	1,843,209	1,279	141,079	186	12,478	119,536	1,310,960	48,858	980,219
Indiana	4,573	1,372,007	2,795	685,602	427	168,620	115	8,588	49,849	509,197	21,630	589,756
Illinois	12,250	1,980,508	4,581	944,945	616	76,473	162	10,028	111,679	949,062	48,307	638,524
Michigan	5,296	1,471,550	2,970	672,469	366	45,540	308	42,717	73,504	710,824	53,474	449,356
Wisconsin	4,900	929,889	4,129	421,949	1,842	16,023	720	164,865	36,775	327,052	23,233	294,002
West North Central:												
Minnesota	3,561	460,128	1,536	207,348	196	19,185	138	62,944	21,130	170,651	5,731	107,072
Iowa	3,155	282,333	1,010	124,806	220	4,784	50	1,889	17,502	150,354	4,911	68,672
Missouri	4,681	553,397	1,928	231,648	425	20,728	47	1,900	34,183	299,121	9,366	95,236
North Dakota	309	16,730	84	10,396	53	1,775	5	91	1,052	4,468	136	1,943
South Dakota	450	16,458	130	5,841	58	1,102	6	293	1,754	9,222	37	384
Nebraska	1,247	129,429	303	53,551	144	15,417	38	3,109	6,886	57,352	2,133	27,327
Kansas	1,667	255,555	779	135,267	267	25,054	32	3,120	8,598	92,114	3,438	67,411

South Atlantic:												
Delaware	419	112,485	529	68,012	50	1,306	43	1,846	2,525	41,321	2,085	33,539
Maryland	2,594	497,945	1,556	170,645	349	10,901	97	5,625	23,420	310,774	6,212	153,358
District of Columbia	448	31,846	105	11,353	47	894	3	970	2,907	18,629	301	3,469
Virginia	2,579	431,237	2,060	230,070	272	11,027	388	47,243	28,147	142,897	14,745	95,243
West Virginia	1,371	371,699	1,131	217,580	385	35,681	56	4,735	9,055	113,703	5,603	128,012
North Carolina	2,587	702,832	2,113	245,479	205	5,939	247	146,812	32,047	304,602	7,936	79,252
South Carolina	1,121	407,735	1,021	195,961	117	7,493	90	28,297	15,169	175,984	1,549	49,528
Georgia	2,498	449,888	2,831	229,969	263	3,610	88	22,878	15,024	193,431	1,955	39,009
Florida	1,305	138,269	1,156	106,723	324	6,752	5	152	3,170	24,642	795	14,783
East South Central:												
Kentucky	1,829	251,554	1,040	116,041	248	7,049	61	2,471	10,492	125,993	2,277	32,613
Tennessee	2,171	391,465	1,872	220,832	177	4,386	118	4,162	14,785	162,085	2,747	30,968
Alabama	1,841	640,892	1,960	396,134	238	3,291	13	9,505	12,398	231,962	1,800	69,699
Mississippi	1,176	177,693	1,481	153,279	193	5,412	10	404	1,954	18,598	843	18,466
West South Central:												
Arkansas	1,183	165,154	1,396	134,415	158	6,045	10	361	2,716	24,333	846	15,439
Louisiana	1,594	402,938	2,632	334,033	333	16,893	23	325	5,324	51,687	2,463	56,841
Oklahoma	1,132	152,956	590	84,485	298	18,679	20	210	5,325	49,582	1,293	26,674
Texas	3,314	548,299	1,973	285,476	607	44,325	23	6,274	15,821	212,224	4,071	96,753
Mountain:												
Montana	599	190,516	234	30,100	52	1,466	13	4,511	3,587	154,439	271	6,874
Idaho	479	72,146	347	46,727	49	1,714	10	429	1,940	23,276	383	11,064
Wyoming	215	23,959	123	14,049	49	1,893	3	98	961	7,919	282	5,107
Colorado	1,146	176,076	624	109,333	99	2,146	14	666	6,529	63,931	1,870	28,846
New Mexico	170	16,863	123	13,212	21	963	4	310	394	2,378	256	4,033
Arizona	253	128,531	202	85,339	40	13,568	1	60	1,524	29,564	1,390	45,078
Utah	519	141,671	378	38,166	23	505	58	2,508	5,764	100,492	1,063	10,093
Nevada	95	27,983	40	20,321	20	937	4	630	395	6,095	293	14,234
Pacific:												
Washington	2,698	593,330	2,174	359,420	235	10,498	47	6,211	14,501	217,201	4,827	103,211
Oregon	1,692	322,297	1,118	169,765	110	1,657	125	33,157	9,137	117,718	2,516	61,722
California	8,139	971,315	1,319	219,928	490	15,751	61	10,724	68,056	724,912	5,044	88,103

[a] Census of manufactures, 1923.

[b] Includes motors driven by purchased current.

TABLE 38.—*Distribution by geographic divisions and States of total area of improved land on farms in the United States, 1869–1919* [a]

[Figures represent percentages]

	1869	1879	1889	1899	1909	1919
United States	100.0	100.0	100.0	100.0	100.0	100.0
New England	6.4	4.6	3.0	2.0	1.5	1.2
Middle Atlantic	15.4	11.6	8.9	7.5	6.1	5.3
East North Central	29.1	26.6	22.0	20.9	18.6	17.5
West North Central	12.4	21.5	29.5	32.7	34.4	34.1
South Atlantic	16.0	12.7	11.7	11.1	10.1	9.6
East South Central	12.8	10.8	10.0	9.7	9.2	8.8
West South Central	3.6	6.7	8.5	9.6	12.2	12.7
Mountain	.3	.8	1.5	2.0	3.3	6.0
Pacific	4.0	4.7	4.9	4.5	4.6	4.8
New England:						
Maine	1.6	1.2	.8	.6	.5	.4
New Hampshire	1.3	.8	.5	.3	.2	.2
Vermont	1.6	1.2	.7	.5	.4	.3
Massachusetts	.9	.7	.5	.3	.2	.2
Rhode Island	.2	.1	.1	(b)	(b)	(b)
Connecticut	.8	.6	.4	.3	.2	.1
Middle Atlantic:						
New York	8.3	6.2	4.6	3.8	3.1	2.6
New Jersey	1.1	.7	.6	.5	.4	.3
Pennsylvania	6.0	4.7	3.7	3.2	2.6	2.4
East North Central:						
Ohio	7.7	6.4	5.1	4.6	4.0	3.6
Indiana	5.4	4.9	4.2	4.0	3.5	3.3
Illinois	10.2	9.2	7.2	6.7	5.8	5.4
Michigan	2.7	2.9	2.8	2.8	2.8	2.7
Wisconsin	3.1	3.2	2.7	2.8	2.5	2.5
West North Central:						
Minnesota	1.2	2.6	3.1	4.4	4.1	4.3
Iowa	5.0	7.0	7.0	7.2	6.1	5.2
Missouri	4.8	5.9	5.5	5.6	5.2	5.1
North Dakota	(b)	(b)	1.3	2.3	4.3	4.9
South Dakota	(b)	.3	2.0	2.7	3.3	3.6
Nebraska	.3	1.9	4.3	4.5	5.1	4.9
Kansas	1.1	3.8	6.3	6.0	6.3	6.1
South Atlantic:						
Delaware	.4	.3	.1	(b)	(b)	.1
Maryland	1.5	1.2	1.0	.8	.7	.6
District of Columbia	(b)	(b)	(b)	(b)	.1	(b)
Virginia	4.3	3.0	2.6	2.5	2.1	1.9
West Virginia	1.4	1.3	1.3	1.4	1.1	1.1
North Carolina	2.8	2.3	2.2	2.0	1.8	1.6
South Carolina	1.6	1.4	1.5	1.4	1.3	1.2
Georgia	3.6	2.9	2.7	2.6	2.6	2.6
Florida	.4	.3	.3	.4	.4	.5
East South Central:						
Kentucky	4.3	3.8	3.3	3.3	3.0	2.8
Tennessee	3.6	3.0	2.6	2.5	2.3	2.2
Alabama	2.7	2.2	2.2	2.1	2.0	2.0
Mississippi	2.2	1.8	1.9	1.8	1.9	1.8
West South Central:						
Arkansas	1.0	1.3	1.5	1.7	1.7	1.8
Louisiana	1.1	.9	1.0	1.1	1.1	1.1
Oklahoma			.2	2.1	3.7	3.6
Texas	1.5	4.5	5.8	4.7	5.7	6.2
Mountain:						
Montana	.1	.1	.3	.4	.8	2.2
Idaho	(b)	.1	.2	.3	.5	.9
Wyoming	(b)	(b)	.1	.2	.3	.4
Colorado	.1	.2	.5	.6	.8	1.6
New Mexico	.1	.1	.1	.1	.3	.3
Arizona	(b)	(b)	(b)	.1	.1	.1
Utah	(b)	.2	.2	.2	.3	.4
Nevada	(b)	.1	.1	.1	.2	.1
Pacific:						
Washington	.1	.2	.5	.8	1.3	1.4
Oregon	.6	.8	1.0	.8	.9	1.0
California	3.3	3.7	3.4	2.9	2.4	2.4

[a] Based on census reports.

[b] Less than 0.1 per cent.

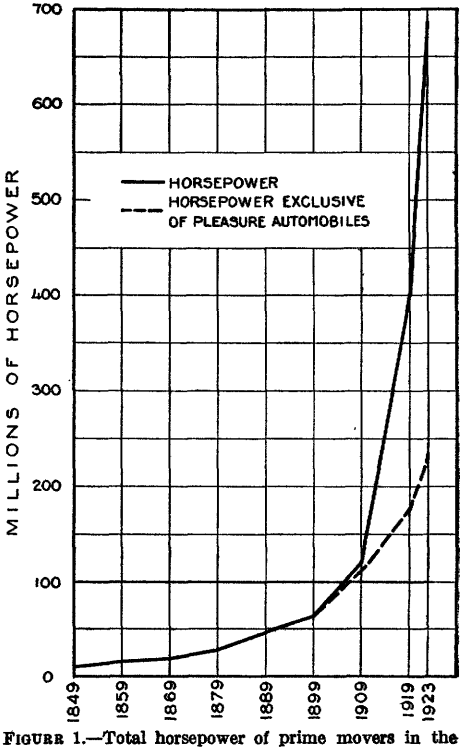

FIGURE 1.—Total horsepower of prime movers in the United States, 1849–1923. (Table 1)

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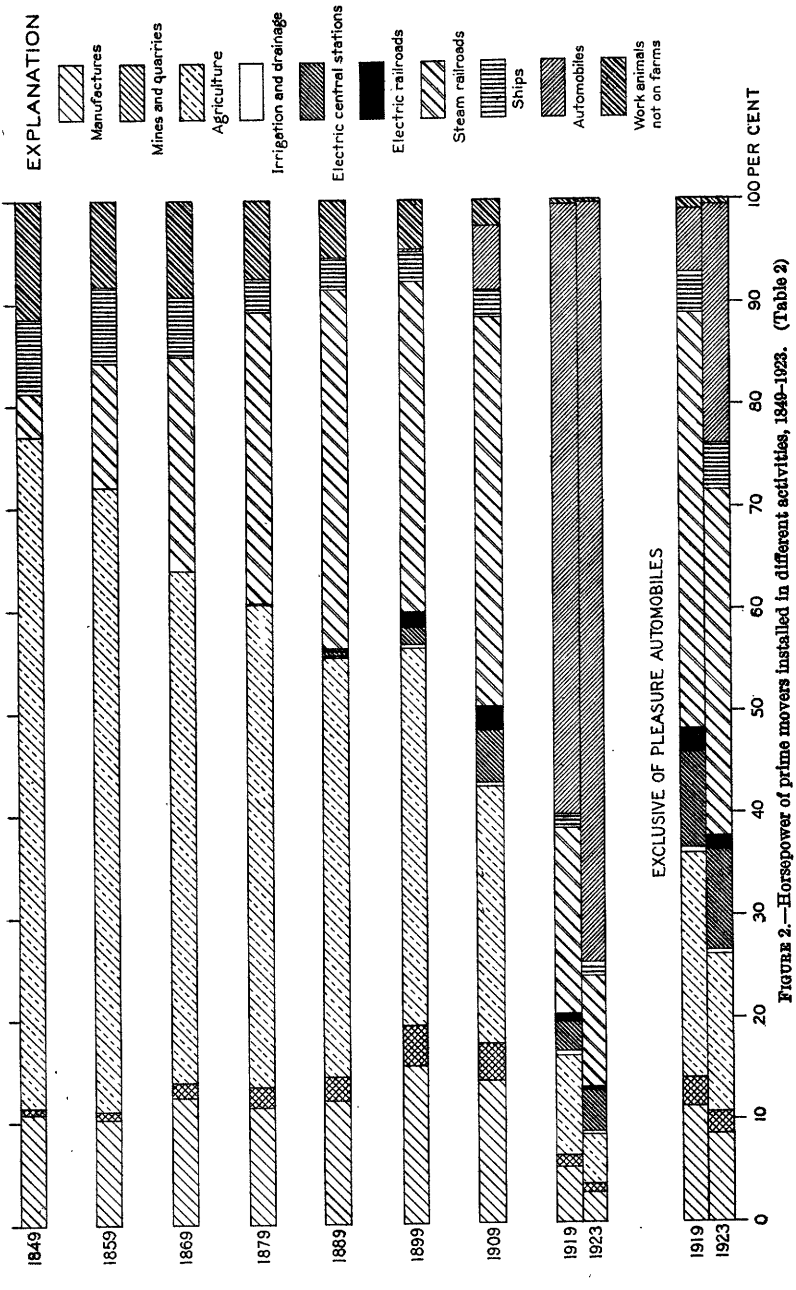


FIGURE 2.—Horsepower of prime movers installed in different activities, 1849–1923. (Table 2)

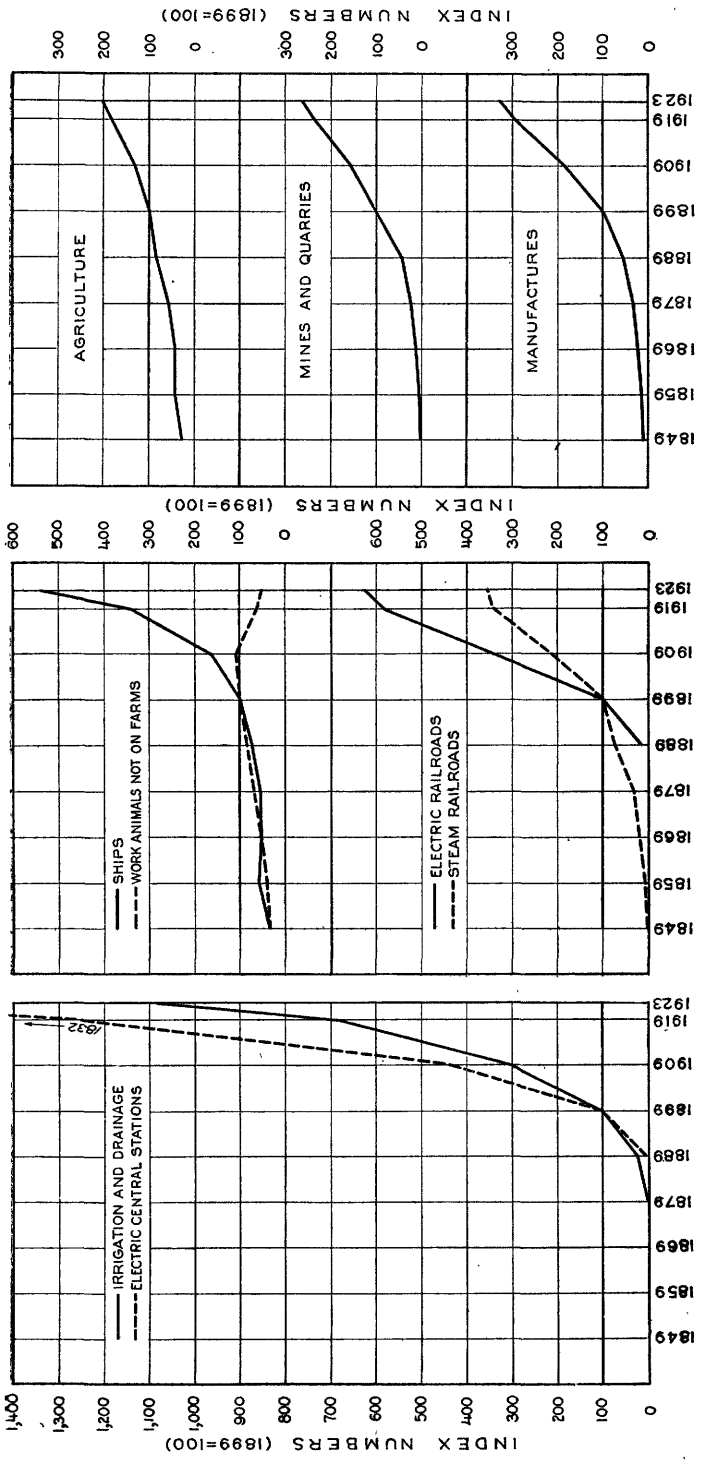


FIGURE 8.—Horsepower utilized in each field of activity, 1849–1923. (Table 8)

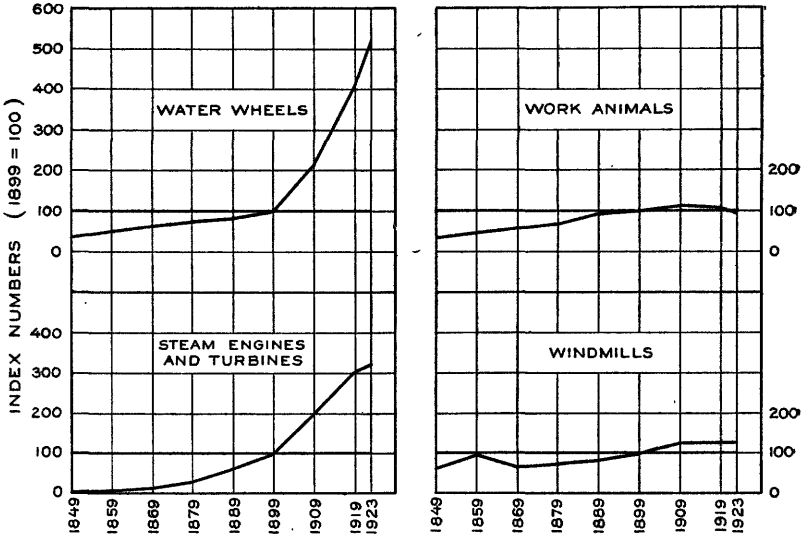


FIGURE 4.—Index numbers of horsepower of prime movers, 1849–1923, by types of prime movers. (Table 4-C)

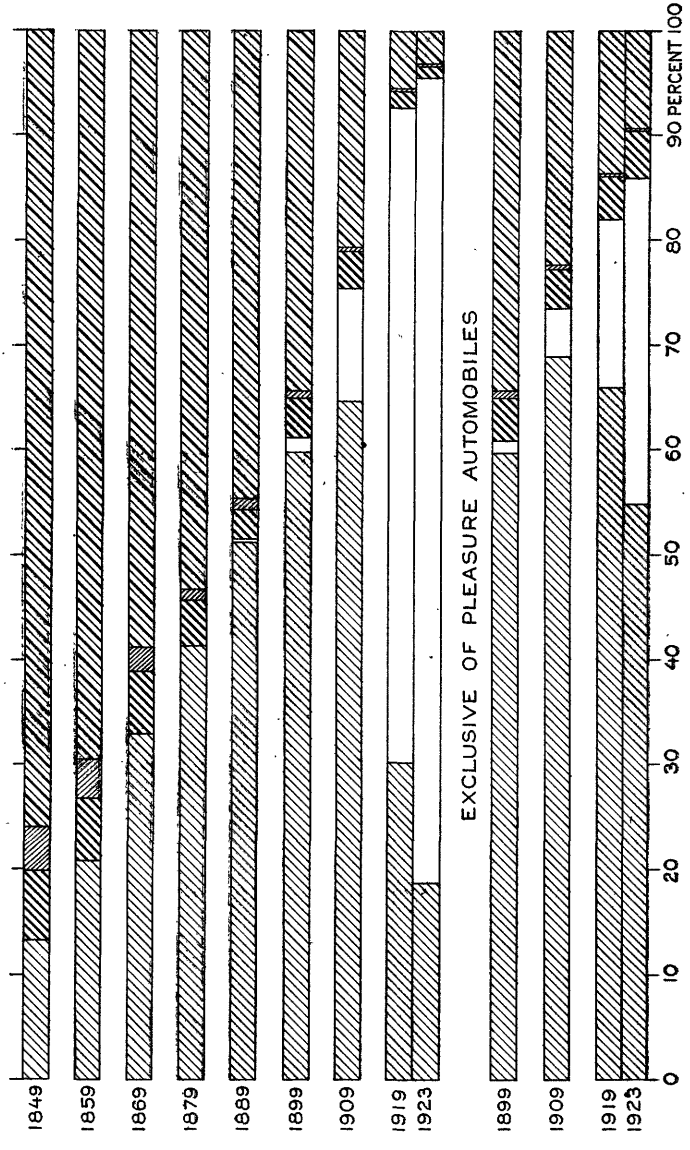


FIGURE 5.—Percentages of horsepower of prime movers, 1849–1923, by different types of prime movers. (Table 4-B)

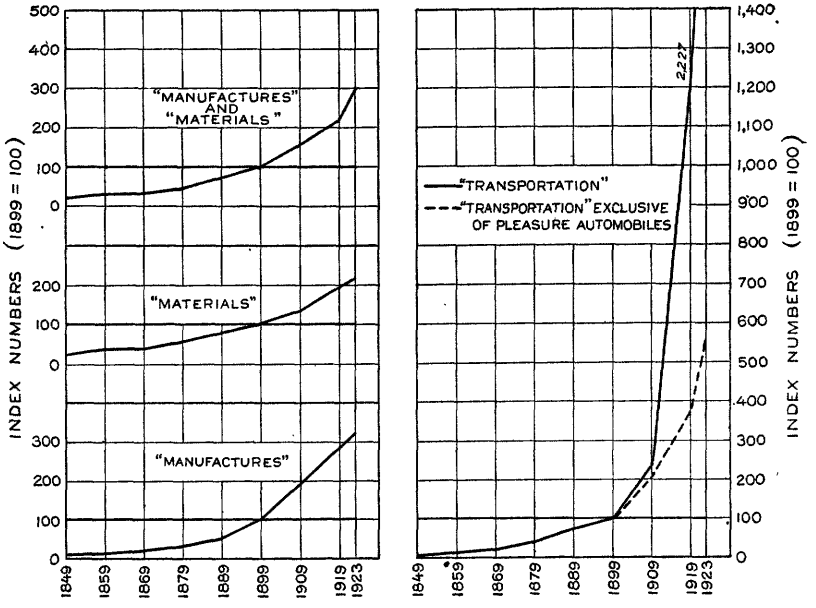


FIGURE 6.—Horsepower of prime movers, 1849–1923, by special groups. (Table 6.) (See also fig. 7)

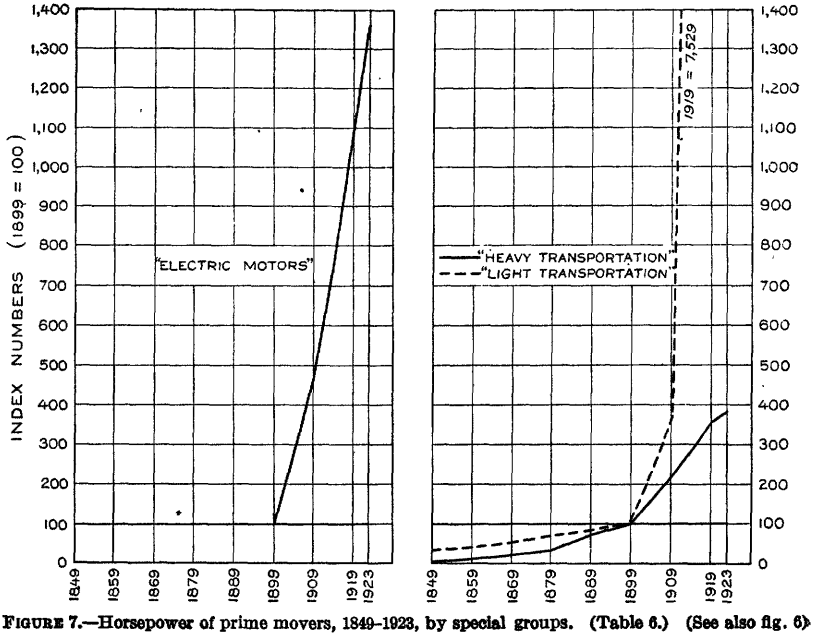
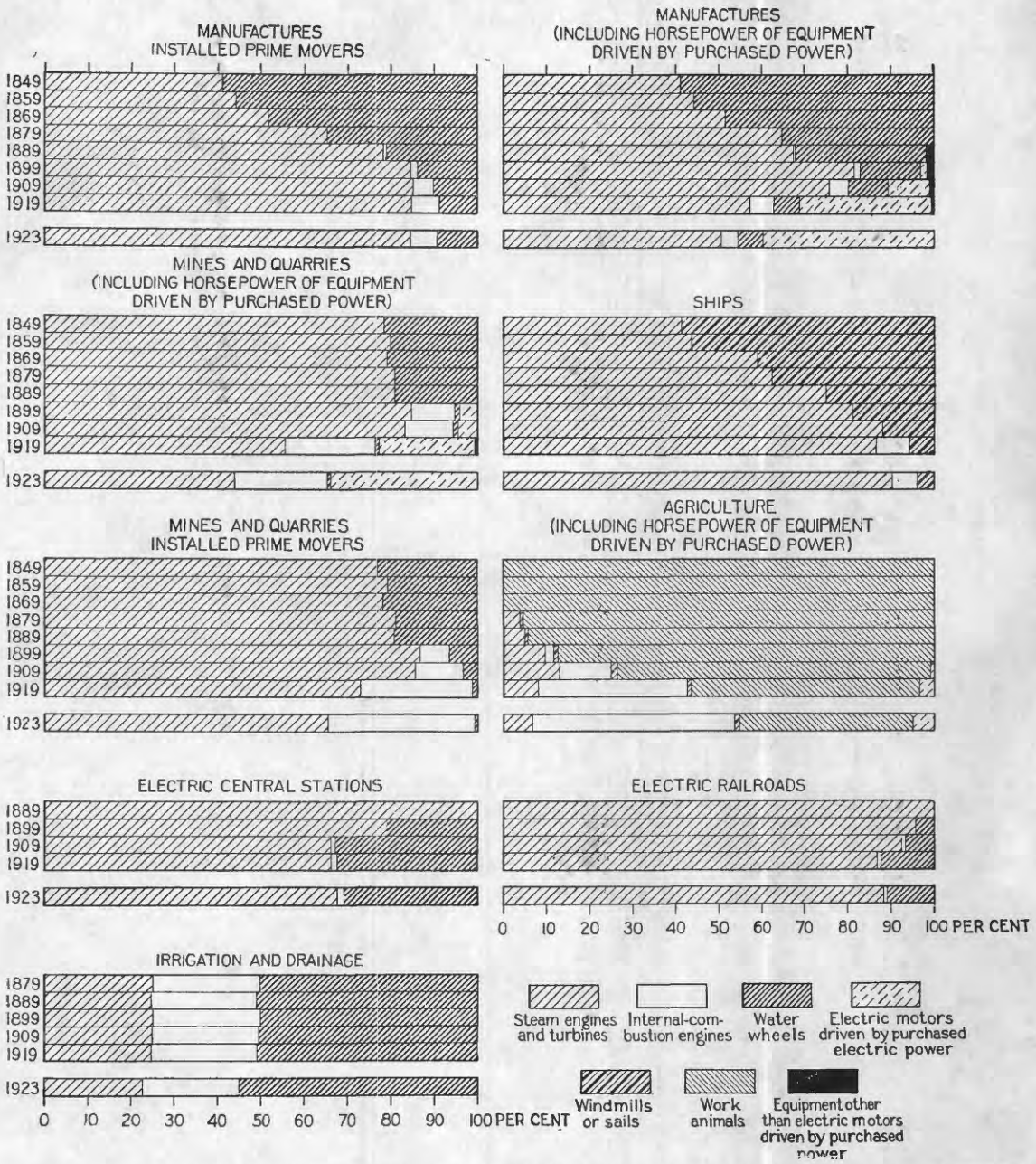
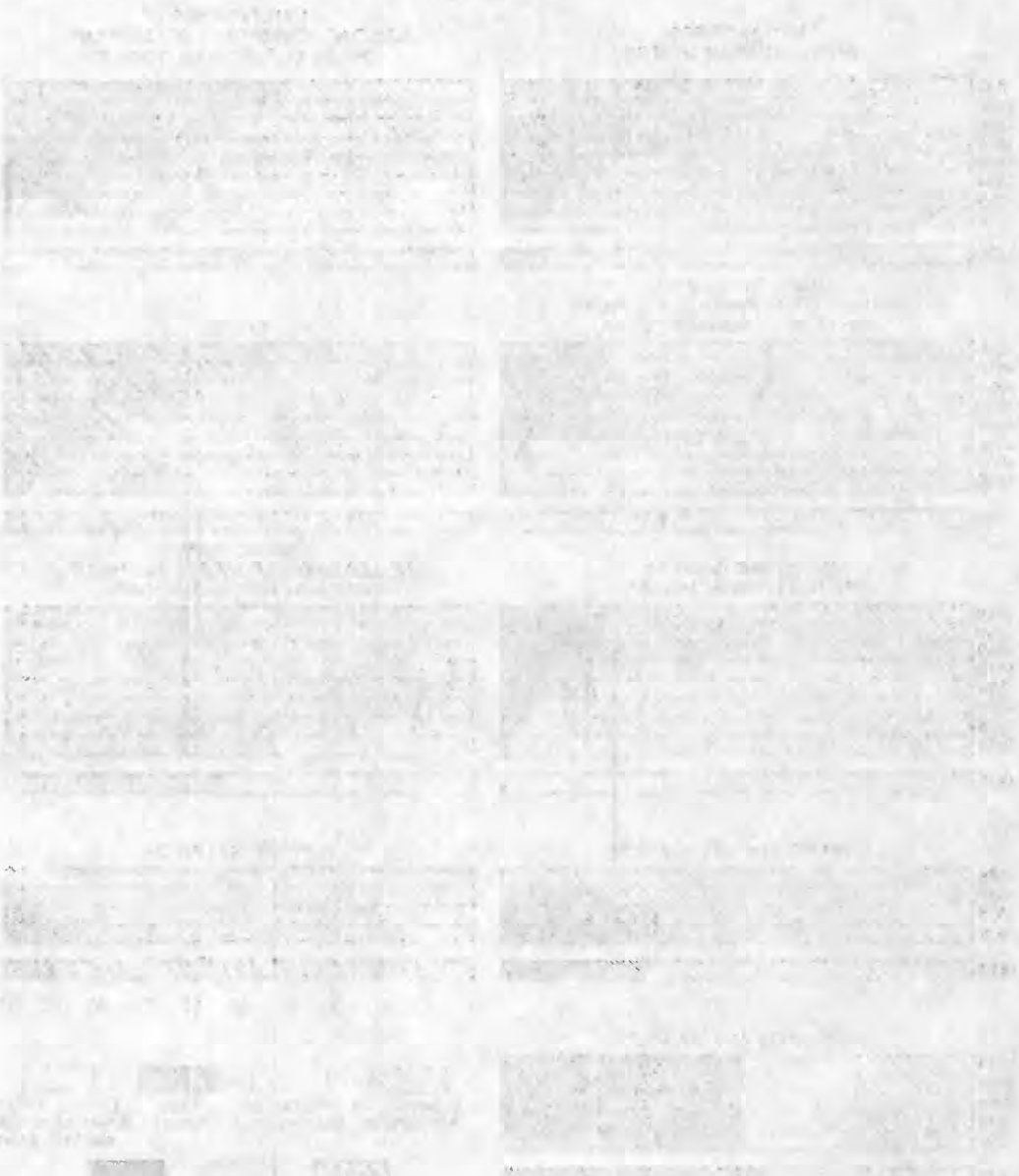


FIGURE 7.—Horsepower of prime movers, 1849–1923, by special groups. (Table 6.) (See also fig. 6)



HORSEPOWER OF PRIME MOVERS INSTALLED AND UTILIZED IN DIFFERENT ACTIVITIES, 1849-1923, BY TYPES OF PRIME MOVERS

Based on data in Table 5



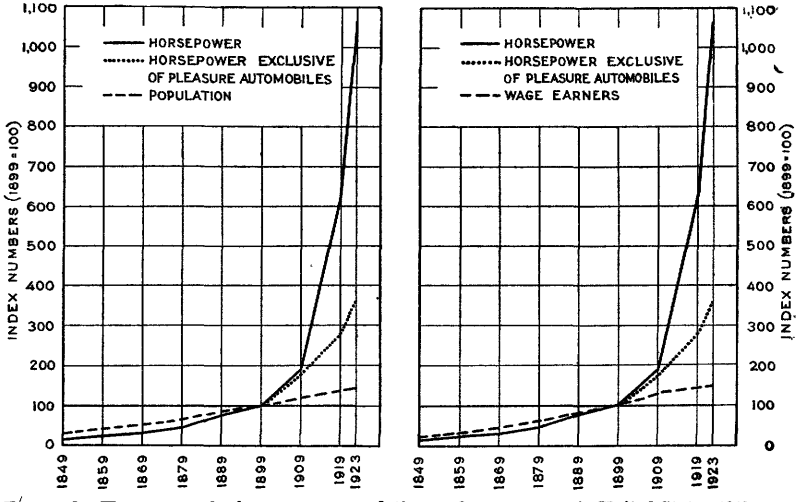


FIGURE 8.—Horsepower of prime movers, population, and wage earners in United States, 1849–1923. (Tables 1, 3, and 7.) (See also figs. 9, 10)

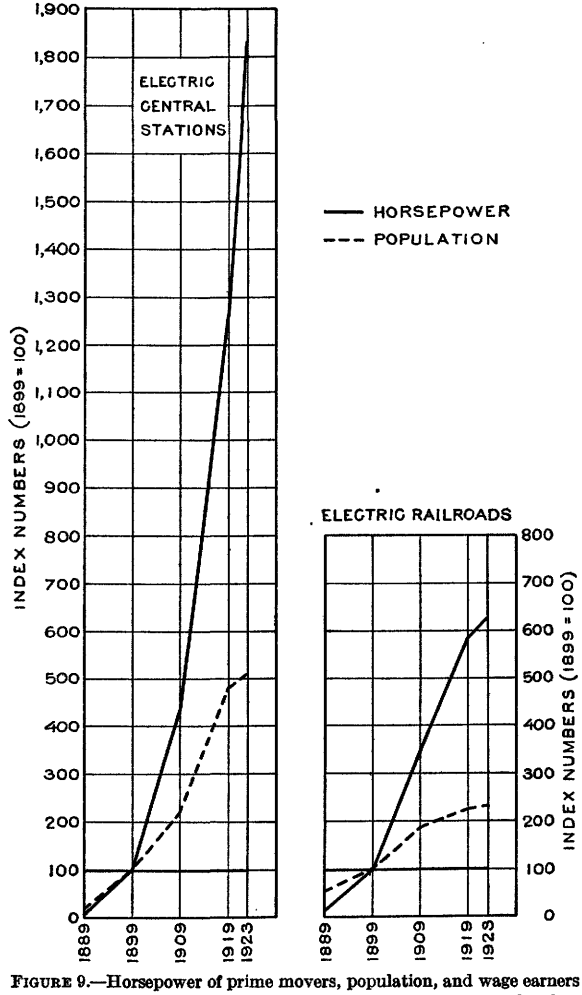


FIGURE 9.—Horsepower of prime movers, population, and wage earners in United States, 1849–1923. (Tables 1, 3, and 7.) (See also figs. 8, 10)

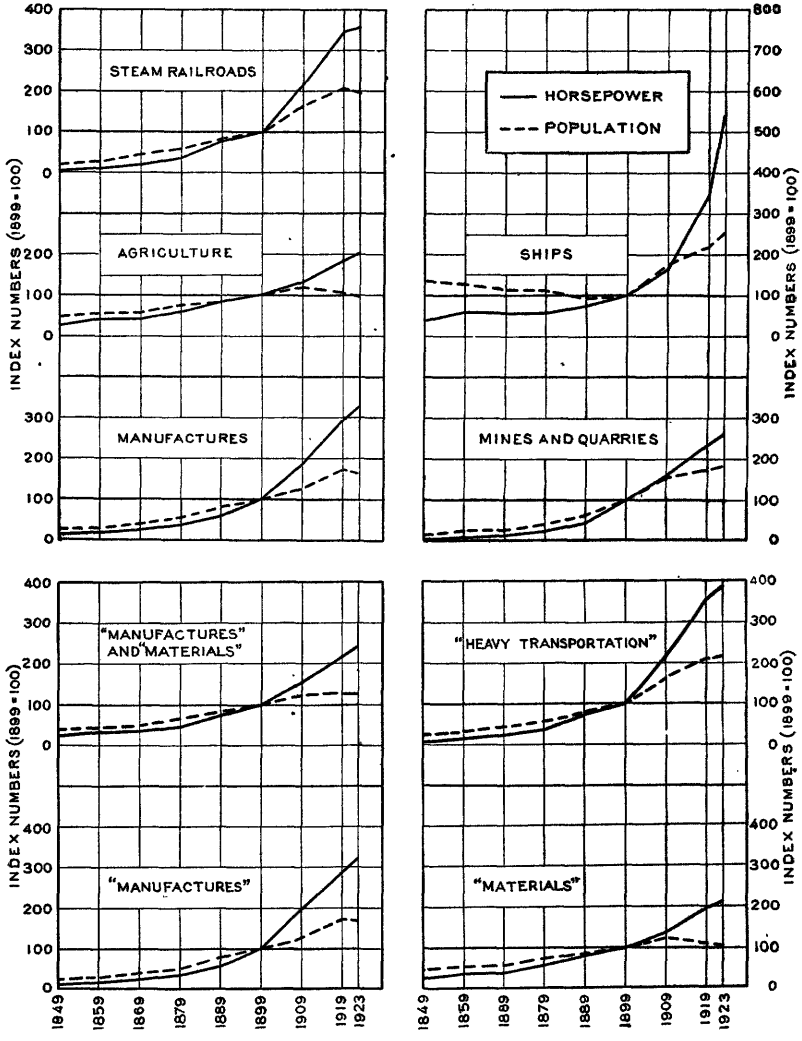


FIGURE 10.—Horsepower of prime movers, population, and wage earners in United States, 1849–1923. (Tables 1, 3, and 7.) (See also figs. 8, 9)

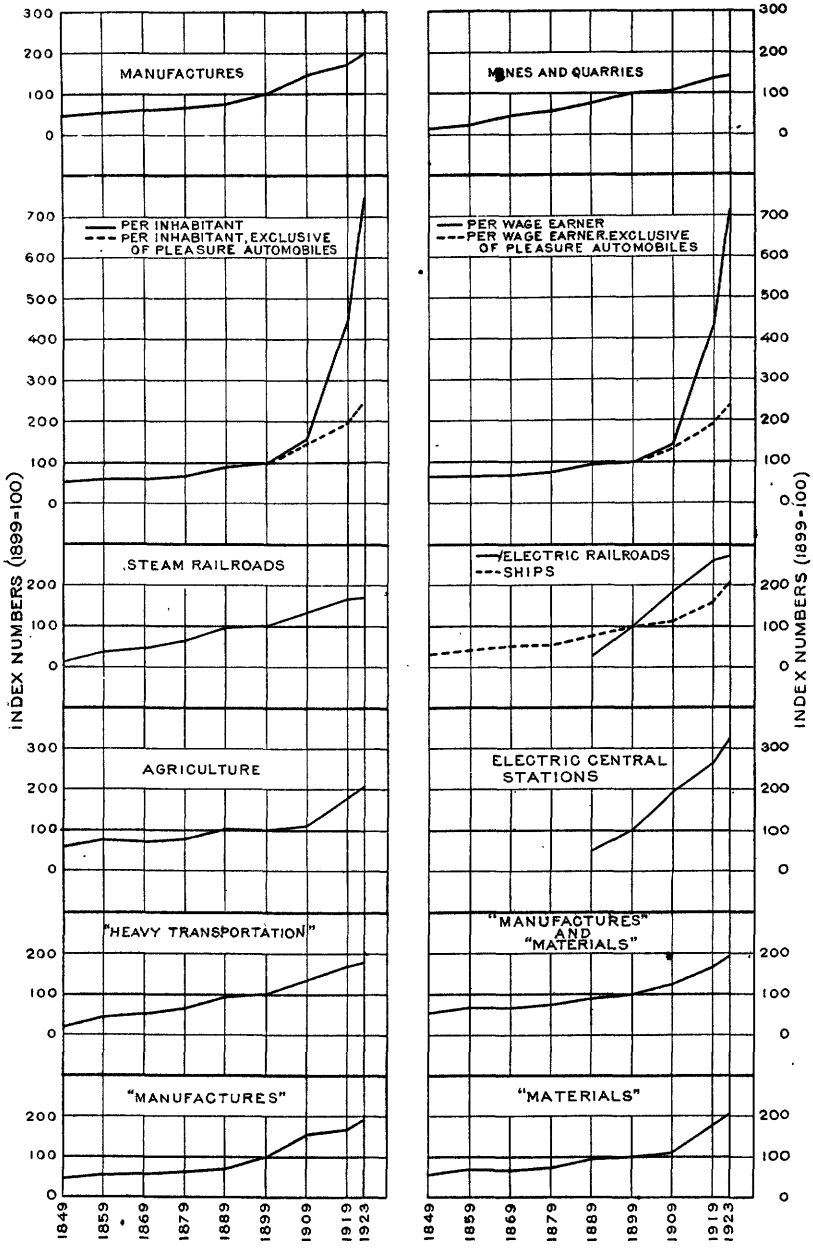


FIGURE 11.—Horsepower of prime movers installed per inhabitant and per wage earner and utilized per wage earner in different activities and groups, 1849–1923. (Table 8)

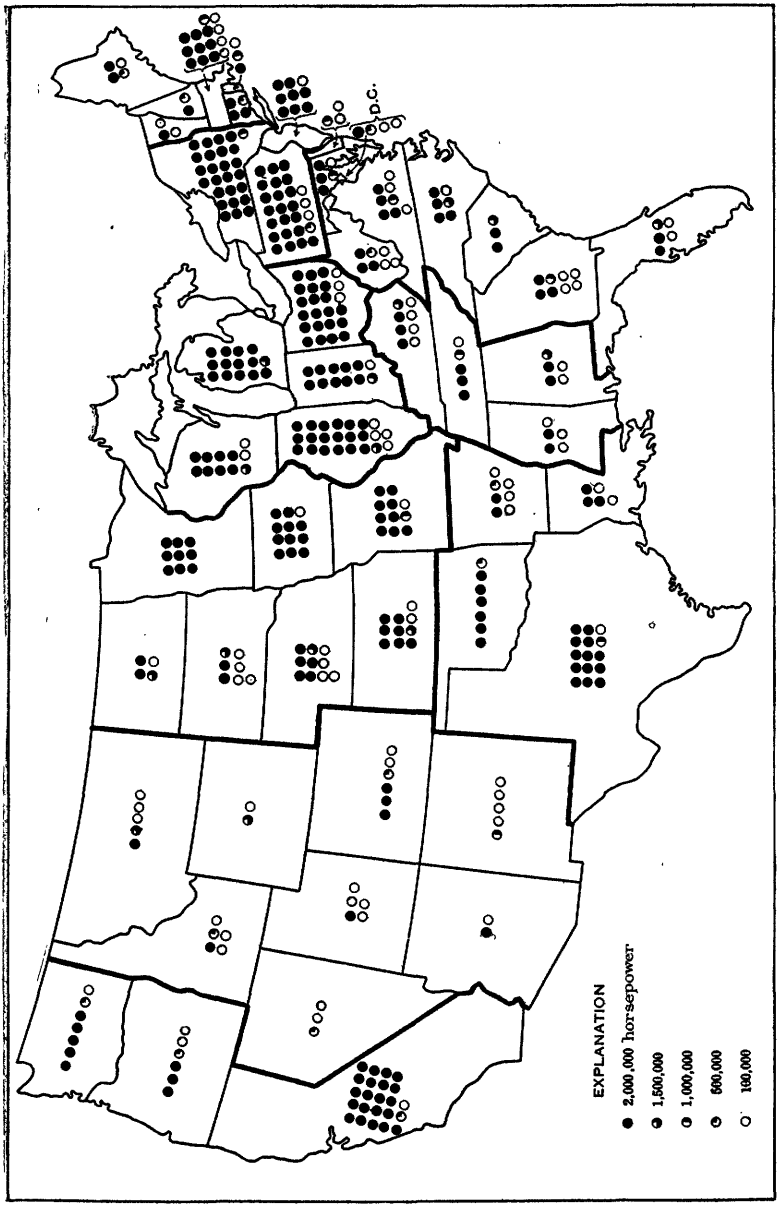


FIGURE 12.—Total horsepower of prime movers, 1923. (Table 9)

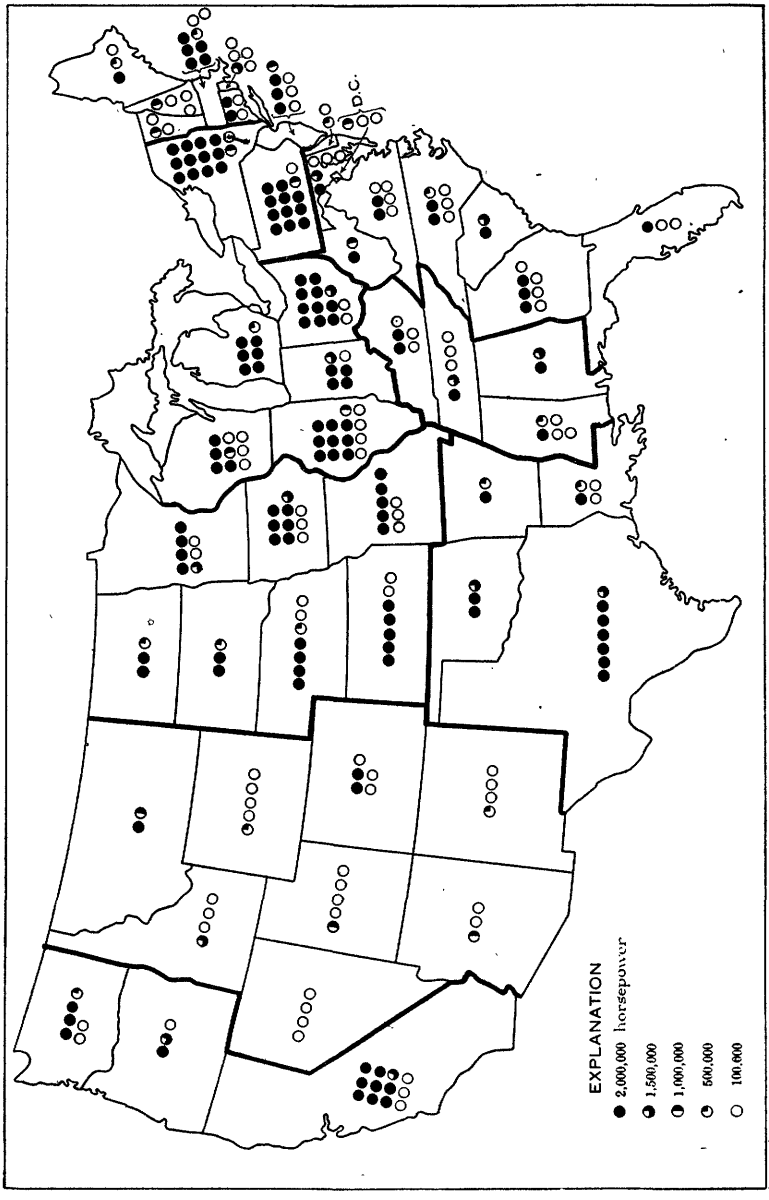


FIGURE 13.—Total horsepower of prime movers, 1919. (Table 9)

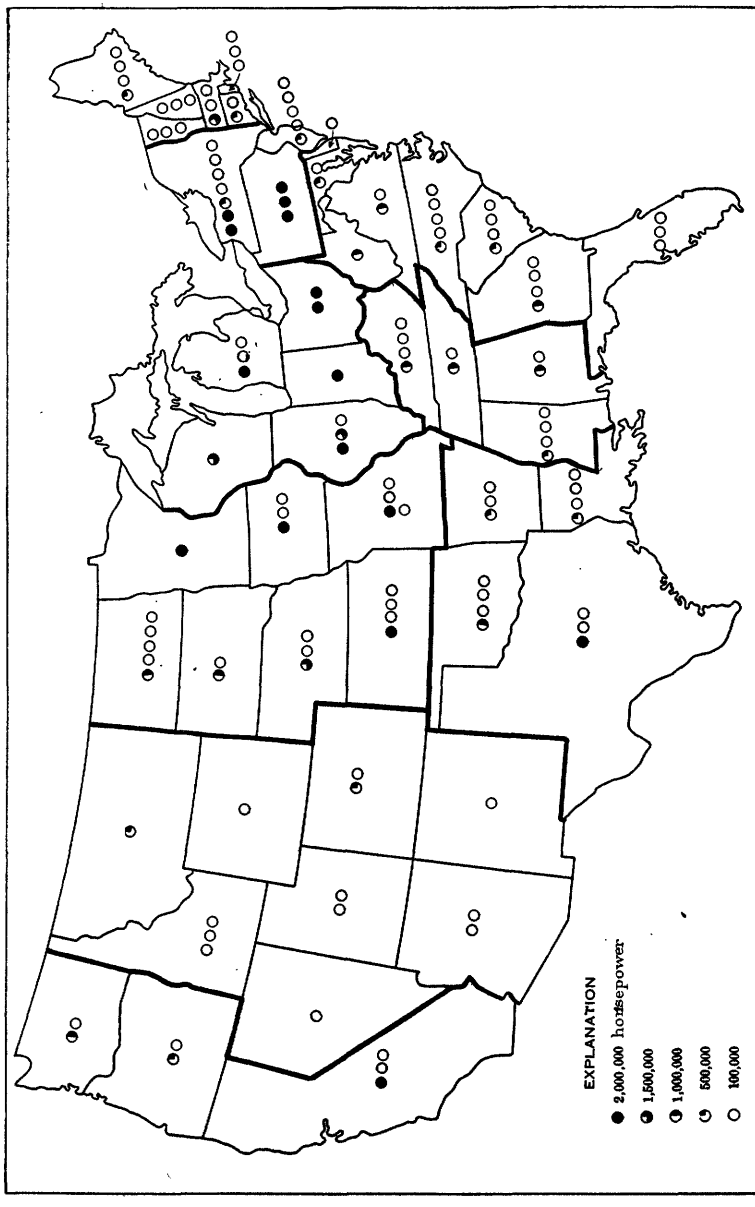


FIGURE 14.—Total horsepower of prime movers, 1900. (Table 9)

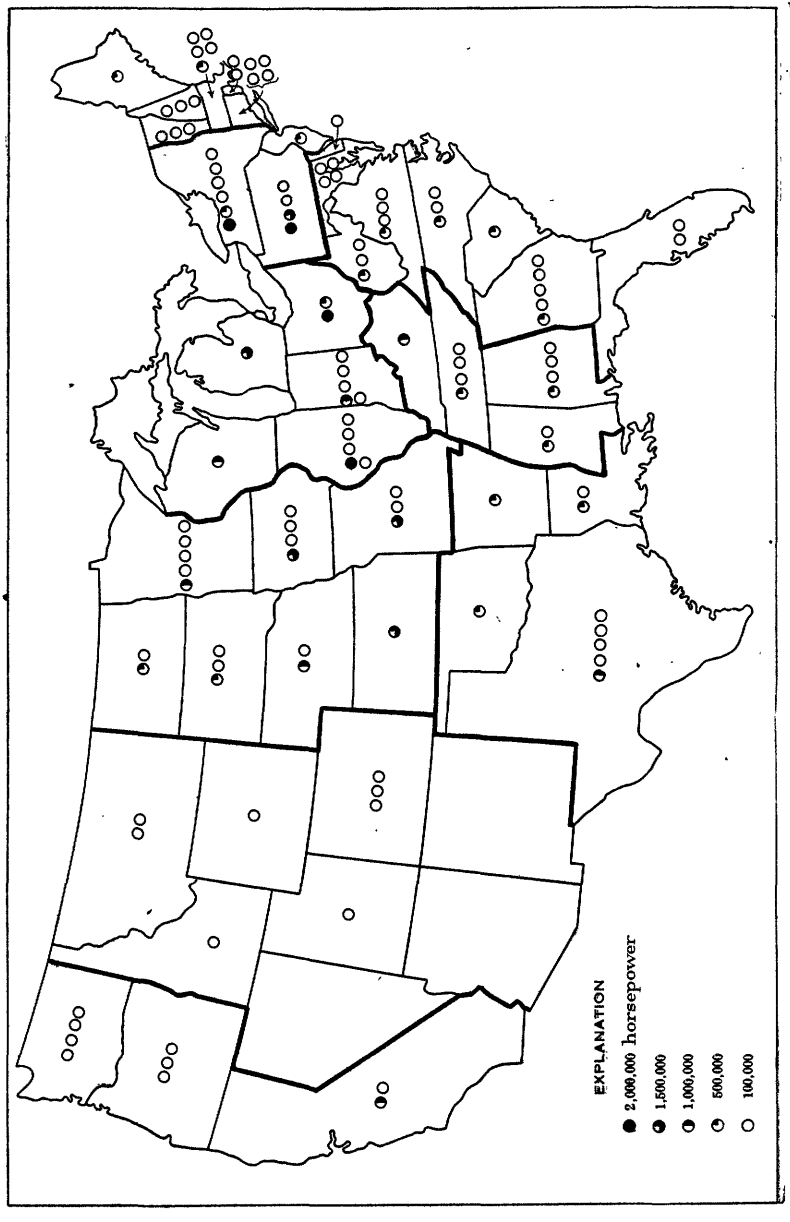


FIGURE 15.—Total horsepower of prime movers, 1899. (Table 9)

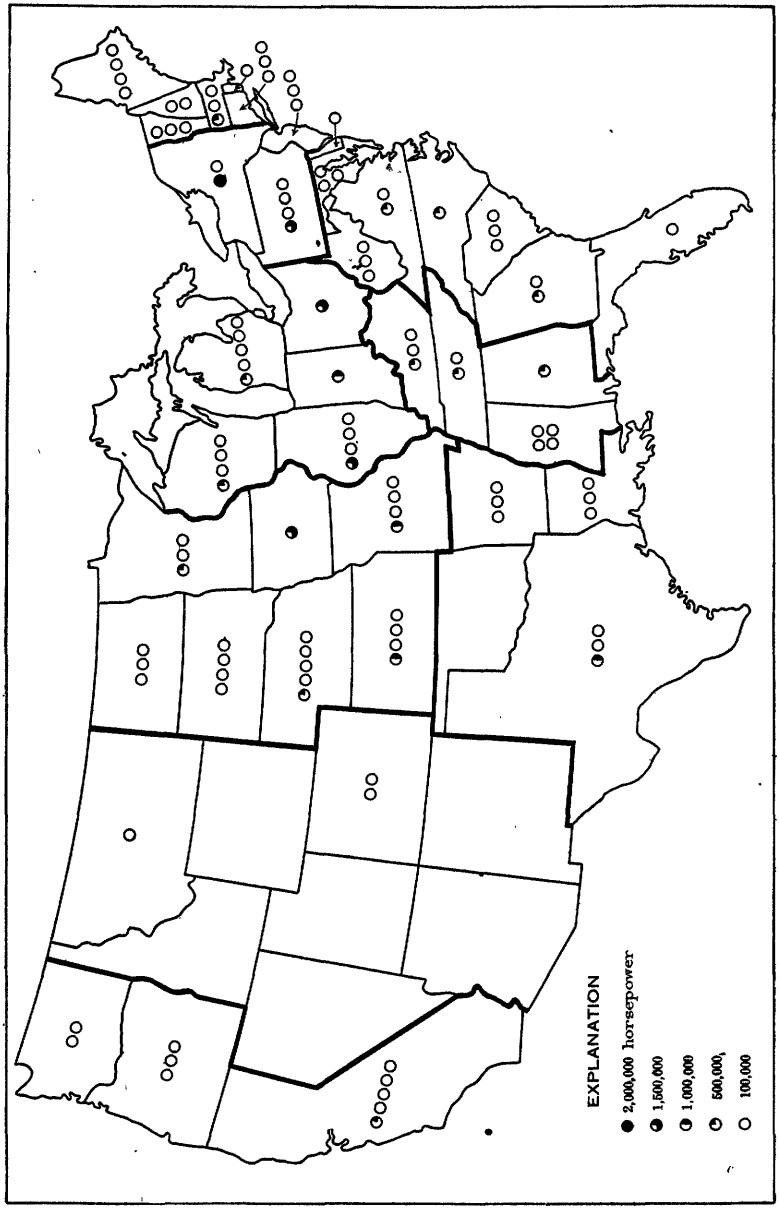


FIGURE 16.—Total horsepower of prime movers, 1889. (Table 9)

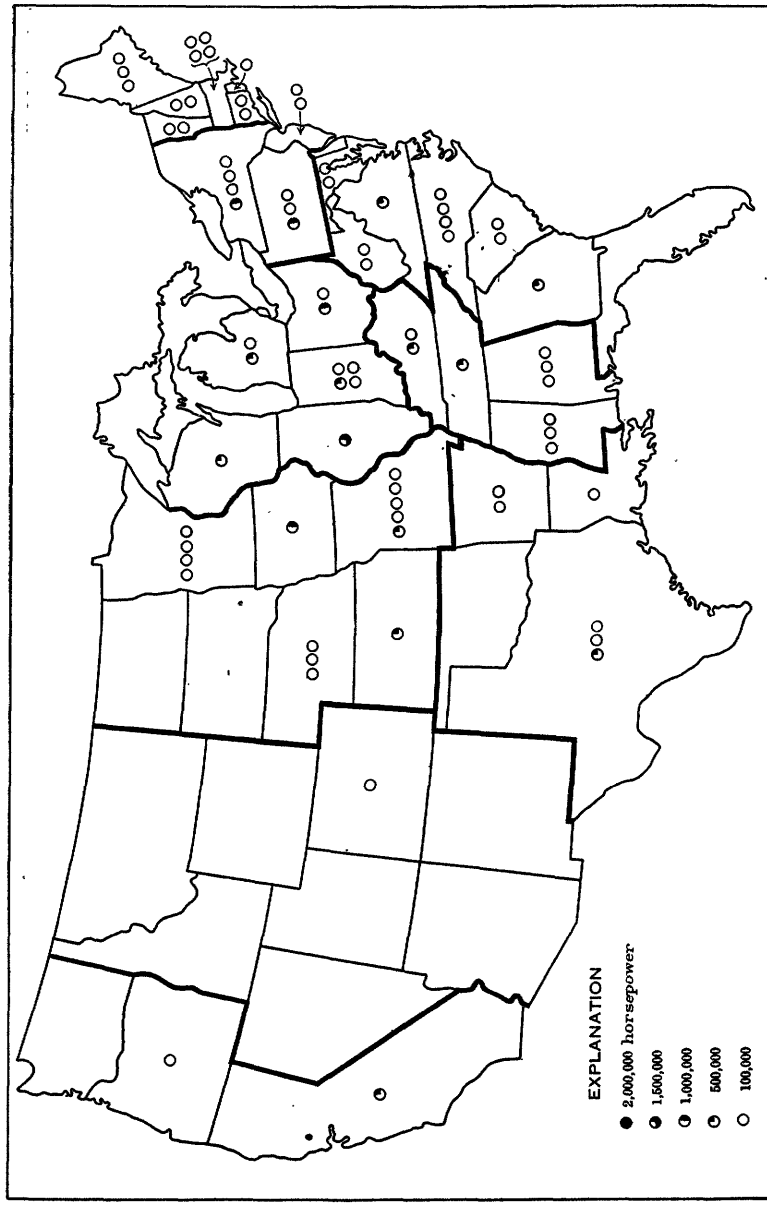


FIGURE 17.—Total horsepower of prime movers, 1879. (Table 9)

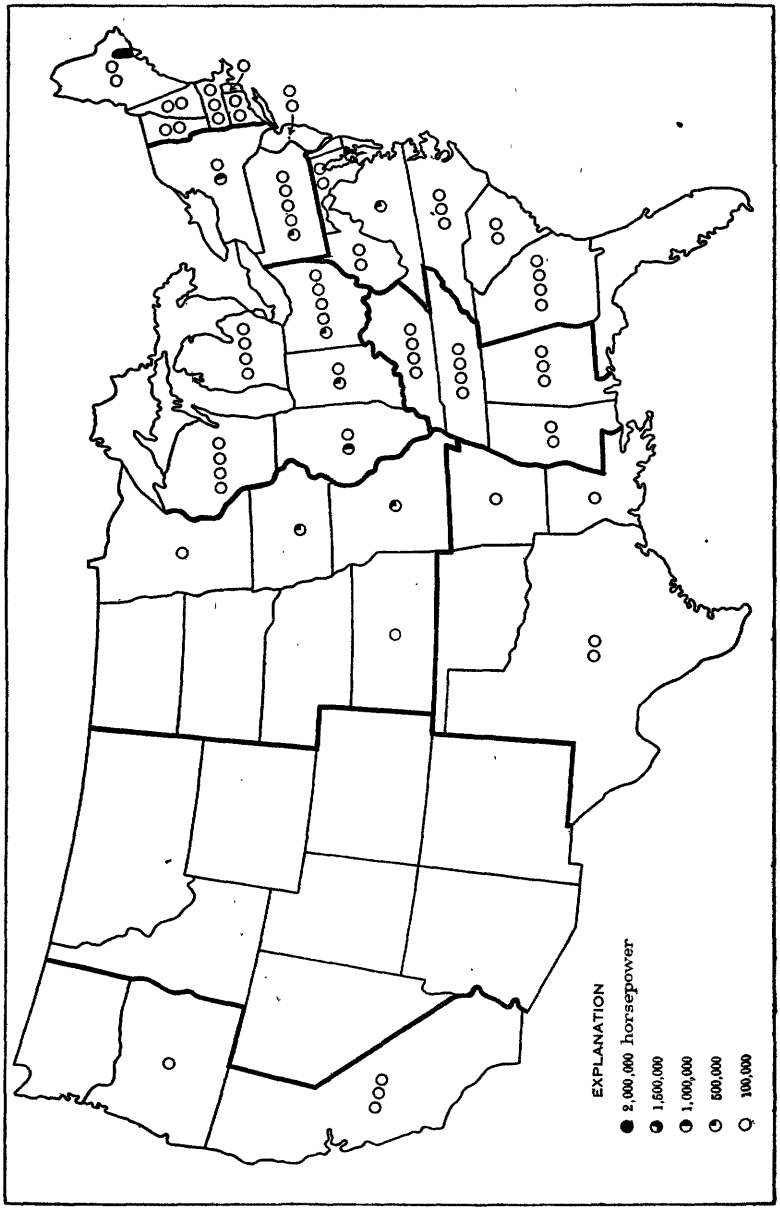


FIGURE 18.—Total horsepower of prime movers, 1869. (Table 9)

61750—28——7

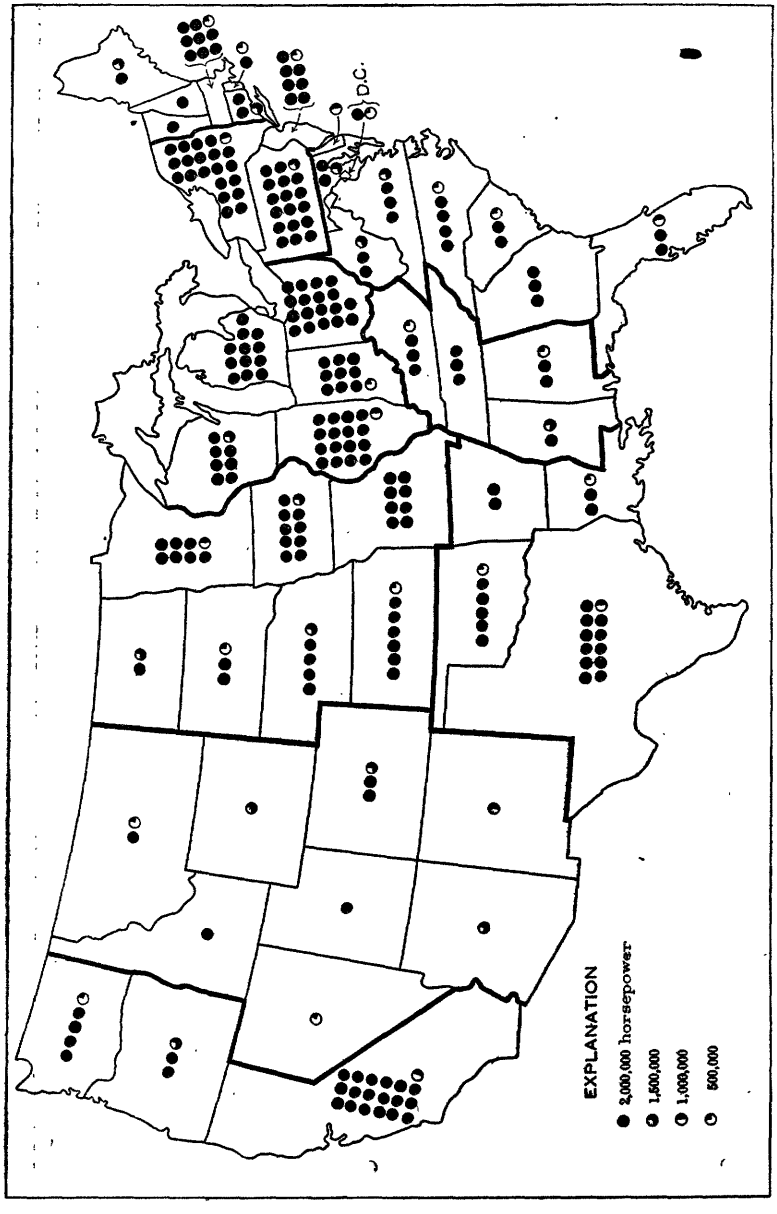


FIGURE 19.—Horsepower of prime movers in motor-driven vehicles, 1923. (Table 20)

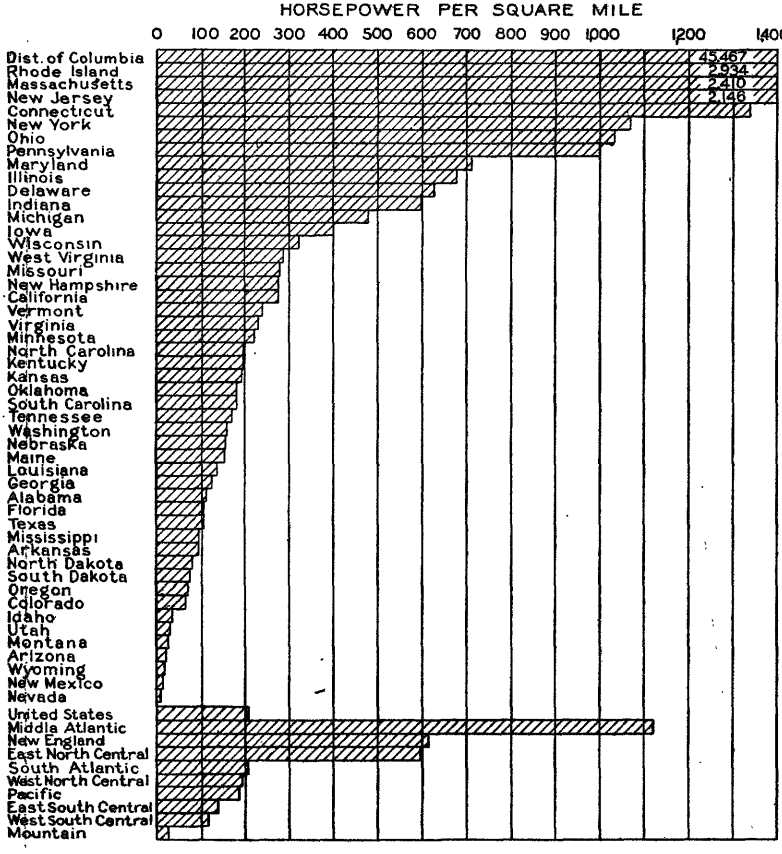


FIGURE 20.—Horsepower of prime movers per square mile, 1923, by States and geographic divisions. (Table 10.) Includes all prime movers except steam railroads and work animals not on farms

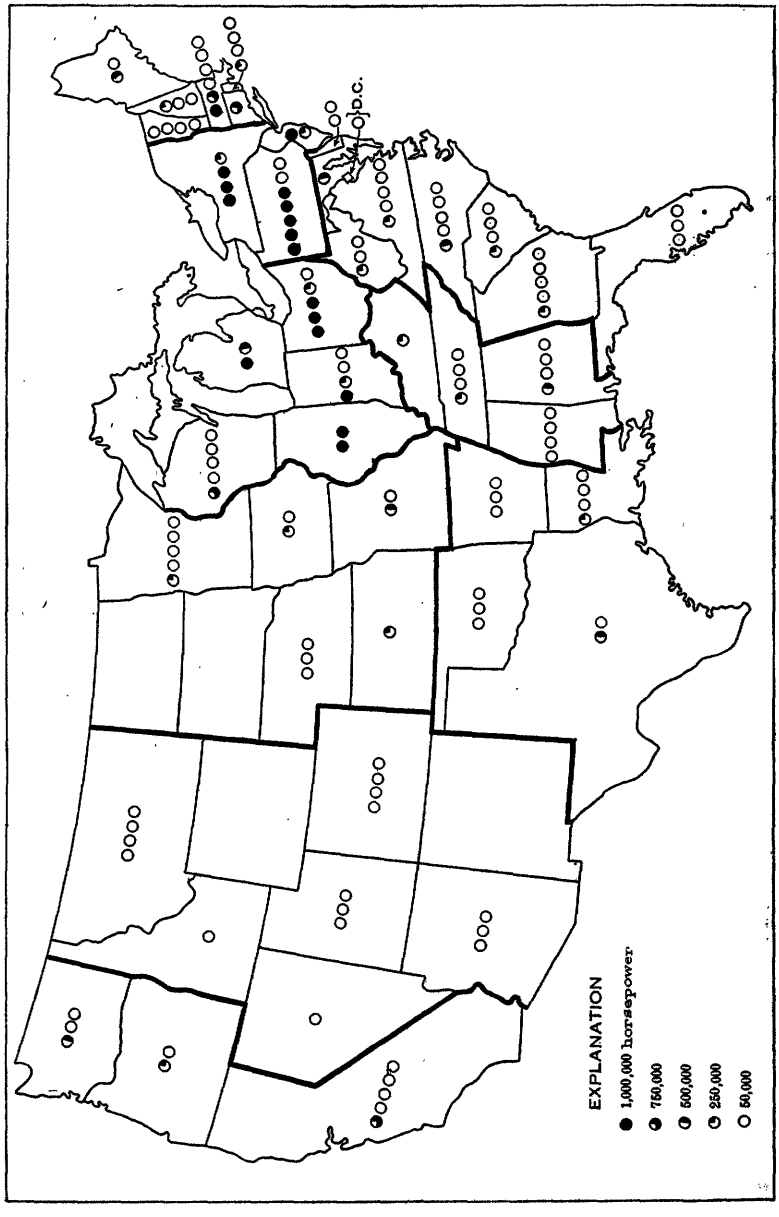


FIGURE 21.—Horsepower of prime movers utilized in manufactures, 1923. (Table 11)

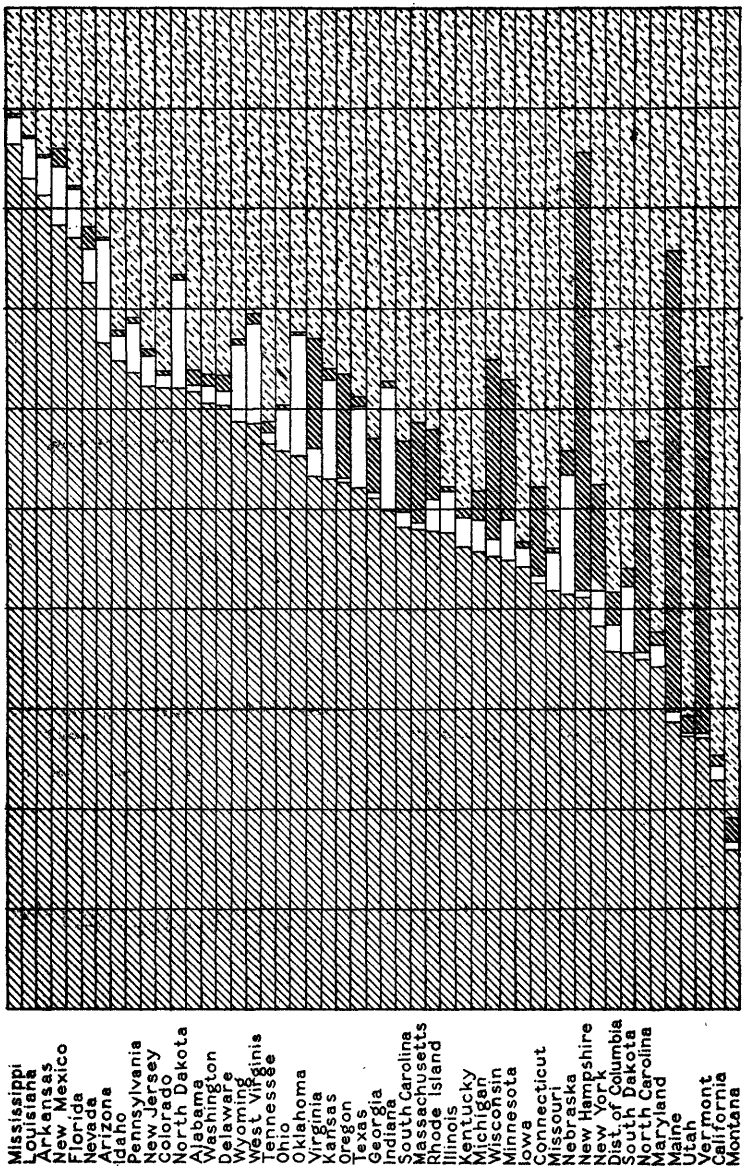


FIGURE 22.—Percentage of total horsepower of prime movers utilized in manufactures, 1923, by types of prime movers. (Table 12)

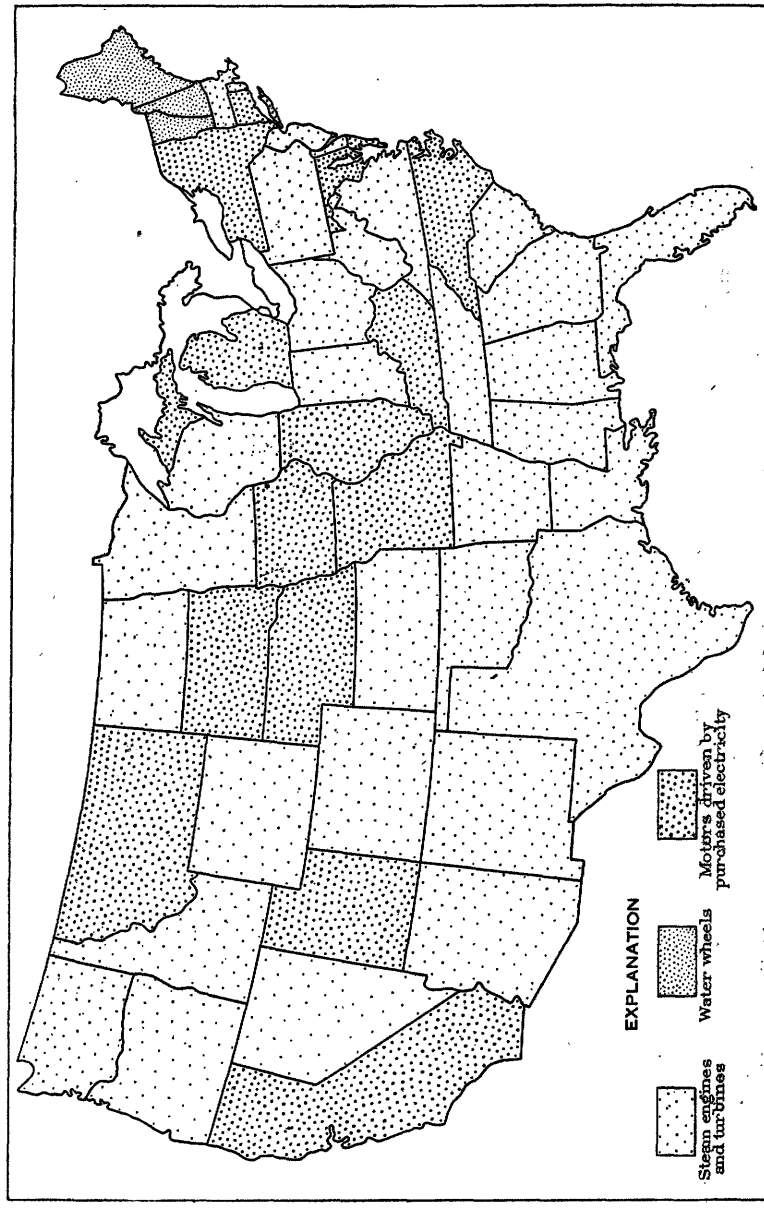


FIGURE 23.—Chief types of prime movers utilized in manufactures, 1923. (Table 12)

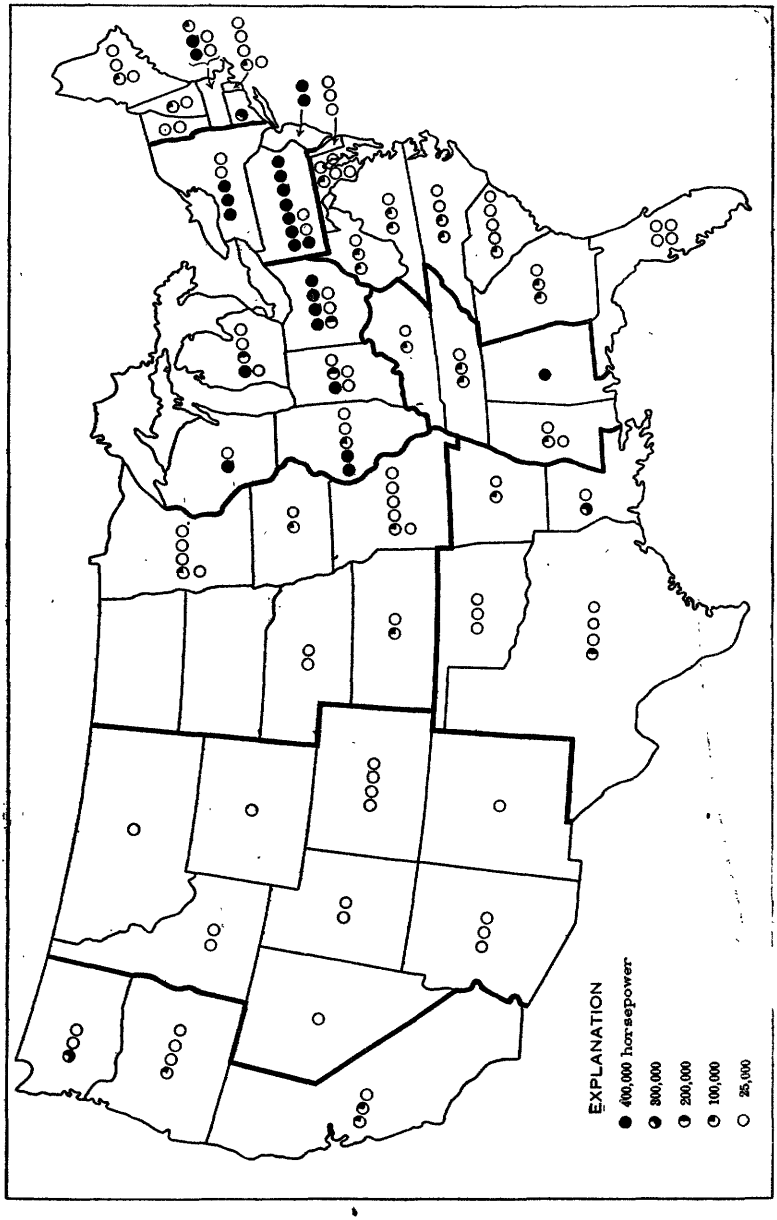


FIGURE 24.—Horsepower of steam engines and turbines utilized in manufactures, 1923. (Table 87)

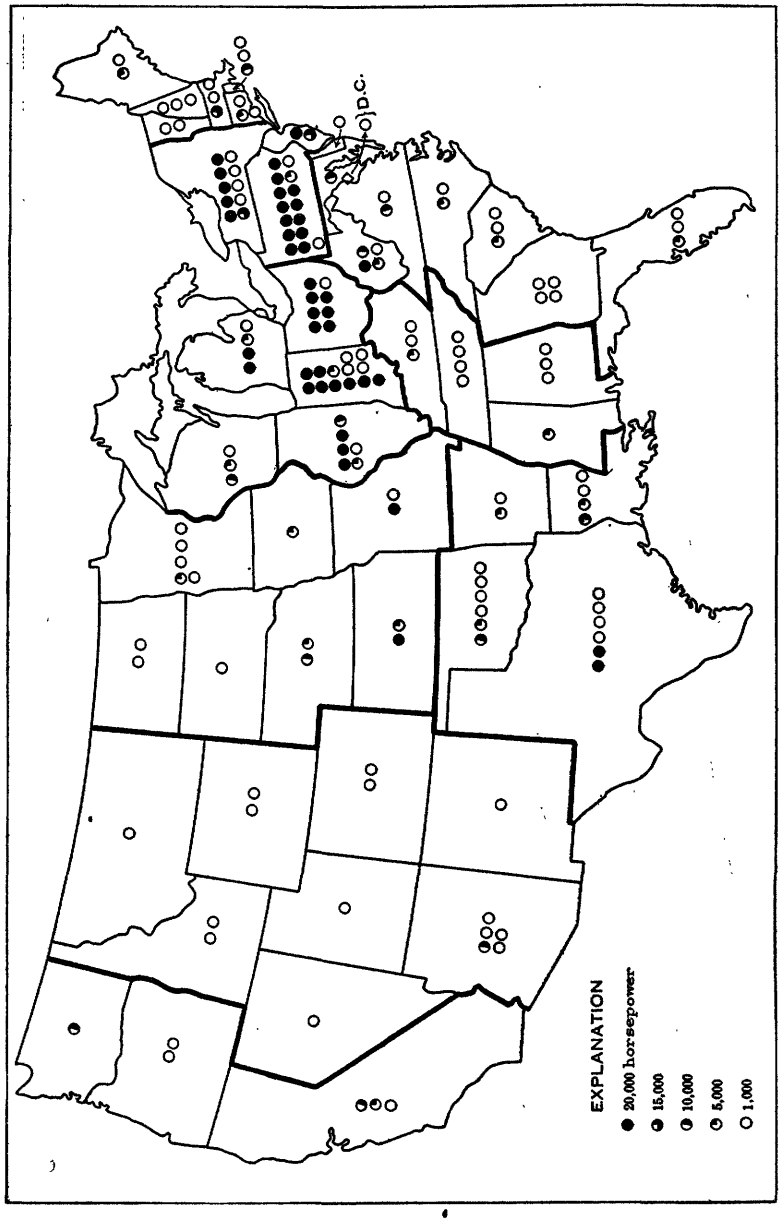


FIGURE 25.—Horsepower of internal-combustion engines installed in manufactures, 1923. (Table 37)

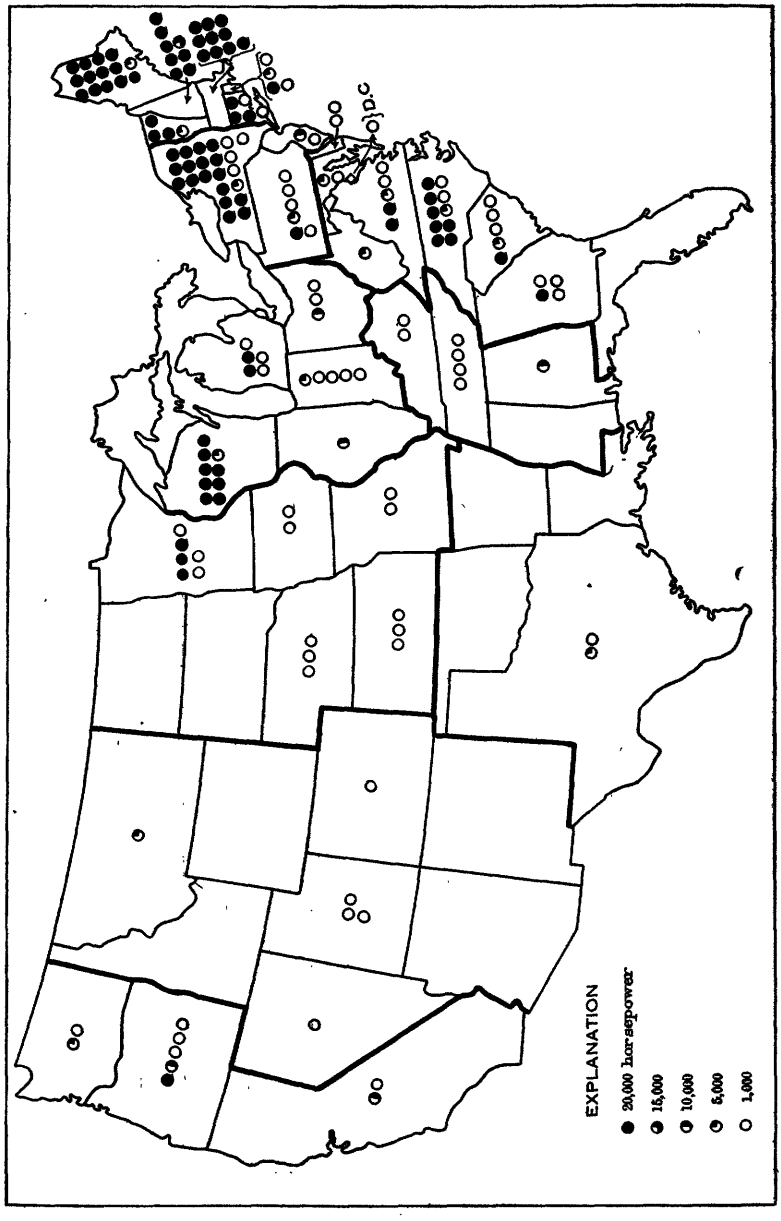


FIGURE 28.—Horsepower of water wheels installed in manufactures, 1923. (Table 37)

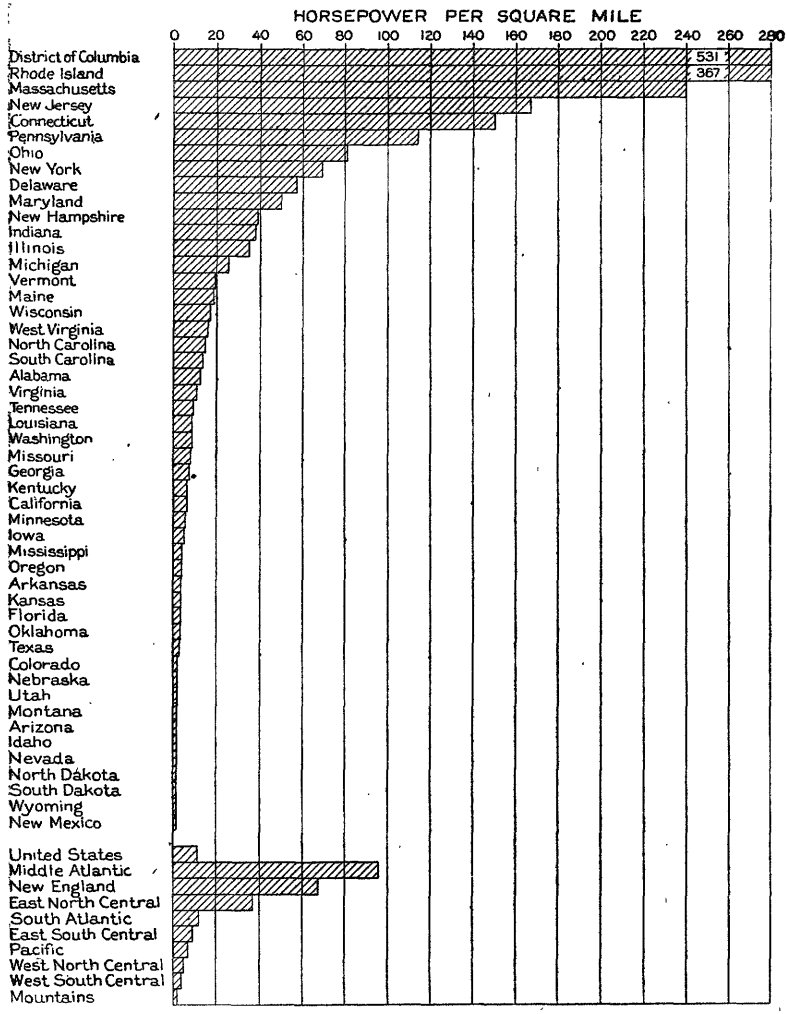


FIGURE 27.—Horsepower per square mile of prime movers utilized in manufactures, 1923. (Table 10)

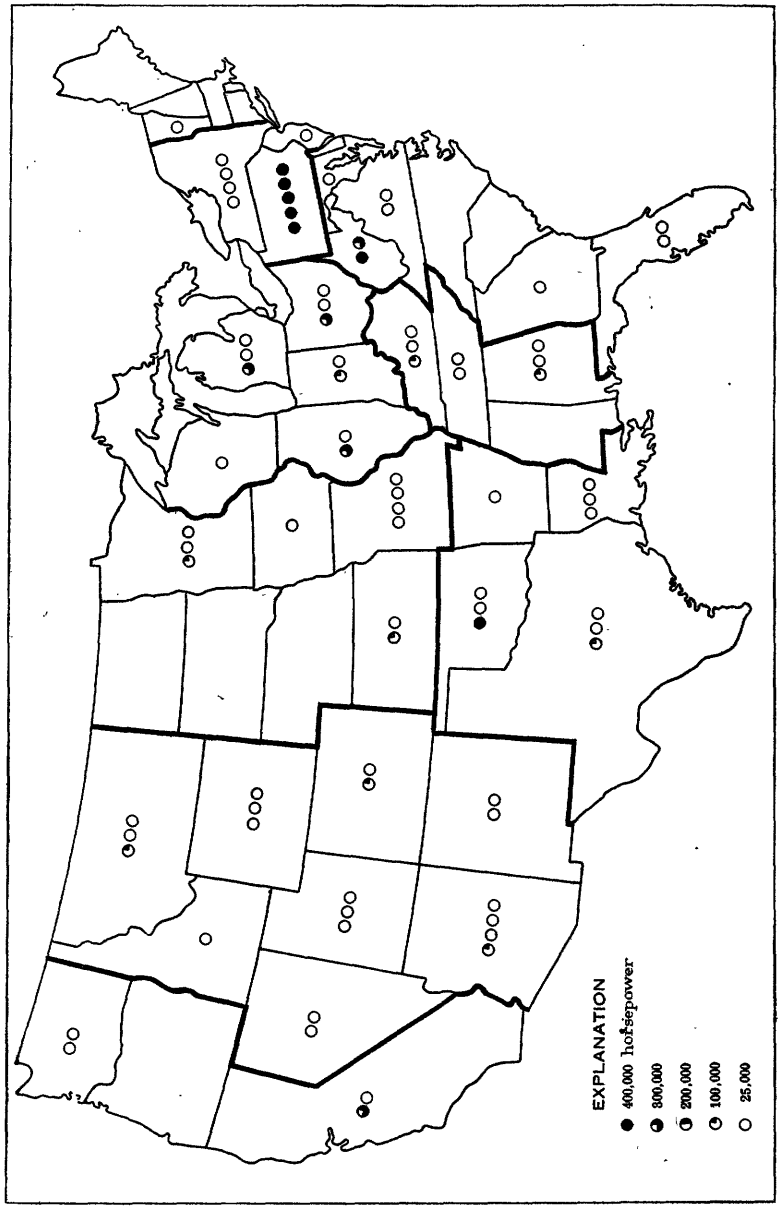


FIGURE 28.—Horsepower of prime movers utilized in mines and quarries, 1919. (Table 13)

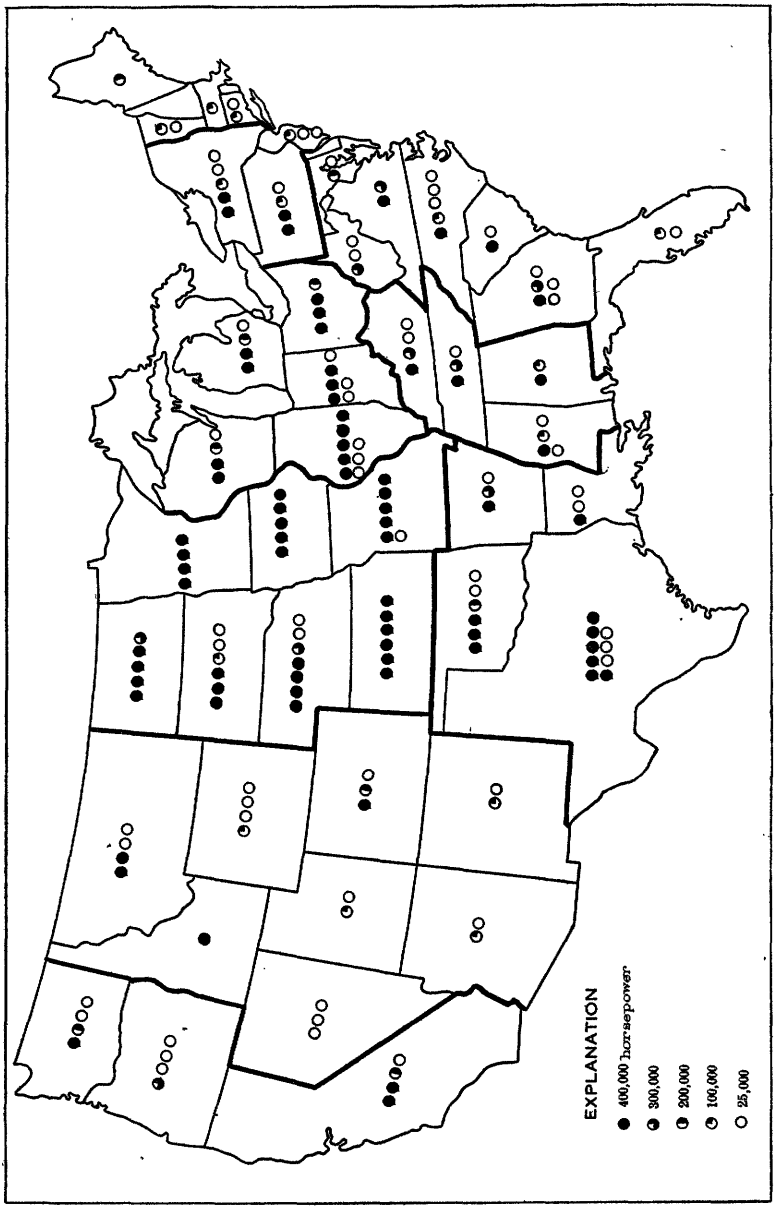


FIGURE 29.—Horsepower of prime movers utilized in agriculture, 1923. (Table 14)

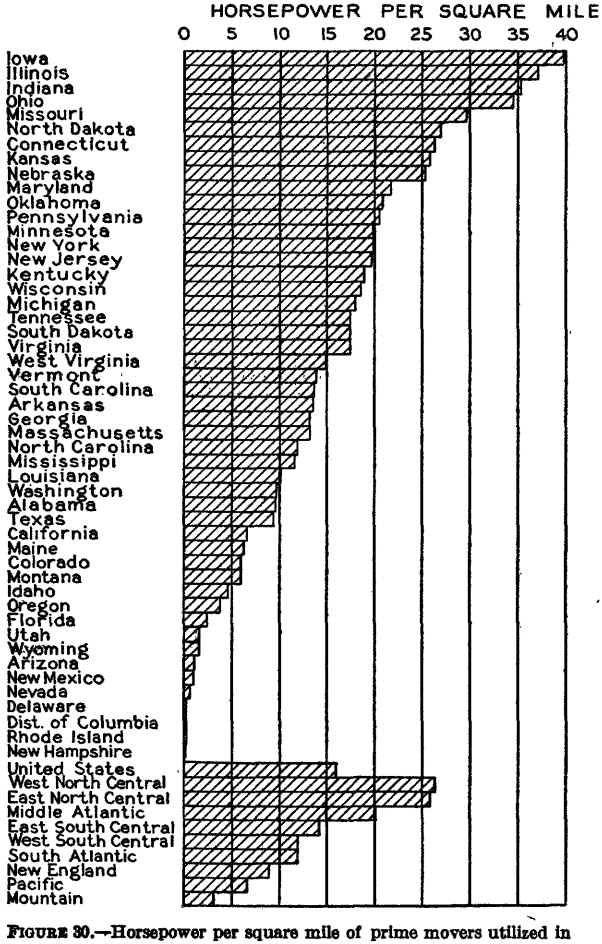


FIGURE 30.—Horsepower per square mile of prime movers utilized in agriculture, 1923. (Table 10)

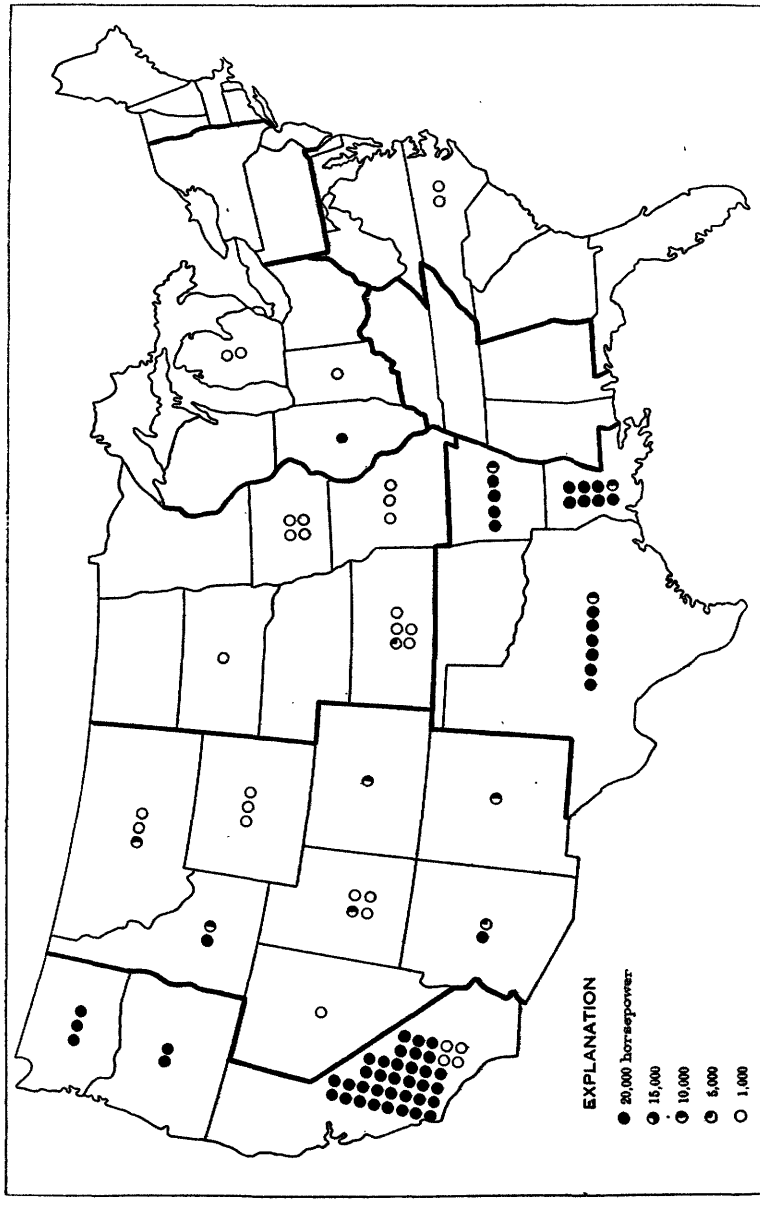


FIGURE 31.—Horsepower of prime movers installed in irrigation and drainage, 1923. (Table 15)

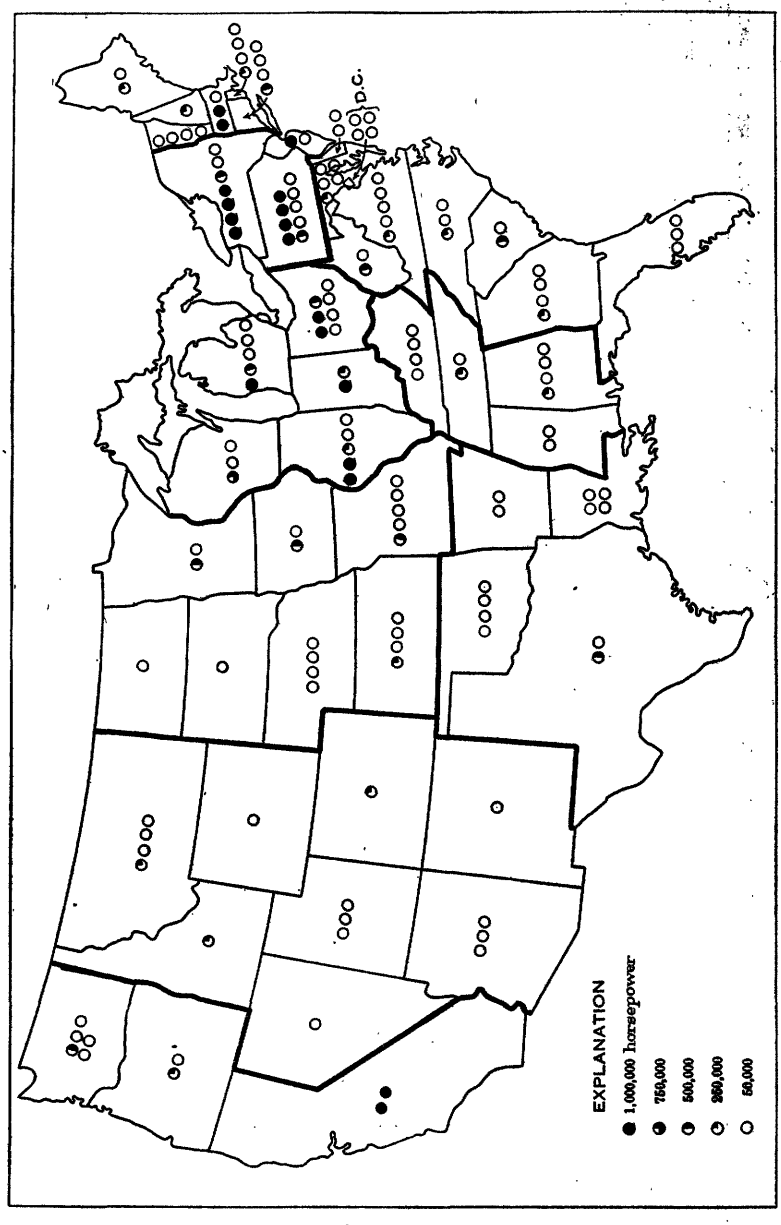


FIGURE 32.—Horsepower of prime movers in central electric stations and electric railroads plus horsepower of electric motors driven by electricity generated in manufactures, 1923, and in mines and quarries, 1919. (Table 18.) Data for mines and quarries for 1923 not available

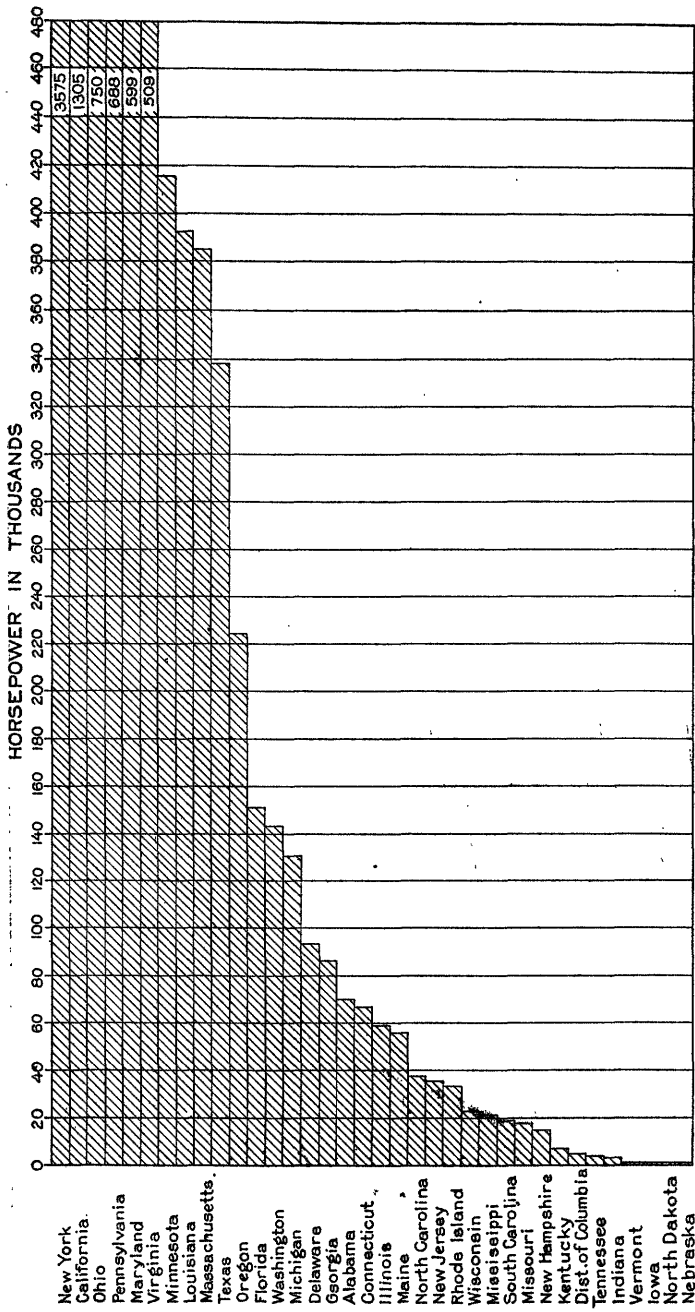


FIGURE 33.—Horsepower of prime movers in ships, 1923. (Table 19)

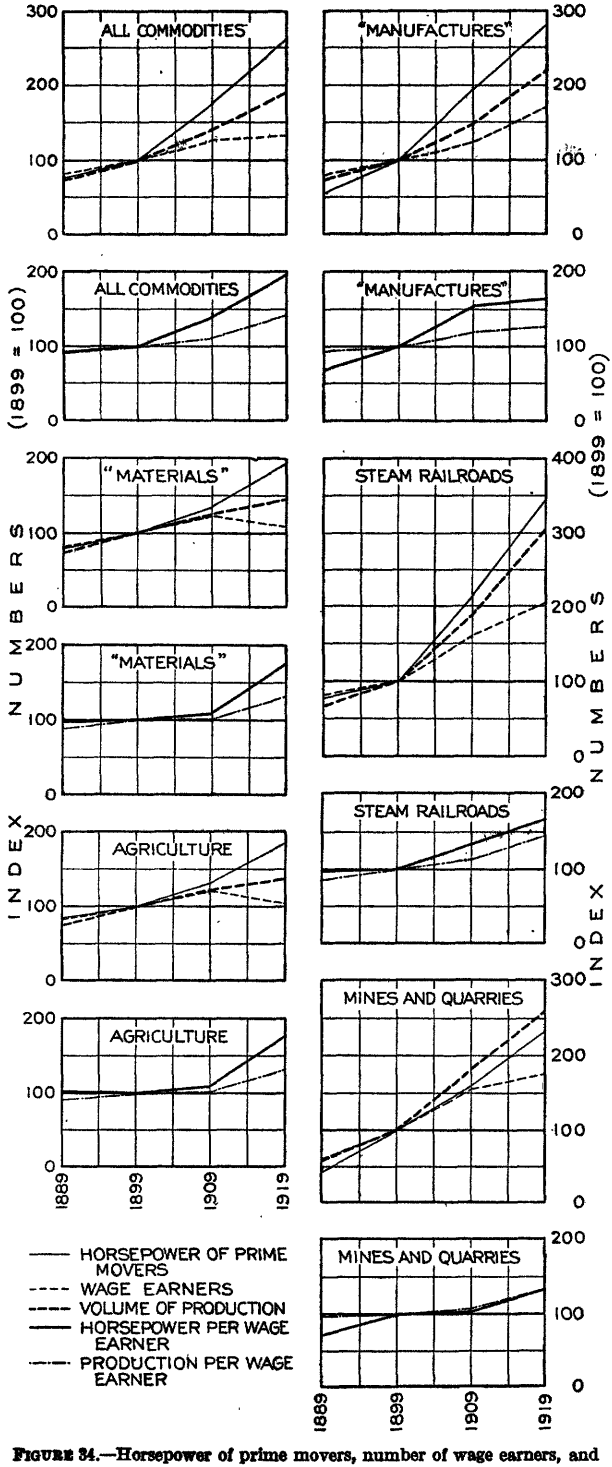


FIGURE 34.—Horsepower of prime movers, number of wage earners, and volume of production, 1889–1919, by special groups. (Table 21)

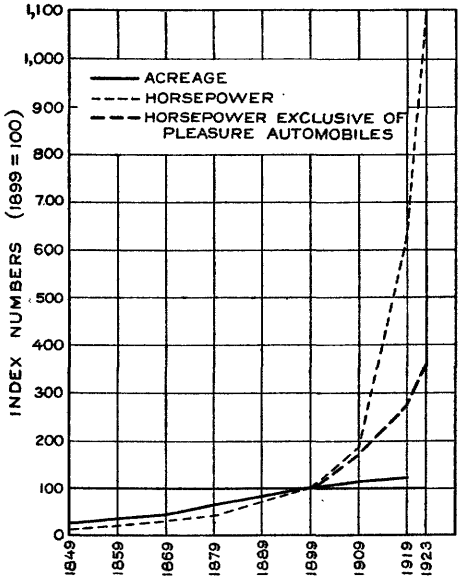


FIGURE 35.—Total horsepower of prime movers and acreage of improved land, 1849–1923. (Table 22)

DEVELOPED AND POTENTIAL WATER POWER IN THE UNITED STATES AND PRODUCTION OF ELECTRICITY BY PUBLIC-UTILITY POWER PLANTS, 1919–1926

BY

A. H. HORTON

CONTENTS

ILLUSTRATIONS

TABLES

DEVELOPED AND POTENTIAL WATER POWER IN THE UNITED STATES AND MONTHLY PRODUCTION OF ELECTRICITY BY PUBLIC-UTILITY POWER PLANTS, 1919–1926

By A. H. Horton

DEVELOPED WATER POWER

During the period 1921–1927 the Geological Survey published, as memoranda to the press, mimeographed reports of the capacity of water wheels in plants of 100 horsepower or more in November, 1921, March, 1924, March, 1925, January 1, 1926, and January 1, 1927, and a report of the potential water power of the United States as determined in 1924. It is planned to continue the publication of the reports of capacity of water wheels on January 1 each year. In order to have a permanent record of the information in these reports, they are here republished in Table 39. The figures for Alabama, Georgia, and North Carolina as previously published have been revised, owing to the erroneous allocation of Georgia plants to Alabama and to the transfer of plants in North Carolina from the manufacturing group to the public-utility group.

Most of the information in Table 39 has been obtained by the district engineers of the Geological Survey through correspondence or by personal visits to the power plants. The Census Bureau furnished information as to the amount of water power in manufactures for the South Atlantic States for some of the reports. The statistics of capacity of water wheels as previously published and as here republished are considered reliable and accurate, as practically all of them represent information taken from actual records of individual plants.

POTENTIAL WATER POWER

The first estimate of the amount of potential water power in the streams of the United States was prepared in 1908 by the Geological Survey and published in the report of the National Conservation Commission (60th Cong., 2d sess., S. Doc. 676) and in Water-Supply Paper 234. The figures of potential water power as published in these reports were revised and republished in 1912 by the Commissioner of Corporations in a report on water-power development in

the United States and by the Department of Agriculture in 1916 in "Electric-power development in the United States" (64th Cong., 1st sess., S. Doc. 316). The revisions were due primarily to the use of different efficiencies of water wheels from those used by the Geological Survey. The estimates of potential water power in 1908 were made by dividing the streams of the United States into sections of different lengths, depending upon the slope of the channel. The flow of the streams was based on records of stream flow collected by the Geological Survey from 1888 to 1908, and the amount of fall was determined to a large extent from the Geological Survey's topographic maps. These base data were far from complete but were evidently used with excellent judgment and skill, as they have been used for all estimates of potential water power that have been published from 1908 to 1924. Without the records of stream flow that had been collected by the Geological Survey prior to 1908 it would have been impossible to prepare any reliable estimate of the country's water-power resources. The information then available as to the flow of streams, though relatively meager, was of inestimable value in contributing to the economical design of the water-power plants that were being constructed in this period of rapid development of water power. From the records of flow available and the fall determined from topographic maps or other sources, the potential water power of each stream was estimated, on the assumptions that water wheels would have a certain efficiency and that a certain percentage of the total fall could be utilized. The practicability of development was not considered except that the potential power of those sections of streams which had very low slope and the development of which would for that reason be impracticable was not included.

The estimates of potential water power given in Table 40 were prepared by the Geological Survey in 1924. They were based largely on feasible water-power sites and therefore show the amounts of potential water power that can be developed when a market becomes available. The figures represent 24-hour power available 90 per cent and 50 per cent of the time at an over-all efficiency at the sites of 70 per cent. The estimates are somewhat larger than those for 1908. The difference is due in part to the inclusion in the 1924 figures of the United States share of the potential power of Niagara and St. Lawrence Rivers, neither of which was included in the 1908 report, and also to the availability of more extensive and accurate base data. In the period from 1908 to 1924 records of the flow of many streams were collected, many topographic maps completed, special river surveys made, and special investigations and studies made of the power possibilities of sections of the United States that were known

to have extensive water-power resources. The most important of all these data are the records of stream flow. The fall of a stream can be determined at any time; on the other hand, years are required to obtain records of stream flow that will include years of low yield and years of high yield, and without such records water-power developments of any considerable magnitude can not be properly designed or financed.

The figures of potential water power in Table 40 can not be considered final, as future surveys and investigations will probably indicate additional feasible water-power sites and may also indicate changes in the potential power of present known sites. The development of storage reservoirs will also affect the estimates of power available. It is believed, however, that there will be no radical change in these estimates of potential water power by further surveys or investigations.

The proportion of the total potential water power of the United States that has already been developed can not be stated with accuracy. The amount of potential water power is based on the flow available 90 per cent and 50 per cent of the time. The amount of developed water power, however, is expressed in terms of capacity of installed water wheels. The capacity of water wheels installed in a water-power plant depends on whether the plant is to be operated as a base-load or a peak-load plant, the use made of the power, the distribution of stream flow, the storage control available, and other factors. It is the general practice in the construction of water-power plants to install hydraulic machinery capable of utilizing stream flow far in excess of the minimum flow and much in excess of the flow available 90 per cent of the time. Water-power plants with storage control sometimes utilize a flow for peak loads which is several times greater than the average annual flow of the stream on which the power plant is situated. These conditions cause a wide variation in the relations between the total capacity of water-power plants and the potential water power of the United States available 90 per cent or 50 per cent of the time and preclude an accurate estimate of the proportion of the country's water-power resources developed at present. From an investigation of the capacity of water wheels at fully developed water-power sites in different sections of the country and of the potential power available at the same sites it is estimated that on January 1, 1927, about one-seventh of the total potential power of the United States was developed. As the capacity of water wheels in plants of 100 horsepower or more was 11,721,000 horsepower on January 1, 1927, the total capacity of water wheels necessary to develop all the potential water power of the United States would be about 80,000,000 horsepower.

PRODUCTION OF ELECTRICITY BY PUBLIC-UTILITY POWER PLANTS

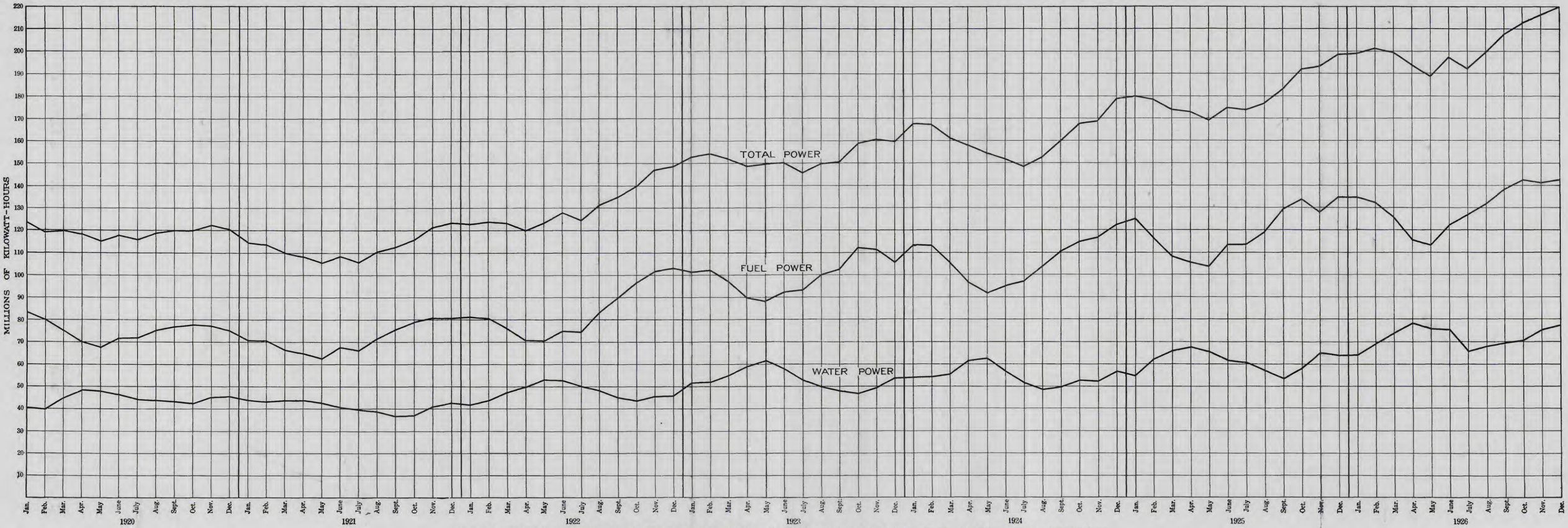
The Geological Survey in 1919 began the publication of reports of the monthly production of electric power and consumption of fuels by public-utility power plants. Reports have been published for the months of February, March, April, July, September, and October, 1919, and for January, 1920, and each subsequent month to date.

The monthly figures of output and fuel consumption are published in mimeographed reports about 30 days after the end of the latest month included in the report. Information for three months is included in each report; therefore the data for each month appear three times and are revised at each publication on the basis of reports received since the previous publication. Each company or plant has been requested to report the total amount of electricity generated, without deduction for station or other use. However, as many large companies, perhaps most of them, report only the amount of power that leaves their plants—that is, the net output—that practice has recently (August, 1927) been adopted by the Geological Survey for future reports.

The monthly figures of output and fuel consumption are based on reports of the operation of power plants submitted by companies in the United States that furnish electric power for public use. On January 1, 1927, about 2,100 companies operating about 3,800 power plants were on the Geological Survey's list. Reports are received from plants representing about 95 per cent of the capacity of all the plants listed. The output of those plants which do not submit reports is estimated. The monthly figures as published therefore indicate the output of all plants.

Every concern producing electricity for public use, whether designated as a public utility or not, is included in the list of companies requested to submit reports. The inclusion of any company or plant in the list has of course no effect on the status of the company or plant as a public utility. The figures represent the output of central stations, municipal plants, electric-railway plants, plants operated by steam railroads generating electricity for traction, Bureau of Reclamation plants, and that part of the output of manufacturing plants which is sold for public use. The annual output of the central stations, municipal plants, and electric-railway plants includes over 98 per cent of the total. In 1926 the output of all the other types of plants was only 1¼ per cent of the total, and in the previous years of record this percentage was probably still less.

The figures of monthly output in Table 41 are revisions of the figures of monthly output previously published in the current monthly reports. The revisions are due for the most part to the receipt of additional reports since the monthly figures were last published.



AVERAGE DAILY PRODUCTION OF ELECTRICITY BY PUBLIC-UTILITY POWER PLANTS IN THE UNITED STATES, 1920–1926, BY MONTHS

The figures in the annual summaries that are published in mimeographed form a few months after the end of each year are based on the monthly figures given in Table 41. The curves in Plate 2 show the average daily production of electricity by months from 1920 to 1926.

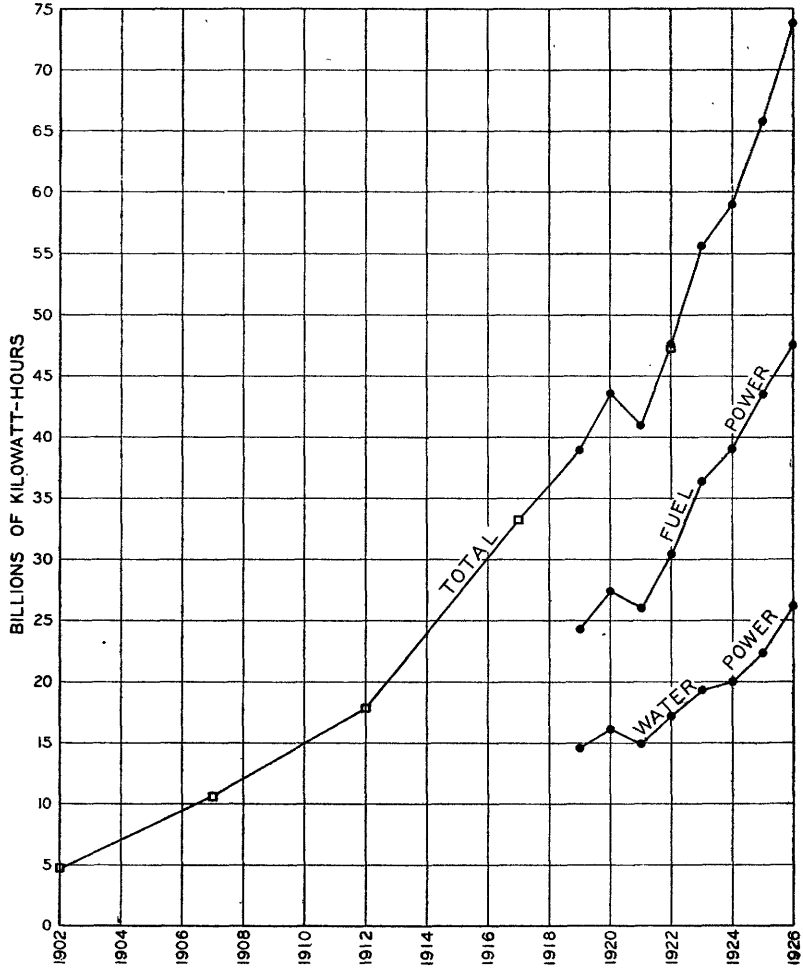


FIGURE 36.—Annual production of electricity by public-utility power plants, 1902–1926. Open square, data from Census Bureau; black dot, from Geological Survey

The figures for the amount of electricity produced each year by the use of wood as fuel, shown in Table 42, are included in the figures of monthly output in Table 41.

Table 44 shows that the increase in the total output from 1919 to 1926 was nearly 100 per cent, indicating an average annual rate of growth during the seven-year period of 9.6 per cent compounded annually. The curves in Figure 36 showing the total output and the

output by the use of water power and by the use of fuel for each year from 1919 to 1926 are based on reports of the Geological Survey, and the total output for each fifth year from 1902 to 1922 is based on the reports of the Census Bureau. The figures of output by the Geological Survey are comparable with those of the Census Bureau except that they include the output of the Bureau of Reclamation plants and the portion of the output of manufacturing companies that is sold for public use. The difference is negligible, as in 1926 the output of these plants was less than 0.5 per cent of the total.

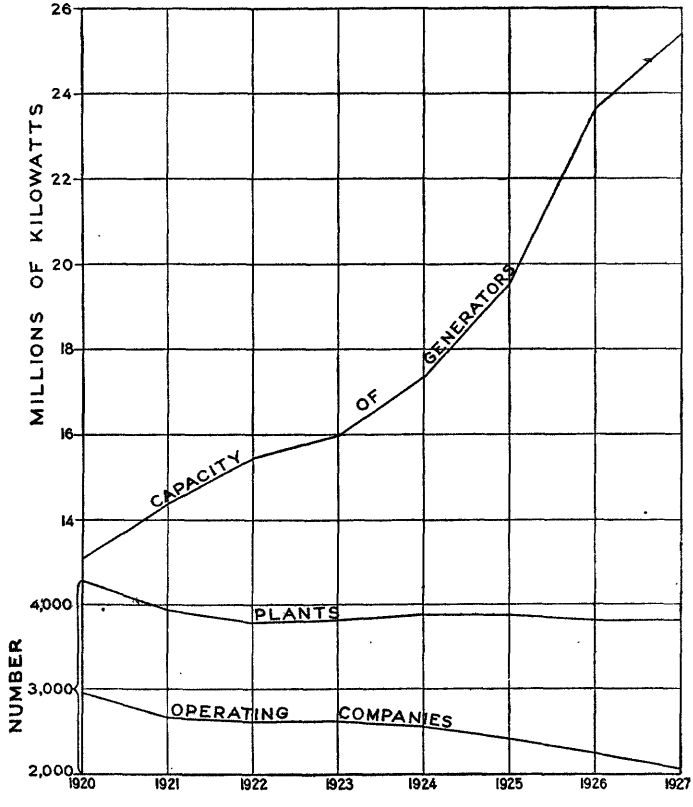


FIGURE 37.—Electric public-utility power companies, 1920–1926

The curves in Figure 37 apparently indicate rather marked changes in the number of companies and plants from 1920 to 1921. These changes are explained as follows: When the publication of these reports was started, early in 1919, the output of plants of all sizes was included. It was soon discovered that a large number of very small plants whose combined output was so small as to be negligible were so slow in making reports—many of these small plants not being equipped with meters—that the early publication of the monthly

figures was prevented. An analysis of the output of plants having a capacity of 100 kilowatts or less showed that the output of such plants was less than 0.25 per cent of the total output. As a plant whose monthly output is 10,000 kilowatt-hours is considered equivalent to a plant of 100 kilowatts, all plants whose monthly output was less than 10,000 kilowatt-hours were removed from the list of plants asked to report. The year 1920 was a period of adjustment in the preparation of these reports, as many plants were removed from the list after reports for a few months indicated that their output was below the limit. Many of these small plants were municipal plants, and as small municipalities generally have but one plant a municipal plant was necessarily counted as an operating company, and the removal of one of these plants also removed an operating company from the list. This adjustment in plants and companies during 1920 explains the reduction in the number of plants and companies in 1921 shown in Figure 37. Since 1921 there has not been much change in the number of plants, but there was a gradual reduction in the number of companies from 1921 to 1924 and a marked reduction since 1924. Part of the change in number of companies is due to the taking over of municipal plants by public-utility companies, thereby reducing the number of companies as well as of plants. There has also been during the last few years a rapid absorption of small operating companies by large public-utility companies.

The growth in the capacity of generators is comparable to that in total output, amounting from 1920 to 1927 to 9.9 per cent compounded annually, while the increase in output for the same period was 9.6 per cent compounded annually. These figures apparently indicate that the increase in capacity is keeping but little ahead of the demand for electricity.

The total output in 1919 was about 39,000,000,000 kilowatt-hours; in 1926 the output was about 74,000,000,000 kilowatt-hours—that is, the output was nearly doubled in the comparatively short period of seven years. It is a fact of special interest that the production of electricity by the use of water power has maintained its relative position throughout this period of tremendous development in the use of electricity. The water-power output from 1919 to 1926 has been one-third or more of the total output each year, and it is believed that a season of heavy precipitation throughout the United States would increase the water-power output to 40 per cent or more of the total.

Probably one of the most significant facts brought out by the tables is the increase in the efficiency in the use of fuel in generating electricity as shown in Table 46. In 1919 it took 3.2 pounds of coal to generate a kilowatt-hour of electricity; this rate has declined steadily year by year, and in 1926 only 1.95 pounds was required.

In 1919 the consumption of a ton of coal generated 625 kilowatt-hours; in 1926 the corresponding figure was 1,025 kilowatt-hours—an increase in output of 64 per cent. The total conservation of fuel by this improvement in utilization was enormous and is an excellent example of what can be accomplished by so-called small economies. If there had been no improvement from 1919 to 1926 the consumption of coal would have been 100,000,000 tons more, which would have increased the fuel bill at least a third of a billion dollars.

The figures given above are of special significance because they are based on the operation of all plants and are therefore average results. At present a kilowatt-hour of electricity is generated in some plants with about 0.9 pound of coal, or less than half the average in 1926, and a mercury-vapor generating unit is now being built which is guaranteed to generate 1 kilowatt-hour of electricity with about 0.75 pound of coal. Nevertheless, the process of converting the potential energy of coal into power is still far from perfection, as even the mercury-vapor generating unit recovers only about 30 per cent of the heat units in the coal, 70 per cent being dissipated in making use of the 30 per cent. Hydroelectric units, on the other hand, recover over 90 per cent of the energy in the falling water that drives the water wheels of a power plant.

TABLES

TABLE 39.—*Developed water power in the United States, 1921, 1924, 1925, 1926, 1927, as shown by capacity of water wheels in plants of 100 horsepower or more*

November, 1921

Division and State	Total		Public utility and municipal		Manufacturing and miscellaneous	
	Number of plants	Capacity in horsepower	Number of plants	Capacity in horsepower	Number of plants	Capacity in horsepower
United States	3,120	7,926,958	1,323	6,200,380	1,797	1,726,578
New England	1,234	1,310,507	246	583,130	988	727,377
Middle Atlantic	551	1,478,904	215	1,167,539	336	311,365
East North Central	323	738,663	192	542,889	131	195,774
West North Central	179	444,396	112	360,625	67	83,771
South Atlantic	266	1,061,509	128	799,767	138	281,742
East South Central	41	240,934	25	228,380	16	12,554
West South Central	26	16,274	12	12,515	14	3,759
Mountain	223	827,101	173	806,472	50	20,629
Pacific	277	1,788,670	220	1,699,063	57	89,607
New England:						
Maine	256	449,614	71	156,549	185	293,065
New Hampshire	242	229,305	59	112,865	183	116,440
Vermont	206	129,566	59	72,651	147	56,915
Massachusetts	346	338,057	32	157,605	314	180,452
Rhode Island	60	30,136	5	3,510	55	26,626
Connecticut	124	133,829	20	79,950	104	53,879
Middle Atlantic:						
New York	473	1,291,857	164	993,601	309	298,256
New Jersey	30	17,051	10	8,883	20	8,168
Pennsylvania	48	169,996	41	165,055	7	4,941
East North Central:						
Ohio	25	28,663	17	24,236	8	4,427
Indiana	26	27,122	13	21,236	13	5,886
Illinois	41	85,002	15	73,591	26	11,411
Michigan	97	267,139	81	228,353	16	38,786
Wisconsin	134	330,737	66	195,473	68	135,264
West North Central:						
Minnesota	56	205,180	35	145,247	21	59,933
Iowa	48	173,437	32	169,614	16	3,823
Missouri	7	17,970	5	17,670	2	300
North Dakota	1	245	0	0	1	245
South Dakota	8	18,227	5	6,050	3	12,177
Nebraska	39	14,726	25	12,036	14	2,690
Kansas	20	14,611	10	10,008	10	4,603
South Atlantic:						
Delaware	9	3,133	0	0	9	3,133
Maryland	19	7,230	6	2,120	13	5,110
District of Columbia	4	666	0	0	4	666
Virginia	71	103,693	35	76,551	36	27,142
West Virginia	11	14,675	6	8,410	5	6,265
North Carolina	74	329,853	31	126,205	43	203,648
South Carolina	21	330,012	16	321,250	5	8,762
Georgia	54	235,711	32	262,495	22	28,216
Florida	3	6,536	2	2,736	1	3,800
East South Central:						
Kentucky	5	855	1	115	4	740
Tennessee	22	126,891	15	125,865	7	1,026
Alabama	14	113,188	9	102,400	5	10,788
Mississippi	0	0	0	0	0	0
West South Central:						
Arkansas	2	1,189	1	720	1	469
Louisiana	0	0	0	0	0	0
Oklahoma	4	1,718	4	1,718	0	0
Texas	20	13,367	7	10,077	13	3,290
Mountain:						
Montana	28	344,429	26	342,480	2	1,940
Idaho	45	224,368	41	222,471	4	1,897
Wyoming	9	7,560	9	7,560	0	0
Colorado	57	91,648	28	79,708	29	11,940
New Mexico	3	799	3	799	0	0
Arizona	8	38,760	8	38,760	0	0
Utah	64	106,096	51	101,844	13	4,252
Nevada	9	13,450	7	12,850	2	600
Pacific:						
Washington	69	454,356	62	443,139	7	11,217
Oregon	74	185,215	52	125,970	22	59,245
California	134	1,149,099	106	1,129,954	28	19,145

TABLE 39.—*Developed water power in the United States, 1921, 1924, 1925, 1926, 1927, as shown by capacity of water wheels in plants of 100 horsepower or more*—Continued

March, 1924

Division and State	Total		Public utility and municipal		Manufacturing and miscellaneous	
	Number of plants	Capacity in horsepower	Number of plants	Capacity in horsepower	Number of plants	Capacity in horsepower
United States	3,211	9,086,958	1,390	7,348,197	1,821	1,738,761
New England	1,228	1,387,364	249	644,831	979	742,533
Middle Atlantic	607	1,731,881	228	1,408,173	379	323,708
East North Central	342	829,854	212	625,826	130	204,028
West North Central	183	459,736	117	376,864	66	82,872
South Atlantic	261	1,300,578	129	1,045,728	132	254,850
East South Central	48	340,984	32	323,816	16	17,168
West South Central	27	16,727	12	12,515	15	4,212
Mountain	226	880,783	178	860,937	48	19,846
Pacific	289	2,139,051	233	2,049,507	56	89,544
New England:						
Maine	251	473,188	73	171,223	178	301,965
New Hampshire	242	235,810	59	112,240	183	123,570
Vermont	206	167,816	60	114,701	146	53,115
Massachusetts	347	343,939	32	161,977	315	181,962
Rhode Island	59	30,188	5	3,285	54	26,903
Connecticut	123	136,423	20	81,405	103	55,018
Middle Atlantic:						
New York	525	1,542,983	177	1,234,460	348	308,523
New Jersey	34	18,902	10	8,658	24	10,244
Pennsylvania	48	169,996	41	165,055	7	4,941
East North Central:						
Ohio	24	29,753	16	24,486	8	5,267
Indiana	20	29,199	13	25,489	7	3,710
Illinois	41	85,002	15	73,591	26	11,411
Michigan	106	281,618	88	242,052	18	39,566
Wisconsin	151	404,282	80	260,208	71	144,074
West North Central:						
Minnesota	58	211,850	37	151,917	21	59,933
Iowa	49	177,280	36	175,010	13	2,270
Missouri	7	17,970	5	17,670	2	300
North Dakota	1	245	0	0	1	245
South Dakota	8	18,171	4	6,050	4	12,121
Nebraska	40	19,716	25	16,316	15	3,400
Kansas	20	14,504	10	9,901	10	4,603
South Atlantic:						
Delaware	9	3,133	0	0	9	3,133
Maryland	19	7,230	6	2,120	13	5,110
District of Columbia	4	666	0	0	4	666
Virginia	69	109,798	33	82,656	36	27,142
West Virginia	11	14,711	6	8,446	5	6,265
North Carolina	*70	431,500	30	246,400	40	185,100
South Carolina	22	357,510	17	348,750	5	8,760
Georgia	54	368,994	34	350,320	20	18,674
Florida	3	7,036	3	7,036	0	0
East South Central:						
Kentucky	5	1,256	2	352	3	904
Tennessee	25	128,465	18	127,439	7	1,026
Alabama	18	211,263	12	196,025	6	15,238
Mississippi	0	0	0	0	0	0
West South Central:						
Arkansas	2	1,189	1	720	1	469
Louisiana	0	0	0	0	0	0
Oklahoma	4	1,718	4	1,718	0	0
Texas	21	13,820	7	10,077	14	3,743
Mountain:						
Montana	29	345,040	27	343,100	2	1,940
Idaho	46	270,918	42	269,021	4	1,897
Wyoming	10	7,886	9	7,560	1	326
Colorado	52	87,978	28	77,880	24	10,098
New Mexico	5	1,322	5	1,322	0	0
Arizona	8	38,760	8	38,760	0	0
Utah	66	115,329	51	110,344	15	4,985
Nevada	10	13,550	8	12,950	2	600
Pacific:						
Washington	70	480,356	63	469,139	7	11,217
Oregon	74	206,865	52	147,620	22	59,245
California	145	1,451,830	118	1,432,748	27	19,082
Alaska		40,000				
Hawaii		25,000				
Porto Rico		15,000				

* Approximate.

TABLE 39.—*Developed water power in the United States, 1921, 1924, 1925, 1926, 1927, as shown by capacity of water wheels in plants of 100 horsepower or more*—Continued

March, 1925

Division and State	Total		Public utility and municipal		Manufacturing and miscellaneous	
	Number of plants	Capacity in horsepower	Number of plants	Capacity in horsepower	Number of plants	Capacity in horsepower
United States	3,313	10,037,655	1,626	8,287,332	1,687	1,750,323
New England	1,230	1,398,863	251	656,270	979	742,533
Middle Atlantic	611	1,948,449	402	1,624,316	209	324,133
East North Central	346	884,760	5	661,445	121	223,315
West North Central	194	514,753	127	414,692	67	100,061
South Atlantic	319	1,594,254	142	1,357,428	177	236,826
East South Central	51	391,841	36	374,913	15	17,108
West South Central	29	31,317	14	27,105	15	4,212
Mountain	234	937,078	185	915,737	49	21,341
Pacific	299	2,336,400	244	2,255,606	55	80,794
New England:						
Maine	252	476,627	74	174,662	178	301,965
New Hampshire	243	243,310	60	119,740	183	123,570
Vermont	206	167,816	60	114,701	146	53,115
Massachusetts	347	344,439	32	162,477	315	181,962
Rhode Island	59	30,188	5	3,285	54	26,903
Connecticut	123	136,423	20	81,405	103	55,018
Middle Atlantic:						
New York	528	1,713,551	350	1,404,603	178	308,948
New Jersey	34	18,902	10	8,658	24	10,244
Pennsylvania	49	225,996	42	221,055	7	4,941
East North Central:						
Ohio	25	29,570	17	24,486	8	5,084
Indiana	24	51,276	17	47,711	7	3,565
Illinois	30	86,679	15	69,759	15	16,920
Michigan	111	304,520	92	255,348	19	49,172
Wisconsin	156	412,715	84	264,141	72	148,574
West North Central:						
Minnesota	62	262,786	40	185,664	22	77,122
Iowa	49	177,280	36	175,010	13	2,270
Missouri	7	19,970	5	19,670	2	300
North Dakota	1	245	0	0	1	245
South Dakota	9	19,171	5	7,050	4	12,121
Nebraska	45	20,837	30	17,437	15	3,400
Kansas	21	14,464	11	9,861	10	4,603
South Atlantic:						
Delaware	9	3,133	0	0	9	3,133
Maryland	19	7,230	6	2,120	13	5,110
District of Columbia	4	666	0	0	4	666
Virginia	70	117,869	34	90,727	36	27,142
West Virginia	11	14,711	6	8,446	5	6,265
North Carolina	104	534,600	34	379,600	[1]70	155,000
South Carolina	42	507,215	22	482,215	[1]20	25,000
Georgia	55	399,744	37	385,670	18	14,074
Florida	5	9,086	3	8,650	2	436
East South Central:						
Kentucky	5	1,256	2	352	3	904
Tennessee	27	166,347	21	165,381	6	966
Alabama	19	224,238	13	209,000	6	15,238
Mississippi	0	0	0	0	0	0
West South Central						
Arkansas	4	15,549	3	15,080	1	469
Louisiana	0	0	0	0	0	0
Oklahoma	4	1,948	4	1,948	0	0
Texas	21	13,820	7	10,077	14	3,743
Mountain:						
Montana	30	360,040	28	358,100	2	1,940
Idaho	48	298,837	44	297,887	4	950
Wyoming	10	7,886	9	7,560	1	326
Colorado	56	90,536	30	77,696	26	12,840
New Mexico	6	1,455	6	1,455	0	0
Arizona	8	49,360	8	49,360	0	0
Utah	66	115,329	51	110,344	15	4,985
Nevada	10	13,635	9	13,335	1	300
Pacific:						
Washington	72	560,693	66	549,746	6	10,947
Oregon	79	244,227	57	193,462	22	50,765
California	148	1,531,480	121	1,512,398	27	19,082
Alaska		40,000				
Hawaii		25,000				
Porto Rico		15,000				

[1] Estimated.

TABLE 39.—*Developed water power in the United States, 1921, 1924, 1925, 1926, 1927, as shown by capacity of water wheels in plants of 100 horsepower or more*—Continued

January 1, 1926

Division and State	Total		Public utility and municipal		Manufacturing and miscellaneous	
	Number of plants	Capacity in horsepower	Number of plants	Capacity in horsepower	Number of plants	Capacity in horsepower
United States	3,355	11,176,596	1,680	9,397,972	1,675	1,778,624
New England	1,217	1,485,218	259	728,999	958	756,219
Middle Atlantic	618	1,995,289	398	1,672,496	220	322,793
East North Central	342	978,561	225	755,370	117	223,191
West North Central	194	524,562	140	425,063	54	99,499
South Atlantic	343	1,702,024	164	1,462,926	179	239,098
East South Central	59	745,303	44	728,481	15	16,822
West North Central	29	31,721	19	29,016	10	2,705
Mountain	244	980,822	189	959,531	55	21,291
Pacific	309	2,733,096	242	2,636,090	67	97,006
New England:						
Maine	249	497,009	76	193,870	173	303,139
New Hampshire	243	272,002	61	138,461	182	133,541
Vermont	195	193,157	65	149,501	130	43,656
Massachusetts	347	344,439	32	162,477	315	181,962
Rhode Island	59	30,188	5	3,285	54	26,903
Connecticut	124	148,423	20	81,405	104	67,018
Middle Atlantic:						
New York	535	1,750,391	346	1,442,783	189	307,608
New Jersey	34	18,902	10	8,658	24	10,244
Pennsylvania	49	225,996	42	221,055	7	4,941
East North Central:						
Ohio	24	29,490	17	27,406	7	2,084
Indiana	25	56,476	17	52,666	8	3,810
Illinois	31	94,202	16	77,277	15	16,925
Michigan	107	352,204	87	301,391	20	50,813
Wisconsin	155	446,189	88	296,630	67	149,559
West North Central:						
Minnesota	63	267,452	39	186,285	24	81,167
Iowa	48	179,175	38	177,369	10	1,806
Missouri	7	20,560	5	20,260	2	300
North Dakota	1	245	0	0	1	245
South Dakota	9	19,671	5	7,050	4	12,621
Nebraska	43	20,545	38	19,742	5	803
Kansas	23	16,914	15	14,357	8	2,557
South Atlantic:						
Delaware	3	1,161	0	0	3	1,161
Maryland	15	37,875	4	33,825	11	4,050
District of Columbia	3	970	0	0	3	970
Virginia	63	138,640	33	97,026	30	41,614
West Virginia	11	21,119	6	11,014	5	10,105
North Carolina	121	538,289	48	407,607	73	130,682
South Carolina	58	514,428	31	486,321	27	28,107
Georgia	65	440,772	39	418,483	26	22,289
Florida	4	8,770	3	8,650	1	120
East South Central:						
Kentucky	6	34,255	3	33,351	3	904
Tennessee	31	174,175	24	172,920	7	1,255
Alabama	22	536,873	17	522,210	5	14,663
Mississippi	0	0	0	0	0	0
West South Central:						
Arkansas	4	15,550	4	15,550	0	0
Louisiana	0	0	0	0	0	0
Oklahoma	4	1,948	4	1,948	0	0
Texas	21	14,223	11	11,518	10	2,705
Mountain:						
Montana	31	376,040	29	374,100	2	1,940
Idaho	50	319,437	43	316,335	7	3,102
Wyoming	10	10,388	9	10,062	1	326
Colorado	61	95,094	32	84,456	29	10,638
New Mexico	7	1,594	7	1,594	0	0
Arizona	8	49,360	8	49,360	0	0
Utah	67	115,274	52	110,289	15	4,985
Nevada	10	13,635	9	13,335	1	300
Pacific:						
Washington	74	656,407	68	630,590	6	25,817
Oregon	83	241,709	49	189,602	34	52,107
California	152	1,834,980	125	1,815,898	27	19,082
Alaska		*40,000				
Hawaii		32,224				
Porto Rico		*15,000				

* Capacity in 1925; figures for 1926 not available.

TABLE 39.—*Developed water power in the United States, 1921, 1924, 1925, 1926, 1927, as shown by capacity of water wheels in plants of 100 horsepower or more*—Continued

January 1, 1927

Division and State	Total		Public utility and municipal		Manufacturing and miscellaneous	
	Number of plants	Capacity in horsepower	Number of plants	Capacity in horsepower	Number of plants	Capacity in horsepower
United States	3,390	11,720,983	1,565	9,961,202	1,825	1,759,789
New England	1,221	1,535,468	264	779,449	957	756,010
Middle Atlantic	613	2,055,853	239	1,757,413	374	298,441
East North Central	369	1,009,915	250	770,424	119	239,491
West North Central	201	532,894	150	436,450	51	96,444
South Atlantic	341	1,841,197	161	[d] 1,600,339	180	240,858
East South Central	60	867,638	45	863,681	15	3,957
West South Central	29	32,333	18	28,828	11	3,505
Mountain	245	1,030,224	196	1,010,743	49	19,481
Pacific	311	2,815,461	242	2,713,875	69	101,586
New England:						
Maine	250	525,509	78	222,570	172	302,939
New Hampshire	244	277,252	62	143,711	182	133,541
Vermont	196	200,157	66	156,501	130	43,656
Massachusetts	348	353,939	33	171,977	315	181,962
Rhode Island	59	30,188	5	3,285	54	26,903
Connecticut	124	148,423	20	81,405	104	67,018
Middle Atlantic:						
New York	529	1,757,355	186	1,474,100	343	283,255
New Jersey	34	18,902	10	8,658	24	10,244
Pennsylvania	50	279,596	43	274,655	7	4,941
East North Central:						
Ohio	24	30,320	16	25,236	8	5,084
Indiana	24	56,156	16	52,341	8	3,815
Illinois	31	94,202	16	77,277	15	16,925
Michigan	128	355,261	108	307,080	20	48,181
Wisconsin	162	473,976	94	308,490	68	165,486
West North Central:						
Minnesota	69	274,589	47	196,271	22	78,318
Iowa	49	179,580	40	177,980	9	1,600
Missouri	7	20,560	5	20,260	2	300
North Dakota	1	245	0	0	1	245
South Dakota	9	19,671	5	7,050	4	12,621
Nebraska	43	21,335	38	20,532	5	803
Kansas	23	16,914	15	14,357	8	2,557
South Atlantic:						
Delaware	3	1,161	0	0	3	1,161
Maryland	15	37,875	4	33,825	11	4,050
District of Columbia	2	1,350	0	0	2	1,350
Virginia	62	138,046	32	96,432	30	41,614
West Virginia	12	91,279	7	81,174	5	10,105
North Carolina	122	542,618	47	410,556	75	132,062
South Carolina	59	571,428	32	543,321	27	26,107
Georgia	62	448,670	36	426,381	26	22,289
Florida	4	8,770	3	8,650	1	120
East South Central:						
Kentucky	6	34,255	3	33,351	3	904
Tennessee	31	174,175	24	172,920	7	1,255
Alabama	23	659,208	18	657,410	5	1,798
Mississippi	0	0	0	0	0	0
West South Central:						
Arkansas	4	15,550	4	15,550	0	0
Louisiana	0	0	0	0	0	0
Oklahoma	4	1,948	4	1,948	0	0
Texas	21	14,835	10	11,330	11	3,505
Mountain:						
Montana	31	376,040	29	374,100	2	1,940
Idaho	52	320,097	45	317,095	7	3,002
Wyoming	10	10,480	9	10,154	1	326
Colorado	60	95,554	32	84,401	28	11,153
New Mexico	7	1,808	7	1,808	0	0
Arizona	9	59,360	9	59,360	0	0
Utah	67	153,435	57	150,675	10	2,760
Nevada	9	13,450	8	13,150	1	300
Pacific:						
Washington	75	656,722	68	630,590	7	26,132
Oregon	82	241,759	47	185,387	35	56,372
California	154	1,916,980	127	1,897,898	27	19,082
Alaska		[e] 40,000				
Hawaii		32,224				
Porto Rico		[e] 15,000				

[d] Two plants with total of about 140,000 horsepower considered manufacturing plants in previous reports allocated to public utilities in this report.

[e] Capacity in 1925; figures for 1927 not available.

TABLE 40.—*Potential water-power resources of the United States, 1924*

Division and State	Available 90 per cent of the time		Available 50 per cent of the time	
	Horsepower	Per cent	Horsepower	Per cent
United States	34,818,000	100.00	55,030,000	100.00
New England	998,000	2.87	1,978,000	3.60
Middle Atlantic	4,317,000	12.40	5,688,000	10.35
East North Central	737,000	2.12	1,391,000	2.53
West North Central	871,000	2.50	1,844,000	3.35
South Atlantic	2,476,000	7.11	4,464,000	8.11
East South Central	1,011,000	2.90	2,004,000	3.64
West South Central	434,000	1.25	888,000	1.61
Mountain	10,736,000	30.83	15,513,000	28.19
Pacific	13,238,000	38.02	21,260,000	38.63
New England:				
Maine	536,000	1.54	1,074,000	1.95
New Hampshire	186,000	.53	350,000	.64
Vermont	80,000	.23	169,000	.31
Massachusetts	106,000	.31	235,000	.43
Rhode Island	25,000	.07	40,000	.07
Connecticut	65,000	.19	110,000	.20
Middle Atlantic:				
New York	4,010,000	11.52	4,960,000	9.03
New Jersey	50,000	.14	90,000	.16
Pennsylvania	257,000	.74	638,000	1.16
East North Central:				
Ohio	55,000	.16	166,000	.30
Indiana	40,000	.12	110,000	.20
Illinois	189,000	.54	361,000	.66
Michigan	168,000	.48	274,000	.50
Wisconsin	285,000	.82	480,000	.87
West North Central:				
Minnesota	203,000	.58	401,000	.73
Iowa	169,000	.49	395,000	.72
Missouri	67,000	.19	152,000	.27
North Dakota	82,000	.23	193,000	.35
South Dakota	63,000	.18	110,000	.20
Nebraska	183,000	.53	342,000	.62
Kansas	104,000	.30	251,000	.46
South Atlantic:				
Delaware	5,000	.01	10,000	.02
Maryland and District of Columbia	106,000	.30	238,000	.43
Virginia	459,000	1.32	812,000	1.48
West Virginia	355,000	1.02	980,000	1.78
North Carolina	540,000	1.55	816,000	1.48
South Carolina	429,000	1.23	632,000	.15
Georgia	572,000	1.65	958,000	1.74
Florida	10,000	.03	18,000	.03
East South Central:				
Kentucky	77,000	.22	184,000	.33
Tennessee	432,000	1.24	710,000	1.29
Alabama	472,000	1.35	1,050,000	1.91
Mississippi	30,000	.09	60,000	.11
West South Central:				
Arkansas	125,000	.36	178,000	.32
Louisiana	1,000	.00	2,000	.00
Oklahoma	70,000	.20	194,000	.35
Texas	238,000	.69	514,000	.94
Mountain:				
Montana	2,550,000	7.32	3,700,000	6.72
Idaho	2,122,000	6.10	4,032,000	7.33
Wyoming	704,000	2.02	1,182,000	2.15
Colorado	765,000	2.20	1,570,000	2.85
New Mexico	116,000	.33	186,000	.34
Arizona	2,759,000	7.92	2,887,000	5.25
Utah	1,420,000	4.08	1,586,000	2.88
Nevada	300,000	.86	370,000	.67
Pacific:				
Washington	4,970,000	14.27	7,871,000	14.30
Oregon	3,665,000	10.53	6,715,000	12.20
California	4,603,000	13.22	6,674,000	12.13
Alaska	1,000,000	----------	2,500,000	----------
Hawaii	100,000	----------	200,000	----------
Porto Rico	19,000	----------	28,000	----------

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*

[No production in States omitted]

Total, 1919

Division and State	February	March	April	July	September	October
United States	2,975,601	3,138,130	3,015,266	3,128,541	3,166,030	3,439,689
New England	239,268	249,805	237,645	238,712	249,966	268,732
Middle Atlantic	852,869	897,663	860,213	859,190	876,078	955,978
East North Central	677,599	716,475	680,137	692,056	712,891	801,390
West North Central	207,273	223,317	217,570	225,692	245,523	270,726
South Atlantic	281,217	292,018	278,638	295,210	311,240	348,849
East South Central	126,751	114,682	103,961	97,074	89,764	96,400
West South Central	77,044	83,452	78,940	83,013	84,210	94,166
Mountain	180,246	194,126	186,216	201,494	176,757	190,775
Pacific	333,334	366,592	371,946	436,100	419,602	412,674
New England:						
Maine	18,754	19,980	18,578	17,847	18,914	20,432
New Hampshire	7,255	7,877	7,581	8,313	7,979	8,784
Vermont	13,601	18,753	19,669	12,724	12,910	14,750
Massachusetts	120,597	131,395	122,923	125,642	129,189	139,594
Rhode Island	29,329	19,447	17,565	20,061	26,108	24,520
Connecticut	49,632	52,353	51,329	54,125	54,866	60,652
Middle Atlantic:						
New York	482,974	511,615	491,321	488,824	501,841	551,046
New Jersey	75,827	76,609	76,829	79,697	88,600	88,353
Pennsylvania	294,068	309,439	292,063	290,669	285,637	316,579
East North Central:						
Ohio	192,094	198,869	187,267	208,531	205,534	222,997
Indiana	56,024	58,271	55,491	57,090	57,573	66,036
Illinois	214,510	222,955	210,243	198,841	209,345	238,953
Michigan	149,521	155,774	153,574	158,445	167,262	190,723
Wisconsin	65,450	80,606	73,562	69,149	73,177	82,681
West North Central:						
Minnesota	45,129	47,960	50,465	48,295	61,479	64,735
Iowa	68,175	73,660	72,383	76,333	75,560	88,451
Missouri	41,504	46,471	40,663	41,369	45,866	47,989
North Dakota	2,312	2,400	2,103	2,449	2,256	2,568
South Dakota	3,025	3,773	3,051	3,264	3,167	3,675
Nebraska	16,242	17,372	17,122	17,916	18,940	20,750
Kansas	30,886	31,681	31,783	36,066	38,255	42,558
South Atlantic:						
Delaware	5,551	4,784	4,655	5,225	5,438	6,069
Maryland	18,719	14,269	11,800	16,707	31,930	29,290
District of Columbia	18,094	19,331	18,457	19,221	18,593	20,543
Virginia	35,087	38,831	35,837	37,002	34,769	44,661
West Virginia	53,998	59,701	61,038	67,922	72,932	83,588
North Carolina	49,794	53,745	52,837	52,560	54,569	60,298
South Carolina	47,775	47,404	46,963	46,129	42,252	46,905
Georgia	42,939	44,272	38,498	41,771	41,799	47,494
Florida	9,260	9,681	8,553	8,673	8,958	10,001
East South Central:						
Kentucky	18,798	19,131	18,559	19,209	16,343	18,205
Tennessee	53,414	55,902	48,404	41,480	36,787	42,529
Alabama	49,424	34,256	32,071	31,179	31,615	30,093
Mississippi	5,115	5,393	4,937	5,206	5,019	5,573
West South Central:						
Arkansas	6,331	6,697	6,099	7,780	7,367	8,137
Louisiana	14,830	14,876	14,582	15,518	15,748	17,353
Oklahoma	13,247	13,979	13,138	13,987	13,452	15,106
Texas	43,336	47,900	45,121	45,728	47,643	53,570
Mountain:						
Montana	69,291	78,757	78,674	84,068	62,026	68,848
Idaho	41,598	40,170	36,174	51,428	48,638	41,397
Wyoming	3,563	3,775	3,387	3,565	3,716	4,136
Colorado	30,420	31,398	29,384	27,510	28,964	32,327
New Mexico	1,473	1,612	1,535	1,747	1,363	1,641
Arizona	17,431	20,018	16,431	17,492	18,111	21,703
Utah	13,135	15,463	17,434	12,405	11,802	17,346
Nevada	3,335	2,933	3,197	3,279	2,737	3,377
Pacific:						
Washington	74,950	83,867	78,739	85,315	87,032	95,731
Oregon	32,630	32,872	30,787	33,453	42,009	40,453
California	225,754	249,853	262,420	317,332	290,561	276,490

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of water power, 1919

Division and State	February	March	April	July	September	October
United States	1,145,980	1,305,684	1,305,566	1,210,730	1,095,646	1,189,726
New England	63,558	91,535	92,502	55,220	71,612	78,987
Middle Atlantic	249,963	285,784	279,330	264,832	255,366	280,688
East North Central	107,116	130,048	137,301	111,992	102,650	122,966
West North Central	69,495	90,721	99,710	94,264	87,733	100,695
South Atlantic	143,602	150,881	143,415	143,578	122,442	143,715
East South Central	82,009	74,575	65,597	59,811	41,835	42,194
West South Central	512	539	523	440	330	367
Mountain	143,584	157,228	156,590	171,155	144,565	152,203
Pacific	286,141	324,373	330,598	309,539	269,113	267,912
New England:						
Maine	18,681	19,907	18,485	17,627	18,252	19,885
New Hampshire	4,946	5,763	5,683	4,499	4,478	5,118
Vermont	13,428	18,574	19,482	11,748	12,641	14,585
Massachusetts	18,898	31,365	32,322	15,163	29,068	33,231
Rhode Island	562	1,042	726	240	491	343
Connecticut	7,043	14,884	15,804	5,943	6,682	5,825
Middle Atlantic:						
New York	194,703	223,078	220,677	212,033	221,411	237,767
New Jersey	162	197	187	151	137	146
Pennsylvania	55,098	62,509	58,466	52,648	33,818	42,775
East North Central:						
Ohio	3,053	3,932	3,565	2,378	2,119	2,597
Indiana	3,682	3,654	3,511	2,736	2,716	3,442
Illinois	15,611	15,282	16,134	15,323	14,825	16,622
Michigan	52,236	59,649	65,211	50,043	47,460	55,904
Wisconsin	32,534	47,531	48,880	41,512	35,530	44,401
West North Central:						
Minnesota	18,303	32,740	43,204	37,818	33,181	36,580
Iowa	44,182	48,696	48,737	51,802	48,992	57,825
Missouri	4,297	5,920	4,418	2,237	2,869	3,189
South Dakota	698	1,183	1,320	1,131	758	828
Nebraska	748	959	1,118	1,295	1,250	1,466
Kansas	1,267	1,223	913	981	683	807

Division and State	February	March	April	July	September	October
South Atlantic:						
Maryland	284	371	358	329	169	68
Virginia	17,833	20,122	19,298	17,666	7,266	15,637
West Virginia	1,378	1,593	1,642	1,399	586	1,081
North Carolina	42,645	46,319	45,755	45,317	45,615	50,475
South Carolina	43,899	43,394	43,287	42,649	38,150	41,958
Georgia	36,885	38,190	32,298	35,276	29,792	33,535
Florida	678	892	777	942	865	961
East South Central:						
Kentucky	4	4	4	4	0	0
Tennessee	43,640	45,222	37,999	32,316	23,488	27,203
Alabama	38,365	29,349	27,594	27,491	18,347	14,991
West South Central:						
Arkansas	79	72	69	88	79	88
Oklahoma	167	183	149	161	190	208
Texas	266	284	305	191	61	71
Mountain:						
Montana	68,408	77,869	77,853	83,220	61,295	68,078
Idaho	41,430	39,913	36,019	50,209	46,908	40,127
Wyoming	248	172	138	179	139	179
Colorado	13,141	14,254	15,019	14,961	13,437	14,861
New Mexico	57	56	80	144	73	110
Arizona	3,967	6,689	7,577	7,478	8,602	8,608
Utah	13,135	15,463	17,434	12,405	11,800	17,344
Nevada	3,198	2,812	2,470	2,559	2,311	2,896
Pacific:						
Washington	70,779	79,346	74,575	79,881	77,413	84,623
Oregon	27,876	29,113	27,248	29,130	30,024	26,285
California	187,486	215,914	228,775	200,528	161,676	157,004

By the use of fuels, 1919

United States	1,829,621	1,832,446	1,709,700	1,917,811	2,070,384	2,249,963
New England	175,710	158,270	145,143	183,492	178,354	189,745
Middle Atlantic	602,906	611,879	580,883	594,358	620,712	675,290
East North Central	570,483	586,427	542,836	580,064	610,241	678,424
West North Central	137,778	132,596	117,860	131,428	157,790	170,031
South Atlantic	137,615	141,137	135,223	151,732	188,797	205,134
East South Central	44,742	40,107	38,364	37,264	47,929	54,206
West South Central	76,532	82,913	78,417	82,573	83,880	93,799
Mountain	36,662	36,898	29,626	30,339	32,192	38,572
Pacific	47,193	42,219	41,348	126,561	150,489	144,762
New England:						
Maine	73	73	93	220	662	547
New Hampshire	2,309	2,114	1,898	3,814	3,501	3,666
Vermont	173	179	187	976	269	165
Massachusetts	101,799	100,030	90,601	110,479	100,121	106,363
Rhode Island	28,767	18,405	16,839	19,821	25,617	24,177
Connecticut	42,589	37,469	35,525	48,182	48,184	54,827
Middle Atlantic:						
New York	288,271	288,537	270,644	276,791	280,430	313,279
New Jersey	75,665	76,412	76,642	79,546	88,463	88,207
Pennsylvania	238,970	246,930	233,597	238,021	251,819	273,804
East North Central:						
Ohio	189,041	194,937	183,702	206,153	203,415	220,400
Indiana	52,342	54,617	51,980	54,354	54,857	62,594
Illinois	198,899	207,673	194,109	183,518	194,520	222,331
Michigan	97,285	96,125	88,363	108,402	119,802	134,819
Wisconsin	32,916	33,075	24,682	27,637	37,647	38,280
West North Central:						
Minnesota	26,826	15,220	7,261	11,477	28,298	28,155
Iowa	23,993	24,964	23,646	24,531	26,568	30,626
Missouri	37,207	40,551	36,245	39,132	42,997	44,800
North Dakota	2,312	2,400	2,103	2,449	2,256	2,568
South Dakota	2,327	2,590	1,731	2,133	2,409	2,847
Nebraska	15,494	16,413	16,004	16,621	17,690	19,284
Kansas	29,619	30,458	30,870	35,085	37,572	41,751
South Atlantic:						
Delaware	5,551	4,784	4,655	5,225	5,438	6,069
Maryland	18,435	13,898	11,442	16,378	31,761	29,222
District of Columbia	18,094	19,331	18,457	19,221	18,593	20,543
Virginia	17,254	18,709	16,539	19,336	27,503	29,024
West Virginia	52,600	58,108	59,396	66,523	72,346	82,507
North Carolina	7,149	7,426	7,082	7,243	8,954	9,823
South Carolina	3,876	4,010	3,676	3,480	4,102	4,947
Georgia	6,054	6,082	6,200	6,595	12,007	13,959
Florida	8,582	8,789	7,776	7,731	8,093	9,040
East South Central:						
Kentucky	18,794	19,127	18,555	19,205	16,343	18,205
Tennessee	9,774	10,680	10,405	9,164	13,299	15,326
Alabama	11,059	4,907	4,477	3,689	13,268	15,102
Mississippi	5,115	5,393	4,927	5,206	5,019	5,573
West South Central:						
Arkansas	6,252	6,625	6,030	7,692	7,288	8,049
Louisiana	14,130	14,876	14,582	15,518	15,748	17,353
Oklahoma	13,080	13,796	12,989	13,826	13,262	14,898
Texas	43,070	47,616	44,816	45,537	47,582	53,499
Mountain:						
Montana	883	888	821	848	731	770
Idaho	168	257	155	1,219	1,130	1,270
Wyoming	3,315	3,603	3,249	3,386	3,577	3,957
Colorado	17,279	17,144	14,365	12,549	15,527	17,466
New Mexico	1,416	1,556	1,455	1,603	1,290	1,531
Arizona	13,464	13,329	8,854	10,014	9,509	13,095
Utah	0	0	0	0	2	2
Nevada	137	121	727	720	426	481
Pacific:						
Washington	4,171	4,521	4,164	5,434	9,619	11,108
Oregon	4,754	3,759	3,539	4,323	11,985	14,168
California	38,268	33,939	33,645	116,804	128,885	119,486

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

Total, 1920

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Year
United States	3,822,702	3,451,411	3,703,472	3,538,652	3,561,319	3,526,890	3,584,531	3,676,201	3,593,721	3,708,033	3,662,091	3,725,857	43,554,880
New England	332,401	282,105	303,166	286,092	278,551	275,514	269,107	272,367	268,589	274,672	280,290	283,858	3,406,712
Middle Atlantic	1,099,463	980,599	1,060,296	1,014,880	982,976	996,066	997,776	1,018,812	1,007,339	1,059,021	1,054,602	1,076,680	12,348,510
East North Central	879,085	812,624	870,247	819,089	826,314	806,490	806,265	825,768	803,536	834,558	832,169	842,228	9,958,373
West North Central	277,031	250,878	258,902	244,743	246,543	242,160	250,701	268,484	273,086	284,335	285,121	297,442	3,179,426
South Atlantic	366,768	324,003	341,806	320,132	314,609	316,055	326,795	325,621	330,587	355,665	339,989	332,279	3,994,308
East South Central	126,810	113,292	122,245	122,631	127,842	121,648	122,788	118,774	120,584	116,650	118,377	117,313	1,449,054
West South Central	100,841	91,345	97,832	92,547	92,459	97,705	100,431	106,623	109,423	114,167	111,290	114,941	1,229,604
Mountain	210,913	200,024	222,950	216,949	221,355	220,841	225,298	227,265	214,943	214,662	204,759	210,020	2,580,979
Pacific	429,390	396,541	426,028	421,589	470,670	450,411	485,370	512,487	465,634	454,203	435,494	460,096	5,407,913
New England:													
Maine	30,887	26,651	30,362	29,129	29,879	28,759	27,426	29,248	28,363	29,763	31,035	30,924	352,426
New Hampshire	9,488	8,290	7,546	7,992	7,762	7,698	7,773	7,981	7,717	7,837	8,017	8,501	96,602
Vermont	14,761	11,473	17,869	16,595	20,907	17,236	14,007	13,741	15,345	17,453	20,558	19,663	199,608
Massachusetts	173,082	145,966	156,467	153,145	143,432	139,669	132,823	137,773	133,519	134,995	142,600	146,475	1,739,946
Rhode Island	37,469	33,035	27,595	24,269	20,957	27,807	31,872	28,874	29,629	29,220	22,050	20,921	333,698
Connecticut	66,714	56,690	63,327	54,962	55,614	54,345	55,206	54,750	54,016	55,404	56,030	57,374	684,432
Middle Atlantic:													
New York	617,507	549,658	583,300	569,466	551,409	559,749	570,297	571,073	563,491	595,421	600,017	607,654	6,939,042
New Jersey	101,801	89,238	95,191	87,237	85,777	86,385	87,021	90,266	89,874	92,604	91,870	98,663	1,095,927
Pennsylvania	380,155	341,703	381,805	358,177	345,790	349,932	340,458	357,473	353,974	370,996	362,715	370,363	4,313,541
East North Central:													
Ohio	259,927	237,664	256,029	238,345	249,859	237,626	237,220	245,385	239,781	247,193	242,634	238,125	2,929,788
Indiana	80,947	74,750	77,573	74,702	70,790	73,226	75,344	78,165	78,861	83,048	82,298	83,023	932,727
Illinois	275,495	254,801	261,263	249,868	242,037	234,570	232,588	247,522	239,513	258,269	265,022	281,743	3,042,691
Michigan	188,300	174,642	192,504	167,473	172,389	178,980	177,836	176,459	169,151	167,246	164,372	163,512	2,092,864
Wisconsin	74,416	70,767	82,878	88,701	91,239	82,088	83,277	78,237	76,230	78,802	77,843	75,825	960,303
West North Central:													
Minnesota	64,114	56,486	56,018	50,102	46,896	51,324	49,770	59,362	63,570	69,733	66,097	69,843	703,315
Iowa	87,215	79,757	84,350	79,256	85,796	79,816	84,703	89,547	87,634	86,075	88,815	83,802	1,016,766
Missouri	60,057	56,853	59,111	58,990	55,026	52,551	52,051	53,576	56,575	61,427	60,452	71,556	698,225
North Dakota	2,746	2,293	2,193	1,988	1,855	1,942	2,131	2,256	2,361	2,599	2,867	3,028	28,259
South Dakota	3,888	3,771	3,975	3,644	3,789	3,890	3,871	3,828	3,898	4,312	4,348	4,800	48,014
Nebraska	21,362	17,999	18,716	19,630	20,019	19,919	20,038	20,161	20,469	21,208	21,580	26,094	247,195
Kansas	37,649	33,719	34,539	31,133	33,162	32,718	38,137	39,754	38,579	38,981	40,962	38,319	437,652
South Atlantic:													
Delaware	6,807	6,138	6,263	5,994	5,733	5,908	6,099	6,334	6,064	6,556	6,634	7,045	75,575
Maryland	31,545	27,224	21,670	17,473	15,477	20,446	26,994	25,050	23,868	30,527	23,220	19,230	282,724
District of Columbia	23,317	20,763	21,356	20,017	20,254	20,087	20,617	20,818	20,321	21,552	22,066	23,781	254,949

Virginia	44,260	40,723	43,554	41,801	40,693	39,057	41,038	43,059	43,955	47,527	45,884	49,303	520,854
West Virginia	98,526	86,236	97,048	90,857	94,037	94,408	94,843	91,830	91,817	98,534	94,923	95,322	1,128,381
North Carolina	24,368	19,832	22,003	21,749	21,267	21,436	20,987	20,266	22,597	23,303	22,497	19,403	259,708
South Carolina	70,511	60,400	64,334	61,695	57,299	56,458	56,875	57,592	61,289	63,729	62,602	57,214	729,998
Georgia	55,571	51,408	53,685	49,660	49,452	48,325	49,010	50,394	50,333	53,035	50,324	48,391	609,488
Florida	11,863	11,279	11,892	10,885	10,398	9,931	10,331	10,278	10,343	11,002	11,839	12,590	132,631
East South Central:													
Kentucky	23,455	21,775	22,711	21,842	21,801	21,013	21,046	22,627	23,709	24,394	25,241	26,176	275,760
Tennessee	49,267	43,155	46,123	48,605	51,890	51,061	50,924	45,963	46,200	48,304	46,048	45,075	572,615
Alabama	48,240	43,564	47,759	47,173	48,381	44,245	45,360	45,002	44,937	38,363	41,486	40,455	535,065
Mississippi	5,848	4,798	5,652	5,041	5,770	5,329	5,458	5,182	5,738	5,589	5,602	5,607	65,614
West South Central:													
Arkansas	9,339	8,479	9,220	8,387	8,533	10,197	11,648	11,225	10,318	10,172	10,537	10,655	118,710
Louisiana	18,171	16,793	17,889	16,672	18,103	17,883	15,035	19,248	19,088	19,556	19,252	20,839	218,529
Oklahoma	17,635	16,028	16,753	15,909	17,419	16,766	17,521	18,382	18,784	19,876	19,023	19,732	213,828
Texas	55,696	50,045	53,970	51,579	48,404	52,859	56,227	57,768	61,233	64,563	62,478	63,715	678,537
Mountain:													
Montana	90,373	91,175	105,767	100,846	95,751	93,213	95,209	99,427	94,990	93,553	85,633	80,079	1,126,016
Idaho	49,307	43,734	43,759	47,702	56,782	54,469	57,135	56,274	50,012	43,509	42,191	45,990	590,864
Wyoming	4,623	4,171	4,178	4,114	3,925	4,093	2,986	3,228	3,420	3,552	3,604	4,860	46,754
Colorado	35,635	31,399	33,068	31,386	31,539	32,185	32,929	32,088	32,731	35,379	34,890	34,087	397,286
New Mexico	1,083	1,033	1,091	1,189	1,244	1,261	1,317	1,310	1,287	1,338	1,[illegible]	[illegible],447	14,961
Arizona	12,575	10,489	13,258	14,110	15,434	14,992	15,271	13,731	12,897	13,638	11,[illegible]	10,877	159,228
Utah	13,806	14,515	18,558	14,725	13,961	18,003	17,596	18,724	17,490	21,243	22,[illegible]	21,133	212,321
Nevada	3,511	3,508	3,271	2,877	2,719	2,625	2,855	2,483	2,116	2,450	2,587	2,547	33,549
Pacific:													
Washington	108,629	98,000	101,813	98,409	97,167	92,203	95,663	98,542	99,095	103,321	99,374	104,509	1,196,725
Oregon	40,228	36,971	40,200	36,999	39,068	38,374	38,514	40,003	38,821	42,332	41,824	42,209	475,543
California	280,533	261,570	284,015	286,181	334,435	31[illegible],834	351,193	373,942	327,718	308,550	294,296	313,378	3,735,645

By the use of water power, 1920

United States	1,250,259	1,139,752	1,384,764	1,446,050	1,479,188	1,383,359	1,361,904	1,351,971	1,289,027	1,306,389	1,351,901	1,405,145	16,149,709
New England	78,789	64,437	104,989	114,852	117,561	101,521	81,328	78,312	77,452	91,154	107,639	115,876	1,133,910
Middle Atlantic	280,627	254,197	311,752	333,370	323,766	308,969	305,304	307,655	303,954	303,716	316,112	315,179	3,664,601
East North Central	101,681	92,491	124,045	143,940	135,800	122,500	121,416	105,198	98,204	104,835	111,506	120,696	1,382,312
West North Central	92,648	82,647	95,884	103,076	108,359	102,232	99,456	99,489	98,398	98,112	96,793	89,105	1,166,199
South Atlantic	142,168	134,382	145,919	139,665	132,079	129,851	128,428	134,242	138,366	135,834	133,179	134,708	1,628,820
East South Central	73,248	67,312	74,625	73,849	80,972	76,527	76,920	65,325	64,895	52,452	53,278	66,300	825,703
West South Central	423	533	695	449	560	445	603	654	621	805	782	824	7,404
Mountain	177,529	171,340	192,211	189,458	194,704	194,596	199,470	202,062	190,519	187,999	176,296	170,632	2,247,116
Pacific	303,146	272,413	334,644	347,391	385,387	346,418	348,979	359,034	316,618	331,382	356,306	391,825	4,093,543
New England:													
Maine	29,310	25,037	29,444	28,382	29,459	28,416	27,061	28,720	27,593	29,189	30,544	30,564	343,719
New Hampshire	4,322	4,001	5,227	5,837	5,632	5,325	4,630	4,782	4,556	4,979	5,420	6,233	60,944
Vermont	13,975	10,435	17,525	16,458	20,829	17,140	13,816	13,200	15,112	17,296	20,482	19,586	195,854
Massachusetts	21,987	16,248	34,844	44,265	42,670	34,092	23,401	20,428	20,491	25,485	35,093	39,297	358,301
Rhode Island	355	436	719	628	933	797	416	258	199	161	381	703	5,986
Connecticut	8,840	8,280	17,230	19,282	18,038	15,751	12,004	10,924	9,501	14,044	15,719	19,493	169,106

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of water power, 1920—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
Middle Atlantic:													
New York	235,188	210,639	254,692	277,186	261,484	255,486	258,052	254,367	251,643	255,225	261,077	254,584	3,029,623
New Jersey	168	128	150	222	221	125	137	188	158	151	165	254	2,067
Pennsylvania	45,271	43,430	56,910	55,962	62,061	53,358	47,115	53,100	52,153	48,340	54,870	60,341	632,911
East North Central:													
Ohio	1,490	2,101	3,222	2,827	2,890	2,148	2,454	2,135	1,941	1,251	2,325	3,030	27,814
Indiana	2,943	2,741	3,637	3,982	3,465	3,528	2,701	2,091	2,129	1,731	2,259	3,623	34,830
Illinois	14,831	14,147	14,588	13,874	15,202	15,277	15,520	16,313	16,136	16,139	16,248	16,380	184,655
Michigan	50,309	46,288	63,415	70,850	59,937	55,056	53,930	51,572	48,135	55,256	55,958	61,055	671,761
Wisconsin	32,108	27,214	39,183	52,407	54,306	46,491	46,811	33,087	29,863	30,458	34,716	36,608	463,252
West North Central:													
Minnesota	27,954	26,572	32,750	40,374	38,676	37,531	36,800	33,956	34,106	36,508	33,616	31,274	410,117
Iowa	55,527	49,406	54,423	51,594	59,291	56,954	56,677	59,763	56,705	54,071	57,372	50,648	662,431
Missouri	5,925	4,137	5,137	7,109	5,552	3,442	1,208	1,556	2,882	3,155	1,779	4,162	46,044
South Dakota	477	474	1,162	1,487	1,412	1,633	1,627	1,342	1,372	1,320	1,256	1,000	14,562
Nebraska	909	662	668	582	987	1,302	1,361	1,311	1,348	1,314	1,263	830	12,537
Kansas	1,856	1,396	1,744	1,930	2,441	1,370	1,783	1,561	1,985	1,744	1,507	1,191	20,508
South Atlantic:													
Maryland	284	335	140	273	183	808	208	217	153	132	[illegible]	450	2,877
Virginia	13,809	16,463	21,320	30,257	16,978	15,999	14,278	18,778	17,976	11,613	12,[illegible]	[illegible],783	202,782
West Virginia	1,776	2,334	2,101	2,319	2,391	1,982	1,568	1,849	1,760	1,337	1,[illegible]	2,424	23,406
North Carolina	15,928	15,604	17,243	17,642	17,789	17,819	17,430	16,792	18,970	19,119	18,601	15,317	208,254
South Carolina	64,531	55,680	59,175	57,238	53,097	52,218	52,419	53,043	56,536	58,815	57,593	52,483	672,828
Georgia	44,875	43,148	44,915	41,074	40,708	40,507	41,240	42,269	41,744	43,605	41,406	40,292	505,783
Florida	965	818	1,024	861	934	1,019	1,284	1,294	1,227	1,313	1,292	959	12,990
East South Central:													
Tennessee	39,443	31,664	36,590	37,292	41,132	40,667	40,278	33,784	35,534	36,351	34,601	33,698	441,034
Alabama	33,805	35,648	38,035	36,557	39,840	35,860	36,642	31,541	29,361	16,101	18,677	32,602	384,669
West South Central:													
Arkansas	132	120	130	99	107	91	112	132	115	113	107	115	1,373
Oklahoma	217	182	185	51	143	44	175	163	174	201	193	278	2,006
Texas	74	231	350	299	310	310	316	359	332	491	492	431	4,025
Mountain:													
Montana	89,777	90,635	105,252	100,385	95,245	92,713	94,610	98,821	94,369	92,867	84,928	79,353	1,118,905
Idaho	48,974	43,611	43,454	47,575	56,657	54,344	57,010	56,149	49,887	43,384	42,061	45,872	588,978
Wyoming	152	145	171	169	179	166	176	191	270	209	218	225	2,271
Colorado	12,784	12,082	12,650	13,527	15,428	17,020	16,491	16,508	17,610	19,192	16,512	14,870	184,674
New Mexico	53	57	59	76	82	79	77	58	60	73	78	76	828
Arizona	8,567	6,883	8,899	10,278	10,512	10,017	10,728	9,201	8,793	8,629	7,417	6,603	106,527

Utah	13,806	14,507	18,546	14,695	13,955	18,003	17,596	18,723	17,489	21,243	22,547	21,133	212,243
Nevada	3,416	3,420	3,180	2,803	2,646	2,554	2,782	2,411	2,041	2,402	2,535	2,500	32,690
Pacific:													
Washington	103,676	94,612	98,531	95,707	94,819	90,322	92,311	92,245	94,730	100,442	96,037	100,703	1,154,135
Oregon	32,383	28,347	32,407	31,529	32,042	31,677	28,512	25,502	28,982	34,089	30,927	34,470	370,867
California	167,087	149,454	203,706	220,155	258,526	224,419	228,156	241,287	192,906	196,851	229,342	256,652	2,568,541

By the use of fuels, 1920

United States	2,572,443	2,311,659	2,318,708	2,092,602	2,082,131	2,143,531	2,222,627	2,324,230	2,304,694	2,401,644	2,310,190	2,320,712	27,405,171
New England	253,612	217,668	198,177	171,240	160,990	173,993	187,779	194,055	191,137	183,518	172,651	167,982	2,272,802
Middle Atlantic	818,836	726,402	748,544	681,510	659,210	687,097	692,472	711,157	703,385	755,305	738,490	761,501	8,683,909
East North Central	777,404	720,133	746,202	675,149	690,514	683,990	684,849	720,570	705,332	729,723	720,663	721,532	8,576,061
West North Central	184,383	168,231	163,018	141,667	138,184	139,928	151,245	168,995	174,688	186,223	188,328	208,337	2,013,227
South Atlantic	224,600	189,621	195,887	180,467	182,530	186,204	198,367	191,379	192,221	219,831	206,810	197,571	2,365,488
East South Central	53,562	45,980	47,620	48,782	46,870	45,121	45,868	53,449	55,689	64,198	65,099	51,013	623,251
West South Central	100,418	90,812	97,137	92,098	91,899	97,260	99,828	105,969	108,802	113,362	110,498	114,117	1,222,200
Mountain	33,384	28,684	30,739	27,491	26,651	25,945	25,828	25,203	24,424	26,663	28,463	30,388	333,863
Pacific	126,244	124,128	91,384	74,198	85,283	103,993	136,391	153,453	149,016	122,821	79,188	68,271	1,314,370
New England:													
Maine	1,577	1,614	918	747	420	343	365	528	770	574	491	360	8,707
New Hampshire	5,166	4,289	2,319	2,155	2,130	2,373	3,134	3,199	3,161	2,858	2,597	2,268	35,658
Vermont	786	1,038	344	137	78	96	191	541	233	157	76	77	3,754
Massachusetts	151,095	129,718	121,623	108,880	100,762	105,577	109,422	117,345	113,028	109,510	107,507	107,178	1,381,645
Rhode Island	37,114	32,599	26,876	23,641	20,024	27,010	31,456	28,616	29,430	29,059	21,669	20,218	327,712
Connecticut	57,874	48,410	46,097	35,680	37,576	38,594	43,202	43,826	44,515	41,360	40,311	37,881	515,326
Middle Atlantic:													
New York	382,319	339,019	328,608	292,280	289,925	304,263	312,245	316,706	311,848	340,196	338,940	353,070	3,909,419
New Jersey	101,633	89,110	95,041	87,015	85,556	86,260	86,884	90,078	89,716	92,453	91,705	98,409	1,093,860
Pennsylvania	334,884	298,273	324,895	302,215	283,729	296,574	293,343	304,373	301,821	322,656	307,845	310,022	3,680,630
East North Central:													
Ohio	258,437	235,563	252,807	235,518	246,969	235,478	234,766	243,250	237,840	245,942	240,309	235,095	2,901,974
Indiana	78,004	72,009	73,936	70,720	67,325	69,698	72,643	76,074	76,732	81,317	80,039	79,400	897,897
Illinois	260,664	240,654	246,675	235,994	226,835	219,293	217,068	231,209	223,377	242,130	248,774	265,363	2,858,036
Michigan	137,991	128,354	129,089	96,623	112,452	123,924	123,906	124,887	121,016	111,990	108,414	102,457	1,421,103
Wisconsin	42,308	43,553	43,695	36,294	36,933	35,597	36,466	45,150	46,367	48,344	43,127	39,217	497,051
West North Central:													
Minnesota	36,160	29,914	23,268	9,728	8,220	13,793	12,970	25,406	29,464	33,225	32,481	38,569	293,198
Iowa	31,688	30,351	29,927	27,662	26,505	22,862	28,026	29,784	30,929	32,004	31,443	33,154	354,335
Missouri	54,132	52,716	53,974	51,881	49,474	49,109	50,843	52,020	53,693	58,272	58,673	67,394	652,181
North Dakota	2,746	2,293	2,193	1,988	1,855	1,942	2,131	2,256	2,361	2,599	2,867	3,028	28,259
South Dakota	3,411	3,297	2,813	2,157	2,377	2,257	2,244	2,486	2,526	2,992	3,092	3,800	33,452
Nebraska	20,453	17,337	18,048	19,048	19,032	18,617	18,677	18,850	19,211	19,894	20,317	25,264	234,658
Kansas	35,793	32,323	32,795	29,203	30,721	31,348	36,354	38,193	36,594	37,237	39,455	37,128	417,144

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of fuels, 1920—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
South Atlantic:													
Delaware	6,807	6,138	6,263	5,994	5,733	5,908	6,099	6,334	6,064	6,556	6,634	7,045	75,575
Maryland	31,261	26,889	21,530	17,200	15,294	20,138	26,786	24,833	23,715	30,395	23,026	18,780	279,847
District of Columbia	23,317	20,763	21,356	20,017	20,254	20,087	20,617	20,818	20,321	21,552	22,066	23,781	254,949
Virginia	30,451	24,260	22,234	21,544	23,715	23,058	26,760	24,281	25,979	35,914	33,356	26,520	318,072
West Virginia	96,750	83,902	94,947	88,538	91,646	92,426	93,275	89,981	90,057	97,197	93,358	92,898	1,104,975
North Carolina	8,440	4,228	4,760	4,107	3,478	3,617	3,557	3,474	3,627	4,184	3,896	4,086	51,454
South Carolina	5,980	4,720	5,159	4,457	4,202	4,240	4,456	4,549	4,753	4,914	5,009	4,731	57,170
Georgia	10,696	8,260	8,770	8,586	8,744	7,818	7,770	8,125	8,589	9,430	8,918	8,099	103,805
Florida	10,898	10,461	10,868	10,024	9,464	8,912	9,047	8,984	9,116	9,689	10,547	11,631	119,641
East South Central:													
Kentucky	23,455	21,775	22,711	21,812	21,801	21,013	21,046	22,627	23,709	24,394	25,241	26,176	275,760
Tennessee	9,824	11,491	9,533	11,313	10,758	10,394	10,646	12,179	10,666	11,953	11,447	11,377	131,581
Alabama	14,435	7,916	9,724	10,616	8,541	8,385	8,718	13,461	15,576	22,262	22,809	7,853	150,296
Mississippi	5,848	4,798	5,652	5,041	5,770	5,329	5,458	5,182	5,738	5,589	5,602	5,607	65,614
West South Central:													
Arkansas	9,207	8,359	9,090	8,288	8,426	10,106	11,536	11,093	10,203	10,059	10,430	10,540	117,337
Louisiana	18,171	16,793	17,889	16,672	18,103	17,883	15,035	19,248	19,088	19,556	19,252	20,839	218,529
Oklahoma	17,418	15,846	16,568	15,858	17,276	16,722	17,346	18,219	18,610	19,675	18,830	19,454	211,822
Texas	55,622	49,814	53,590	51,280	48,094	52,549	55,911	57,409	60,901	64,072	61,986	63,284	674,512
Mountain:													
Montana	596	540	515	511	506	500	599	606	621	686	705	726	7,111
Idaho	333	123	305	127	125	125	125	125	125	125	130	118	1,886
Wyoming	4,471	4,026	4,007	3,945	3,746	3,927	2,810	3,037	3,150	3,343	3,386	4,635	44,483
Colorado	22,851	19,317	20,418	17,859	16,111	15,165	16,438	15,580	15,121	16,187	18,348	19,217	212,612
New Mexico	1,030	976	1,032	1,113	1,162	1,182	1,240	1,252	1,227	1,265	1,283	1,371	14,133
Arizona	4,008	3,606	4,359	3,832	4,922	4,975	4,543	4,530	4,104	5,009	4,539	4,274	52,701
Utah	0	8	12	30	6	0	0	1	1	0	20	0	78
Nevada	95	88	91	74	73	71	73	72	75	48	52	47	859
Pacific:													
Washington	4,953	3,388	3,282	2,702	2,348	1,881	3,352	6,297	4,365	2,879	3,337	3,806	42,590
Oregon	7,845	8,624	7,793	5,470	7,026	6,697	10,002	14,501	9,839	8,243	10,897	7,739	104,676
California	113,446	112,116	80,309	66,026	75,909	95,415	123,037	132,655	134,812	111,699	64,954	56,726	1,167,104

Total, 1921

United States	3,537,840	3,171,736	3,398,572	3,239,918	3,264,444	3,246,628	3,275,122	3,420,216	3,377,677	3,578,080	3,645,541	3,819,843	40,975,617
New England	277,104	253,481	266,007	245,563	248,630	247,607	241,025	260,201	264,597	293,386	301,567	315,021	3,214,189
Middle Atlantic	1,002,671	901,436	953,122	884,638	867,631	846,355	850,026	892,301	883,584	968,613	1,015,382	1,101,773	11,172,532
East North Central	785,574	708,214	774,127	742,559	734,102	727,319	720,169	762,509	759,508	816,722	829,841	868,050	9,228,704
West North Central	275,537	242,054	253,908	246,424	252,602	249,343	255,843	271,515	277,198	290,726	292,135	300,075	3,207,360
South Atlantic	331,906	306,213	318,119	308,820	332,700	337,536	331,359	339,668	342,404	363,142	363,145	372,567	4,047,579
East South Central	114,073	103,973	112,588	105,568	106,853	99,310	100,233	105,960	105,875	109,022	115,076	117,718	1,296,249
West South Central	114,274	100,999	109,994	101,641	104,679	108,857	112,440	116,398	115,267	116,772	112,799	115,201	1,329,321
Mountain	186,554	157,209	168,385	136,865	145,914	147,506	157,070	157,043	146,519	147,359	146,921	154,205	1,851,550
Pacific	450,147	398,157	442,322	467,841	471,333	483,795	506,957	514,621	476,725	472,338	468,675	475,223	5,628,134
New England:													
Maine	33,160	29,359	31,132	24,100	26,992	26,611	25,902	27,676	28,104	32,447	32,902	32,669	351,054
New Hampshire	16,931	13,051	16,194	20,885	17,537	10,788	12,075	11,301	8,899	9,429	16,061	18,660	171,811
Vermont	10,185	9,802	11,215	10,049	8,898	8,485	8,302	8,941	8,952	8,576	9,230	9,817	112,452
Massachusetts	141,202	129,490	136,902	123,644	126,855	120,374	119,816	126,884	129,336	142,925	148,756	157,775	1,603,959
Rhode Island	20,624	21,688	20,286	18,457	19,977	31,621	26,620	34,388	36,775	43,382	35,868	35,177	344,863
Connecticut	55,002	50,091	50,278	48,428	48,371	49,728	48,310	51,011	52,531	56,627	58,750	60,923	630,050
Middle Atlantic:													
New York	570,397	491,302	518,902	476,345	468,936	461,119	471,403	491,117	491,117	543,668	567,991	618,409	6,170,706
New Jersey	87,243	76,435	79,263	73,342	72,107	72,711	73,112	76,893	77,724	84,826	89,620	96,949	960,225
Pennsylvania	345,031	333,699	354,957	334,951	326,588	311,525	305,511	324,291	320,743	340,119	357,771	386,415	4,041,601
East North Central:													
Ohio	222,393	195,596	213,132	204,927	198,685	198,334	194,165	206,014	205,826	222,829	226,999	231,982	2,520,382
Indiana	78,392	72,528	73,989	71,333	70,403	70,953	69,747	75,070	75,703	80,402	81,638	85,459	905,617
Illinois	259,197	236,426	250,171	228,143	226,767	228,046	230,808	244,544	242,838	262,537	276,229	298,428	2,984,134
Michigan	151,473	137,214	156,705	156,269	155,022	154,842	155,704	161,985	160,844	171,539	168,663	171,492	1,901,752
Wisconsin	74,119	66,450	80,130	81,887	83,225	75,144	69,745	74,896	74,797	79,415	76,312	80,699	916,819
West North Central:													
Minnesota	65,404	56,183	55,772	52,762	54,530	53,527	57,881	63,762	63,370	69,223	69,513	71,197	733,124
Iowa	82,814	75,044	84,704	81,554	82,040	75,701	77,956	79,586	85,460	87,129	88,254	88,967	989,209
Missouri	62,198	55,693	55,903	56,782	58,605	60,779	56,336	59,899	58,288	63,409	65,228	69,200	722,320
North Dakota	2,896	2,514	2,482	2,056	2,033	2,171	2,501	2,982	2,718	2,916	3,044	3,171	31,484
South Dakota	4,431	3,876	3,929	3,903	3,900	4,064	4,211	4,376	4,508	4,594	4,583	4,889	51,264
Nebraska	22,001	19,349	21,058	20,360	20,758	21,611	22,393	23,594	23,502	23,725	22,659	23,719	264,729
Kansas	35,793	29,395	30,060	29,007	30,736	31,490	34,565	37,316	39,352	39,730	38,854	38,932	415,230
South Atlantic:													
Delaware	6,472	5,686	5,880	5,440	5,394	5,404	5,527	5,582	5,690	6,348	6,552	7,146	71,121
Maryland	18,478	12,944	11,269	10,963	13,369	22,970	22,346	25,110	29,759	31,614	19,080	19,347	237,249
District of Columbia	23,385	21,111	21,965	21,532	21,960	21,342	21,318	21,444	21,922	21,838	22,716	24,884	265,417
Virginia	47,473	42,361	44,178	41,655	44,357	43,621	44,842	45,114	44,082	46,109	48,752	50,062	542,606
West Virginia	86,622	81,772	89,061	87,870	99,845	94,123	89,422	85,939	87,429	98,891	99,400	101,809	1,102,183
North Carolina	30,685	28,303	26,999	25,830	27,344	28,075	22,971	31,680	32,826	31,855	32,370	29,631	348,569
South Carolina	58,652	56,303	57,719	59,671	62,769	63,655	67,100	64,104	61,868	64,193	76,256	77,409	769,699
Georgia	47,239	45,562	48,451	44,215	46,438	47,272	46,605	49,555	47,583	50,326	45,159	47,641	566,045
Florida	12,899	12,172	12,598	11,644	11,225	11,074	11,228	11,140	11,245	11,968	12,860	14,638	144,691

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

Total, 1921—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
East South Central:													
Kentucky	25,154	21,820	23,863	21,760	22,257	22,428	22,845	23,746	23,872	25,564	25,414	26,440	285,163
Tennessee	44,771	40,435	44,735	42,351	43,643	35,822	35,725	38,404	38,942	39,648	42,331	43,162	489,969
Alabama	38,920	36,675	38,925	36,543	36,043	36,077	36,676	38,721	37,840	38,327	41,811	42,753	459,311
Mississippi	5,228	5,043	5,065	4,914	4,910	4,983	4,987	5,089	5,221	5,483	5,520	5,363	61,806
West South Central:													
Arkansas	10,632	9,613	9,961	9,337	9,074	10,418	10,943	10,951	10,579	11,228	10,819	10,897	124,452
Louisiana	19,776	17,675	19,469	18,771	19,244	19,732	19,578	20,220	20,041	19,685	19,684	21,216	235,091
Oklahoma	19,434	17,294	18,947	16,209	16,093	17,263	17,440	17,909	18,074	18,803	18,451	18,701	214,618
Texas	64,432	56,417	61,617	57,324	60,268	61,444	64,479	67,318	66,573	67,056	63,845	64,387	755,160
Mountain:													
Montana	71,152	54,945	56,455	42,438	42,836	44,465	45,274	45,747	46,064	48,777	48,506	49,951	596,610
Idaho	46,652	40,488	41,992	36,050	48,257	48,022	53,623	54,937	45,279	42,123	43,590	49,136	550,149
Wyoming	3,608	3,058	3,085	2,926	2,872	2,830	2,833	2,979	3,107	3,403	3,524	3,630	37,855
Colorado	32,622	28,107	30,402	29,020	29,328	26,107	29,030	31,063	30,526	31,741	31,046	33,659	362,651
New Mexico	1,371	1,261	1,251	1,262	1,283	1,228	1,267	1,328	1,353	1,356	1,372	1,436	15,768
Arizona	10,372	9,941	12,833	10,030	10,478	13,653	13,197	9,998	10,895	11,623	11,043	8,371	132,434
Utah	18,129	16,972	19,819	12,532	7,754	7,834	8,288	7,308	6,312	5,139	4,674	4,790	119,551
Nevada	2,648	2,437	2,548	2,607	3,106	3,367	3,558	3,683	2,983	3,197	3,166	3,232	36,532
Pacific:													
Washington	104,192	90,071	96,269	96,604	90,900	92,444	95,233	100,174	94,034	101,041	106,178	109,522	1,176,662
Oregon	41,531	36,941	38,965	37,655	36,763	35,396	36,050	37,740	38,701	41,938	42,551	44,303	468,534
California	304,424	271,145	307,088	333,582	343,670	355,955	375,674	376,707	343,990	329,359	319,946	321,398	3,982,938

By the use of water power, 1921

United States	1,350,464	1,202,069	1,348,904	1,308,929	1,323,350	1,216,326	1,226,133	1,204,039	1,103,932	1,140,526	1,223,689	1,322,047	14,970,408
New England	110,024	92,574	113,096	108,916	101,913	68,559	76,376	69,470	50,538	59,483	85,203	102,541	1,038,693
Middle Atlantic	274,418	239,573	251,360	223,250	218,936	189,453	196,085	203,477	187,696	216,372	259,899	291,898	2,752,417
East North Central	114,204	102,089	134,190	141,422	137,161	117,679	101,826	100,640	105,063	111,851	109,659	121,013	1,396,797
West North Central	86,410	78,424	97,245	109,802	108,787	99,447	91,263	84,670	88,710	88,344	85,060	85,255	1,103,417
South Atlantic	146,571	142,060	144,923	139,317	148,930	142,086	138,989	142,096	128,343	126,557	150,890	159,284	1,710,046
East South Central	68,544	62,148	69,049	65,069	61,264	41,556	46,956	49,615	40,928	42,052	53,482	61,199	661,862
West South Central	760	640	657	541	676	537	728	802	652	490	675	716	7,874
Mountain	159,794	134,763	145,546	113,834	123,783	127,514	135,091	133,406	122,644	117,851	116,885	126,958	1,558,069
Pacific	389,738	349,799	392,839	406,779	421,900	429,495	438,819	419,863	379,358	377,526	361,936	373,183	4,741,235
New England:													
Maine	33,040	29,235	30,898	23,853	26,763	26,233	25,389	26,881	23,930	27,681	30,300	31,973	336,176

New Hampshire	14,573	10,931	14,548	19,179	15,655	7,720	9,553	8,555	5,205	5,669	12,803	14,942	139,333
Vermont	10,097	9,802	11,165	10,030	8,895	8,224	7,822	8,502	7,153	8,010	9,201	9,798	108,699
Massachusetts	35,425	29,184	37,839	37,934	34,850	18,967	25,156	19,095	10,375	14,044	24,746	29,936	317,551
Rhode Island	713	342	651	602	822	301	584	386	282	121	197	622	5,623
Connecticut	16,176	13,080	17,995	17,318	14,928	7,114	7,872	6,051	3,593	3,958	7,956	15,270	131,311
Middle Atlantic:													
New York	223,170	186,941	194,963	169,815	166,498	151,326	157,570	163,623	156,686	183,373	212,033	237,566	2,203,564
New Jersey	243	209	215	215	208	131	130	128	107	77	140	244	2,047
Pennsylvania	51,005	52,423	56,182	53,220	52,230	37,996	38,385	39,726	30,903	32,922	47,726	54,088	546,806
East North Central:													
Ohio	3,029	3,039	3,420	3,553	2,868	1,675	1,517	1,569	1,462	1,643	3,415	3,866	31,056
Indiana	4,154	3,812	4,502	4,342	4,636	3,580	2,418	2,518	2,983	2,967	4,162	5,318	45,392
Illinois	11,170	14,626	16,517	15,383	15,663	15,132	14,767	15,685	15,492	16,233	16,247	15,984	182,899
Michigan	60,985	49,328	65,045	64,351	60,560	52,236	49,854	51,455	51,952	58,247	56,860	64,480	685,353
Wisconsin	34,866	31,284	44,706	53,793	53,434	45,056	33,270	29,413	33,174	32,761	28,975	31,365	452,097
West North Central:													
Minnesota	29,118	24,074	32,698	44,134	43,484	40,885	34,513	28,155	29,228	29,702	25,843	26,508	388,342
Iowa	50,395	46,015	54,942	53,554	54,363	48,352	49,686	49,120	54,328	54,925	54,935	53,859	624,474
Missouri	3,291	5,170	5,270	5,985	5,599	5,132	2,930	3,045	857	377	1,400	2,182	41,238
South Dakota	737	638	1,222	1,662	1,589	1,111	744	851	898	814	678	554	11,498
Nebraska	1,157	1,025	1,443	1,457	1,477	1,615	1,645	1,565	1,570	1,423	1,175	1,082	16,634
Kansas	1,712	1,502	1,670	3,010	2,275	2,352	1,745	1,934	1,829	1,103	1,029	1,070	21,231
South Atlantic:													
Maryland	275	235	330	254	378	257	248	233	129	100	194	260	2,893
Virginia	21,706	22,424	22,726	20,423	21,708	14,525	13,846	9,247	6,520	5,133	14,105	17,328	189,691
West Virginia	2,456	2,377	2,545	2,252	2,562	1,848	1,629	1,289	1,493	820	1,764	2,739	23,774
North Carolina	26,789	24,852	23,461	22,599	24,132	24,656	19,210	27,761	24,508	22,732	27,051	25,242	292,993
South Carolina	54,068	52,075	53,349	54,987	59,428	59,781	63,503	60,227	56,779	58,502	71,433	72,555	716,687
Georgia	40,139	39,214	41,644	38,034	39,994	40,135	39,665	42,373	38,084	38,636	35,436	40,195	473,549
Florida	1,138	883	868	768	728	884	888	966	830	634	907	965	10,459
East South Central:													
Kentucky	12	12	12	12	10	10	10	10	10	10	10	10	128
Tennessee	33,782	30,323	33,983	32,421	33,851	25,763	25,477	28,123	28,150	27,557	31,009	31,333	361,772
Alabama	34,750	31,813	35,054	32,636	27,403	15,783	21,469	21,482	12,768	14,485	22,463	29,856	299,962
West South Central:													
Arkansas	104	96	96	94	60	122	132	154	142	133	173	132	1,438
Oklahoma	278	255	259	176	265	72	221	215	203	120	127	152	2,343
Texas	378	289	302	271	351	343	375	433	307	237	375	432	4,093
Mountain:													
Montana	70,484	54,330	55,847	41,882	42,270	43,902	44,624	45,086	45,377	48,044	47,760	49,174	588,780
Idaho	46,512	40,298	41,771	35,829	47,855	47,796	53,228	54,583	44,761	41,784	43,459	49,020	546,896
Wyoming	191	150	172	177	170	137	147	159	147	158	154	189	1,951
Colorado	15,104	13,836	16,057	14,707	15,770	14,565	15,119	15,583	15,165	10,728	9,258	14,921	170,813
New Mexico	70	54	63	72	73	71	75	82	69	66	74	68	838
Arizona	6,722	6,731	9,305	6,064	6,810	9,867	10,081	6,949	7,855	8,759	8,368	5,609	93,120
Utah	18,125	16,971	19,819	12,532	7,754	7,834	8,288	7,308	6,312	5,139	4,674	4,776	119,532
Nevada	2,586	2,393	2,512	2,571	3,081	3,342	3,529	3,655	2,958	3,173	3,138	3,201	36,139
Pacific:													
Washington	101,231	87,300	93,696	94,322	88,723	90,296	93,297	97,069	89,432	95,562	101,756	107,225	1,139,909
Oregon	35,095	32,644	34,597	33,435	33,314	30,760	30,624	27,281	26,013	27,353	29,047	33,902	374,065
California	253,412	229,855	264,546	279,022	299,863	308,439	314,898	295,513	263,913	254,611	231,133	232,056	3,227,261

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of fuels, 1921

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
United States	2,187,376	1,969,667	2,049,668	1,930,989	1,941,094	2,030,302	2,048,989	2,216,177	2,273,745	2,437,554	2,421,852	2,497,796	26,005,209
New England	167,080	160,907	152,911	136,647	146,717	179,048	164,649	190,731	214,059	233,903	216,364	212,480	2,175,496
Middle Atlantic	728,253	661,863	701,762	661,388	648,695	655,902	653,941	688,824	701,888	752,241	755,483	809,875	8,420,115
East North Central	671,370	606,125	639,937	601,137	596,941	609,640	618,343	661,869	654,445	704,871	720,182	747,047	7,831,907
West North Central	189,127	163,630	156,663	136,622	143,815	149,896	164,580	186,845	188,488	202,382	207,075	214,820	2,103,943
South Atlantic	185,334	164,154	173,197	169,503	183,770	195,450	192,370	197,572	214,061	236,585	212,255	213,283	2,337,534
East South Central	45,529	41,825	43,539	40,499	45,589	57,754	53,277	56,345	64,947	66,970	61,594	56,619	634,387
West South Central	113,514	100,359	109,337	101,100	104,003	108,320	111,712	115,596	114,615	116,282	112,124	114,485	1,321,447
Mountain	26,760	22,446	22,839	23,031	22,131	19,992	21,979	23,637	23,875	29,508	30,036	27,247	293,481
Pacific	60,409	48,358	49,483	61,062	49,433	54,300	68,138	94,758	97,367	94,812	106,739	102,040	886,899
New England:													
Maine	120	124	234	247	229	378	513	795	4,174	4,766	2,602	696	14,878
New Hampshire	2,358	2,120	1,646	1,706	1,882	3,068	2,522	2,746	3,694	3,760	3,258	3,718	32,478
Vermont	88	0	50	19	3	261	480	439	1,799	566	29	19	3,753
Massachusetts	105,777	100,306	99,063	85,710	92,005	101,407	94,660	107,789	118,961	128,881	124,010	127,839	1,286,408
Rhode Island	19,911	21,346	19,635	17,855	19,155	31,320	26,036	34,002	36,493	43,261	35,671	34,555	339,240
Connecticut	38,826	37,011	32,283	31,110	33,443	42,614	40,438	44,960	48,938	52,669	50,794	45,653	498,739
Middle Atlantic:													
New York	347,227	304,361	323,939	306,530	302,438	309,793	313,833	327,494	334,431	360,295	355,958	380,843	3,967,142
New Jersey	87,000	76,226	79,048	73,127	71,899	72,580	72,982	76,765	77,617	84,749	89,480	96,705	958,178
Pennsylvania	294,026	281,276	298,775	281,731	274,358	273,529	267,126	284,565	289,840	307,197	310,045	332,327	3,494,795
East North Central:													
Ohio	219,364	192,557	209,712	201,374	195,817	196,659	192,648	204,445	203,864	221,186	223,584	228,116	2,489,326
Indiana	74,238	68,716	69,487	66,991	65,767	67,373	67,329	72,552	72,720	77,435	77,476	80,141	860,225
Illinois	248,027	221,800	233,654	212,760	211,104	212,914	216,041	228,859	227,346	246,304	259,982	282,444	2,801,235
Michigan	90,488	87,886	91,660	91,918	94,462	102,606	105,850	110,530	108,892	113,292	111,803	107,012	1,216,399
Wisconsin	39,253	35,166	35,424	28,094	29,791	30,088	36,475	45,483	41,623	46,654	47,337	49,334	464,722
West North Central:													
Minnesota	36,286	32,109	23,074	8,628	11,046	12,642	23,368	35,607	34,142	39,521	43,670	44,689	344,782
Iowa	32,419	29,029	29,762	28,000	27,677	27,349	28,270	30,466	31,132	32,204	33,319	35,108	364,735
Missouri	58,907	50,523	50,633	50,797	53,006	55,647	53,406	56,854	57,431	63,032	63,828	67,018	681,082
North Dakota	2,896	2,514	2,482	2,056	2,033	2,171	2,501	2,982	2,718	2,916	3,044	3,171	31,484
South Dakota	3,694	3,238	2,707	2,241	2,311	2,953	3,467	3,525	3,610	3,780	3,905	4,335	39,766
Nebraska	20,844	18,324	19,615	18,903	19,281	19,996	20,748	22,029	21,932	22,302	21,484	22,637	248,095
Kansas	34,081	27,893	28,390	25,997	28,461	29,138	32,820	35,382	37,523	38,627	37,825	37,862	393,999

South Atlantic:													
Delaware	6,472	5,686	5,880	5,440	5,394	5,404	5,527	5,582	5,690	6,348	6,552	7,146	71,121
Maryland	18,203	12,709	10,939	10,709	12,991	22,713	22,098	24,877	29,630	31,514	18,886	19,087	234,356
District of Columbia	23,388	21,111	21,965	21,532	21,960	21,342	21,318	21,444	21,922	21,838	22,716	24,884	265,417
Virginia	25,767	19,937	21,452	21,232	22,649	29,096	30,996	35,867	37,562	40,976	34,647	32,734	352,915
West Virginia	84,166	79,395	86,516	85,618	97,283	92,275	87,793	84,650	85,936	98,071	97,636	99,070	1,078,409
North Carolina	3,896	3,451	3,538	3,231	3,212	3,419	3,761	3,919	8,318	9,123	5,319	4,389	55,576
South Carolina	4,584	4,228	4,370	4,684	3,341	3,874	3,597	3,877	5,089	5,691	4,823	4,854	53,012
Georgia	7,100	6,348	6,807	6,181	6,443	7,137	6,940	7,182	9,499	11,690	9,723	7,446	92,496
Florida	11,761	11,289	11,730	10,876	10,497	10,190	10,340	10,174	10,415	11,334	11,953	13,673	134,232
East South Central:													
Kentucky	25,142	21,808	23,851	21,748	22,247	22,418	22,835	23,736	23,862	25,554	25,404	26,430	285,035
Tennessee	10,989	10,112	10,752	9,930	9,792	10,059	10,248	10,281	10,792	12,091	11,322	11,829	128,197
Alabama	4,170	4,862	3,871	3,907	8,640	20,294	15,207	17,239	25,072	23,842	19,348	12,897	159,349
Mississippi	5,228	5,043	5,065	4,914	4,910	4,983	4,987	5,089	5,221	5,483	5,520	5,363	61,806
West South Central:													
Arkansas	10,528	9,517	9,365	9,243	9,014	10,296	10,811	10,797	10,437	11,095	10,646	10,765	123,014
Louisiana	19,776	17,675	19,469	18,771	19,244	19,732	19,578	20,220	20,041	19,685	19,684	21,216	235,091
Oklahoma	19,156	17,039	18,688	16,033	15,828	17,191	17,219	17,694	17,871	18,683	18,324	18,549	212,275
Texas	64,054	56,128	61,315	57,053	59,917	61,101	64,104	66,885	66,266	66,819	63,470	63,955	751,067
Mountain:													
Montana	668	615	608	556	566	563	650	661	687	733	746	777	7,830
Idaho	140	190	221	221	402	226	395	354	518	339	131	116	3,253
Wyoming	3,417	2,908	2,913	2,749	2,702	2,693	2,686	2,820	2,960	3,245	3,370	3,441	35,904
Colorado	17,518	14,271	14,345	14,313	13,558	11,542	13,911	15,480	15,361	21,013	21,788	18,738	191,838
New Mexico	1,301	1,207	1,188	1,190	1,210	1,157	1,192	1,245	1,284	1,290	1,298	1,368	14,930
Arizona	3,650	3,210	3,528	3,966	3,668	3,786	3,116	3,049	3,040	2,864	2,675	2,762	33,314
Utah	4	1	0	0	0	0	0	0	0	0	0	14	19
Nevada	62	44	36	36	25	25	29	28	25	24	28	31	393
Pacific:													
Washington	2,961	2,771	2,573	2,282	2,177	2,148	1,936	3,105	4,602	5,479	4,422	2,297	36,753
Oregon	6,436	4,297	4,368	4,220	3,449	4,636	5,426	10,459	12,688	14,585	13,504	10,401	94,469
California	51,012	41,290	42,542	54,560	43,807	47,516	60,776	81,194	80,077	74,748	88,813	89,342	755,677

Total, 1922

United States	3,807,131	3,463,292	3,818,784	3,592,766	3,818,695	3,832,620	3,866,056	4,069,085	4,042,156	4,328,660	4,408,437	4,605,445	47,653,127
New England	321,349	286,169	310,330	270,006	279,582	281,869	286,024	301,951	303,292	343,235	357,959	388,107	3,729,873
Middle Atlantic	1,084,557	977,534	1,074,456	991,160	1,038,450	1,029,167	1,031,983	1,072,609	1,089,333	1,173,526	1,208,571	1,290,594	13,061,380
East North Central	855,619	789,259	882,380	839,925	869,031	865,102	861,292	908,461	920,116	997,577	1,029,714	1,057,814	10,876,270
West North Central	299,096	266,321	281,262	267,175	279,667	283,249	290,788	309,487	301,809	325,660	327,643	336,305	3,568,462
South Atlantic	380,773	350,970	390,960	356,020	378,724	381,151	379,299	424,903	415,486	460,068	460,628	471,775	4,850,757
East South Central	120,606	107,841	118,484	112,985	123,383	122,653	119,364	125,369	135,057	143,935	153,773	150,836	1,534,786
West South Central	119,097	104,582	112,382	106,544	113,763	116,907	122,106	127,996	130,306	135,249	134,785	139,309	1,463,026
Mountain	157,607	155,453	179,980	185,273	206,024	210,143	213,397	216,797	209,257	209,641	213,211	232,658	2,389,941
Pacific	468,427	425,163	468,550	463,738	530,071	542,379	560,803	581,512	537,500	539,789	522,153	538,047	6,178,132

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

Total, 1922—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
New England:													
Maine	33,010	29,581	33,156	27,661	31,149	30,776	31,494	34,804	33,895	38,234	38,982	42,260	405,002
New Hampshire	13,911	12,498	21,249	17,820	22,444	21,110	21,268	14,324	12,322	13,058	13,374	12,193	195,571
Vermont	9,752	9,270	10,982	12,535	10,041	10,848	10,662	13,448	13,826	13,734	11,629	10,565	137,292
Massachusetts	163,260	144,185	155,400	138,546	140,505	140,908	138,098	147,470	144,741	164,849	176,062	195,887	1,849,911
Rhode Island	42,288	36,615	27,591	20,398	20,767	22,412	28,762	30,707	37,334	44,639	47,542	52,382	411,437
Connecticut	59,128	54,020	61,952	53,046	54,676	55,815	55,740	61,198	61,174	68,721	70,370	74,820	730,660
Middle Atlantic:													
New York	617,120	550,397	593,568	562,644	594,596	579,796	587,844	618,258	616,664	673,654	690,626	735,611	7,420,778
New Jersey	95,453	82,332	89,499	81,445	83,831	83,711	85,844	94,640	93,843	102,594	105,280	113,966	1,112,438
Pennsylvania	371,984	344,805	391,389	347,011	360,023	365,660	358,295	359,711	378,826	397,278	412,665	441,017	4,528,664
East North Central:													
Ohio	232,054	216,760	242,250	228,684	242,926	244,743	240,196	266,126	260,032	283,474	288,488	297,155	3,042,888
Indiana	85,120	79,524	85,728	81,811	84,397	83,690	85,124	90,009	92,140	99,266	102,613	107,522	1,076,944
Illinois	294,887	267,223	289,623	263,622	262,238	263,238	267,306	275,579	293,877	320,365	336,833	348,141	3,483,932
Michigan	167,211	155,905	172,828	167,886	176,497	178,501	177,610	189,295	185,893	200,331	200,905	207,082	2,179,944
Wisconsin	76,347	69,847	91,951	97,922	102,973	94,930	91,056	87,452	88,174	94,121	100,875	97,914	1,093,562
West North Central:													
Minnesota	72,298	61,031	58,601	54,656	58,411	57,526	62,792	71,089	67,453	75,235	75,152	73,345	787,589
Iowa	86,758	76,629	88,945	83,675	92,746	93,086	93,658	89,404	80,961	84,421	88,274	83,396	1,041,953
Missouri	69,866	64,487	69,699	68,403	64,443	63,290	63,929	70,595	74,385	83,280	82,285	96,364	871,026
North Dakota	2,935	2,512	2,490	2,097	2,056	2,211	2,523	2,760	2,791	3,130	3,286	3,523	32,314
South Dakota	4,735	4,158	4,511	4,283	4,331	4,331	4,472	4,835	4,830	5,000	5,024	5,574	56,084
Nebraska	22,972	20,961	22,835	21,376	22,790	23,606	23,509	24,989	24,677	25,076	24,633	26,151	283,575
Kansas	39,532	36,543	34,181	32,685	34,890	39,199	39,905	45,815	46,712	49,518	48,989	47,952	495,921
South Atlantic:													
Delaware	7,018	6,428	6,696	6,368	6,754	6,562	6,605	7,278	7,188	7,596	7,990	8,116	84,599
Maryland	24,666	17,747	18,898	16,158	16,854	18,301	24,852	43,212	42,122	55,290	57,575	58,458	394,133
District of Columbia	24,351	21,253	22,870	22,033	23,293	23,558	23,666	23,376	22,966	23,839	24,287	26,872	282,364
Virginia	50,485	46,679	54,385	48,536	53,244	53,027	51,878	54,235	51,564	54,424	59,798	59,813	638,068
West Virginia	104,028	98,628	114,205	102,754	107,287	109,361	104,773	115,393	113,324	127,340	126,563	127,782	1,351,438
North Carolina	31,662	27,153	30,475	27,854	38,184	35,946	32,921	40,409	48,406	46,032	49,450	34,225	442,717
South Carolina	76,557	71,120	75,181	69,298	65,568	68,610	69,323	72,528	62,678	74,628	70,944	92,333	868,768
Georgia	47,453	43,416	53,996	49,782	54,461	53,733	53,469	56,380	54,895	57,217	49,761	48,697	628,260
Florida	14,553	13,546	14,254	13,237	13,079	12,053	11,812	12,092	12,343	13,702	14,260	15,479	160,410
East South Central:													
Kentucky	26,792	24,700	27,121	25,534	26,250	26,251	24,817	23,169	25,589	26,893	27,770	29,789	314,675
Tennessee	42,694	37,792	40,811	37,926	42,570	41,435	40,794	42,354	41,562	45,976	47,756	50,824	512,494
Alabama	45,912	40,672	45,707	44,846	49,960	50,250	49,507	54,921	62,523	65,509	72,856	64,795	647,458
Mississippi	5,208	4,677	4,845	4,679	4,603	4,717	4,746	4,925	5,383	5,557	5,391	5,428	60,159

West South Central:													
Arkansas	10,808	9,576	9,600	9,116	9,444	11,191	12,055	12,297	12,035	11,289	11,395	11,758	130,564
Louisiana	21,382	18,490	20,383	18,954	20,174	20,103	20,393	21,103	21,136	22,229	22,011	23,471	249,829
Oklahoma	21,871	19,419	20,507	19,474	20,666	21,080	21,541	22,310	23,150	24,639	25,259	25,925	265,841
Texas	65,036	57,097	61,892	59,000	63,479	64,533	68,117	72,286	73,985	77,092	76,120	78,155	816,792
Mountain:													
Montana	56,141	64,321	81,474	82,286	86,279	83,558	83,041	84,601	81,570	89,024	91,628	101,049	984,972
Idaho	47,659	42,111	44,205	49,522	60,068	61,667	57,744	56,208	53,365	44,291	45,700	53,243	615,783
Wyoming	3,581	3,188	3,184	3,000	2,851	2,780	2,638	2,948	3,216	3,636	3,786	4,177	38,985
Colorado	34,099	30,048	31,466	30,237	31,587	32,289	32,433	34,430	33,786	35,857	36,498	40,745	403,475
New Mexico	1,420	1,271	1,401	1,361	1,446	1,391	1,566	1,493	1,445	1,404	1,401	1,541	17,140
Arizona	7,409	8,004	11,360	11,254	13,663	14,649	15,919	15,577	14,636	12,967	10,114	9,063	144,615
Utah	3,953	3,490	3,430	4,298	6,776	10,808	17,558	18,348	17,963	18,964	20,668	19,433	145,689
Nevada	3,345	3,020	3,460	3,315	3,354	3,001	2,998	3,192	3,276	3,498	3,416	3,407	39,282
Pacific:													
Washington	111,686	96,397	104,684	97,665	104,676	102,864	106,526	113,337	105,736	107,890	113,842	120,322	1,285,625
Oregon	44,184	39,732	42,571	37,758	37,826	37,621	37,089	43,121	45,301	49,260	48,561	49,780	512,804
California	312,557	289,034	321,295	328,315	387,569	401,894	417,188	425,054	386,463	382,639	359,750	367,945	4,379,703

By the use of water power, 1922

United States	1,294,250	1,218,251	1,465,259	1,484,674	1,642,665	1,585,228	1,551,726	1,488,558	1,350,524	1,347,233	1,361,352	1,416,859	17,206,579
New England	85,204	83,153	121,148	117,921	123,526	119,294	112,097	101,883	93,924	91,854	88,097	72,374	1,210,475
Middle Atlantic	275,122	263,590	291,618	288,482	319,462	299,494	292,065	290,543	282,440	278,106	280,676	289,694	3,451,292
East North Central	102,076	93,509	136,998	144,692	154,603	135,454	125,444	109,831	113,669	111,579	121,894	113,521	1,463,170
West North Central	76,771	66,027	95,944	109,338	119,174	104,528	100,997	86,680	71,264	69,360	81,293	66,671	1,048,047
South Atlantic	159,081	154,420	174,595	159,357	174,749	170,604	166,302	166,482	147,386	158,343	153,624	165,255	1,940,198
East South Central	68,816	64,530	70,856	67,165	73,935	67,952	56,222	47,480	39,054	35,806	28,652	59,908	679,376
West South Central	731	613	725	672	679	530	558	481	417	385	452	438	6,681
Mountain	129,585	130,177	154,444	162,193	182,422	185,307	188,726	190,903	181,273	177,242	179,017	194,454	2,055,743
Pacific	397,864	362,332	418,931	434,854	494.115	502,065	509,315	494,275	421,097	424,558	437,647	454,544	5,351,597
New England:													
Maine	31,133	27,385	32,607	27,520	31,083	30,677	31,330	34,308	33,444	36,135	35,367	34,919	385,908
New Hampshire	10,275	9,622	19,119	15,905	20,320	18,811	18,909	11,494	9,809	10,292	10,358	7,532	162,446
Vermont	9,681	9,175	10,965	12,522	10,041	10,847	10,540	13,324	13,544	13,384	11,527	10,051	135,601
Massachusetts	25,595	23,983	38,156	41,932	41,910	40,069	35,815	29,369	25,050	22,526	23,134	13,608	361,147
Rhode Island	357	542	853	938	840	579	584	394	582	335	346	318	6,668
Connecticut	8,163	12,446	19,448	19,104	19,332	18,311	14,919	12,994	11,495	9,182	7,365	5,946	158,705
Middle Atlantic:													
New York	227,151	213,732	234,904	233,376	260,495	242,493	243,487	257,663	251,191	256,971	263,056	267,299	2,951,818
New Jersey	154	194	224	219	208	189	181	135	170	120	93	116	2,003
Pennsylvania	47,817	49,664	56,490	54,887	58,759	56,812	48,397	32,745	31,079	21,015	17,527	22,279	497,471
East North Central:													
Ohio	3,098	3,285	3,998	3,770	3,869	2,740	2,836	1,426	1,619	1,356	930	2,010	30,937
Indiana	4,874	4,743	5,978	5,251	6,542	5,266	3,505	2,445	2,201	2,578	2,803	3,077	49,263
Illinois	15,045	13,950	15,328	13,262	15,853	16,394	16,992	17,550	17,454	17,021	16,856	16,132	191,827
Michigan	52,571	46,916	63,427	65,135	66,036	57,496	56,945	52,723	54,381	57,942	60,674	57,876	692,122
Wisconsin	26,488	24,515	48,267	57,284	62,303	53,558	45,166	35,687	38,014	32,682	40,631	34,426	499,021

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of water power, 1922—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
West North Central:													
Minnesota	20,421	15,169	28,010	42,794	47,668	36,852	32,538	27,480	23,574	21,188	27,613	19,173	342,480
Iowa	51,240	45,470	56,041	54,346	63,076	62,116	61,905	54,257	44,816	45,372	49,385	41,919	629,943
Missouri	2,358	2,316	6,847	6,643	2,913	1,358	1,776	1,086	96	97	646	3,114	29,250
North Dakota	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	514	468	1,300	1,817	1,691	950	831	972	794	794	833	614	11,578
Nebraska	1,220	1,238	1,397	1,413	1,476	1,643	1,755	1,737	1,291	1,296	1,448	932	16,846
Kansas	1,018	1,366	2,349	2,325	2,350	1,609	2,192	1,148	693	613	1,368	919	17,950
South Atlantic:													
Maryland	243	298	383	317	289	241	280	171	110	118	98	151	2,699
Virginia	17,702	19,848	27,230	22,781	26,206	23,014	22,413	13,802	9,203	11,407	11,418	17,999	223,023
West Virginia	2,404	2,582	2,904	2,843	3,287	2,712	2,252	1,357	895	694	388	1,704	24,022
North Carolina	25,407	21,978	25,595	23,600	33,744	31,577	28,544	32,937	33,876	29,600	29,977	21,033	337,868
South Carolina	72,145	67,303	71,380	65,788	62,157	65,106	65,619	68,201	57,403	69,007	64,150	86,172	814,431
Georgia	40,458	41,752	46,486	43,425	48,535	47,247	46,343	49,126	44,935	46,584	36,693	37,458	529,042
Florida	722	659	617	603	531	707	851	888	964	933	900	738	9,113
East South Central:													
Kentucky	10	10	8	8	8	8	8	8	8	8	8	8	100
Tennessee	31,192	27,747	29,571	26,752	30,869	29,986	29,110	30,817	27,706	24,004	18,370	36,198	342,322
Alabama	36,614	36,773	41,277	40,405	43,058	37,958	27,104	16,655	11,340	11,794	10,274	23,702	336,954
West South Central:													
Arkansas	144	127	136	120	134	129	156	163	141	138	123	138	1,649
Oklahoma	155	97	220	197	166	253	220	99	68	38	121	113	1,747
Texas	432	389	369	355	379	148	182	219	208	209	208	187	3,285
Mountain:													
Montana	55,359	63,650	80,790	81,703	85,710	82,969	82,439	83,921	80,863	88,260	90,830	100,239	976,733
Idaho	47,503	41,976	44,199	49,300	59,925	61,615	57,525	56,176	53,335	44,123	45,540	53,032	614,339
Wyoming	154	134	118	149	117	112	121	138	149	135	155	152	1,634
Colorado	14,762	12,765	13,846	14,826	15,647	15,224	15,704	16,971	14,517	13,248	12,319	13,313	173,144
New Mexico	62	52	65	53	73	83	72	50	45	45	40	58	698
Arizona	4,593	5,208	8,630	8,538	10,852	11,530	12,367	12,180	11,186	9,029	6,112	4,983	105,208
Utah	3,931	3,465	3,426	4,262	6,776	10,808	17,558	18,348	17,963	18,964	20,668	19,333	145,502
Nevada	3,221	2,927	3,370	3,270	3,322	2,966	2,940	3,119	3,215	3,438	3,353	3,344	38,485
Pacific:													
Washington	107,821	90,047	92,463	95,267	102,712	100,882	104,842	109,062	98,181	96,298	108,010	103,741	1,209,326
Oregon	35,414	31,925	34,889	32,590	32,596	31,650	29,160	26,847	23,690	25,501	29,551	31,460	365,273
California	254,629	240,360	291,579	306,997	358,807	369,533	375,313	358,366	299,226	302,759	300,086	319,343	3,776,998

By the use of fuels, 1922

United States	2,512,881	2,245,041	2,353,525	2,108,092	2,176,030	2,247,392	2,314,330	2,580,527	2,691,632	2,981,427	3,047,085	3,188,586	30,446,548
New England	236,145	203,016	189,182	152,085	156,056	162,575	173,927	200,068	209,368	251,381	269,862	315,733	2,519,398
Middle Atlantic	809,435	713,944	782,838	702,618	718,988	729,673	739,918	782,066	806,893	895,420	927,895	1,000,900	9,610,588
East North Central	753,543	695,850	745,382	695,233	714,428	729,648	735,848	798,630	806,447	885,978	907,820	944,293	9,413,100
West North Central	222,325	200,294	185,318	157,837	160,493	178,721	189,791	222,807	230,545	256,300	246,350	269,634	2,520,415
South Atlantic	221,692	196,550	216,365	196,663	203,975	210,547	212,997	258,421	268,100	301,725	317,004	306,520	2,910,559
East South Central	52,790	43,311	47,628	45,820	49,448	54,701	63,642	77,889	96,003	108,129	125,121	90,928	355,410
West South Central	118,366	103,969	111,657	105,872	113,084	116,377	121,548	127,515	129,889	134,864	134,333	138,871	1,456,345
Mountain	28,022	25,276	25,536	23,080	23,602	24,836	25,171	25,894	27,984	32,399	34,194	38,204	334,198
Pacific	70,563	62,831	49,619	28,884	35,956	40,314	51,488	87,237	116,403	115,231	84,506	83,503	826,535
New England:													
Maine	1,877	2,196	549	141	66	99	164	496	451	2,099	3,615	7,341	19,094
New Hampshire	3,636	2,876	2,130	1,915	2,124	2,299	2,359	2,830	2,513	2,766	3,016	4,661	33,125
Vermont	71	95	17	13	0	1	122	124	282	350	102	514	1,691
Massachusetts	137,665	120,202	117,244	96,614	98,595	100,839	102,283	118,101	119,691	142,323	152,928	182,279	1,488,764
Rhode Island	41,931	36,073	26,738	19,460	19,927	21,833	28,178	30,313	36,752	44,304	47,196	52,064	404,769
Connecticut	50,965	41,574	42,504	33,942	35,344	37,504	40,821	48,204	49,679	59,539	63,005	68,874	571,955
Middle Atlantic:													
New York	389,969	336,665	358,664	329,268	334,101	337,303	344,357	360,595	365,473	416,683	427,570	468,312	4,468,960
New Jersey	95,299	82,138	89,275	81,226	83,623	83,522	85,663	94,505	93,673	102,474	105,187	113,850	1,110,435
Pennsylvania	324,167	295,141	334,899	292,124	301,264	308,848	309,898	326,966	347,747	376,263	395,138	418,738	4,031,193
East North Central:													
Ohio	228,956	213,475	238,252	224,914	239,057	242,003	237,360	264,700	258,413	282,118	287,558	295,145	3,011,951
Indiana	80,246	74,781	79,750	76,560	77,855	78,424	81,619	87,564	89,939	96,688	99,810	104,445	1,027,681
Illinois	279,842	253,273	274,295	250,370	246,385	246,844	250,314	258,029	276,423	303,344	319,977	332,009	3,291,105
Michigan	114,640	108,989	109,401	102,751	110,461	121,005	120,665	136,572	131,512	142,389	140,231	149,206	1,487,822
Wisconsin	49,859	45,332	43,684	40,638	40,670	41,372	45,890	51,765	50,160	61,439	60,244	63,488	594,541
West North Central:													
Minnesota	51,877	45,862	30,591	11,862	10,743	20,674	30,254	43,609	43,879	54,047	47,539	54,172	445,109
Iowa	35,518	31,159	32,904	29,329	29,670	30,970	31,753	35,147	36,145	39,049	38,889	41,477	412,010
Missouri	67,568	62,171	62,852	61,760	61,530	61,932	62,153	69,509	74,289	83,183	81,639	93,250	841,776
North Dakota	2,935	2,512	2,490	2,097	2,056	2,211	2,523	2,760	2,791	3,130	3,286	3,523	32,314
South Dakota	4,221	3,690	3,211	2,466	2,640	3,381	3,641	3,863	4,036	4,206	4,191	4,960	44,506
Nebraska	21,752	19,723	21,438	19,963	21,314	21,963	21,754	23,252	23,386	23,780	23,185	25,219	266,729
Kansas	38,514	35,177	31,832	30,360	32,540	37,590	37,713	44,667	46,019	48,905	47,621	47,033	477,971
South Atlantic:													
Delaware	7,018	6,428	6,696	6,368	6,754	6,562	6,605	7,278	7,188	7,596	7,990	8,116	84,599
Maryland	24,423	17,449	18,515	15,841	16,565	18,060	24,572	43,041	42,012	55,172	57,477	58,307	391,434
District of Columbia	24,351	21,253	22,870	22,033	23,293	23,558	23,666	23,376	22,966	23,839	24,287	26,872	282,364
Virginia	32,783	26,831	27,155	25,755	27,038	30,013	29,465	40,433	42,361	43,017	48,380	41,814	415,045
West Virginia	101,624	96,046	111,301	99,911	104,000	106,649	102,521	114,036	112,429	126,646	126,175	126,078	1,327,416
North Carolina	6,255	5,175	4,880	4,254	4,440	4,369	4,377	7,472	14,530	16,432	19,473	13,192	104,849
South Carolina	4,412	3,817	3,801	3,510	3,411	3,504	3,704	4,327	5,275	5,621	6,794	6,161	54,337
Georgia	6,995	6,664	7,510	6,357	5,926	6,486	7,126	7,254	9,960	10,633	13,068	11,239	99,218
Florida	13,831	12,887	13,637	12,634	12,548	11,346	10,961	11,204	11,379	12,769	13,360	14,741	151,297

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of fuels, 1922—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
East South Central:													
Kentucky	26,782	24,690	27,113	25,526	26,242	26,243	24,809	23,161	25,581	26,885	27,762	29,781	314,575
Tennessee	11,502	10,045	11,240	11,174	11,701	11,449	11,684	11,537	13,856	21,972	29,386	14,626	170,172
Alabama	9,298	3,899	4,430	4,441	6,902	12,292	22,403	38,266	51,183	53,715	62,582	41,093	310,504
Mississippi	5,208	4,677	4,845	4,679	4,603	4,717	4,746	4,925	5,383	5,557	5,391	5,428	60,159
West South Central:													
Arkansas	10,664	9,449	9,464	8,996	9,310	11,062	11,899	12,134	11,894	11,151	11,272	11,620	128,915
Louisiana	21,382	18,490	20,383	18,954	20,174	20,103	20,393	21,103	21,136	22,229	22,011	23,471	249,829
Oklahoma	21,716	19,322	20,287	19,277	20,500	20,827	21,321	22,211	23,082	24,601	25,138	25,812	264,094
Texas	64,604	56,708	61,523	58,645	63,100	64,385	67,935	72,067	73,777	76,883	75,912	77,968	813,507
Mountain:													
Montana	782	671	684	583	569	589	602	680	707	764	798	810	8,239
Idaho	156	135	6	132	143	52	219	32	30	168	160	211	1,444
Wyoming	3,427	3,054	3,066	2,851	2,734	2,668	2,517	2,810	3,067	3,501	3,631	4,025	37,351
Colorado	19,337	17,283	17,620	15,409	15,940	17,065	16,729	17,459	19,269	22,609	24,179	27,432	230,331
New Mexico	1,358	1,219	1,336	1,308	1,373	1,308	1,494	1,443	1,400	1,359	1,361	1,483	16,442
Arizona	2,816	2,796	2,730	2,716	2,811	3,119	3,552	3,397	3,450	3,938	4,002	4,080	39,407
Utah	22	25	4	36	0	0	0	0	0	0	0	100	187
Nevada	124	93	90	45	32	35	58	73	61	60	63	63	797
Pacific:													
Washington	3,865	6,350	12,221	2,398	1,964	1,982	1,684	4,275	7,555	11,592	5,832	16,581	76,299
Oregon	8,770	7,807	7,682	5,168	5,230	5,971	7,929	16,274	21,611	23,759	19,010	18,320	147,531
California	57,928	48,674	29,716	21,318	28,762	32,361	41,875	66,688	87,237	79,880	59,664	48,602	602,705

Total, 1923

United States	4,736,033	4,311,289	4,708,202	4,456,988	4,635,041	4,499,279	4,509,848	4,637,565	4,503,109	4,911,937	4,812,606	4,942,650	55,664,547
New England	403,301	361,448	385,777	348,011	346,813	328,968	324,440	332,371	328,043	372,568	367,376	376,836	4,275,952
Middle Atlantic	1,357,582	1,228,301	1,327,760	1,256,948	1,285,486	1,233,569	1,209,186	1,224,295	1,199,560	1,346,781	1,335,874	1,403,937	15,409,279
East North Central	1,095,147	1,000,735	1,082,194	1,023,996	1,043,906	1,017,824	1,011,225	1,051,292	1,030,235	1,135,542	1,119,408	1,151,311	12,762,815
West North Central	341,223	308,178	333,288	314,575	328,255	314,820	317,323	335,609	330,451	362,560	343,034	347,310	3,976,566
South Atlantic	473,629	437,719	478,956	453,482	467,401	467,558	447,258	493,198	470,461	510,978	506,105	491,056	5,727,807
East South Central	150,951	138,296	156,007	146,697	153,764	145,505	145,842	155,779	158,807	181,113	172,831	165,386	1,870,978
West South Central	139,872	126,907	136,162	129,551	134,135	134,671	139,754	147,878	145,408	154,385	149,669	154,674	1,693,066
Mountain	227,172	214,004	234,002	229,929	249,270	241,231	249,468	251,876	236,891	230,834	230,972	243,374	2,839,023
Pacific	547,156	495,701	274,056	553,799	626,005	615,133	635,352	645,267	603,253	617,236	587,337	608,766	7,109,061

New England:													
Maine	44,961	40,026	40,609	37,503	37,249	35,112	35,351	35,103	33,659	38,155	36,977	38,184	452,889
New Hampshire	17,889	12,643	17,233	19,887	23,760	15,976	12,025	10,683	11,142	13,919	17,972	22,670	195,799
Vermont	14,391	13,953	13,429	15,365	14,229	11,948	10,549	9,666	10,103	12,507	13,775	15,490	155,405
Massachusetts	201,884	178,394	193,980	171,881	168,382	155,995	153,247	154,788	157,195	183,054	184,445	189,926	2,093,171
Rhode Island	47,603	45,949	44,239	32,728	32,688	40,242	43,862	52,109	47,384	51,903	42,801	35,722	517,230
Connecticut	76,573	70,483	76,287	70,647	70,505	69,695	69,406	70,022	68,560	73,030	71,406	74,844	861,458
Middle Atlantic:													
New York	756,722	680,495	726,050	707,643	719,046	699,953	692,823	700,295	692,365	772,492	766,407	803,941	8,718,232
New Jersey	115,513	104,741	113,673	100,981	101,080	99,357	100,609	85,473	89,502	112,806	112,752	114,347	1,250,834
Pennsylvania	485,347	443,065	488,037	448,324	465,360	434,259	415,754	438,527	417,693	461,483	456,715	485,649	5,440,213
East North Central:													
Ohio	313,556	288,085	303,770	292,203	297,482	287,614	278,497	296,822	287,480	317,618	312,301	312,999	3,587,827
Indiana	112,053	103,720	105,681	99,222	101,643	101,037	98,643	102,538	101,373	110,205	110,627	112,362	1,259,104
Illinois	349,701	318,816	350,008	316,340	316,534	314,392	320,442	335,968	329,113	369,678	362,280	383,334	4,066,606
Michigan	220,292	200,124	221,158	204,129	210,615	202,596	203,438	211,950	209,669	230,931	229,969	235,795	2,580,666
Wisconsin	99,545	89,990	101,577	112,102	117,632	112,185	110,205	104,014	102,600	107,710	104,231	106,821	1,268,612
West North Central:													
Minnesota	75,739	69,933	71,578	64,644	71,273	60,455	63,520	74,244	72,028	80,560	77,783	76,463	858,220
Iowa	86,427	75,338	101,276	98,260	102,349	100,407	95,346	87,675	90,039	98,411	86,277	88,521	1,110,326
Missouri	97,124	90,357	85,488	77,333	82,077	80,681	81,358	89,156	85,554	95,356	96,838	99,562	1,060,884
North Dakota	3,461	2,938	2,944	2,322	2,118	2,662	2,949	3,067	3,156	3,388	3,561	3,550	36,116
South Dakota	5,581	4,645	4,944	4,530	4,668	4,762	4,850	5,039	5,163	5,775	5,802	6,297	62,056
Nebraska	25,812	23,231	24,698	24,110	25,344	25,638	26,856	28,110	27,732	29,159	27,527	28,604	316,821
Kansas	47,079	41,736	42,360	43,376	40,426	40,215	42,444	48,318	46,779	49,851	45,246	44,313	532,143
South Atlantic:													
Delaware	7,839	7,113	7,854	7,093	6,438	7,500	7,891	8,035	7,636	7,859	7,527	7,482	90,267
Maryland	37,475	30,177	31,044	26,117	26,343	39,994	53,305	56,186	55,139	65,361	57,283	32,136	510,560
District of Columbia	26,689	23,863	24,927	23,056	24,509	25,078	24,879	25,020	24,806	25,756	25,799	26,916	301,298
Virginia	55,840	52,104	62,350	59,316	60,866	64,343	61,718	63,960	61,226	64,287	61,748	61,898	729,656
West Virginia	137,576	124,098	142,712	137,166	146,242	140,876	145,391	149,171	136,054	155,956	147,088	148,553	1,710,883
North Carolina	45,721	37,624	39,287	40,445	44,687	49,247	52,664	49,333	59,807	78,878	71,194	63,483	632,370
South Carolina	90,823	91,661	92,484	87,503	84,744	71,173	65,662	72,238	60,707	46,804	60,402	70,997	895,198
Georgia	55,463	55,676	61,876	56,634	59,071	55,733	52,302	55,655	51,522	50,641	58,837	61,853	675,263
Florida	16,203	15,403	16,422	16,152	14,507	13,614	13,446	13,600	13,564	15,436	16,227	17,738	182,312
East South Central:													
Kentucky	29,599	26,966	28,192	27,032	27,924	27,455	28,389	30,162	29,268	32,039	32,145	33,117	352,288
Tennessee	54,645	49,332	61,965	51,561	53,720	50,152	52,116	56,269	51,436	56,322	56,800	55,121	649,439
Alabama	61,280	56,943	60,602	63,103	67,081	62,797	60,277	63,872	72,534	86,681	77,922	71,233	804,325
Mississippi	5,427	5,055	5,248	5,001	5,039	5,101	5,060	5,476	5,569	6,071	5,964	5,915	64,926
West South Central:													
Arkansas	11,802	11,465	11,624	11,598	11,218	11,632	13,056	13,334	12,278	13,615	12,944	13,209	147,775
Louisiana	24,034	21,407	23,446	22,126	23,242	23,007	22,959	23,533	22,897	24,815	25,117	25,997	282,580
Oklahoma	25,804	21,993	23,823	22,103	23,076	23,123	23,880	24,776	23,362	25,768	25,948	26,841	290,497
Texas	78,232	72,042	77,269	73,724	76,599	76,909	79,859	86,235	86,871	90,187	85,660	88,627	972,214
Mountain:													
Montana	95,746	94,028	104,017	98,124	98,291	94,834	96,297	98,751	85,888	85,838	90,229	96,509	1,138,552
Idaho	51,680	51,047	54,702	50,701	62,255	58,191	68,228	66,429	67,737	52,159	52,374	59,449	694,952
Wyoming	4,114	3,673	3,850	3,719	3,868	3,616	3,880	4,097	4,245	4,587	4,568	4,636	48,853
Colorado	37,853	35,106	37,270	35,333	37,910	36,878	37,640	39,794	39,207	41,909	40,863	41,825	461,588
New Mexico	1,525	1,339	1,420	1,389	1,560	1,504	1,544	1,562	1,486	1,627	1,622	1,690	18,268
Arizona	11,767	9,451	12,146	16,132	17,023	16,089	14,489	14,791	13,421	13,145	9,549	9,220	157,223

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

Total, 1923—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
Mountain—Continued.													
Utah	20,556	15,797	16,748	20,804	24,347	26,297	23,418	22,344	20,960	27,356	27,857	26,055	272,539
Nevada	3,931	3,563	3,849	3,727	4,016	3,822	3,972	4,108	3,947	4,213	3,910	3,990	47,048
Pacific:													
Washington	128,703	114,851	123,333	116,110	123,852	116,395	119,469	121,000	115,926	118,097	119,466	129,348	1,446,550
Oregon	48,274	43,664	46,400	43,615	46,858	45,643	47,137	49,819	52,287	57,092	55,910	57,750	594,449
California	370,179	337,186	404,323	394,074	455,295	453,095	468,746	474,448	435,040	442,047	411,961	421,668	5,068,062

By the use of water power, 1923

United States	1,600,773	1,454,999	1,699,922	1,767,845	1,902,730	1,734,860	1,625,895	1,541,602	1,434,598	1,436,985	1,476,388	1,665,916	19,342,513
New England	127,504	96,886	124,267	137,591	140,038	99,921	72,928	58,268	59,825	78,835	115,490	142,347	1,253,900
Middle Atlantic	349,412	313,603	350,199	386,761	401,359	349,729	307,840	297,144	293,605	313,198	337,922	410,610	4,111,382
East North Central	112,732	96,156	130,096	152,325	165,192	147,665	136,314	112,860	119,988	119,292	117,779	126,609	1,537,008
West North Central	70,801	62,823	95,019	111,211	128,752	113,157	104,712	83,929	80,760	86,311	74,981	73,126	1,085,582
South Atlantic	190,896	192,980	204,459	188,969	191,590	174,477	158,059	165,594	147,039	119,604	145,357	171,871	2,050,895
East South Central	77,762	78,549	91,268	91,518	98,751	91,980	89,661	90,890	64,504	40,738	56,839	101,211	973,671
West South Central	438	400	465	701	731	709	855	899	991	768	767	766	8,490
Mountain	192,170	180,335	199,388	199,500	219,725	212,226	220,270	222,225	205,563	194,960	193,621	202,307	2,442,290
Pacific	479,058	433,267	504,761	499,269	556,592	544,996	535,256	509,793	462,323	483,279	433,632	437,069	5,879,295
New England:													
Maine	41,544	35,207	35,918	36,745	35,846	34,220	33,053	30,183	27,147	30,764	33,013	37,323	410,963
New Hampshire	14,537	9,135	14,706	18,099	21,995	13,521	8,328	6,543	6,924	9,423	14,876	20,392	158,479
Vermont	14,344	13,307	13,130	15,048	13,986	11,667	9,556	8,013	8,677	11,078	13,551	15,379	147,736
Massachusetts	37,283	25,002	37,714	45,138	45,966	27,488	16,007	9,749	12,304	19,767	36,326	44,916	357,660
Rhode Island	790	545	808	839	683	335	234	184	112	205	326	890	5,951
Connecticut	19,006	13,690	21,991	21,722	21,562	12,690	5,750	3,596	4,661	7,598	17,398	23,447	173,111
Middle Atlantic:													
New York	298,237	261,812	287,131	323,407	333,593	305,184	282,704	267,208	264,294	285,486	302,491	345,661	3,557,208
New Jersey	198	166	226	211	219	157	104	68	58	95	146	229	1,877
Pennsylvania	50,977	51,625	62,842	63,143	67,547	44,388	25,032	29,868	29,253	27,617	35,285	64,720	552,297

East North Central:													
Ohio	4,376	3,261	3,521	3,498	3,220	2,264	1,990	1,896	1,906	1,346	2,096	4,251	33,625
Indiana	4,192	4,041	6,796	5,860	4,756	3,512	2,854	2,280	2,989	2,973	3,342	5,259	48,854
Illinois	16,393	13,806	15,227	15,029	16,712	16,413	16,534	16,562	17,567	17,784	16,848	17,317	196,192
Michigan	56,959	49,529	66,576	69,747	71,760	60,505	55,790	52,868	57,425	58,862	57,859	62,429	720,309
Wisconsin	30,812	25,519	37,976	58,191	68,744	64,971	59,146	39,254	40,101	38,327	37,634	37,353	538,028
West North Central:													
Minnesota	17,867	15,070	19,908	37,759	49,092	35,954	37,721	30,859	25,236	23,759	19,645	14,752	327,622
Iowa	44,810	38,741	63,843	63,464	66,898	64,856	58,732	47,770	50,313	56,030	44,517	45,098	645,072
Missouri	4,983	5,940	6,993	5,160	7,296	6,548	2,725	582	577	1,198	5,312	7,733	55,047
South Dakota	594	477	595	1,043	1,051	1,265	1,087	802	719	784	748	457	9,622
Nebraska	1,133	1,267	1,365	1,753	2,086	2,047	2,055	2,035	2,166	2,337	2,297	2,197	22,738
Kansas	1,414	1,328	2,315	2,032	2,329	2,487	2,392	1,881	1,749	2,203	2,462	2,889	25,481
South Atlantic:													
Maryland	219	207	302	270	214	144	86	19	20	27	114	232	1,854
Virginia	21,315	24,124	25,970	20,985	21,786	18,388	12,656	15,830	11,470	7,710	11,685	18,341	210,260
West Virginia	2,681	2,679	3,183	3,005	2,667	1,433	966	1,564	1,310	519	1,156	2,057	23,220
North Carolina	33,112	30,442	33,031	31,935	34,565	38,286	36,526	31,211	33,787	35,417	28,373	30,677	397,362
South Carolina	85,565	86,767	87,540	82,816	80,241	66,759	61,548	67,756	55,734	39,571	54,151	66,037	834,485
Georgia	47,221	48,125	53,906	49,542	51,544	48,621	45,363	48,241	43,787	35,239	49,033	53,872	574,494
Florida	783	636	527	416	573	846	914	973	931	1,121	845	655	9,220
East South Central:													
Kentucky	8	8	8	8	8	8	8	8	8	8	8	8	96
Tennessee	40,499	36,095	44,115	38,988	40,479	37,640	38,891	42,516	35,761	24,059	26,295	36,932	442,270
Alabama	37,255	42,446	47,145	52,522	58,264	54,332	50,762	48,366	28,735	16,671	30,536	64,271	531,305
West South Central:													
Arkansas	122	105	112	103	107	109	142	193	254	135	182	316	1,880
Oklahoma	121	120	166	206	126	121	242	231	97	8	17	33	1,488
Texas	195	175	187	392	498	479	471	475	640	625	568	417	5,122
Mountain:													
Montana	94,954	93,280	103,249	97,436	97,564	94,159	95,568	98,062	85,157	85,062	89,458	95,683	1,129,632
Idaho	51,510	50,903	54,536	50,578	62,135	58,077	68,094	66,287	67,597	52,019	52,198	59,366	693,300
Wyoming	367	318	326	310	357	326	484	489	581	653	649	579	5,439
Colorado	13,812	11,470	12,826	14,976	19,251	18,610	19,285	21,240	19,035	20,970	18,897	16,804	207,185
New Mexico	57	71	73	74	60	59	55	58	55	75	81	70	788
Arizona	7,076	5,030	7,885	11,635	12,105	10,892	10,020	9,776	8,878	7,589	4,153	4,165	99,204
Utah	20,556	15,797	16,712	20,804	24,247	26,297	22,853	22,306	20,416	24,458	24,321	21,728	260,495
Nevada	3,829	3,466	3,781	3,687	4,006	3,806	3,911	4,007	3,844	4,134	3,864	3,912	46,247
Pacific:													
Washington	124,312	108,248	118,714	113,807	121,518	113,981	116,699	117,344	103,063	102,366	98,852	119,402	1,358,306
Oregon	38,002	33,306	37,361	35,354	38,312	37,857	36,715	30,444	27,224	32,634	31,707	42,799	421,715
California	316,744	291,713	348,686	350,108	396,762	393,158	381,842	362,005	332,036	348,279	303,073	274,868	4,099,274

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of fuels, 1923

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
United States	3,135,260	2,856,290	3,008,280	2,689,143	2,732,311	2,764,419	2,883,953	3,095,963	3,068,511	3,474,952	3,336,218	3,276,734	36,322,034
New England	275,797	264,562	261,510	210,420	206,775	229,047	251,512	274,103	268,218	293,733	251,886	234,489	3,022,052
Middle Atlantic	1,008,170	914,698	977,561	870,187	884,127	883,840	901,346	927,151	905,955	1,033,583	997,952	993,327	11,297,897
East North Central	982,415	904,579	952,098	871,671	878,714	870,159	874,911	938,432	910,247	1,016,250	1,001,629	1,024,702	11,225,807
West North Central	270,422	245,355	238,269	203,364	199,503	201,663	212,611	251,680	249,691	276,189	268,053	274,184	2,890,984
South Atlantic	282,733	244,739	274,497	264,513	275,817	293,081	319,199	327,604	323,422	391,374	360,748	319,185	3,676,912
East South Central	73,189	59,747	64,739	55,179	55,013	53,525	56,181	64,889	94,303	140,375	115,992	64,175	897,307
West South Central	139,434	126,507	135,697	128,850	133,404	133,962	138,899	146,979	144,417	153,617	148,902	153,908	1,684,576
Mountain	35,002	33,669	34,614	30,429	29,545	29,005	29,198	29,651	31,328	35,874	37,351	41,067	396,733
Pacific	68,098	62,434	69,295	54,530	69,413	70,137	100,096	135,474	140,930	133,957	153,705	171,697	1,229,766
New England:													
Maine	3,417	4,819	4,691	758	1,403	892	2,298	4,920	6,512	7,391	3,964	861	41,926
New Hampshire	3,352	3,508	2,527	1,788	1,765	2,455	3,697	4,140	4,218	4,496	3,096	2,278	37,320
Vermont	47	646	299	317	243	281	993	1,653	1,426	1,429	224	111	7,669
Massachusetts	164,601	153,392	156,266	126,743	122,416	128,507	137,240	145,039	144,891	163,287	148,119	145,010	1,735,511
Rhode Island	46,813	45,404	43,431	31,889	32,005	39,907	43,628	51,925	47,272	51,698	42,475	34,832	511,279
Connecticut	57,567	56,793	54,296	48,925	48,943	57,005	63,656	66,426	63,899	65,432	54,008	51,397	688,347
Middle Atlantic:													
New York	458,485	418,683	438,919	384,236	385,453	394,769	410,119	433,087	428,071	487,006	463,916	458,280	5,161,024
New Jersey	115,315	104,575	113,447	100,770	100,861	99,200	100,505	85,405	89,444	112,711	112,606	114,118	1,248,957
Pennsylvania	434,370	391,440	425,195	385,181	397,813	389,871	390,722	408,659	388,440	433,866	421,430	420,929	4,887,916
East North Central:													
Ohio	309,180	284,824	300,249	288,705	294,262	285,350	276,507	294,926	285,574	315,672	310,205	308,748	3,554,202
Indiana	107,861	99,679	98,885	93,362	96,887	97,525	95,789	100,258	98,384	107,232	107,285	107,103	1,210,250
Illinois	333,308	305,010	334,781	301,311	299,822	297,979	303,908	319,406	311,546	351,894	345,432	366,017	3,870,414
Michigan	163,333	150,595	154,582	134,382	138,855	142,091	147,648	159,082	152,244	172,069	172,110	173,366	1,860,357
Wisconsin	68,733	64,471	63,601	53,911	48,888	47,214	51,059	64,760	62,499	69,383	66,597	69,468	730,584
West North Central:													
Minnesota	57,872	54,863	51,670	26,885	22,181	24,501	25,799	43,385	46,792	56,801	58,138	61,711	530,598
Iowa	41,617	36,597	37,433	34,796	35,451	35,551	36,614	39,905	39,726	42,381	41,760	43,423	465,254
Missouri	92,141	84,417	78,495	72,173	74,781	74,133	78,633	88,574	84,977	94,158	91,526	91,829	1,005,837
North Dakota	3,461	2,938	2,944	2,322	2,118	2,662	2,949	3,067	3,156	3,388	3,561	3,550	36,116
South Dakota	4,987	4,168	4,349	3,487	3,617	3,497	3,763	4,237	4,444	4,991	5,054	5,840	52,434
Nebraska	24,679	21,964	23,333	22,357	23,258	23,591	24,801	26,075	25,566	26,822	25,230	26,407	294,083
Kansas	45,665	40,408	40,045	41,344	38,097	37,728	40,052	46,437	45,030	47,648	42,784	41,424	506,662

South Atlantic:													
Delaware	7,839	7,113	7,854	7,093	6,438	7,500	7,891	8,035	7,636	7,859	7,527	7,482	90,267
Maryland	37,256	29,970	30,742	25,847	26,129	39,850	53,219	56,167	55,119	65,334	57,169	31,904	508,706
District of Columbia	26,689	23,863	24,927	23,056	24,509	25,078	24,879	25,020	24,806	25,756	25,799	26,916	301,298
Virginia	34,525	27,980	36,380	38,331	39,080	45,955	49,062	48,130	49,756	56,577	50,063	43,557	519,396
West Virginia	134,895	121,419	139,529	134,161	143,575	139,443	144,425	147,607	134,744	155,437	145,932	146,496	1,687,663
North Carolina	12,609	7,182	6,256	8,510	10,122	10,961	16,138	18,122	26,020	43,461	42,821	32,806	235,008
South Carolina	5,258	4,894	4,944	4,687	4,503	4,414	4,114	4,482	4,973	7,233	6,251	4,960	60,713
Georgia	8,242	7,551	7,970	7,092	7,527	7,112	6,939	7,414	7,735	15,402	9,804	7,981	100,769
Florida	15,420	14,767	15,895	15,736	13,934	12,768	12,532	12,627	12,633	14,315	15,382	17,083	173,092
East South Central:													
Kentucky	29,591	26,958	28,184	27,024	27,916	27,447	28,381	30,154	29,260	32,031	32,137	33,109	352,192
Tennessee	14,146	13,237	17,850	12,573	13,241	12,512	13,225	13,753	15,675	32,263	30,505	18,189	207,169
Alabama	24,025	14,497	13,457	10,581	8,817	8,465	9,515	15,506	43,799	70,010	47,386	6,962	273,020
Mississippi	5,427	5,055	5,248	5,001	5,039	5,101	5,060	5,476	5,569	6,071	5,964	5,915	64,926
West South Central:													
Arkansas	11,680	11,360	11,512	11,495	11,111	11,523	12,914	13,141	12,024	13,480	12,762	12,893	145,895
Louisiana	24,034	21,407	23,446	22,126	23,242	23,007	22,959	23,533	22,897	24,815	25,117	25,997	282,580
Oklahoma	25,683	21,873	23,657	21,897	22,950	23,002	23,638	24,545	23,265	25,760	25,931	26,808	289,009
Texas	78,037	71,867	77,082	73,332	76,101	76,430	79,388	85,760	86,231	89,562	85,092	88,210	967,092
Mountain:													
Montana	792	748	768	688	727	675	729	689	731	776	771	826	8,920
Idaho	170	144	166	123	120	114	134	142	140	140	176	83	1,652
Wyoming	3,747	3,355	3,524	3,409	3,511	•3,290	3,396	3,608	3,664	3,934	3,919	4,057	43,414
Colorado	24,032	23,636	24,444	20,357	18,659	18,268	18,355	18,554	20,172	20,939	21,966	25,021	254,403
New Mexico	1,468	1,268	1,347	1,315	1,500	1,445	1,489	1,504	1,431	1,552	1,541	1,620	17,480
Arizona	4,691	4,421	4,261	4,497	4,918	5,197	4,469	5,015	4,543	5,556	5,396	5,055	58,019
Utah	0	0	36	0	100	0	565	38	544	2,898	3,536	4,327	12,044
Nevada	102	97	68	40	10	16	61	101	106	79	46	78	801
Pacific:													
Washington	4,391	6,603	4,619	2,303	2,334	2,414	2,770	3,656	12,863	15,731	20,614	9,946	88,244
Oregon	10,272	10,358	9,039	8,261	8,546	7,786	10,422	19,375	25,063	24,458	24,203	14,951	172,734
California	53,435	45,473	55,637	43,966	58,533	59,937	86,904	112,443	103,004	93,768	108,888	146,800	968,788

Total, 1924

United States	5,192,594	4,845,738	4,992,365	4,739,501	4,787,565	4,547,307	4,604,326	4,727,458	4,795,075	5,188,057	5,056,569	5,537,035	59,013,590
New England	397,465	374,728	370,094	345,058	331,446	307,959	311,020	334,466	352,695	390,604	386,339	432,679	4,334,553
Middle Atlantic	1,459,943	1,345,133	1,397,713	1,335,962	1,319,721	1,242,219	1,251,556	1,268,999	1,281,792	1,433,808	1,400,015	1,568,874	16,305,735
East North Central	1,233,799	1,143,354	1,188,422	1,130,027	1,107,266	1,019,668	1,033,913	1,087,175	1,118,325	1,206,699	1,191,979	1,330,482	13,791,109
West North Central	354,990	322,915	325,792	294,965	309,932	308,690	321,341	316,548	316,333	352,571	344,184	365,905	3,934,166
South Atlantic	541,013	507,971	510,031	474,839	459,085	436,157	439,225	465,445	503,226	548,548	524,875	555,511	5,965,876
East South Central	176,727	169,229	167,638	159,178	164,190	158,562	159,381	165,545	166,359	183,766	186,014	191,009	2,047,595
West South Central	158,852	146,882	151,587	146,532	150,811	153,395	162,258	165,916	166,563	176,289	168,010	175,978	1,923,078
Mountain	250,721	234,467	242,400	236,078	252,808	249,910	256,281	258,595	247,713	241,586	236,045	256,477	2,963,081
Pacific	619,082	601,059	638,688	616,862	692,356	670,747	669,351	664,769	642,069	654,184	619,108	660,120	7,748,395

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

Total, 1924—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
New England:													
Maine	39,434	39,246	41,375	39,034	37,564	35,749	33,148	37,166	39,450	45,441	41,548	44,466	473,671
New Hampshire	21,060	15,625	18,731	21,074	21,598	15,446	14,728	15,382	18,561	17,298	16,494	19,809	215,806
Vermont	16,220	13,737	14,058	13,448	17,072	18,873	22,467	22,888	20,487	24,998	17,448	22,097	223,793
Massachusetts	199,174	181,042	182,525	169,478	158,914	144,287	148,319	160,697	169,908	185,621	182,843	215,190	2,097,998
Rhode Island	41,875	50,470	35,702	30,560	26,542	28,439	27,265	28,099	30,552	37,738	47,670	42,581	427,493
Connecticut	79,652	74,608	77,703	71,464	69,756	65,165	65,093	70,234	73,737	79,508	80,336	88,536	895,792
Middle Atlantic:													
New York	817,996	756,045	785,196	758,302	747,338	709,076	719,914	736,979	752,250	819,597	799,169	886,707	9,288,569
New Jersey	116,512	106,554	108,370	100,679	97,838	93,942	98,318	103,003	106,936	117,455	118,592	136,098	1,304,297
Pennsylvania	525,435	482,534	504,147	476,981	474,545	439,201	433,324	429,017	422,606	496,756	482,254	546,069	5,712,869
East North Central:													
Ohio	337,961	314,423	323,150	301,315	290,843	270,754	274,275	287,292	303,624	325,894	314,462	357,869	3,701,562
Indiana	116,983	108,332	110,775	102,643	99,329	95,957	101,128	102,047	105,021	115,509	113,571	126,381	1,297,676
Illinois	418,460	383,800	399,906	369,471	369,303	343,591	350,081	366,827	373,591	407,594	414,282	468,566	4,665,472
Michigan	254,041	236,223	243,568	223,970	213,540	197,226	202,521	207,201	214,881	230,935	224,124	248,418	2,696,648
Wisconsin	106,354	100,576	111,023	132,628	134,251	112,140	105,908	123,808	121,508	126,767	125,540	129,248	1,429,751
West North Central:													
Minnesota	81,777	71,259	68,629	53,795	62,841	67,787	78,467	62,719	68,869	79,676	82,363	91,684	869,866
Iowa	75,640	86,928	104,722	98,485	102,753	99,242	98,223	102,988	102,828	109,183	100,868	93,208	1,175,068
Missouri	110,730	86,100	73,634	66,877	68,029	67,389	65,086	66,639	64,563	68,367	66,845	84,496	888,755
North Dakota	3,607	3,199	3,097	2,646	2,745	2,938	3,175	3,230	3,317	3,641	3,744	3,957	39,296
South Dakota	6,114	5,410	5,388	4,940	4,966	4,856	5,217	5,331	5,481	5,790	5,892	6,524	65,909
Nebraska	28,680	26,161	26,580	25,407	26,454	25,782	27,942	29,174	28,831	31,065	30,132	31,694	337,902
Kansas	48,442	43,858	43,742	42,815	42,144	40,696	43,231	46,467	42,444	54,849	54,340	54,342	557,370
South Atlantic:													
Delaware	7,933	7,382	7,449	6,974	6,825	6,747	6,837	6,630	7,196	7,244	7,692	9,068	87,977
Maryland	39,015	40,128	31,042	27,653	26,037	24,762	29,026	47,934	56,055	43,908	58,239	58,547	482,346
District of Columbia	27,673	25,752	26,249	24,838	25,923	25,504	23,675	26,240	25,535	26,564	27,104	30,170	315,227
Virginia	66,081	62,418	63,893	60,317	60,251	58,283	59,422	60,209	59,531	65,343	62,597	65,323	743,668
West Virginia	161,726	156,257	160,471	143,493	139,575	133,548	133,254	136,763	143,668	158,965	144,228	150,789	1,762,737
North Carolina	66,081	55,927	46,057	40,849	40,847	38,002	38,344	55,256	64,782	68,393	70,247	62,545	647,330
South Carolina	84,604	77,004	90,080	89,618	80,634	75,952	74,558	56,100	62,677	85,538	76,749	90,063	943,577
Georgia	68,488	64,587	66,030	64,179	62,532	56,631	57,647	59,743	66,547	73,688	58,266	66,390	764,728
Florida	19,412	18,516	18,760	16,918	16,411	16,728	16,462	16,570	17,235	18,907	19,753	22,616	218,288
East South Central:													
Kentucky	35,093	33,144	33,320	30,286	30,772	29,866	31,593	33,165	33,483	38,395	37,073	39,004	405,194
Tennessee	58,649	60,002	57,456	55,400	57,831	55,193	55,930	54,705	53,507	57,765	61,378	66,257	694,073
Alabama	77,145	70,547	71,490	68,216	70,216	67,711	65,817	71,106	72,443	80,233	80,533	78,658	874,115
Mississippi	5,840	5,536	5,372	5,276	5,371	5,792	6,041	6,569	6,926	7,373	7,030	7,090	74,216

West South Central:													
Arkansas	13,426	12,112	12,021	10,400	10,299	12,727	14,406	13,561	13,446	14,740	14,660	12,884	154,682
Louisiana	27,213	24,728	25,021	23,549	23,811	23,648	24,737	25,517	25,312	27,269	27,126	30,331	308,262
Oklahoma	26,804	25,209	25,893	24,706	26,085	26,133	27,121	28,382	27,664	30,952	29,822	32,386	331,157
Texas	91,411	84,833	88,652	87,877	90,616	90,887	95,994	98,456	100,141	103,328	96,402	100,377	1,128,974
Mountain:													
Montana	100,472	94,681	99,533	93,402	93,372	91,261	93,955	95,083	94,042	93,180	92,847	103,457	1,145,285
Idaho	65,071	58,021	56,204	59,905	67,241	70,790	75,390	79,753	71,064	63,558	59,097	66,438	792,532
Wyoming	4,520	4,128	4,310	4,265	4,220	4,160	4,283	4,493	4,523	4,708	4,731	5,215	53,556
Colorado	42,062	37,137	38,271	37,657	40,118	38,543	40,135	41,212	41,302	44,013	42,956	46,624	490,030
New Mexico	1,652	1,492	1,538	1,553	1,699	1,689	1,650	1,707	1,666	1,708	1,718	1,841	19,913
Arizona	10,023	11,760	12,334	12,142	15,232	16,807	16,504	16,078	14,953	10,905	8,482	7,976	153,196
Utah	23,049	23,619	25,509	22,113	26,202	21,914	20,812	17,423	16,923	21,317	24,158	23,907	266,946
Nevada	3,872	3,629	4,701	5,041	4,724	4,746	3,552	2,846	3,240	2,197	2,056	1,019	41,623
Pacific:													
Washington	131,349	126,997	126,488	116,115	129,434	119,439	118,779	115,655	110,607	128,692	134,947	145,058	1,503,560
Oregon	59,675	52,316	55,084	51,051	50,480	51,165	52,016	55,957	58,495	64,171	62,231	65,754	678,395
California	428,058	421,746	457,116	449,696	512,442	500,143	498,556	493,157	472,967	461,321	421,930	449,308	5,566,440

By the use of water power, 1924

United States	1,670,252	1,566,014	1,714,858	1,849,296	1,942,444	1,697,934	1,594,547	1,508,497	1,484,480	1,627,653	1,564,138	1,749,350	19,969,463
New England	139,713	105,109	126,717	140,832	144,488	113,175	100,136	98,151	117,024	123,719	99,265	128,683	1,437,012
Middle Atlantic	407,589	358,117	407,915	419,377	417,935	384,442	362,500	342,767	349,369	414,157	368,509	414,696	4,647,373
East North Central	112,494	110,448	136,651	185,916	190,797	161,056	147,328	157,752	145,596	140,554	134,681	128,609	1,751,882
West North Central	50,875	68,511	90,662	107,900	126,959	119,096	116,371	122,412	113,966	123,287	107,456	91,508	1,239,003
South Atlantic	205,872	191,593	219,348	212,703	199,054	181,134	180,368	155,388	162,508	216,408	175,993	203,972	2,304,341
East South Central	112,912	108,884	108,378	103,728	105,420	99,673	92,788	61,800	53,165	45,939	38,727	85,147	1,016,531
West South Central	937	909	938	874	745	833	842	903	862	878	848	861	10,430
Mountain	209,712	198,856	205,990	204,047	224,171	221,074	222,987	222,014	208,834	200,458	194,895	207,048	2,520,086
Pacific	430,148	423,587	418,259	473,919	532,875	417,481	371,227	347,310	333,156	362,253	443,764	488,826	5,042,805
New England:													
Maine	38,341	37,614	40,585	38,547	37,137	35,603	32,168	34,580	39,041	43,153	36,708	41,118	454,595
New Hampshire	18,611	12,814	16,942	19,736	20,185	12,477	10,662	10,479	14,334	12,542	11,004	14,354	174,140
Vermont	15,962	13,459	13,826	13,155	16,991	18,720	22,106	21,427	20,005	24,060	16,219	27,723	217,653
Massachusetts	43,840	29,672	35,564	45,002	44,924	32,430	30,226	27,062	35,709	35,144	29,040	40,006	428,619
Rhode Island	879	495	847	967	946	446	241	258	269	192	139	220	5,899
Connecticut	22,080	11,055	18,953	23,425	24,305	13,499	4,733	4,345	7,666	8,628	6,155	11,262	156,106
Middle Atlantic:													
New York	343,995	304,691	339,057	351,624	347,713	318,403	299,566	302,012	318,328	356,709	323,604	355,475	3,961,177
New Jersey	238	193	214	202	202	159	115	83	130	120	101	151	1,908
Pennsylvania	63,356	53,233	68,644	67,551	70,020	65,880	62,819	40,672	30,911	57,328	44,804	59,070	684,288
East North Central:													
Ohio	3,452	3,496	3,980	3,519	4,158	4,205	3,311	1,486	2,230	1,817	1,447	2,768	35,869
Indiana	7,096	7,951	9,829	9,122	7,978	8,048	6,833	5,113	4,401	3,837	3,063	5,238	78,509
Illinois	14,652	15,411	17,631	17,018	17,836	16,696	17,949	16,877	16,471	15,606	16,267	13,819	196,233
Michigan	56,182	52,944	66,242	78,469	75,449	64,530	63,354	62,268	57,466	58,478	59,504	59,886	754,772
Wisconsin	31,112	30,646	38,969	77,788	85,376	67,577	55,881	72,008	65,028	60,816	54,400	46,898	686,499

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of water power, 1924—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
West North Central:													
Minnesota	11,009	9,500	13,852	32,719	48,208	41,808	42,381	45,218	43,661	52,612	44,561	38,428	423,957
Iowa	31,033	47,976	66,317	63,924	67,022	63,561	61,669	64,675	62,565	64,819	57,185	45,188	695,934
Missouri	4,700	5,949	5,486	5,408	6,016	7,140	5,688	6,129	3,177	1,720	1,559	4,450	57,422
South Dakota	567	526	580	1,430	1,127	1,391	1,583	936	807	649	641	637	10,874
Nebraska	1,540	1,826	1,984	2,145	1,987	2,171	2,455	2,745	2,043	2,231	2,079	1,358	24,564
Kansas	2,026	2,734	2,443	2,274	2,599	3,025	2,595	2,709	1,713	1,256	1,431	7,447	26,252
South Atlantic:													
Maryland	293	310	295	338	338	337	301	238	164	35	174	205	3,028
Virginia	25,612	22,726	28,421	28,799	24,943	20,831	20,963	16,663	12,439	19,458	17,627	22,051	260,533
West Virginia	2,693	2,707	2,643	2,320	2,025	2,341	2,259	1,811	675	1,525	1,856	2,693	25,548
North Carolina	38,745	36,550	41,744	36,651	36,775	33,679	34,175	34,693	35,256	54,156	47,107	45,815	475,346
South Carolina	78,023	71,755	86,692	86,470	77,876	72,877	71,596	51,404	56,220	76,692	62,443	77,205	869,253
Georgia	59,778	56,763	58,474	57,050	56,222	50,374	50,030	49,512	56,761	63,639	45,944	55,241	659,788
Florida	728	782	1,079	1,075	875	695	1,044	1,067	993	903	842	762	10,845
East South Central:													
Kentucky	17	16	18	18	18	18	14	15	15	15	15	15	194
Tennessee	42,303	45,002	42,105	40,366	42,395	39,888	41,258	32,296	26,116	26,598	20,780	37,754	436,861
Alabama	70,592	63,866	66,255	63,344	63,007	59,737	51,516	24,489	27,034	19,326	17,932	47,378	579,476
West South Central:													
Arkansas	298	340	277	276	242	259	178	170	135	166	150	156	2,647
Oklahoma	46	36	45	34	31	39	48	44	44	54	53	121	595
Texas	593	533	616	564	472	535	616	689	683	658	645	584	7,188
Mountain:													
Montana	99,649	93,989	98,851	92,761	92,733	90,654	93,277	94,415	93,347	92,427	92,070	102,599	1,136,772
Idaho	64,853	57,850	56,036	59,754	67,080	70,654	75,232	79,587	70,901	63,378	58,923	66,240	790,488
Wyoming	585	521	583	565	547	528	556	636	644	476	439	428	6,508
Colorado	16,603	15,535	14,304	16,056	20,761	19,494	20,411	18,676	16,648	17,835	16,650	14,387	207,360
New Mexico	68	64	63	68	65	65	70	72	25	30	85	82	757
Arizona	5,743	7,950	8,430	7,761	12,084	13,056	12,991	12,542	11,161	7,336	4,611	3,960	107,625
Utah	18,485	19,393	23,096	22,088	26,202	21,914	16,980	13,314	13,028	16,958	20,209	18,525	230,192
Nevada	3,726	3,554	4,627	4,994	4,699	4,709	3,470	2,772	3,080	2,018	1,908	827	40,384
Pacific:													
Washington	124,190	120,539	122,203	111,880	126,642	115,675	111,254	102,334	93,544	116,912	131,045	138,250	1,414,468
Oregon	43,655	39,610	40,300	40,045	37,898	34,587	27,542	34,323	36,995	44,652	50,406	51,700	481,713
California	262,303	263,438	255,756	321,994	368,335	267,219	232,431	210,653	202,617	200,689	262,313	298,876	3,146,624

By the use of fuels, 1924

United States	3,522,342	3,279,724	3,277,507	2,890,205	2,845,121	2,849,373	3,009,779	3,218,961	3,310,595	3,560,404	3,492,431	3,787,685	39,044,127
New England	257,752	269,619	243,377	204,226	186,958	194,784	210,884	236,315	235,671	266,885	287,074	303,996	2,897,541
Middle Atlantic	1,052,354	987,016	989,798	916,585	901,786	857,777	889,056	926,232	932,423	1,019,651	1,031,506	1,154,178	11,658,362
East North Central	1,121,305	1,032,906	1,051,771	944,111	916,469	858,612	886,585	929,423	972,729	1,066,145	1,057,298	1,201,873	12,039,227
West North Central	304,115	254,404	235,130	187,065	182,973	189,594	204,970	194,136	202,367	229,284	236,728	274,397	2,695,163
South Atlantic	335,141	316,378	290,683	262,136	259,981	255,023	258,857	310,057	340,718	332,142	348,882	351,539	3,661,537
East South Central	63,815	60,345	59,260	55,450	58,770	58,919	66,593	103,745	113,194	137,827	147,287	105,862	1,031,067
West South Central	157,917	145,973	150,649	145,658	150,066	152,562	161,416	165,013	165,701	175,411	167,162	175,117	1,912,645
Mountain	41,009	35,611	36,410	32,031	28,637	28,836	33,294	36,581	38,879	41,128	41,150	49,429	442,995
Pacific	188,934	177,472	220,429	142,943	159,481	253,266	298,124	317,459	308,913	291,931	175,344	171,294	2,705,590
New England:													
Maine	1,143	1,632	790	487	427	146	980	2,586	409	2,288	4,840	3,348	19,076
New Hampshire	2,449	2,811	1,789	1,338	1,413	2,969	4,066	4,903	4,227	4,756	5,490	5,455	41,666
Vermont	258	278	232	293	81	153	361	1,461	482	938	1,229	374	6,140
Massachusetts	155,334	151,370	146,961	124,476	113,990	111,857	118,093	133,635	134,199	150,477	153,803	175,184	1,669,379
Rhode Island	40,996	49,975	34,855	29,593	25,596	27,993	27,024	27,841	30,283	37,546	47,531	42,361	421,594
Connecticut	57,572	63,553	58,750	48,039	45,451	51,666	60,360	65,889	66,071	70,880	74,181	77,274	739,686
Middle Atlantic:													
New York	474,001	451,354	446,139	406,678	399,625	390,673	420,348	434,967	433,922	462,888	475,565	531,232	5,327,392
New Jersey	116,274	106,361	108,156	100,477	97,636	93,783	98,203	102,920	106,806	117,335	118,491	135,947	1,302,389
Pennsylvania	462,079	429,301	435,503	409,430	404,525	373,321	370,505	388,345	391,695	439,428	437,450	486,999	5,028,581
East North Central:													
Ohio	334,509	310,927	319,170	297,796	286,685	266,549	270,964	285,806	301,094	324,077	313,015	355,101	3,665,693
Indiana	109,887	100,381	100,946	93,521	91,351	87,909	94,295	96,934	100,620	111,672	110,508	121,143	1,219,167
Illinois	403,808	368,389	382,275	352,453	351,467	326,895	332,132	349,950	357,120	391,988	398,015	454,747	4,469,239
Michigan	197,859	153,279	177,326	145,501	138,091	132,696	139,167	144,933	157,415	172,457	164,620	188,532	1,941,876
Wisconsin	75,242	69,930	72,054	54,840	48,875	44,563	50,027	51,800	56,480	65,951	71,140	82,350	743,252
West North Central:													
Minnesota	70,768	61,759	54,777	21,076	14,633	25,979	36,086	17,501	25,208	27,064	37,802	53,256	445,909
Iowa	44,607	38,952	38,405	34,561	35,731	35,681	36,554	38,313	40,263	44,364	43,683	48,020	479,134
Missouri	106,030	80,151	68,148	61,469	62,013	60,249	59,398	60,510	61,386	66,647	65,286	80,046	831,333
North Dakota	3,607	3,199	3,097	2,646	2,745	2,938	3,175	3,230	3,317	3,641	3,744	3,957	39,296
South Dakota	5,547	4,884	4,808	3,510	3,839	3,465	3,634	4,395	4,674	5,141	5,251	5,857	55,035
Nebraska	27,140	24,335	24,596	23,262	24,467	23,611	25,487	26,429	26,788	28,834	28,053	30,336	313,338
Kansas	46,416	41,124	41,299	40,541	39,545	37,671	40,636	43,758	40,731	53,593	52,909	52,895	531,118
South Atlantic:													
Delaware	7,933	7,382	7,449	6,974	6,825	6,747	6,837	6,630	7,196	7,244	7,692	9,068	87,977
Maryland	38,722	39,818	30,747	27,315	25,699	24,425	28,725	47,696	55,891	43,873	58,065	58,342	479,318
District of Columbia	27,673	25,752	26,249	24,838	25,923	25,504	23,675	26,240	25,535	26,564	27,104	30,170	315,227
Virginia	40,469	39,692	35,472	31,518	35,308	37,452	38,459	43,546	47,092	45,885	44,970	43,272	483,135
West Virginia	159,033	153,550	157,828	141,173	137,550	131,207	130,995	134,952	142,993	157,440	142,372	148,096	1,737,189
North Carolina	27,336	19,377	4,313	4,198	4,072	4,323	4,169	20,563	29,526	14,237	23,140	16,730	171,984
South Carolina	6,581	5,249	3,388	3,148	2,758	3,075	2,962	4,696	6,457	8,846	14,306	12,858	74,324
Georgia	8,710	7,824	7,556	7,129	6,310	6,257	7,617	10,231	9,786	10,049	12,322	11,149	104,940
Florida	18,684	17,734	17,681	15,843	15,536	16,033	15,418	15,503	16,242	18,004	18,911	21,854	207,443

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of fuels, 1924—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
East South Central:													
Kentucky	35,076	33,128	33,302	30,268	30,754	29,848	31,579	33,150	33,468	38,380	37,058	38,989	405,000
Tennessee	16,346	15,000	15,351	15,034	15,436	15,305	14,672	22,409	27,391	31,167	40,598	28,503	257,212
Alabama	6,553	6,681	5,235	4,872	7,209	7,974	14,301	41,617	45,409	60,907	62,601	31,280	294,639
Mississippi	5,840	5,536	5,372	5,276	5,371	5,792	6,041	6,569	6,926	7,373	7,030	7,090	74,216
West South Central:													
Arkansas	13,128	11,772	11,744	10,124	10,057	12,468	14,228	13,391	13,311	14,574	14,510	12,728	152,035
Louisiana	27,213	24,728	25,021	23,549	23,811	23,648	24,737	25,517	25,312	27,269	27,126	30,331	308,262
Oklahoma	26,758	25,173	25,848	24,672	26,054	26,094	27,073	28,338	27,620	30,898	29,769	32,265	330,562
Texas	90,818	84,300	88,036	87,313	90,144	90,352	95,378	97,767	99,458	102,670	95,757	99,793	1,121,786
Mountain:													
Montana	823	692	682	641	639	607	678	668	695	753	777	858	8,513
Idaho	218	171	168	151	161	136	158	166	163	180	174	198	2,044
Wyoming	3,935	3,607	3,727	3,700	3,673	3,632	3,727	3,857	3,879	4,232	4,292	4,787	47,048
Colorado	25,459	21,602	23,967	21,601	19,357	19,049	19,724	22,536	24,654	26,178	26,306	32,237	282,670
New Mexico	1,584	1,428	1,475	1,485	1,634	1,624	1,580	1,635	1,641	1,678	1,633	1,759	19,156
Arizona	4,280	3,810	3,904	4,381	3,148	3,751	3,513	3,536	3,792	3,569	3,871	4,016	45,571
Utah	4,564	4,226	2,413	25	0	0	3,832	4,109	3,895	4,359	3,949	5,382	36,754
Nevada	146	75	74	47	25	37	82	74	160	179	148	192	1,239
Pacific:													
Washington	7,159	5,458	4,285	4,235	2,792	3,764	7,525	13,321	17,063	11,780	3,902	6,808	89,092
Oregon	16,020	12,706	14,784	11,006	12,582	16,578	24,474	21,634	21,500	19,519	11,825	14,054	196,682
California	165,755	158,308	201,360	127,702	144,107	232,924	266,125	282,504	270,350	260,632	159,617	150,432	2,419,816

Total, 1925

United States	5,573,347	5,000,845	5,392,223	5,180,478	5,240,048	5,246,205	5,388,672	5,465,476	5,495,019	5,949,259	5,786,201	6,152,533	65,870,306
New England	448,532	384,124	405,640	377,510	372,090	371,517	369,324	374,869	394,457	435,527	425,319	464,746	4,823,655
Middle Atlantic	1,548,000	1,398,040	1,538,087	1,463,498	1,466,844	1,415,925	1,458,186	1,478,400	1,482,999	1,651,146	1,640,113	1,757,615	18,298,853
East North Central	1,321,379	1,196,672	1,279,204	1,233,252	1,227,181	1,224,938	1,233,232	1,267,905	1,319,409	1,476,026	1,421,139	1,514,633	15,714,972
West North Central	356,058	317,360	335,859	324,384	335,330	334,600	348,406	360,303	373,306	403,344	375,534	389,172	4,253,656
South Atlantic	600,716	516,043	521,204	499,979	477,728	496,155	500,678	502,942	504,612	549,124	546,269	579,399	6,294,849
East South Central	195,331	187,468	198,603	201,812	207,503	213,878	212,510	214,723	229,668	245,480	227,348	252,343	2,586,667
West South Central	178,574	156,960	167,644	166,868	170,607	178,189	187,827	189,822	199,043	204,298	197,516	204,485	2,201,833
Mountain	259,798	237,501	254,398	251,394	262,697	258,872	272,107	280,216	263,145	263,123	261,279	262,612	3,127,142
Pacific	664,959	606,677	691,584	661,781	720,068	752,131	806,400	796,296	728,380	721,191	691,684	727,528	8,568,679

New England:													
Maine	44,683	40,729	44,189	40,682	44,457	44,985	38,992	40,149	39,754	42,961	42,730	44,920	509,231
New Hampshire	15,214	18,031	24,184	25,912	25,764	18,471	22,797	17,054	18,751	27,378	26,304	23,823	263,683
Vermont	20,526	14,876	20,479	21,730	21,686	21,383	18,603	24,523	22,733	21,045	21,604	28,786	257,974
Massachusetts	219,758	190,799	202,899	185,271	178,135	177,416	180,485	176,469	191,477	218,243	218,273	238,424	2,377,649
Rhode Island	53,234	37,852	31,411	28,303	27,604	30,836	30,925	31,359	33,880	36,914	30,421	35,469	408,208
Connecticut	95,117	81,837	82,478	75,612	74,444	78,426	77,522	85,315	87,862	88,986	85,987	93,324	1,006,910
Middle Atlantic:													
New York	876,056	779,353	859,843	817,885	820,181	798,786	822,862	835,278	840,412	929,283	912,583	973,678	10,266,700
New Jersey	130,777	112,822	124,279	115,113	113,295	114,779	120,407	118,696	125,038	142,115	136,923	151,911	1,506,155
Pennsylvania	541,167	505,365	553,965	530,500	533,368	502,360	514,917	524,426	517,549	579,748	590,607	632,026	6,525,998
East North Central:													
Ohio	352,055	331,073	360,229	348,244	359,016	345,308	343,385	353,958	372,081	414,438	393,558	414,154	4,387,499
Indiana	127,806	111,323	113,989	112,312	111,716	113,058	115,668	120,398	126,675	140,873	140,111	150,543	1,484,472
Illinois	465,116	410,695	426,554	401,717	397,374	401,929	410,929	426,210	442,708	490,297	473,513	522,435	5,269,477
Michigan	248,913	226,460	246,206	235,536	237,090	235,054	242,902	247,905	256,168	290,124	276,092	288,823	3,031,273
Wisconsin	127,489	117,123	132,226	135,443	121,985	129,589	120,348	119,434	121,777	140,294	137,865	138,678	1,542,251
West North Central:													
Minnesota	89,046	75,536	74,901	69,209	82,441	81,074	81,541	90,314	102,950	107,706	91,627	99,339	1,045,684
Iowa	86,493	89,994	107,967	103,228	98,793	96,833	105,389	100,253	90,372	111,349	107,296	97,348	1,195,315
Missouri	83,495	67,159	64,551	65,657	66,572	64,553	65,669	69,880	77,768	80,668	74,989	84,841	865,802
North Dakota	3,812	3,164	3,063	2,693	2,574	2,520	2,782	3,305	3,180	3,691	3,903	4,363	39,050
South Dakota	6,420	5,693	5,988	5,701	5,712	5,822	6,232	6,251	63,395	6,826	6,750	7,085	74,875
Nebraska	31,001	27,174	28,436	28,199	28,767	29,228	31,002	31,154	32,629	33,573	31,439	33,664	366,266
Kansas	55,791	48,640	50,953	49,697	50,471	54,570	55,791	59,146	60,012	59,531	59,530	62,532	666,664
South Atlantic:													
Delaware	9,771	8,299	8,265	7,479	7,670	7,573	8,044	9,261	9,244	8,810	8,741	8,943	102,100
Maryland	66,179	40,405	33,413	32,885	29,154	52,081	50,761	52,768	61,685	62,377	41,082	49,861	572,651
District of Columbia	30,484	25,762	27,835	27,163	27,930	28,734	29,286	29,099	29,644	30,786	30,092	32,988	349,803
Virginia	69,153	60,833	65,376	62,222	63,488	63,867	65,476	67,359	68,274	71,511	69,690	74,319	801,568
West Virginia	154,059	134,564	133,989	127,102	121,301	129,472	137,654	140,453	129,916	145,379	139,683	149,322	1,642,894
North Carolina	59,567	60,097	69,472	78,277	77,597	84,172	78,547	81,710	85,706	87,612	85,452	94,085	942,294
South Carolina	108,299	94,502	88,566	74,008	70,170	60,700	62,396	55,345	56,179	65,521	71,440	74,410	881,536
Georgia	78,552	68,634	69,326	67,540	57,564	47,102	44,421	41,701	37,026	45,994	67,041	58,968	683,869
Florida	24,652	22,947	24,962	23,303	22,854	22,454	24,093	25,246	26,938	31,134	33,048	36,503	318,134
East South Central:													
Kentucky	41,061	34,807	36,609	35,225	36,726	36,567	38,956	39,909	41,364	44,851	42,621	46,049	474,745
Tennessee	66,846	67,416	73,147	75,805	75,484	76,532	69,216	63,562	65,741	74,211	77,514	89,499	874,973
Alabama	78,139	78,528	82,765	83,960	88,433	93,644	96,852	103,777	113,927	117,582	99,192	109,223	1,146,022
Mississippi	9,285	6,717	6,082	6,822	6,860	7,135	7,486	7,475	8,636	8,836	8,021	7,572	90,927
West South Central:													
Arkansas	12,926	13,068	13,247	13,579	12,887	17,476	18,432	16,639	18,413	17,917	18,306	16,180	189,070
Louisiana	29,847	25,367	27,041	26,495	26,993	27,562	28,660	29,189	29,985	32,098	31,720	35,365	350,322
Oklahoma	33,245	28,037	29,391	29,322	30,776	30,688	32,215	32,988	34,807	38,193	36,859	37,862	394,383
Texas	102,556	90,488	97,965	97,472	99,951	102,463	108,520	111,006	115,838	116,090	110,631	115,078	1,268,058

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

Total, 1925—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
Mountain:													
Montana	107,563	97,233	105,341	99,918	99,977	99,039	104,526	110,856	108,124	112,258	112,014	105,780	1,262,629
Idaho	68,212	54,653	51,030	63,123	67,900	61,927	72,247	76,790	64,526	56,716	59,570	57,385	754,079
Wyoming	5,038	4,289	4,375	4,218	4,365	4,095	4,399	4,427	4,675	5,147	5,078	5,438	55,544
Colorado	42,220	40,245	42,782	42,149	42,660	42,019	43,478	45,145	43,681	46,592	44,421	47,500	522,892
New Mexico	1,776	1,579	1,690	1,760	1,908	2,000	1,901	1,721	1,782	1,899	1,844	1,927	21,787
Arizona	8,935	10,755	14,134	14,321	13,118	12,092	13,421	11,042	10,530	7,260	6,763	8,170	130,541
Utah	24,269	25,193	31,665	22,339	28,912	33,713	27,751	26,358	27,219	30,208	28,927	33,413	339,967
Nevada	1,785	3,554	3,381	3,566	3,857	3,987	4,384	3,877	2,608	3,043	2,662	2,999	39,703
Pacific:													
Washington	143,984	132,240	136,379	132,662	135,462	134,413	138,578	135,138	123,605	124,623	130,091	155,832	1,623,007
Oregon	63,940	54,307	59,404	55,002	55,764	56,397	57,482	60,376	61,287	68,450	66,988	70,462	729,859
California	457,035	420,130	495,801	474,117	528,842	561,321	610,340	600,782	543,488	528,118	494,605	501,234	6,215,813

By the use of water power, 1925

United States	1,694,794	1,741,832	2,039,735	2,021,531	2,027,364	1,847,476	1,878,270	1,770,278	1,609,573	1,801,288	1,946,847	1,976,929	22,355,917
New England	90,897	117,428	167,497	162,491	157,625	128,140	126,539	115,529	112,864	141,050	154,777	162,998	1,637,835
Middle Atlantic	346,777	376,196	464,409	451,738	468,013	399,378	423,430	421,524	395,572	445,889	494,732	491,203	5,178,861
East North Central	118,621	123,503	159,751	169,526	139,881	139,904	125,613	109,865	110,164	141,827	148,814	135,629	1,623,098
West North Central	80,462	84,750	116,397	128,686	120,474	125,224	123,129	100,277	105,688	133,876	111,530	87,228	1,317,721
South Atlantic	253,343	217,045	200,200	174,675	156,099	108,631	97,800	80,367	58,444	84,427	131,759	127,364	1,690,154
East South Central	96,552	120,813	122,868	110,021	87,289	48,841	47,703	26,895	24,319	67,217	119,097	129,743	1,001,358
West South Central	2,504	2,981	3,019	1,262	2,183	1,156	1,351	1,353	963	4,411	4,757	4,551	30,491
Mountain	213,048	192,741	209,443	217,022	229,619	218,205	231,798	236,675	220,345	214,934	214,194	207,550	2,605,574
Pacific	492,590	506,375	596,151	606,110	666,181	677,997	700,907	677,793	581,214	567,657	567,187	630,663	7,270,825
New England:													
Maine	35,828	36,456	43,962	40,417	44,275	44,648	38,456	38,152	35,619	41,889	42,370	44,419	486,491
New Hampshire	8,780	14,093	22,339	24,336	23,847	15,666	19,548	12,966	14,435	23,394	23,110	20,358	222,872
Vermont	18,589	13,939	20,264	21,542	21,517	21,117	18,431	23,564	21,928	20,642	21,410	28,625	251,568
Massachusetts	23,481	35,581	52,417	51,469	48,741	38,208	40,929	33,160	35,914	48,651	51,655	51,924	512,130
Rhode Island	144	434	882	802	548	304	258	243	207	229	332	651	5,034
Connecticut	4,075	16,925	27,633	23,925	18,697	8,197	8,917	7,444	4,761	6,245	15,900	17,021	159,740

Middle Atlantic:													
New York	313,106	317,313	383,389	377,360	384,147	352,632	370,558	375,422	365,123	407,296	418,177	420,447	4,484,970
New Jersey	125	196	306	233	191	124	120	109	118	123	242	267	2,154
Pennsylvania	33,546	58,687	80,714	74,145	83,675	46,622	52,752	45,993	30,331	38,470	76,313	70,489	691,737
East North Central:													
Ohio	2,019	3,574	4,898	2,705	2,413	1,464	2,168	1,530	1,313	1,942	4,509	3,463	31,998
Indiana	4,511	6,987	9,855	7,469	4,836	2,183	2,747	3,044	3,108	5,222	8,547	8,356	66,865
Illinois	14,875	13,865	16,187	17,291	17,763	16,979	17,828	17,179	15,879	17,071	17,304	16,235	198,456
Michigan	54,687	56,746	68,346	68,163	60,144	51,885	52,051	51,054	52,832	63,805	66,429	63,453	709,595
Wisconsin	42,529	42,331	60,465	73,898	54,725	67,393	50,819	37,058	37,032	53,787	52,025	44,122	616,184
West North Central:													
Minnesota	31,058	24,022	39,011	52,312	51,213	60,435	52,225	38,186	55,270	57,827	40,588	32,796	534,943
Iowa	39,597	49,627	68,172	64,633	58,973	57,321	64,920	55,279	43,740	62,883	60,098	46,156	671,399
Missouri	5,213	5,672	3,177	5,460	4,775	1,369	969	1,119	1,773	8,221	5,736	4,319	47,803
South Dakota	570	545	1,146	1,121	995	1,439	1,404	777	783	726	767	515	10,788
Nebraska	1,872	2,298	2,515	2,579	2,689	2,713	1,920	2,975	2,664	2,561	2,286	2,028	29,100
Kansas	2,152	2,586	2,376	2,581	1,829	1,947	1,691	1,941	1,458	1,658	2,055	1,414	23,688
South Atlantic:													
Maryland	250	279	332	278	225	126	2,313	3,107	1,854	968	1,680	1,958	13,380
Virginia	26,762	21,848	21,916	18,744	20,458	10,637	6,788	5,194	3,649	7,468	12,304	12,916	168,684
West Virginia	2,858	2,738	3,043	2,905	2,789	2,027	1,574	856	369	1,355	1,655	2,018	24,187
North Carolina	52,853	46,063	42,190	38,646	38,411	29,454	22,852	21,646	18,527	21,472	23,458	25,584	381,156
South Carolina	102,331	84,784	70,489	52,891	47,452	33,798	34,926	27,050	20,117	27,843	39,076	39,945	580,702
Georgia	67,528	60,690	61,534	60,405	45,964	31,826	28,302	21,313	12,840	24,406	52,814	43,604	511,226
Florida	761	643	696	806	800	753	1,045	1,201	1,088	915	772	1,339	10,819
East South Central:													
Kentucky	0	0	0	0	0	0	0	0	0	16	1,051	5,214	6,281
Tennessee	49,260	52,077	53,968	52,566	51,074	27,254	21,715	11,137	6,676	25,791	51,623	54,853	457,994
Alabama	47,292	68,736	68,900	57,455	36,215	21,587	25,988	15,758	17,643	41,410	66,423	69,676	537,083
West South Central:													
Arkansas	1,683	2,203	2,241	537	1,456	407	616	842	491	3,903	4,105	3,986	22,470
Oklahoma	178	186	178	184	212	179	151	149	178	244	238	243	2,320
Texas	643	592	600	541	515	570	584	362	294	264	414	322	5,701
Mountain:													
Montana	106,767	96,506	104,645	99,276	99,315	98,412	103,832	110,098	107,371	111,463	111,186	105,028	1,253,899
Idaho	67,991	54,480	50,835	62,954	67,737	61,763	72,080	76,615	64,266	56,522	59,372	57,171	751,786
Wyoming	399	310	313	297	434	422	547	583	661	670	688	785	6,109
Colorado	14,044	11,876	14,853	17,032	19,107	17,969	19,731	18,178	17,742	16,037	15,072	14,923	196,564
New Mexico	77	63	52	36	73	35	35	82	99	93	86	97	828
Arizona	4,545	7,176	10,802	11,549	10,212	8,808	10,122	8,057	7,568	4,361	3,406	3,979	90,585
Utah	17,600	18,866	24,631	22,339	28,912	26,832	21,139	19,272	20,114	22,789	21,772	22,629	266,895
Nevada	1,625	3,464	3,312	3,539	3,829	3,964	4,312	3,790	2,524	2,999	2,612	2,938	38,908
Pacific:													
Washington	141,367	130,170	134,005	130,401	133,861	131,835	136,358	127,144	108,849	95,795	113,584	151,971	1,534,840
Oregon	51,862	43,693	49,791	45,241	47,405	47,055	41,842	43,544	42,104	43,769	47,602	59,311	563,219
California	299,361	332,512	412,355	430,468	485,415	499,107	522,707	507,105	430,261	428,093	406,001	419,381	5,172,766

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of fuels, 1925

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
United States	3,878,553	3,258,015	3,352,488	3,158,947	3,212,684	3,398,729	3,511,400	3,695,198	3,885,446	4,147,971	3,839,354	4,175,604	43,514,389
New England	357,635	266,696	238,143	215,019	214,465	243,377	242,785	259,340	281,593	294,477	270,542	301,748	3,185,820
Middle Atlantic	1,201,223	1,021,844	1,073,678	1,011,760	998,831	1,016,547	1,034,756	1,056,876	1,087,427	1,205,257	1,145,381	1,266,412	13,119,992
East North Central	1,202,758	1,073,171	1,119,453	1,063,726	1,087,300	1,085,034	1,107,619	1,158,040	1,209,245	1,334,199	1,272,325	1,379,004	14,091,874
West North Central	275,596	232,610	219,462	195,698	214,856	209,376	225,277	260,026	267,618	269,468	264,004	301,944	2,935,935
South Atlantic	347,373	298,998	321,004	325,304	321,629	387,524	402,878	422,575	446,168	464,697	414,510	452,035	4,604,695
East South Central	98,779	66,655	75,735	91,791	120,214	165,037	164,807	187,828	205,349	178,263	108,251	122,600	1,585,309
West South Central	176,070	153,979	164,625	165,606	168,424	177,033	186,476	188,469	198,080	199,887	192,759	199,934	2,171,342
Mountain	46,750	44,760	44,955	34,372	33,078	40,667	40,309	43,541	42,860	48,189	47,085	55,062	521,568
Pacific	172,369	100,302	95,433	55,671	53,887	74,134	105,493	118,503	147,166	153,534	124,497	96,865	1,297,854
New England:													
Maine	8,855	4,273	227	265	182	337	536	1,997	4,135	1,072	360	501	22,740
New Hampshire	6,434	3,938	1,845	1,576	1,917	2,805	3,249	4,088	4,316	3,984	3,194	3,465	40,811
Vermont	1,937	937	215	188	169	266	172	959	805	403	194	161	6,406
Massachusetts	196,277	155,218	150,482	133,802	129,394	139,208	139,556	143,309	155,563	169,592	166,618	186,500	1,865,519
Rhode Island	53,090	57,418	30,529	27,501	27,056	30,532	30,667	31,116	33,673	36,685	30,089	34,818	403,174
Connecticut	91,042	64,912	54,845	51,687	55,747	70,229	68,605	77,871	83,101	82,741	70,087	76,303	847,170
Middle Atlantic:													
New York	562,950	462,540	476,454	440,525	436,034	446,154	452,304	459,856	475,289	521,987	494,406	553,231	5,781,730
New Jersey	130,652	112,626	123,973	114,880	113,104	114,655	120,287	118,587	124,920	141,992	136,681	151,644	1,504,001
Pennsylvania	507,621	446,678	473,251	456,355	449,693	455,738	462,165	478,433	487,218	541,278	514,294	561,537	5,834,261
East North Central:													
Ohio	350,036	327,499	355,331	345,539	356,603	343,844	341,217	352,428	370,768	412,496	389,049	410,691	4,355,501
Indiana	123,265	104,336	104,134	104,843	106,880	110,875	112,921	117,354	123,567	135,651	131,564	142,187	1,417,607
Illinois	450,241	396,830	410,367	384,426	379,611	384,950	393,101	409,031	426,829	473,226	456,209	506,200	5,071,021
Michigan	194,226	169,714	177,860	167,373	176,946	183,169	190,851	196,851	203,336	226,319	209,663	225,370	2,321,678
Wisconsin	84,960	74,792	71,761	61,545	67,260	62,196	69,529	82,376	84,745	86,507	85,840	94,556	926,067
West North Central:													
Minnesota	57,988	51,514	35,890	16,897	31,228	20,639	29,316	52,128	47,680	49,879	51,039	66,543	510,741
Iowa	46,896	40,367	39,795	38,595	39,520	39,512	40,469	44,974	46,632	48,466	47,198	51,192	523,916
Missouri	78,282	61,487	61,374	60,197	61,797	63,184	64,760	68,761	75,995	72,447	69,253	80,522	817,999
North Dakota	3,812	3,164	3,063	2,693	2,574	2,520	2,782	3,305	3,180	3,691	3,903	4,363	39,050
South Dakota	5,850	5,148	4,842	4,580	4,717	4,383	4,828	5,474	5,612	6,100	5,983	6,570	64,087
Nebraska	29,129	24,876	25,621	25,620	26,078	26,515	29,082	28,179	29,965	31,012	29,153	31,636	337,166
Kansas	53,639	46,054	48,577	47,116	48,642	52,623	54,100	57,205	58,554	57,873	57,475	61,118	642,976

South Atlantic:													
Delaware	9,771	8,299	8,265	7,479	7,670	7,573	8,044	9,261	9,244	8,810	8,741	8,943	102,100
Maryland	65,929	40,126	33,081	32,607	28,929	51,945	48,448	49,661	59,831	61,409	39,402	47,903	559,271
District of Columbia	30,484	25,762	27,835	27,163	27,930	28,734	29,286	29,099	29,644	30,786	30,092	32,988	349,803
Virginia	42,391	38,985	43,460	43,478	43,030	53,230	58,688	62,165	64,625	64,043	57,386	61,403	632,884
West Virginia	151,201	131,826	130,946	124,197	118,512	127,445	136,080	139,597	129,547	144,024	138,028	147,304	1,618,707
North Carolina	6,714	14,034	27,282	39,631	39,186	54,718	55,655	60,064	67,179	66,140	61,994	68,501	561,138
South Carolina	5,968	9,718	18,077	21,117	22,718	26,902	27,470	28,295	36,062	37,678	32,364	34,465	300,834
Georgia	11,024	7,944	7,792	7,135	11,600	15,276	16,119	20,388	24,186	21,588	14,227	15,364	172,643
Florida	23,891	22,304	24,266	22,497	22,054	21,701	23,048	24,045	25,850	30,219	32,276	35,164	307,315
East South Central:													
Kentucky	41,061	34,807	36,609	35,225	36,726	36,567	38,956	39,909	41,364	44,835	41,570	40,835	468,464
Tennessee	17,586	15,339	19,179	23,239	24,410	49,278	47,501	52,425	59,065	48,420	25,891	34,646	416,979
Alabama	30,847	9,792	13,865	26,505	52,218	72,057	70,864	88,019	96,284	76,172	32,769	39,547	608,939
Mississippi	9,285	6,717	6,082	6,822	6,860	7,135	7,486	7,475	8,636	8,836	8,021	7,572	90,927
West South Central:													
Arkansas	11,243	10,865	11,006	13,042	11,431	17,069	17,816	15,797	17,922	14,014	14,201	12,194	166,600
Louisiana	29,847	25,367	27,041	26,495	26,963	27,562	28,660	29,189	29,985	32,098	31,720	35,365	350,322
Oklahoma	33,067	27,851	29,213	29,138	30,564	30,509	32,064	32,839	34,629	37,949	36,621	37,619	392,063
Texas	101,913	89,896	97,365	96,931	99,436	101,893	107,936	110,644	115,544	115,826	110,217	114,756	1,262,357
Mountain:													
Montana	796	727	696	642	662	627	694	758	753	795	828	752	8,730
Idaho	221	173	195	169	163	164	167	175	200	194	198	214	2,263
Wyoming	4,639	3,979	4,062	3,921	3,931	3,673	3,852	3,844	4,014	4,477	4,390	4,653	49,435
Colorado	28,176	28,369	27,929	25,117	23,553	24,050	23,747	26,967	25,939	30,555	29,349	32,577	326,328
New Mexico	1,699	1,516	1,638	1,724	1,835	1,965	1,866	1,639	1,683	1,806	1,758	1,830	20,959
Arizona	4,390	3,579	3,332	2,772	2,906	3,284	3,299	2,985	2,962	2,899	3,357	4,191	39,956
Utah	6,669	6,327	7,034	0	0	6,881	6,612	7,086	7,105	7,419	7,155	10,784	73,072
Nevada	160	90	69	27	28	23	72	87	84	44	50	61	795
Pacific:													
Washington	2,617	2,070	2,374	2,261	2,101	2,578	2,220	7,994	14,756	28,828	16,507	3,861	88,167
Oregon	12,078	10,614	9,613	9,761	8,359	9,342	15,640	16,832	19,183	24,681	19,386	11,151	166,640
California	157,674	87,618	83,446	43,649	43,427	62,214	87,633	93,677	113,227	100,025	88,604	81,853	1,043,047

Total, 1926

United States	6,159,153	5,629,435	6,177,616	5,811,733	5,848,792	5,920,030	5,954,835	6,175,475	6,221,070	6,594,154	6,482,125	6,816,646	73,791,064
New England	462,815	426,327	458,119	460,323	387,163	382,247	382,438	409,642	427,316	458,034	454,341	506,300	5,165,955
Middle Atlantic	1,744,381	1,616,056	1,769,732	1,665,714	1,625,231	1,600,103	1,578,223	1,655,328	1,667,273	1,833,413	1,833,436	1,937,872	20,526,802
East North Central	1,492,918	1,378,836	1,491,302	1,407,167	1,368,052	1,378,862	1,385,460	1,474,032	1,506,788	1,601,466	1,542,811	1,635,884	17,663,578
West North Central	386,516	353,041	374,965	353,501	363,871	374,805	383,466	387,164	363,754	406,408	400,761	408,532	4,586,814
South Atlantic	612,092	550,270	606,411	567,242	553,818	554,739	570,756	594,816	609,225	627,103	653,091	697,641	7,197,294
East South Central	241,756	229,450	247,243	229,030	245,706	252,411	249,170	260,456	266,562	298,524	273,973	264,518	3,049,199
West South Central	208,617	185,070	200,078	192,636	199,778	212,360	223,692	231,653	239,800	250,833	243,445	251,558	2,639,520
Mountain	269,336	246,827	271,305	266,004	260,747	282,555	286,621	310,846	286,840	291,813	289,745	301,996	3,424,715
Pacific	740,722	643,558	758,461	730,116	813,626	861,948	885,009	861,588	813,432	825,950	760,492	812,285	9,537,187

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

Total, 1926—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
New England:													
Maine	45,436	42,223	46,359	47,432	46,635	44,484	40,445	43,183	42,199	44,703	48,592	52,732	544,423
New Hampshire	20,642	17,135	21,986	26,395	26,683	23,773	18,948	15,550	16,614	23,214	29,966	22,618	263,524
Vermont	32,413	29,610	20,017	17,084	18,637	19,872	25,860	21,065	17,000	17,646	18,712	26,998	264,914
Massachusetts	229,283	210,749	229,071	195,847	193,118	192,206	179,215	183,445	192,400	218,628	225,604	249,349	2,498,915
Rhode Island	36,512	34,493	42,640	30,344	27,332	31,124	30,818	48,520	59,552	52,354	36,719	45,831	476,239
Connecticut	98,529	92,117	98,046	83,221	75,558	80,788	87,152	97,829	99,631	101,489	94,748	108,832	1,117,940
Middle Atlantic:													
New York	969,240	884,303	963,402	928,654	913,487	895,774	875,834	911,529	908,501	1,003,164	1,010,800	1,067,819	11,332,507
New Jersey	148,256	133,084	145,039	132,998	127,745	131,864	136,573	143,634	146,970	159,471	157,907	173,340	1,736,881
Pennsylvania	626,885	598,669	661,291	604,062	583,999	572,465	565,816	600,165	611,802	670,818	664,729	696,713	7,457,414
East North Central:													
Ohio	409,456	378,977	399,622	377,145	366,396	377,726	379,532	398,210	407,273	428,344	408,592	429,755	4,761,028
Indiana	148,370	135,979	146,162	136,739	131,042	132,711	137,695	148,069	150,489	162,327	162,317	166,535	1,758,435
Illinois	510,125	463,307	496,930	459,182	444,879	448,321	461,455	488,583	505,669	544,932	528,594	578,422	5,930,399
Michigan	288,536	270,583	293,963	279,472	275,539	277,285	275,123	283,715	282,327	295,167	275,182	295,921	3,392,813
Wisconsin	136,431	129,990	154,625	154,629	150,196	142,819	131,655	155,455	161,030	170,696	168,126	165,251	1,820,903
West North Central:													
Minnesota	101,748	89,887	85,719	75,212	81,439	87,775	96,346	80,875	84,173	87,224	82,699	87,094	1,040,191
Iowa	100,372	97,092	116,055	111,602	112,836	109,890	102,756	113,996	117,414	121,279	122,774	118,912	1,344,978
Missouri	78,630	70,898	75,748	70,679	67,535	70,252	74,229	76,364	79,095	81,360	80,889	86,824	912,503
North Dakota	3,895	3,371	3,326	3,151	3,227	3,133	3,546	4,399	4,286	4,728	5,224	5,269	47,555
South Dakota	6,987	6,021	6,138	6,603	6,288	6,677	6,436	6,565	6,765	7,075	7,163	7,624	80,342
Nebraska	32,480	28,876	30,963	29,560	31,448	31,866	34,253	34,716	34,961	35,175	34,705	35,829	394,832
Kansas	62,404	56,896	57,016	56,694	61,098	65,212	65,900	70,249	67,060	69,567	67,337	66,980	766,413
South Atlantic:													
Delaware	9,367	8,621	10,102	9,366	9,567	10,173	11,176	12,030	11,356	11,454	6,870	8,784	118,866
Maryland	53,343	40,224	39,945	35,478	43,864	51,835	62,236	54,348	54,770	48,490	46,151	57,305	587,989
District of Columbia	32,674	29,339	31,494	29,530	30,481	29,960	30,856	31,676	31,579	33,213	33,622	36,949	381,373
Virginia	75,213	70,467	75,244	70,281	73,784	76,175	77,271	80,200	80,066	83,321	81,161	82,699	925,882
West Virginia	149,649	131,729	154,416	139,814	135,004	132,625	133,497	148,214	151,726	162,556	178,420	189,719	1,807,360
North Carolina	86,964	70,083	71,594	74,223	86,228	87,645	88,402	91,195	92,795	116,040	125,003	127,206	1,117,378
South Carolina	93,285	103,031	117,412	101,788	79,239	75,203	77,287	74,824	81,230	78,856	78,498	77,545	1,038,198
Georgia	69,792	58,612	64,454	64,229	53,050	50,358	49,383	60,024	65,653	50,530	55,767	68,726	710,578
Florida	41,814	38,164	41,750	42,533	42,601	40,765	40,648	42,305	40,050	42,733	47,599	48,708	509,670
East South Central:													
Kentucky	45,720	41,064	42,204	39,934	38,988	39,121	40,363	41,846	42,808	46,113	46,402	49,237	513,800
Tennessee	82,695	72,839	77,760	73,500	74,027	71,792	71,108	68,574	70,813	79,096	75,303	76,508	894,015
Alabama	106,747	109,148	121,518	111,475	128,168	137,166	133,348	134,473	148,518	169,137	148,274	134,745	1,582,717
Mississippi	6,594	6,399	5,761	4,121	4,523	4,332	4,351	5,563	4,423	4,578	3,994	4,028	58,667

West South Central:													
Arkansas	13,180	13,535	14,654	15,026	14,153	14,601	14,418	13,009	12,409	12,164	13,895	12,653	163,697
Louisiana	42,837	36,062	36,960	34,469	37,217	42,172	43,840	46,606	48,980	51,594	49,070	49,986	519,793
Oklahoma	36,586	32,625	34,785	33,173	34,374	35,977	38,533	39,597	40,245	45,735	46,077	45,421	463,128
Texas	116,014	102,848	113,679	109,968	114,034	119,610	126,901	132,441	138,166	141,340	134,403	143,498	1,492,902
Mountain:													
Montana	110,422	106,106	116,097	111,005	112,267	109,189	116,972	125,642	123,551	124,265	122,522	129,865	1,407,903
Idaho	63,342	54,888	54,889	65,018	74,860	75,131	80,257	80,799	71,901	63,783	61,657	64,264	810,789
Wyoming	5,600	4,978	4,856	4,429	4,426	4,492	4,627	4,214	4,879	5,309	5,617	5,954	59,381
Colorado	47,537	40,483	45,870	44,745	45,703	45,543	46,080	47,743	47,535	49,655	49,079	51,989	561,962
New Mexico	1,857	1,648	1,944	1,753	1,868	2,008	2,308	2,658	2,458	2,559	2,334	2,598	25,993
Arizona	8,057	8,369	10,929	7,886	15,701	22,412	15,424	20,996	21,384	15,980	13,564	11,541	172,243
Utah	30,256	26,837	32,244	26,921	31,360	29,637	27,095	25,844	24,210	29,816	33,213	32,171	349,604
Nevada	2,265	3,518	4,476	4,247	4,562	4,143	3,858	2,950	922	526	1,759	3,614	36,840
Pacific:													
Washington	150,431	130,053	147,824	145,982	154,326	148,293	148,308	143,583	136,598	160,673	163,391	178,330	1,807,792
Oregon	73,378	62,590	64,424	63,998	66,413	66,966	67,517	71,078	70,856	74,769	72,961	76,185	831,135
California	516,913	450,915	546,213	520,136	592,887	646,689	669,184	646,927	605,978	590,508	554,140	557,770	*6,898,260

By the use of water power, 1926

United States	1,984,303	1,931,568	2,286,605	2,345,779	2,341,800	2,258,111	2,022,975	2,098,426	2,078,194	2,181,371	2,255,094	2,404,575	26,188,801
New England	155,014	139,626	160,489	165,022	162,101	140,225	121,933	100,151	87,741	120,198	167,917	164,373	1,684,790
Middle Atlantic	477,891	446,516	517,428	536,481	520,615	488,002	440,839	463,095	485,047	557,883	569,623	546,114	6,049,534
East North Central	124,467	121,929	171,173	216,796	198,540	190,311	142,525	153,024	172,728	195,189	198,645	183,651	2,068,978
West North Central	92,438	95,875	128,756	143,416	133,937	126,088	110,286	115,399	145,987	155,004	143,610	124,637	1,515,433
South Atlantic	182,646	214,131	234,975	209,265	141,913	121,797	124,715	155,415	157,608	150,764	166,270	227,373	2,086,872
East South Central	159,028	158,411	181,446	165,485	166,888	152,006	103,334	174,229	161,413	135,379	177,004	191,056	1,925,679
West South Central	4,121	5,026	6,298	7,533	5,117	1,632	1,623	1,664	1,454	3,499	6,338	4,571	48,87
Mountain	214,448	199,000	220,501	229,520	254,684	249,297	253,169	261,627	245,546	235,606	229,053	241,076	2,833,527
Pacific	574,250	551,054	665,539	672,261	758,005	788,753	724,551	673,822	620,670	627,849	596,634	721,724	7,975,112
New England:													
Maine	44,843	42,048	46,140	47,285	46,495	44,238	38,519	35,929	31,853	37,271	48,131	52,350	515,102
New Hampshire	16,966	13,408	18,216	23,227	24,713	20,326	14,528	10,520	10,603	17,876	26,192	18,280	214,855
Vermont	32,237	29,280	19,480	16,760	18,333	19,602	25,172	20,159	16,018	17,234	18,408	26,810	259,493
Massachusetts	46,020	38,889	47,016	47,637	51,714	46,533	37,895	23,783	22,483	35,744	50,815	46,268	494,797
Rhode Island	556	607	1,000	902	600	391	314	316	81	89	313	355	5,524
Connecticut	14,392	15,394	28,637	29,211	20,246	9,135	5,505	9,444	6,703	11,984	24,058	20,310	195,019
Middle Atlantic:													
New York	414,136	377,388	430,303	453,855	455,597	433,613	403,866	400,278	408,721	462,773	479,004	459,242	5,178,776
New Jersey	130	224	282	250	225	220	99	145	160	231	354	395	2,715
Pennsylvania	63,625	68,904	86,843	82,376	64,793	54,169	36,874	62,672	76,166	94,879	90,265	86,477	863,043
East North Central:													
Ohio	3,356	3,900	4,540	5,012	3,165	3,032	2,159	2,989	4,540	5,130	5,145	3,714	46,682
Indiana	8,193	11,887	17,648	18,788	10,989	10,734	5,177	6,261	11,284	16,175	12,695	11,096	140,927
Illinois	16,465	16,496	18,390	18,369	19,202	19,404	19,168	19,311	18,688	18,433	19,338	19,868	223,132
Michigan	60,953	56,590	71,441	87,653	80,319	78,205	61,304	51,192	47,823	57,949	65,943	67,956	787,328
Wisconsin	35,500	33,056	59,154	86,974	84,865	78,936	54,717	73,271	90,393	97,502	95,524	81,017	870,909

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of water power, 1926—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
West North Central:													
Minnesota	30,597	27,961	42,655	60,005	55,881	50,230	48,124	39,813	63,143	69,346	55,926	43,517	587,198
Iowa	50,915	56,181	72,554	68,938	68,239	65,005	55,278	65,256	68,202	70,420	71,987	65,393	778,368
Missouri	5,801	6,049	7,484	8,338	3,491	4,272	1,019	4,242	7,227	7,878	9,140	9,424	74,365
South Dakota	538	506	900	838	754	748	691	713	641	782	633	575	8,319
Nebraska	2,481	2,741	2,540	2,350	3,042	2,982	3,200	2,864	3,650	3,377	2,682	2,166	34,055
Kansas	2,106	2,437	2,623	2,947	2,530	2,851	1,974	2,511	3,124	3,201	3,242	3,562	33,108
South Atlantic:													
Maryland	2,632	2,264	298	567	518	1,666	3,144	2,319	4,688	6,209	5,849	5,985	36,139
Virginia	17,664	25,471	25,554	24,456	15,165	10,731	8,616	12,253	8,660	10,206	19,678	27,829	206,283
West Virginia	2,228	2,825	3,129	3,132	2,897	7,334	6,423	12,412	14,909	19,053	15,629	28,090	118,061
North Carolina	33,431	42,430	44,548	42,238	27,629	17,440	22,853	29,685	26,275	37,573	36,684	51,884	412,670
South Carolina	67,453	87,381	102,650	79,500	47,869	40,017	41,507	43,999	44,175	34,872	41,259	51,270	631,952
Georgia	57,200	51,925	57,119	57,818	46,383	43,284	40,429	52,828	57,792	41,707	46,096	60,967	613,548
Florida	2,038	1,835	1,677	1,554	1,452	1,325	1,743	1,919	1,109	1,144	1,075	1,348	18,219
East South Central:													
Kentucky	5,726	7,061	6,612	1,885	1,884	2,925	5,235	1,026	5,422	7,958	8,760	9,863	64,357
Tennessee	57,068	54,338	60,397	57,256	49,187	42,445	27,871	49,648	39,436	19,481	44,122	55,980	557,229
Alabama	96,234	97,012	114,437	106,344	115,817	106,636	70,228	123,555	116,555	107,940	124,122	125,213	1,304,093
West South Central:													
Arkansas	3,193	4,264	5,369	6,577	4,174	516	260	340	248	1,095	3,928	3,071	33,035
Oklahoma	203	169	187	304	264	196	176	208	262	1,602	1,611	456	5,638
Texas	725	593	742	652	679	920	1,187	1,116	944	802	799	1,044	10,203
Mountain:													
Montana	109,598	105,319	115,306	110,216	111,410	108,392	116,107	124,739	122,595	123,261	121,493	128,796	1,397,232
Idaho	63,157	54,726	54,649	64,847	74,717	74,947	80,075	80,602	71,696	63,576	61,450	64,080	808,522
Wyoming	1,004	949	935	864	888	936	912	463	978	1,017	1,067	1,210	11,223
Colorado	15,117	12,741	16,223	18,221	21,707	20,622	21,914	20,581	19,575	17,525	14,839	16,027	215,092
New Mexico	63	60	84	63	79	93	93	82	86	119	112	87	1,021
Arizona	3,911	4,957	7,902	5,255	12,745	19,315	12,213	17,516	16,812	11,973	9,739	7,546	129,884
Utah	19,413	16,807	20,966	25,825	28,606	20,892	18,096	14,862	13,104	17,821	18,792	19,928	235,112
Nevada	2,185	3,441	4,436	4,229	4,532	4,100	3,759	2,782	700	314	1,561	3,402	35,441
Pacific:													
Washington	146,588	127,176	144,447	142,679	150,765	144,637	144,505	135,482	122,056	155,305	158,239	172,477	1,744,356
Oregon	63,215	51,014	52,257	49,676	53,731	47,681	39,862	39,839	42,090	47,140	41,288	56,762	584,555
California	364,447	372,864	468,835	479,906	553,509	596,435	540,184	498,501	456,524	425,404	397,107	492,485	5,646,201

United States	4,174,850	3,697,867	3,891,011	3,465,954	3,506,992	3,661,919	3,931,860	4,077,049	4,142,876	4,412,783	4,227,031	4,412,071	47,602,263
New England	307,801	286,701	297,630	235,301	225,862	252,022	260,505	309,441	339,655	337,836	286,424	341,987	3,481,165
Middle Atlantic	1,266,490	1,169,540	1,252,304	1,129,233	1,104,616	1,112,101	1,137,384	1,192,233	1,182,226	1,275,570	1,263,813	1,391,758	14,477,268
East North Central	1,368,451	1,256,907	1,320,129	1,190,371	1,169,512	1,188,551	1,242,935	1,321,008	1,334,060	1,406,277	1,344,166	1,452,233	15,594,600
West North Central	294,078	257,166	246,209	210,085	229,934	248,717	273,180	271,765	247,767	251,404	257,181	283,895	3,071,381
South Atlantic	429,446	336,139	371,436	357,977	411,905	432,942	446,041	439,401	451,617	476,429	486,821	470,268	5,110,422
East South Central	82,728	71,039	65,797	63,545	78,818	100,405	145,836	76,227	105,149	163,545	96,969	73,462	1,123,520
West South Central	204,496	180,044	193,780	185,103	194,661	210,728	222,069	229,989	238,346	247,334	237,107	246,987	2,590,644
Mountain	54,888	47,827	50,804	36,484	36,063	43,258	43,452	49,219	51,294	56,287	60,692	60,920	591,188
Pacific	166,472	92,504	92,922	57,855	55,621	73,195	160,458	187,766	192,762	198,101	193,858	90,561	1,562,075
New England:													
Maine	593	175	219	147	140	246	1,926	7,254	10,346	7,432	461	382	29,321
New Hampshire	3,676	3,727	3,770	3,168	1,970	3,447	4,420	5,030	6,011	5,338	3,774	4,338	48,669
Vermont	176	330	537	324	304	270	688	906	982	412	304	188	5,421
Massachusetts	183,263	171,860	182,055	148,210	141,404	145,673	141,320	159,662	169,917	182,884	174,789	203,081	2,004,118
Rhode Island	35,956	33,886	41,640	29,442	26,732	30,733	30,504	48,204	59,471	52,265	36,406	45,476	470,715
Connecticut	84,137	76,723	69,409	54,010	55,312	71,653	81,647	88,385	92,928	89,505	70,690	88,522	922,921
Middle Atlantic:													
New York	555,104	506,915	533,099	474,799	457,890	462,161	471,968	511,251	499,780	540,391	531,796	608,577	6,153,731
New Jersey	148,126	132,860	144,757	132,748	127,520	131,644	136,474	143,489	146,810	159,240	157,553	172,945	1,734,166
Pennsylvania	563,260	529,765	574,448	521,686	519,206	518,296	528,942	537,493	535,636	575,939	574,464	610,236	6,589,371
East North Central:													
Ohio	406,100	375,077	395,082	372,133	363,231	374,694	377,373	395,221	402,733	423,214	403,447	426,041	4,714,346
Indiana	140,177	124,092	128,514	117,951	120,053	121,977	132,518	141,808	139,205	146,152	149,622	155,439	1,617,508
Illinois	493,660	446,811	478,540	440,813	425,677	428,917	442,287	469,272	486,981	526,499	509,236	558,554	5,707,267
Michigan	227,583	213,993	222,522	191,819	195,220	199,080	213,819	232,523	234,504	237,218	209,239	227,965	2,605,485
Wisconsin	100,931	96,934	95,471	67,655	65,331	63,883	76,938	82,184	70,637	73,194	72,602	84,234	949,994
West North Central:													
Minnesota	71,151	61,926	43,064	15,207	25,558	37,545	48,222	41,062	21,030	17,878	26,773	43,577	452,993
Iowa	49,457	40,911	43,501	4,664	44,597	44,885	47,478	48,740	49,212	50,859	50,787	53,519	566,610
Missouri	72,829	64,849	68,264	62,341	64,044	65,980	73,210	72,122	71,868	73,482	71,749	77,400	838,138
North Dakota	3,895	3,371	3,326	3,151	3,227	3,133	3,546	4,399	4,286	4,728	5,224	5,269	47,555
South Dakota	6,449	5,515	5,238	5,765	5,534	5,929	5,745	5,852	6,124	6,294	6,530	7,049	72,023
Nebraska	29,999	26,135	28,423	27,210	28,406	28,884	31,053	31,852	31,311	31,798	32,023	33,663	360,757
Kansas	60,298	54,459	54,393	53,747	58,568	62,361	63,926	67,738	63,936	66,366	64,095	63,418	733,305
South Atlantic:													
Delaware	9,367	8,621	10,102	9,366	9,567	10,173	11,176	12,030	11,356	11,454	6,870	8,784	118,866
Maryland	50,711	37,960	39,647	34,911	43,346	50,169	59,092	52,029	50,082	42,281	40,302	51,320	551,850
District of Columbia	32,674	29,339	31,494	29,530	30,481	29,960	30,856	31,676	31,579	33,213	33,622	36,949	381,373
Virginia	57,549	44,996	49,690	45,825	58,619	65,444	68,655	67,947	71,406	73,115	61,483	54,870	719,599
West Virginia	147,412	128,904	151,287	136,682	132,107	125,291	127,074	135,802	136,817	143,503	162,791	161,629	1,689,299
North Carolina	53,533	27,653	27,046	31,985	58,599	70,205	65,549	61,510	66,520	78,467	88,319	75,322	704,708
South Carolina	25,832	15,650	14,762	22,288	31,370	35,186	35,780	30,825	37,055	43,984	37,239	26,275	356,246
Georgia	12,592	6,687	7,335	6,411	6,667	7,074	8,954	7,196	7,861	8,823	9,671	7,759	97,030
Florida	39,776	36,329	40,073	40,979	41,149	39,440	38,905	40,386	38,941	41,589	46,524	47,360	491,451

TABLE 41.—*Monthly production of electric power by public-utility power plants in the United States, 1919–1926, in thousands of kilowatt-hours*—Continued

[No production in States omitted]

By the use of fuels, 1926—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
East South Central:													
Kentucky	39,994	34,003	35,592	38,049	37,104	36,196	35,128	40,820	37,386	38,155	37,642	39,374	449,443
Tennessee	25,627	18,501	17,363	16,244	24,840	29,347	43,237	18,926	31,377	59,615	31,181	20,528	336,786
Alabama	10,513	12,136	7,081	5,131	12,351	30,530	63,120	10,918	31,963	61,197	24,152	9,532	278,624
Mississippi	6,594	6,399	5,761	4,121	4,523	4,332	4,351	5,563	4,423	4,578	3,994	4,028	5,667
West South Central:													
Arkansas	9,987	9,271	9,285	8,449	9,979	14,085	14,158	12,669	12,161	11,069	9,967	9,582	130,662
Louisiana	42,837	36,062	36,960	34,469	37,217	42,172	43,840	46,606	48,980	51,594	49,070	49,986	519,793
Oklahoma	36,383	32,456	34,598	32,869	34,110	35,781	38,357	39,389	39,983	44,133	44,466	44,965	457,490
Texas	115,289	102,255	112,937	109,316	113,355	118,690	125,714	131,325	137,222	140,538	133,604	142,454	1,482,699
Mountain:													
Montana	824	787	791	789	857	797	865	903	956	1,004	1,029	1,069	10,671
Idaho	185	162	240	171	143	184	182	197	205	207	207	184	2,267
Wyoming	4,596	4,029	3,921	3,565	3,538	3,556	3,715	3,751	3,901	4,292	4,550	4,744	48,158
Colorado	32,420	27,742	29,647	26,524	23,996	24,921	24,166	27,162	27,960	32,130	34,240	35,962	346,870
New Mexico	1,794	1,588	1,860	1,690	1,789	1,915	2,215	2,576	2,372	2,440	2,222	2,511	24,972
Arizona	4,146	3,412	3,027	2,631	2,956	3,097	3,211	3,480	4,572	4,007	3,825	3,995	42,359
Utah	10,843	10,030	11,278	1,096	2,754	8,745	8,999	10,982	11,106	11,995	14,421	12,243	114,492
Nevada	80	77	40	18	30	43	99	168	222	212	198	212	1,399
Pacific:													
Washington	3,843	2,877	3,377	3,303	3,561	3,656	3,803	8,101	14,542	5,368	5,152	5,853	63,436
Oregon	10,163	11,576	12,167	14,322	12,682	19,285	27,655	31,239	28,766	27,629	31,673	19,423	246,580
California	152,466	78,051	77,378	40,230	39,378	50,254	129,000	148,426	149,454	165,104	157,033	65,285	1,252,059

TABLE 42.—*Annual production of electricity by the use of wood for fuel, 1920–1926, in kilowatt-hours (included in Table 41)*

[NOTE.—The estimated production in 1919 was 140,000,000 kilowatt-hours]

State	1920	1921	1922	1923	1924	1925	1926
Arkansas	1, 226, 000	2, 236, 000	3, 899, 000	2, 699, 000	3, 150, 000	4, 124, 000	4, 394, 000
California	6, 671, 000	7, 269, 000	7, 824, 000	7, 174, 000	7, 780, 000	8, 917, 000	9, 809, 000
Florida	2, 424, 000	3, 319, 000	4, 721, 000	4, 363, 000	4, 536, 000	4, 732, 000	2, 265, 000
Georgia	3, 864, 000	6, 176, 000	7, 484, 000	5, 865, 000	5, 102, 000	12, 495, 000	3, 394, 000
Idaho	1, 284, 000	3, 253, 000	1, 443, 000	1, 652, 000	1, 491, 000	2, 285, 000	2, 253, 000
Louisiana	2, 789, 000	1, 168, 000	1, 792, 000	1, 841, 000	1, 261, 000	1, 504, 000	1, 334, 000
Minnesota	8, 721, 000	4, 258, 000	7, 201, 000	5, 942, 000	8, 830, 000	12, 671, 000	11, 596, 000
Mississippi	8, 476, 000	7, 382, 000	7, 703, 000	10, 427, 000	7, 179, 000	4, 219, 000	703, 000
New Mexico	526, 000	2, 116, 000	2, 714, 000	4, 373, 000	6, 287, 000	8, 215, 000	8, 525, 000
Oregon	99, 972, 000	84, 156, 000	136, 456, 000	159, 269, 000	167, 808, 000	164, 605, 000	242, 560, 000
South Carolina	152, 000	467, 000	870, 000	860. 000	568, 000	1, 059, 000	552, 000
Washington	9, 888, 000	12, 357, 000	20, 849, 000	23, 230, 000	16, 024, 000	19, 729, 000	34, 128, 000
Wisconsin	6, 105, 000	4, 128, 000	5, 471, 000	2, 964, 000	3, 336, 000	1, 217, 000	980, 000
All other States *	5, 268, 000	3, 691, 000	4, 169, 000	3, 828, 000	2, 948, 000	4, 190, 000	5, 916, 000
United States	157, 366, 000	141, 976, 000	212, 596, 000	234, 487, 000	236, 300, 000	249, 962, 000	328, 409, 000

* 1920, Alabama, Arizona, Maine, Michigan, Oklahoma, Texas, Virginia; 1921, Alabama, Arizona, Maine, Michigan, Oklahoma, Texas; 1922, Alabama, Arizona, Maine, Michigan, Montana, Texas; 1923, Alabama, Arizona, Maine, Michigan, Missouri, Montana; 1924, Alabama, Arizona, Maine, Maryland, Michigan, Montana, Texas, Virginia; 1925, Alabama, Arizona, Maine, Michigan, Missouri, Montana, Texas; 1926, Alabama, Arizona, Michigan, Missouri, Montana, Texas, Virginia.

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*

[No consumption in States omitted]

1919

COAL (SHORT TONS)

Division and State	February	March	April	July	September	October
United States	2, 865, 567	2, 912, 885	2, 643, 384	2, 656, 634	2, 768, 515	3, 050, 864
New England	229, 125	232, 454	212, 634	230, 840	221, 086	236, 386
Middle Atlantic	882, 809	891, 610	835, 707	842, 603	856, 419	933, 502
East North Central	989, 884	1, 030, 326	918, 477	901, 949	968, 845	1, 062, 471
West North Central	330, 399	315, 171	276, 259	280, 670	286, 917	323, 537
South Atlantic	195, 511	198, 273	186, 105	194, 596	226, 165	260, 592
East South Central	105, 385	101, 119	92, 934	93, 516	100, 421	110, 086
West South Central	64, 157	71, 603	60, 473	97, 674	49, 990	57, 058
Mountain	64, 463	68, 423	58, 161	52, 504	54, 450	58, 928
Pacific	3, 834	3, 906	2, 634	2, 282	4, 222	8, 304
New England:						
Maine	383	348	357	534	1, 485	1, 167
New Hampshire	5, 395	3, 911	3, 241	5, 808	4, 275	4, 215
Vermont	542	412	246	3, 909	531	367
Massachusetts	129, 171	143, 525	129, 877	130, 428	119, 993	128, 178
Rhode Island	29, 692	22, 024	20, 819	22, 648	28, 494	27, 371
Connecticut	63, 942	62, 234	58, 094	67, 513	66, 308	75, 088
Middle Atlantic:						
New York	368, 569	363, 338	325, 474	336, 702	344, 880	377, 137
New Jersey	112, 366	115, 711	114, 137	116, 944	112, 138	127, 226
Pennsylvania	401, 874	412, 561	396, 096	388, 957	399, 401	429, 139
East North Central:						
Ohio	314, 873	321, 643	289, 610	279, 834	286, 869	310, 676
Indiana	141, 060	157, 931	143, 829	142, 122	149, 881	169, 368
Illinois	335, 309	350, 824	318, 378	304, 160	319, 534	353, 493
Michigan	129, 417	124, 941	113, 623	129, 612	150, 923	162, 231
Wisconsin	69, 225	74, 987	53, 037	46, 221	61, 638	66, 703
West North Central:						
Minnesota	57, 282	39, 810	25, 038	26, 523	47, 346	55, 974
Iowa	85, 745	79, 694	72, 211	69, 703	72, 557	81, 451
Missouri	87, 475	89, 531	82, 143	82, 045	77, 874	82, 850
North Dakota	16, 638	17, 153	14, 473	14, 808	13, 738	15, 198
South Dakota	5, 725	7, 005	3, 945	5, 017	5, 972	7, 138
Nebraska	29, 946	30, 956	29, 813	31, 906	32, 602	35, 060
Kansas	47, 588	51, 022	48, 636	50, 668	36, 828	45, 866

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Continued

[No consumption in States omitted]

1919—Continued

COAL (SHORT TONS)

Division and State	February	March	April	July	September	October
South Atlantic:						
Delaware	8,610	7,713	7,000	6,604	6,889	8,157
Maryland	28,452	23,657	20,755	25,951	38,883	35,144
District of Columbia	21,418	21,440	20,983	21,412	20,018	22,050
Virginia	29,127	31,444	28,453	30,674	35,993	40,041
West Virginia	62,459	70,717	69,426	69,526	72,909	95,614
North Carolina	15,648	16,234	15,612	14,915	17,172	19,312
South Carolina	9,844	9,540	8,811	8,761	8,570	10,884
Georgia	16,529	11,934	12,009	13,560	23,702	27,063
Florida	3,424	5,594	3,056	3,193	2,029	2,327
East South Central:						
Kentucky	38,252	39,386	37,380	39,390	33,024	36,026
Tennessee	23,726	28,724	24,710	22,156	28,890	30,105
Alabama	27,026	16,467	14,836	15,458	22,579	25,973
Mississippi	16,381	16,542	16,008	16,512	15,928	17,982
West South Central:						
Arkansas	13,386	11,177	9,902	8,364	7,930	8,135
Louisiana	14,305	13,885	13,878	11,324	11,377	12,714
Oklahoma	11,136	12,578	10,075	8,717	6,172	9,513
Texas	25,330	33,963	26,618	29,269	24,511	26,696
Mountain:						
Montana	5,537	5,591	5,455	4,894	4,334	4,930
Idaho	120	111	121	88	187	156
Wyoming	12,450	13,384	12,242	12,752	10,991	13,131
Colorado	41,507	44,079	36,135	29,204	33,370	34,984
New Mexico	4,045	4,438	3,627	4,133	4,028	4,141
Arizona	541	579	410	1,238	1,378	1,383
Utah	65	61	31	0	5	5
Nevada	198	180	140	195	157	198
Pacific:						
Washington	3,611	3,473	2,411	2,060	3,268	7,270
Oregon	223	433	223	222	954	1,034

FUEL OIL (BARRELS)

United States	656,368	633,515	583,062	994,667	1,111,577	1,210,220
New England	386	366	318	239	1,384	1,621
Middle Atlantic	658	663	597	1,600	1,165	948
East North Central	5,940	3,973	4,030	2,853	2,073	2,169
West North Central	90,458	91,004	86,602	88,289	134,854	145,148
South Atlantic	33,125	32,493	29,199	33,480	41,764	53,314
East South Central	822	763	753	874	5,227	5,824
West South Central	210,272	218,280	216,602	239,716	279,053	327,008
Mountain	73,125	62,583	49,975	49,082	40,535	55,191
Pacific	241,582	223,390	194,986	578,534	605,522	618,997
New England:						
Maine	7	7	17	0	20	26
New Hampshire	20	20	3	3	35	31
Vermont	2	2	2	2	0	0
Massachusetts	24	14	17	21	0	14
Connecticut	333	323	279	213	1,329	1,550
Middle Atlantic:						
New York	544	546	501	1,224	879	276
New Jersey	92	103	80	79	76	379
Pennsylvania	22	14	16	297	210	293
East North Central:						
Ohio	739	842	764	689	585	622
Indiana	448	167	420	402	314	275
Illinois	3,918	2,198	2,142	984	460	484
Michigan	191	104	139	204	63	70
Wisconsin	644	662	565	574	651	718
West North Central:						
Minnesota	1,138	1,016	854	832	347	387
Iowa	787	730	743	720	589	600
Missouri	33,571	21,053	19,519	18,847	56,919	66,736
North Dakota	539	514	530	553	226	151
South Dakota	3,164	3,379	3,091	3,231	2,336	2,662
Nebraska	3,512	3,509	3,433	3,364	3,027	3,233
Kansas	47,747	60,803	58,432	60,742	71,410	71,379

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Continued

[No consumption in States omitted]

1919—Continued

FUEL OIL (BARRELS)—Continued

Division and State	February	March	April	July	September	October
South Atlantic:						
Delaware	0	17	0	0	0	0
Maryland	19	18	30	30	0	0
Virginia	122	153	52	122	126	128
West Virginia	52	58	52	45	45	50
North Carolina	20	20	20	20	0	0
South Carolina	78	82	93	102	0	0
Georgia	120	120	167	2,386	4,105	5,546
Florida	32,714	32,025	28,785	30,775	37,488	47,590
East South Central:						
Kentucky	358	351	353	341	165	190
Tennessee	86	84	81	82	20	25
Alabama	8	8	8	8	4,925	5,475
Mississippi	370	320	311	443	117	134
West South Central:						
Arkansas	447	489	456	450	289	321
Louisiana	30,811	30,094	28,192	30,508	32,851	33,487
Oklahoma	8,109	6,300	9,921	20,067	31,628	53,065
Texas	170,905	181,397	178,033	188,691	214,285	240,135
Mountain:						
Montana	530	492	488	502	294	334
Idaho	10	10	10	9	10	10
Wyoming	8,470	9,062	8,840	4,008	4,300	4,388
Colorado	100	95	98	174	90	100
New Mexico	1,060	1,360	1,373	1,610	743	1,431
Arizona	62,055	50,520	38,169	40,999	33,910	47,604
Nevada	900	1,044	997	1,780	1,188	1,324
Pacific:						
Washington	17,810	18,804	17,879	22,071	38,550	34,695
Oregon	24,384	19,459	15,456	5,664	5,153	12,278
California	199,388	185,127	161,651	550,799	561,819	572,024

NATURAL GAS (M CUBIC FEET)

United States	1,412,504	1,766,760	1,859,867	2,057,147	1,900,646	1,995,987
New England	20,766	12,615	11,309	0	0	
Middle Atlantic	192,132	218,858	200,965	97,480	98,413	101,164
East North Central	252,647	325,428	335,593	513,739	532,004	511,526
West North Central	83,405	86,901	65,374	84,323	102,580	212,375
South Atlantic	119,627	144,339	185,349	279,434	206,478	202,333
West South Central	716,030	789,666	783,599	835,550	721,416	773,587
Mountain	6,286	7,168	4,096	4,393	3,683	4,507
Pacific	21,611	181,785	273,642	242,228	235,872	190,495
New England:						
Connecticut	20,766	12,615	11,309	0	0	0
Middle Atlantic:						
New York	149,831	164,408	147,432	56,949	58,089	58,747
Pennsylvania	42,301	54,450	58,533	40,531	40,324	42,417
East North Central:						
Ohio	250,488	323,320	333,684	511,861	530,186	509,506
Indiana	2,159	2,108	1,909	1,878	1,818	2,020
West North Central:						
Kansas	83,405	86,901	65,374	84,323	102,580	212,375
South Atlantic:						
Maryland	1,500	1,500	1,500	1,350	1,350	1,500
West Virginia	118,029	142,688	180,069	278,084	205,128	200,833
Florida	98	151	3,780	0	0	0
West South Central:						
Arkansas	63,430	85,398	97,726	182,848	201,387	220,739
Louisiana	55,092	47,458	49,599	63,624	73,924	83,030
Oklahoma	423,813	477,050	458,496	474,930	387,388	414,020
Texas	173,695	179,760	177,778	114,148	58,717	55,798
Mountain:						
Montana	1,008	960	907	912	1,033	1,207
Wyoming	5,278	6,208	3,129	3,481	2,850	3,300
Pacific:						
California	21,611	181,785	273,642	242,228	235,872	190,495

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1920

COAL (SHORT TONS)

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Year
United States	3,585,067	3,232,480	3,256,027	2,915,691	2,823,995	2,849,447	2,937,423	3,009,982	3,004,009	3,156,781	3,155,220	3,197,733	37,123,855
New England	298,367	261,397	240,408	207,218	193,588	200,896	215,223	220,687	217,940	208,555	200,989	197,881	2,663,149
Middle Atlantic	1,167,210	1,021,700	1,041,057	927,495	907,334	926,674	944,705	961,624	964,111	1,022,392	1,012,280	1,031,298	11,927,880
East North Central	1,266,520	1,172,089	1,191,568	1,076,514	1,037,557	1,037,265	1,056,232	1,082,758	1,063,875	1,109,235	1,118,325	1,128,571	13,340,509
West North Central	354,076	338,548	329,888	290,552	284,345	273,854	293,230	314,067	320,841	345,563	359,932	395,698	3,900,594
South Atlantic	273,792	234,176	239,446	217,656	215,570	218,761	233,855	226,094	228,645	249,869	238,694	227,601	2,804,159
East South Central	110,171	92,177	95,121	88,951	87,655	87,162	89,801	98,056	99,150	112,104	114,627	94,502	1,168,877
West South Central	45,978	49,294	53,021	47,260	45,070	51,874	50,871	51,682	54,172	53,189	51,957	57,024	611,392
Mountain	65,415	60,180	61,653	56,001	49,652	49,198	49,544	49,795	50,840	52,883	54,700	60,764	660,625
Pacific	3,538	2,919	3,865	4,044	3,824	3,763	3,962	5,219	4,435	2,991	3,716	4,394	46,670
New England:													
Maine	3,410	3,523	813	389	389	329	169	383	318	373	491	398	10,985
New Hampshire	6,768	5,780	3,645	3,259	2,883	3,036	3,643	4,148	4,084	3,781	3,631	3,492	48,150
Vermont	1,748	2,250	441	261	153	235	357	604	315	278	439	468	7,549
Massachusetts	175,716	150,723	141,233	125,448	114,132	118,742	125,079	133,225	129,081	122,895	119,140	120,872	1,576,286
Rhode Island	35,196	32,624	28,675	25,540	22,859	25,320	24,799	20,296	21,499	20,535	16,727	15,776	289,846
Connecticut	75,529	66,497	65,601	52,321	53,172	53,234	61,176	62,031	62,643	66,693	60,561	56,875	730,333
Middle Atlantic:													
New York	479,800	411,209	402,924	348,551	343,046	367,696	379,979	388,437	384,236	408,565	412,673	420,593	4,747,709
New Jersey	156,797	130,201	136,861	128,285	124,444	125,120	123,919	126,985	125,222	132,180	123,462	134,285	1,567,761
Pennsylvania	530,613	480,290	501,272	450,659	439,844	433,858	440,807	446,202	454,653	481,647	476,145	476,420	5,612,410
East North Central:													
Ohio	401,486	362,455	373,674	343,756	325,773	320,997	325,985	325,424	320,150	330,844	346,022	334,569	4,111,135
Indiana	198,528	184,622	183,459	173,596	160,585	160,700	162,699	167,114	163,998	181,981	183,769	184,367	2,105,418
Illinois	411,734	384,176	385,856	358,068	337,318	328,619	331,418	346,220	345,696	369,952	386,365	408,638	4,394,060
Michigan	178,983	164,252	168,411	133,789	148,957	164,686	171,282	168,661	156,461	144,516	130,018	132,342	1,862,358
Wisconsin	75,789	76,584	80,168	67,305	64,924	62,263	64,848	75,339	77,570	81,942	72,151	68,655	867,538
West North Central:													
Minnesota	64,087	56,206	45,403	27,220	24,452	26,742	26,896	40,060	44,882	50,763	52,546	61,258	520,515
Iowa	93,829	90,096	91,321	79,524	74,936	72,029	78,165	80,172	80,415	84,439	87,337	92,077	1,004,340
Missouri	91,178	92,422	99,687	96,775	93,436	88,487	96,512	93,633	98,959	107,868	105,504	125,687	1,190,148
North Dakota	19,462	16,087	14,346	12,887	11,733	11,750	12,995	13,802	14,106	15,539	17,432	18,993	179,132
South Dakota	7,831	7,645	6,522	5,558	5,701	5,959	6,290	6,448	6,411	7,835	7,809	8,190	82,199
Nebraska	37,979	39,209	36,317	34,203	35,223	33,220	34,677	37,276	38,274	39,566	41,868	43,677	451,489
Kansas	39,710	36,883	36,292	34,385	38,864	35,667	37,695	42,676	37,794	39,553	47,436	45,816	472,771

South Atlantic:													
Delaware	9,139	9,834	10,198	10,254	8,675	9,717	9,856	10,164	10,042	9,425	11,106	11,390	119,800
Maryland	39,552	34,251	30,391	24,264	22,512	26,279	32,350	30,499	30,335	37,108	31,091	28,140	366,772
District of Columbia	23,237	21,104	22,171	18,850	20,640	19,784	23,036	20,957	18,939	20,548	21,304	22,239	252,809
Virginia	43,351	37,657	33,829	31,799	33,202	33,543	39,920	34,403	38,681	47,265	43,551	39,120	456,321
West Virginia	107,133	98,089	106,963	99,359	101,416	101,781	99,948	100,636	98,800	102,212	99,412	97,326	1,213,075
North Carolina	17,512	10,114	11,621	10,053	8,541	8,023	8,601	8,425	8,713	9,629	8,946	8,686	118,864
South Carolina	11,979	9,910	11,582	9,697	9,440	8,864	9,171	9,426	10,290	10,584	10,449	9,752	121,144
Georgia	19,556	10,875	10,268	11,176	9,406	8,164	8,022	8,537	9,890	10,418	9,818	8,175	124,305
Florida	2,333	2,342	2,423	2,204	1,738	2,606	2,951	3,047	2,955	2,680	3,017	2,773	31,069
East South Central:													
Kentucky	43,221	39,551	40,152	38,981	38,208	37,113	38,944	40,439	40,123	41,917	43,675	44,756	487,080
Tennessee	23,701	22,075	23,508	22,976	23,240	23,846	24,330	25,818	23,917	26,001	25,639	24,103	289,154
Alabama	29,221	17,664	17,834	16,960	15,484	16,204	15,593	20,052	22,695	31,093	32,441	12,993	248,234
Mississippi	14,028	12,887	13,627	10,034	10,123	9,999	10,934	11,747	12,415	13,093	12,872	12,650	144,409
West South Central:													
Arkansas	8,548	7,591	8,879	8,029	6,422	9,443	11,633	12,083	12,618	11,814	11,799	14,160	123,019
Louisiana	7,589	11,855	12,073	10,665	10,973	12,496	10,433	13,541	15,706	13,970	12,257	13,439	144,997
Oklahoma	8,413	8,889	9,433	8,727	9,143	9,655	6,155	6,275	7,723	9,182	9,311	9,166	102,072
Texas	21,428	20,959	22,636	19,839	18,532	20,280	22,650	19,783	18,125	18,223	18,590	20,259	241,304
Mountain:													
Montana	4,551	4,353	4,276	3,993	3,889	3,654	3,950	3,551	3,469	3,710	4,033	4,036	47,465
Idaho	150	60	150	50	0	0	0	0	0	0	25	0	435
Wyoming	13,248	12,786	12,625	11,349	10,775	11,248	7,664	8,346	9,339	9,406	9,347	13,158	129,291
Colorado	43,406	39,154	40,545	36,404	30,453	29,851	33,507	33,210	33,370	35,264	36,750	38,695	430,609
New Mexico	3,612	3,263	3,498	3,609	3,644	3,570	4,165	4,150	3,653	3,430	3,565	4,028	44,187
Arizona	198	317	271	297	656	661	39	315	759	777	693	596	5,579
Utah	3	15	40	70	10	0	0	8	8	0	50	8	212
Nevada	247	232	248	229	225	214	219	215	242	296	237	243	2,847
Pacific:													
Washington	3,348	2,722	3,230	3,844	3,607	3,419	3,782	5,039	4,260	2,841	3,560	4,239	43,891
Oregon	190	197	635	200	217	344	180	180	175	150	156	155	2,779

FUEL OIL (BARRELS)

United States	1,289,842	1,170,132	1,060,769	910,959	922,889	1,077,308	1,189,820	1,199,611	1,220,975	1,169,495	960,958	949,946	13,122,704
New England	15,893	21,415	26,359	24,047	24,283	31,962	55,369	71,869	69,982	70,690	65,560	65,791	543,220
Middle Atlantic	904	1,280	917	1,819	1,395	947	1,718	3,713	6,023	8,887	7,418	7,057	42,158
East North Central	2,155	2,073	1,900	1,767	1,618	2,130	1,477	1,511	1,450	1,654	1,764	1,757	21,256
West North Central	201,059	140,898	137,657	120,889	97,048	97,085	105,568	100,406	96,136	98,810	104,405	91,396	1,391,457
South Atlantic	78,736	90,477	91,636	82,372	75,971	76,420	74,347	70,628	71,920	75,859	72,601	86,346	947,313
East South Central	13,309	14,076	19,320	18,328	17,677	15,723	21,485	17,114	18,087	17,382	19,279	18,326	210,106
West South Central	380,399	318,945	328,076	290,861	293,467	285,976	317,208	296,599	314,134	332,445	329,811	333,561	3,821,482
Mountain	29,969	27,665	29,633	27,786	28,538	28,216	28,528	27,224	26,050	28,993	26,946	24,564	334,102
Pacific	567,318	553,303	425,271	343,090	382,892	538,849	584,120	610,467	617,193	534,785	333,174	321,148	5,811,610

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1920—Continued

FUEL OIL (BARRELS)—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Year
New England:													
Maine	49	0	3,984	3,939	2,807	2,283	2,581	2,709	3,990	3,203	2,915	2,797	31,257
New Hampshire	0	10	39	19	40	41	7	0	3	5	12	10	186
Vermont	2,146	2,121	1,753	1	0	0	912	2,658	1,773	1,104	32	30	12,530
Massachusetts	1,764	6,798	6,666	7,835	6,900	7,775	10,073	19,903	19,924	19,921	23,274	21,796	152,629
Rhode Island	7,560	8,764	11,492	9,964	12,165	19,395	40,117	45,134	42,835	45,089	37,973	40,450	320,938
Connecticut	4,374	3,722	2,425	2,289	2,371	2,468	1,679	1,465	1,457	1,368	1,354	708	25,680
Middle Atlantic:													
New York	763	825	788	1,201	1,219	852	1,622	3,707	5,926	8,786	7,186	6,756	39,631
New Jersey	136	112	92	90	75	74	90	86	97	101	97	123	1,173
Pennsylvania	5	343	37	528	101	21	6	0	0	0	135	178	1,354
East North Central:													
Ohio	697	530	578	558	572	615	600	543	540	555	555	540	6,883
Indiana	270	277	428	322	315	608	300	328	354	370	412	447	4,431
Illinois	472	593	237	251	308	256	235	260	207	261	230	254	3,564
Michigan	139	131	140	128	57	74	88	109	106	233	276	215	1,696
Wisconsin	577	542	517	508	366	577	254	271	243	235	291	301	4,682
West North Central:													
Minnesota	620	490	442	418	428	436	645	409	381	382	396	330	5,377
Iowa	576	555	608	656	561	592	934	1,008	1,034	1,177	962	892	9,555
Missouri	91,113	55,802	41,819	38,799	28,417	30,956	33,805	28,175	28,749	23,952	29,200	18,050	448,837
North Dakota	150	194	207	206	195	371	172	113	163	155	151	196	2,273
South Dakota	1,999	2,576	2,834	1,626	1,858	1,583	1,629	1,726	2,029	1,997	1,984	2,215	24,056
Nebraska	16,503	8,406	10,694	11,240	8,352	4,831	3,731	3,779	3,446	3,277	2,839	2,878	79,976
Kansas	90,198	72,875	81,053	67,944	57,237	58,316	64,652	65,196	60,334	67,870	68,873	66,835	821,383
South Atlantic:													
Maryland	0	0	8	6	0	8	20	12	15	18	17	0	104
Virginia	132	119	129	137	163	160	89	180	130	130	933	210	2,512
West Virginia	50	45	48	48	20	48	48	67	50	50	50	50	574
North Carolina	34	32	36	36	104	151	121	100	120	125	150	200	1,209
South Carolina	0	0	0	0	0	0	25	0	10	0	35	35	105
Georgia	19,605	27,702	27,366	26,136	26,411	28,415	26,769	27,288	27,437	28,626	19,663	26,561	311,979
Florida	58,915	62,579	64,049	56,009	49,273	47,638	47,275	42,981	44,158	46,910	51,753	59,290	630,830
East South Central:													
Kentucky	188	295	310	310	145	220	195	628	225	220	240	250	3,226
Tennessee	25	23	25	25	25	25	25	78	143	0	0	0	394
Alabama	1,255	8,516	8,437	8,424	7,348	5,654	9,508	8,194	9,522	9,148	10,723	9,934	96,663
Mississippi	11,841	5,242	10,548	9,569	10,159	9,824	11,757	8,214	8,197	8,014	8,316	8,142	109,823
West South Central:													
Arkansas	4,888	4,049	3,933	6,635	3,249	7,635	15,138	9,559	7,113	8,977	7,805	4,835	83,816
Louisiana	61,578	37,019	35,413	36,488	41,791	40,187	38,523	40,753	38,353	37,592	41,438	45,962	495,097
Oklahoma	71,940	53,904	49,556	23,504	18,794	18,827	17,831	4,701	10,118	16,581	26,315	33,614	345,685
Texas	241,993	223,973	239,174	224,284	229,633	219,327	245,716	241,586	258,550	269,295	254,253	249,150	2,896,884

Mountain:													
Montana	22	26	29	27	60	60	210	211	212	195	213	170	1,435
Idaho	10	10	10	10	0	0	0	0	0	0	0	0	40
Wyoming	9,685	8,348	8,563	8,351	6,195	5,020	5,296	5,320	5,993	6,477	7,346	5,896	82,490
Colorado	110	100	110	131	131	130	130	130	130	130	54	0	1,336
New Mexico	266	270	249	532	617	829	854	898	776	750	649	657	7,347
Arizona	19,034	18,076	20,432	18,565	21,365	22,007	21,868	20,495	18,769	21,381	18,684	17,841	238,517
Nevada	842	835	240	170	170	170	170	170	170	0	0	0	2,937
Pacific:													
Washington	15,612	11,209	11,054	7,959	7,206	4,745	12,210	19,434	16,641	12,244	10,999	12,210	141,523
Oregon	3,657	1,752	798	819	1,923	2,031	2,141	2,707	1,592	1,375	1,622	3,635	24,052
California	548,049	540,342	413,419	334,312	373,763	532,073	569,769	588,326	598,960	521,166	320,553	305,303	5,646,035

NATURAL GAS (M CUBIC FEET)

United States	1,427,575	1,313,896	1,573,987	1,803,594	2,120,360	2,256,253	2,595,914	2,709,412	2,713,998	2,404,675	1,909,313	1,873,130	24,702,107
Middle Atlantic	72,740	60,213	62,353	63,821	51,524	53,860	54,745	63,134	55,786	57,379	65,489	55,865	716,909
East North Central	163,126	120,352	286,680	356,998	464,026	488,968	555,697	581,573	575,753	581,909	417,942	362,607	4,955,631
West North Central	76,283	68,690	74,684	85,107	120,240	137,528	226,182	195,780	217,663	164,913	56,303	57,922	1,481,295
South Atlantic	258,656	235,268	238,711	306,882	311,131	328,524	341,064	283,283	308,101	322,898	315,499	317,846	3,567,863
East South Central	5,622	8,308	10,402	13,021	21,141	13,159	14,453	14,108	12,558	13,610	18,229	12,801	157,412
West South Central	667,028	626,538	731,374	801,290	919,919	1,002,039	1,064,165	1,125,892	1,118,898	984,419	866,108	873,320	10,780,990
Mountain	4,557	4,078	4,309	4,295	4,283	2,994	3,956	4,254	6,180	5,329	5,496	21,320	71,051
Pacific	179,563	190,449	165,474	172,180	228,096	229,181	335,652	441,388	419,059	274,218	164,247	171,449	2,970,956
Middle Atlantic:													
New York	29,479	28,784	6,187	5,839	6,169	10,849	10,217	16,711	7,685	7,593	14,872	6,730	151,115
Pennsylvania	43,261	31,429	56,166	57,982	45,355	43,011	44,528	46,423	48,101	49,786	50,617	49,135	565,794
East North Central:													
Ohio	161,101	118,327	284,655	354,973	462,026	486,968	553,697	579,573	573,753	579,909	415,942	360,607	4,931,531
Indiana	2,025	2,025	2,025	2,025	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,100
West North Central:													
Kansas	76,283	68,690	74,684	85,107	120,240	137,528	226,182	195,780	217,663	164,913	56,303	57,922	1,481,295
South Atlantic:													
Maryland	1,500	1,400	1,500	1,500	424	461	441	399	591	590	590	590	9,986
West Virginia	257,156	233,868	237,211	305,382	310,707	328,063	340,623	282,884	307,510	322,308	314,909	317,256	3,557,877
East South Central:													
Kentucky	5,622	8,308	10,402	13,021	21,141	13,159	14,453	14,108	12,558	13,610	18,229	12,801	157,412
West South Central:													
Arkansas	218,596	207,185	232,834	214,596	199,466	260,840	259,905	253,268	240,050	206,904	187,858	217,238	2,698,740
Louisiana	68,510	58,276	74,109	81,517	81,074	90,147	99,290	97,047	97,236	104,848	104,648	102,972	1,059,674
Oklahoma	324,942	303,408	363,962	432,362	543,970	463,537	539,097	621,310	617,628	550,551	437,951	409,766	5,698,484
Texas	54,980	57,669	60,469	72,815	95,409	187,515	165,873	154,267	163,984	122,116	135,651	143,344	1,414,092
Mountain:													
Montana	1,257	1,098	1,119	1,105	1,093	994	1,086	1,134	1,180	1,169	1,431	1,400	14,066
Wyoming	3,300	2,980	3,190	3,190	3,190	2,000	2,870	3,120	5,000	4,160	4,065	19,920	56,985
Pacific:													
California	179,563	190,449	165,474	172,180	228,096	229,181	335,652	441,388	419,059	274,218	164,247	171,449	2,970,956

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1921

COAL (SHORT TONS)

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Year
United States	2,974,159	2,629,002	2,641,899	2,416,556	2,414,626	2,439,155	2,462,002	2,578,590	2,588,638	2,759,285	2,777,918	2,903,454	31,585,284
New England	188,904	177,612	168,202	149,057	154,336	173,882	166,901	180,566	200,618	209,182	198,671	206,420	2,174,351
Middle Atlantic	970,395	863,949	865,408	810,069	815,931	794,476	794,688	829,233	829,469	883,626	890,853	949,280	10,297,377
East North Central	1,041,793	919,064	948,471	862,984	846,565	851,349	870,344	913,232	879,288	938,865	972,410	1,023,815	11,068,180
West North Central	365,530	314,734	298,311	252,929	246,580	242,488	252,437	272,734	264,832	284,102	311,978	330,522	3,437,177
South Atlantic	207,699	180,720	184,231	174,778	186,724	202,160	203,237	204,547	228,301	244,903	210,669	203,855	2,431,824
East South Central	87,713	78,271	79,991	73,243	79,154	95,942	88,328	91,071	99,643	101,593	94,766	90,755	1,060,470
West South Central	58,016	47,633	49,166	48,229	43,064	41,816	43,256	42,658	41,332	44,219	44,625	46,760	550,774
Mountain	50,361	43,785	44,820	42,360	39,665	34,843	40,631	42,262	42,675	50,305	51,572	48,992	532,271
Pacific	3,748	3,234	3,299	2,907	2,607	2,199	2,180	2,287	2,480	2,490	2,374	3,055	32,860
New England:													
Maine	51	39	104	140	198	233	318	779	3,315	4,354	2,104	942	12,577
New Hampshire	3,557	2,769	2,314	2,234	2,682	4,146	3,144	3,531	5,028	5,252	4,459	5,138	44,254
Vermont	193	0	181	58	14	216	580	336	1,815	596	106	121	4,216
Massachusetts	114,527	109,544	103,133	88,797	93,453	104,135	99,257	107,955	118,801	120,804	116,284	129,451	1,306,141
Rhode Island	13,843	12,044	11,546	11,085	9,607	8,323	8,447	7,870	8,685	10,911	11,495	10,379	124,235
Connecticut	56,733	53,216	50,924	46,743	48,382	56,829	55,155	60,095	62,974	67,265	64,223	60,389	682,928
Middle Atlantic:													
New York	406,812	353,105	360,243	343,848	338,824	331,945	345,619	365,782	373,813	390,085	381,806	400,600	4,392,482
New Jersey	117,243	99,878	95,728	89,163	92,265	89,479	97,300	93,492	93,271	99,731	111,504	122,214	1,201,268
Pennsylvania	446,340	410,966	409,437	377,058	384,842	373,052	351,769	369,959	362,385	393,810	397,543	426,466	4,703,627
East North Central:													
Ohio	304,129	268,979	285,185	257,887	244,125	249,348	250,805	249,837	236,527	263,609	269,632	279,789	3,159,852
Indiana	171,840	152,584	158,590	150,495	144,864	142,337	144,370	152,208	151,754	161,377	166,898	167,597	1,864,914
Illinois	377,232	327,618	335,056	301,473	304,435	302,006	306,660	326,548	318,633	335,870	357,043	393,114	3,985,688
Michigan	118,129	108,983	111,136	108,094	106,807	114,555	118,935	123,661	118,009	119,325	117,436	114,209	1,379,279
Wisconsin	70,463	60,900	58,504	45,035	46,334	43,103	49,574	60,978	54,365	58,684	61,401	69,106	678,447
West North Central:													
Minnesota	54,853	50,434	40,443	22,647	23,914	23,884	35,115	47,825	42,696	49,145	56,218	60,775	507,949
Iowa	90,046	78,375	75,141	68,280	64,381	62,420	63,883	67,234	68,867	71,987	78,407	81,600	870,621
Missouri	109,565	93,632	95,144	88,072	87,260	84,327	79,229	82,317	81,302	86,442	98,109	107,217	1,092,616
North Dakota	16,739	14,716	14,716	12,224	12,099	11,720	13,189	14,336	12,973	13,581	15,906	16,397	168,596
South Dakota	8,162	7,384	6,690	5,950	5,542	6,378	7,378	7,662	7,211	7,720	7,801	8,975	86,853
Nebraska	41,870	36,613	35,341	32,801	31,943	33,430	35,422	36,038	35,936	36,039	36,032	36,185	427,650
Kansas	44,295	33,580	30,836	22,955	21,441	20,329	18,221	17,322	15,847	19,188	19,505	19,373	282,892

South Atlantic:													
Delaware	9,106	8,070	7,895	6,799	6,657	6,173	6,238	6,577	6,924	7,578	7,845	8,386	88,248
Maryland	24,559	18,283	16,586	16,215	18,210	27,789	26,112	26,958	30,788	32,194	19,946	20,337	277,977
District of Columbia	21,703	18,901	19,572	18,27	18,768	18,067	18,948	19,120	18,547	19,163	19,392	21,077	231,537
Virginia	38,425	30,472	32,932	30,809	32,111	36,764	40,535	48,315	50,007	53,717	44,386	40,378	478,851
West Virginia	85,459	79,204	81,675	77,345	89,395	89,187	85,686	79,549	83,633	87,657	84,701	85,451	1,008,942
North Carolina	8,700	7,569	7,808	6,873	7,142	7,504	9,077	8,386	15,655	16,902	10,996	9,110	115,722
South Carolina	9,301	8,845	9,288	9,730	6,581	7,545	7,768	7,874	9,699	10,361	8,996	8,486	104,474
Georgia	8,249	7,176	6,549	6,681	5,857	7,325	7,031	6,020	11,222	15,433	12,539	8,733	102,815
Florida	2,197	2,200	1,926	2,047	2,003	1,806	1,842	1,748	1,826	1,898	1,868	1,897	23,258
East South Central:													
Kentucky	43,196	38,785	39,890	37,267	38,253	38,512	38,476	38,871	38,747	41,269	41,700	42,748	477,714
Tennessee	23,422	19,606	21,136	19,253	18,234	19,745	18,884	20,263	20,245	22,686	21,405	21,849	246,728
Alabama	8,974	8,795	8,180	7,371	13,465	27,943	21,238	23,462	31,357	28,023	22,399	16,993	218,180
Mississippi	12,121	11,085	10,785	9,352	9,202	9,762	9,730	8,475	9,294	9,615	9,262	9,165	117,848
West South Central:													
Arkansas	12,073	12,158	12,043	11,842	11,300	9,829	10,435	9,568	9,356	9,446	9,586	10,903	128,539
Louisiana	13,198	12,034	11,917	10,065	9,338	9,818	10,178	10,431	10,401	9,844	9,772	10,457	127,453
Oklahoma	12,409	7,992	5,172	4,487	3,968	3,743	3,329	3,474	3,857	6,432	7,047	8,119	70,029
Texas	20,336	15,449	20,034	21,835	18,458	18,426	19,314	19,185	17,718	18,497	18,220	17,281	224,753
Mountain:													
Montana	3,698	3,682	3,799	3,336	3,556	3,500	3,787	3,476	3,650	3,610	3,732	3,835	43,661
Wyoming	9,189	7,822	7,902	6,747	6,732	6,398	6,523	6,981	7,274	7,866	8,137	8,528	90,099
Colorado	32,487	27,968	28,704	28,149	26,704	22,632	28,068	28,974	28,254	35,910	36,872	33,122	357,844
New Mexico	4,129	3,449	3,664	3,368	2,406	2,186	2,123	2,678	3,359	2,785	2,677	3,296	36,120
Arizona	626	675	575	580	150	0	0	0	0	0	0	0	2,606
Utah	11	5	0	0	0	0	0	0	0	0	0	40	56
Nevada	221	184	176	180	117	127	130	153	138	134	154	171	1,885
Pacific:													
Washington	3,583	3,108	3,179	2,788	2,542	2,199	2,180	2,287	2,340	2,355	2,229	2,905	31,695
Oregon	165	126	120	119	65	0	0	0	140	135	145	150	1,165

FUEL OIL (BARRELS)

United States	896,647	780,753	850,788	843,490	852,684	916,086	1,028,364	1,164,956	1,190,459	1,182,408	1,147,022	1,191,752	12,045,409
New England	72,354	74,304	80,456	69,122	82,981	123,772	107,137	140,773	159,068	165,785	151,779	149,636	1,377,167
Middle Atlantic	9,924	7,994	5,274	5,102	5,801	8,351	9,886	12,225	10,760	11,895	12,522	10,335	110,069
East North Central	1,660	1,498	1,478	1,492	1,483	1,592	1,554	1,611	3,563	2,545	2,640	1,927	23,043
West North Central	73,842	64,302	64,067	85,666	95,304	117,478	147,060	161,231	168,370	165,077	137,178	147,563	1,427,138
South Atlantic	84,587	81,080	86,059	75,719	79,041	73,562	71,346	72,820	71,950	76,688	80,184	84,627	937,663
East South Central	16,288	16,173	16,102	18,565	19,359	17,289	19,651	17,887	19,022	19,086	19,686	23,333	222,441
West South Central	324,292	264,396	327,718	307,772	328,228	339,640	396,479	421,834	412,719	402,140	351,914	359,700	4,236,832
Mountain	21,135	15,781	17,633	25,060	20,815	21,919	18,054	17,129	17,060	16,535	16,215	19,949	227,285
Pacific	292,565	255,225	252,001	254,992	219,672	212,483	257,197	319,446	327,947	322,657	374,904	394,682	3,483,771

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1921—Continued

FUEL OIL (BARRELS)—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Year
New England:													
Maine	1,496	1,293	1,304	1,327	1,263	2,095	2,250	2,207	8,920	9,118	6,170	2,654	40,097
Vermont	0	0	0	0	0	1,100	2,029	3,300	7,409	2,796	83	0	16,717
Massachusetts	24,560	23,510	29,764	23,039	25,848	25,990	24,001	30,794	29,792	31,729	45,185	47,423	361,635
Rhode Island	45,322	48,090	48,294	43,763	53,941	91,391	76,123	101,569	109,976	118,057	96,985	96,698	930,209
Connecticut	976	1,411	1,094	993	1,929	3,196	2,734	2,903	2,971	4,085	3,356	2,861	28,509
Middle Atlantic:													
New York	9,668	7,812	5,043	4,906	5,620	7,896	9,427	12,058	10,337	11,667	12,307	10,054	106,795
New Jersey	95	79	96	96	102	90	98	77	115	121	139	141	1,249
Pennsylvania	161	103	135	100	79	365	361	90	308	107	76	140	2,025
East North Central:													
Ohio	510	510	510	591	580	588	587	596	598	604	625	663	6,962
Indiana	411	360	360	294	316	302	315	394	587	427	447	506	4,719
Illinois	266	201	210	217	160	188	184	200	181	217	235	225	2,484
Michigan	226	185	163	162	128	207	197	140	134	129	132	131	1,934
Wisconsin	247	242	235	228	299	307	271	281	2,063	1,168	1,201	402	6,944
West North Central:													
Minnesota	470	340	355	222	279	303	371	840	458	455	731	704	5,528
Iowa	1,128	960	1,054	910	956	867	914	860	947	1,024	1,072	1,291	12,013
Missouri	9,329	4,943	7,989	7,289	8,075	24,615	31,600	34,257	35,350	37,284	12,155	12,954	225,840
North Dakota	156	143	136	125	83	94	115	149	143	143	154	166	1,607
South Dakota	2,548	1,685	1,771	1,692	1,736	1,835	1,788	1,768	2,065	2,144	1,999	2,497	23,528
Nebraska	2,712	3,196	4,208	4,833	7,457	6,860	8,490	11,057	11,049	11,917	11,247	19,444	102,470
Kansas	57,499	53,035	48,554	70,595	76,718	82,904	103,782	112,270	118,358	112,110	109,820	110,507	1,056,152
South Atlantic:													
Maryland	5	3	0	0	0	0	23	20	30	30	0	0	111
North Carolina	100	95	270	190	140	146	118	120	100	115	182	180	1,756
South Carolina	35	35	35	35	35	0	0	0	0	0	0	0	175
Georgia	23,881	20,975	24,100	20,082	24,310	22,742	22,416	24,118	21,088	23,076	22,785	22,382	271,955
Florida	60,566	59,972	61,654	55,412	54,556	50,674	48,789	48,562	50,732	53,467	57,217	62,065	663,666
East South Central:													
Kentucky	446	265	255	367	290	340	353	370	360	538	370	441	4,395
Alabama	7,868	8,013	8,630	9,192	8,283	6,293	8,843	6,368	7,816	7,789	8,306	10,057	97,458
Mississippi	7,974	7,895	7,217	9,006	10,786	10,656	10,455	11,149	10,846	10,759	11,010	12,835	120,588
West South Central:													
Arkansas	9,133	5,875	4,341	3,653	1,583	7,273	20,374	20,353	18,545	20,885	21,136	22,204	155,355
Louisiana	39,362	36,935	42,388	46,552	46,495	41,602	43,333	44,809	43,990	41,342	42,067	43,685	512,660
Oklahoma	27,636	27,478	39,943	34,768	34,958	44,544	70,413	72,633	67,670	62,339	32,284	37,642	552,308
Texas	248,161	194,108	241,046	222,699	245,192	246,221	262,359	284,039	282,514	277,574	256,427	256,169	3,016,509

Mountain:													
Montana	209	168	199	192	183	180	175	268	284	316	256	266	2,696
Wyoming	4,278	1,080	806	1,844	2,630	1,849	1,107	1,252	1,846	1,986	2,201	5,863	26,742
New Mexico	625	582	650	646	1,101	1,536	1,906	2,223	2,042	1,789	1,782	1,966	16,848
Arizona	15,806	13,840	15,916	22,309	16,838	18,326	14,823	13,386	12,888	12,444	11,976	11,854	180,406
Nevada	217	111	62	69	63	28	43	0	0	0	0	0	593
Pacific:													
Washington	8,298	6,607	6,192	3,573	3,640	3,480	4,326	11,161	17,928	17,198	17,352	4,139	103,889
Oregon	6,534	6,470	7,332	4,352	1,958	1,208	563	1,186	388	772	2,432	3,418	36,613
California	277,733	242,148	238,477	247,067	214,074	207,795	252,308	307,099	309,636	304,687	355,120	387,125	3,343,269

NATURAL GAS (M CUBIC FEET)

United States	1,713,239	1,456,792	1,552,266	1,858,993	1,994,084	2,071,211	1,933,441	2,315,813	2,367,646	2,280,785	2,213,407	1,963,826	23,721,503
Middle Atlantic	49,968	45,701	43,748	44,983	43,502	46,408	46,115	79,683	142,123	140,747	127,517	144,732	955,227
East North Central	305,635	206,220	108,816	355,462	453,332	395,953	334,396	529,115	581,231	523,869	420,159	302,080	4,516,268
West North Central	65,875	50,176	133,024	93,278	173,382	193,696	230,087	249,854	261,061	257,090	220,355	244,601	2,172,479
South Atlantic	279,037	264,578	302,028	302,104	263,898	235,999	230,999	243,977	252,479	279,655	265,881	253,957	3,174,592
East South Central	7,968	6,729	15,961	13,498	13,431	13,973	13,423	30,233	21,300	11,009	7,140	9,373	164,038
West South Central	818,662	761,114	813,866	792,711	807,054	862,588	678,804	706,264	682,969	691,352	814,057	774,578	9,204,019
Mountain	30,166	37,971	33,272	34,063	30,823	34,002	33,502	34,007	31,420	31,807	30,413	5,980	367,426
Pacific	155,928	84,303	101,551	222,894	208,662	288,592	366,115	442,680	395,063	345,256	327,885	228,525	3,167,454
Middle Atlantic:													
New York	4,798	4,670	4,865	8,238	5,699	6,764	6,481	6,399	6,805	12,193	11,386	10,809	89,107
Pennsylvania	45,170	41,031	38,883	36,745	37,803	39,644	39,634	73,284	135,318	128,554	116,131	133,923	866,120
East North Central:													
Ohio	303,635	204,220	106,816	353,462	451,332	393,953	332,396	527,115	579,231	521,869	418,159	300,080	4,492,268
Indiana	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
West North Central:													
Minnesota	0	0	0	1,100	0	0	0	0	0	0	0	1,000	2,100
Missouri	0	0	0	0	0	0	934	4,692	1,653	0	2,257	1,203	10,339
Kansas	65,875	50,176	133,024	92,178	173,382	193,696	229,553	245,162	259,408	257,090	218,098	242,398	2,160,040
South Atlantic:													
Maryland	590	590	590	590	590	590	590	590	590	590	590	590	7,080
West Virginia	278,447	263,988	301,428	301,514	263,308	235,401	230,405	243,387	251,889	279,065	265,291	253,367	3,167,490
Florida	0	0	10	0	0	8	4	0	0	0	0	0	22
East South Central:													
Kentucky	7,968	6,729	15,961	13,498	13,431	13,973	13,423	30,233	21,300	11,009	7,140	9,373	164,038
West South Central:													
Arkansas	176,572	148,191	154,643	173,663	182,372	197,015	145,095	153,570	151,595	166,522	155,717	149,538	1,954,493
Louisiana	95,093	88,466	90,257	104,145	89,998	94,677	99,923	105,700	106,075	104,688	108,729	112,284	1,200,035
Oklahoma	414,396	388,097	443,816	390,331	420,808	442,954	294,834	313,067	302,366	294,542	418,155	379,928	4,503,294
Texas	132,601	136,360	125,150	124,572	113,876	127,942	138,952	133,927	122,933	125,600	131,456	132,828	1,546,197
Mountain:													
Montana	1,335	1,048	1,084	998	1,036	1,039	1,127	1,132	1,186	1,236	1,295	1,360	13,876
Wyoming	28,831	36,923	32,188	33,065	29,787	32,963	32,375	32,875	30,234	30,571	29,118	4,620	353,550
Pacific:													
California	155,928	84,303	101,551	222,894	208,662	288,592	366,115	442,680	395,063	345,256	327,885	228,525	3,167,454

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1922

COAL (SHORT TONS)

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Year
United States	2,949,897	2,596,968	2,718,166	2,452,124	2,470,880	2,485,654	2,563,381	2,817,785	2,900,981	3,277,652	3,347,835	3,597,590	34,178,913
New England	216,474	191,058	180,031	153,700	157,213	157,191	164,301	185,242	187,029	221,909	226,422	279,239	2,319,809
Middle Atlantic	953,609	831,151	890,260	799,346	824,380	831,688	848,507	908,843	932,590	1,030,902	1,030,384	1,125,730	11,007,390
East North Central	1,035,527	925,302	972,623	909,570	895,424	890,858	924,607	1,041,683	1,021,712	1,138,835	1,162,421	1,248,537	12,167,099
West North Central	340,283	300,679	284,698	247,276	234,281	233,001	232,231	232,300	265,325	343,198	356,153	406,830	3,476,255
South Atlantic	217,519	189,387	210,856	187,248	197,496	202,815	211,011	257,034	273,715	297,388	310,314	302,831	2,857,614
East South Central	87,336	72,711	79,690	73,927	80,319	85,138	93,405	109,050	135,949	145,772	167,323	127,882	1,258,502
West South Central	47,934	39,237	42,318	40,870	39,240	41,244	44,698	37,446	34,166	35,657	35,531	40,694	479,035
Mountain	48,019	43,715	47,144	39,807	42,163	43,193	43,218	45,190	47,142	55,361	55,316	58,405	568,673
Pacific	3,196	3,728	10,546	380	364	526	1,408	997	3,353	8,630	3,971	7,442	44,536
New England:													
Maine	1,541	1,716	292	42	75	25	0	382	466	2,456	3,578	4,520	15,093
New Hampshire	4,577	3,677	2,636	2,373	2,612	2,982	2,959	3,251	2,967	3,258	3,582	5,492	40,366
Vermont	172	150	45	30	2	5	56	107	10	46	22	95	740
Massachusetts	132,452	120,819	115,148	98,010	95,597	97,001	98,630	111,140	114,099	134,214	136,073	173,614	1,426,797
Rhode Island	11,428	10,935	9,593	8,252	8,356	8,734	8,891	9,369	7,789	9,437	8,986	10,402	112,172
Connecticut	66,304	53,761	52,317	44,993	50,571	48,444	53,765	60,993	61,698	72,498	74,181	85,116	724,641
Middle Atlantic:													
New York	412,536	354,565	368,742	340,666	346,738	348,573	355,218	378,421	386,950	436,029	440,039	474,791	4,643,268
New Jersey	116,774	97,976	103,304	98,667	101,561	99,841	102,881	113,454	109,617	120,818	121,794	129,530	1,316,217
Pennsylvania	424,299	368,610	418,214	360,013	376,081	383,274	390,408	416,968	436,023	474,055	478,551	521,409	5,047,905
East North Central:													
Ohio	290,412	254,971	268,611	252,856	261,337	261,299	266,796	339,726	286,376	313,749	328,318	346,677	3,471,128
Indiana	166,332	148,127	156,769	157,359	146,013	146,527	152,441	160,664	166,132	187,863	191,265	198,974	1,978,466
Illinois	389,387	347,937	372,339	336,033	324,856	312,222	327,354	339,664	374,107	411,907	418,934	462,162	4,416,902
Michigan	120,480	110,894	112,085	106,577	112,216	122,857	126,735	143,853	138,083	152,406	150,129	159,551	1,555,866
Wisconsin	68,916	63,373	62,819	56,745	51,002	47,953	51,281	57,776	57,014	72,910	73,775	81,173	744,737
West North Central:													
Minnesota	69,720	61,119	43,751	24,510	21,721	28,631	34,945	46,619	51,684	64,630	59,618	72,411	579,359
Iowa	82,711	73,417	73,521	66,557	62,908	63,124	63,462	62,992	69,030	82,881	84,757	96,588	881,948
Missouri	107,102	96,565	97,873	94,701	89,977	81,955	74,423	65,203	80,142	112,906	119,341	140,456	1,160,644
North Dakota	15,995	14,111	13,400	11,024	9,945	9,975	10,883	12,090	12,460	14,126	19,279	22,096	165,384
South Dakota	8,094	7,334	7,571	5,387	5,764	6,490	5,618	6,906	7,101	8,163	8,114	10,089	86,631
Nebraska	35,899	31,654	33,150	30,275	30,411	30,698	32,078	24,573	23,897	27,903	32,702	35,218	368,458
Kansas	20,762	16,479	15,432	14,822	13,555	12,128	10,822	13,917	21,011	32,589	32,342	29,972	233,831

South Atlantic:													
Delaware	8,768	7,724	8,073	7,207	9,013	8,500	8,778	8,853	8,428	8,988	8,334	9,512	102,178
Maryland	25,196	18,724	20,230	17,923	18,947	19,875	25,767	41,226	40,348	50,467	51,285	53,662	383,650
District of Columbia	20,577	18,062	19,164	18,551	19,353	19,446	19,274	19,296	19,104	21,355	20,706	23,172	238,060
Virginia	39,456	32,934	36,810	31,892	33,105	35,225	34,640	45,456	45,289	46,634	49,687	46,499	477,627
West Virginia	93,554	86,475	100,505	89,109	94,831	95,841	96,466	109,862	112,046	120,749	123,562	122,792	1,245,792
North Carolina	11,125	9,409	9,032	7,712	7,960	8,865	9,836	14,578	25,208	24,701	26,953	20,605	175,984
South Carolina	8,239	7,344	7,364	6,931	6,823	6,862	7,415	8,487	9,759	10,296	11,666	11,132	102,318
Georgia	8,781	7,138	7,982	6,166	5,655	6,407	7,145	7,561	11,923	12,898	16,753	13,919	112,328
Florida	1,823	1,577	1,696	1,757	1,809	1,794	1,690	1,715	1,610	1,300	1,368	1,538	19,677
East South Central:													
Kentucky	43,051	39,417	43,257	38,803	42,026	41,591	39,981	40,140	40,448	41,721	44,252	45,686	500,373
Tennessee	20,931	17,779	19,304	18,951	20,080	20,101	20,133	19,606	29,949	35,019	46,471	26,277	294,601
Alabama	14,061	7,489	8,372	7,995	10,221	15,474	25,220	41,598	56,630	60,281	68,521	47,518	363,380
Mississippi	9,293	8,026	8,757	8,178	7,992	7,972	8,071	7,706	8,922	8,751	8,079	8,401	100,148
West South Central:													
Arkansas	9,277	8,587	9,350	8,460	8,280	8,072	6,665	4,833	5,385	7,844	8,621	9,375	94,749
Louisiana	10,501	9,561	11,311	9,859	10,260	9,790	7,705	4,936	5,205	2,721	2,117	2,479	86,445
Oklahoma	7,595	5,598	5,396	6,150	4,079	6,285	4,738	3,001	4,471	6,455	7,277	7,063	68,108
Texas	20,561	15,491	16,261	16,401	16,621	17,097	25,590	24,676	19,105	18,637	17,516	21,777	229,733
Mountain:													
Montana	3,743	3,713	3,954	2,518	2,710	3,011	3,697	3,591	3,995	4,151	4,423	4,521	44,027
Wyoming	8,098	7,300	7,400	6,658	7,034	7,424	6,845	7,135	6,326	9,567	8,317	10,412	92,516
Colorado	32,602	29,247	32,193	27,176	29,457	29,813	29,546	31,494	33,902	38,462	39,306	39,935	393,133
New Mexico	3,343	2,928	3,435	3,215	2,817	2,487	2,750	2,823	2,914	3,121	3,235	3,262	36,330
Arizona	0	331	0	0	0	298	178	50	5	60	35	0	957
Utah	40	42	12	100	0	0	0	0	0	0	0	275	469
Nevada	193	154	150	140	145	160	202	97	0	0	0	0	1,241
Pacific:													
Washington	3,061	3,608	10,414	260	240	406	1,263	857	3,213	8,484	3,836	7,292	42,934
Oregon	135	120	132	120	124	120	140	140	140	146	135	150	1,602

FUEL OIL (BARRELS)

United States	1,108,490	995,812	949,936	824,081	856,157	919,960	1,010,117	1,311,945	1,365,206	1,308,841	1,239,698	1,306,973	13,197,216
New England	173,070	149,532	125,653	90,350	92,723	103,069	121,710	150,800	152,871	183,336	200,515	234,821	1,778,450
Middle Atlantic	4,223	5,983	7,994	9,191	10,010	10,677	14,219	16,179	15,402	26,005	26,565	17,477	163,925
East North Central	1,424	1,257	1,492	1,517	1,321	1,382	1,443	27,486	6,255	3,176	2,718	3,132	52,603
West North Central	151,391	135,797	130,744	127,659	126,994	167,482	190,658	337,617	319,377	227,127	180,306	201,456	2,296,608
South Atlantic	87,310	83,262	88,105	80,540	81,692	78,793	77,792	79,019	83,643	92,670	95,752	102,767	1,031,345
East South Central	18,910	16,237	16,204	15,820	16,499	16,023	17,291	19,329	19,424	18,385	18,652	16,467	209,241
West South Central	370,099	329,546	353,352	318,790	333,614	344,823	361,002	405,289	415,896	418,681	416,667	424,021	4,491,780
Mountain	19,867	20,200	20,942	19,210	19,507	20,878	23,866	23,430	23,107	25,422	25,831	28,803	271,063
Pacific	282,196	253,998	205,450	161,004	173,797	176,833	202,136	252,796	329,231	314,039	272,692	278,029	2,902,201

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1922—Continued

FUEL OIL (BARRELS)—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Year
New England:													
Maine	4,957	2,693	2,801	510	1,217	443	1,074	2,134	1,974	5,811	10,377	21,604	55,595
New Hampshire	3	2	0	0	0	0	15	0	0	5	5	13	43
Vermont	95	300	0	0	0	0	900	947	2,430	2,863	1,022	3,999	12,556
Massachusetts	48,618	43,395	43,513	32,514	35,418	38,705	39,331	44,559	40,060	43,874	50,441	57,368	517,796
Rhode Island	117,311	101,224	77,269	55,912	54,329	62,363	79,025	101,538	106,950	129,073	137,423	150,854	1,173,271
Connecticut	2,086	1,918	2,070	1,414	1,759	1,558	1,365	1,622	1,457	1,710	1,247	983	19,189
Middle Atlantic:													
New York	3,933	5,707	7,664	8,910	9,739	10,388	13,877	15,612	14,903	25,413	25,766	16,755	158,667
New Jersey	136	124	136	130	130	131	131	331	150	160	348	189	2,096
Pennsylvania	154	152	194	151	141	158	211	236	349	432	451	533	3,162
East North Central:													
Ohio	384	362	369	344	337	338	340	1,340	2,659	750	369	362	7,954
Indiana	459	387	435	435	459	482	429	506	494	753	554	672	6,065
Illinois	239	210	371	400	201	247	347	25,123	2,590	1,144	921	934	32,727
Michigan	126	97	113	129	93	77	85	265	262	276	617	904	3,044
Wisconsin	216	201	204	209	231	238	242	252	250	253	257	260	2,813
West North Central:													
Minnesota	1,186	720	536	423	448	624	702	1,777	3,987	2,139	1,911	1,742	16,195
Iowa	1,163	1,148	1,114	966	1,032	969	1,061	12,052	12,521	3,851	2,423	3,330	41,630
Missouri	11,401	13,294	9,288	14,302	17,601	51,023	55,888	139,971	111,335	52,307	27,850	40,295	544,555
North Dakota	120	305	168	167	150	150	235	166	293	325	331	280	2,690
South Dakota	2,381	1,891	2,246	2,029	1,996	2,169	2,151	2,552	2,771	2,797	2,637	2,833	28,453
Nebraska	17,722	15,706	16,122	14,641	16,487	16,998	17,848	47,825	55,882	38,460	20,994	23,811	302,496
Kansas	117,418	102,733	101,270	95,131	89,280	95,549	112,773	133,274	132,588	127,248	124,160	129,165	1,360,589
South Atlantic:													
Virginia	0	0	0	0	0	0	0	0	0	95	89	74	258
North Carolina	190	200	206	195	206	178	178	100	203	219	249	200	2,324
South Carolina	50	50	60	50	50	50	60	0	60	50	50	50	580
Georgia	19,586	19,212	21,585	19,458	19,862	20,303	21,288	21,116	22,098	23,528	22,374	22,878	253,288
Florida	67,484	63,800	66,254	60,837	61,574	58,262	56,256	57,803	61,282	68,778	72,990	79,565	774,895
East South Central:													
Kentucky	459	519	623	603	433	404	1,641	3,966	3,966	3,278	3,593	3,401	22,886
Tennessee	0	0	0	0	0	0	0	0	0	0	95	95	190
Alabama	5,618	4,409	3,943	3,875	4,465	4,048	4,205	3,933	3,696	3,247	2,622	404	44,465
Mississippi	12,833	11,309	11,638	11,342	11,601	11,571	11,445	11,430	11,762	11,860	12,342	12,567	141,700
West South Central:													
Arkansas	20,607	18,546	15,694	16,741	14,001	21,786	22,107	22,445	15,604	15,703	20,916	20,144	224,295
Louisiana	41,700	43,620	47,195	41,990	41,370	43,864	51,949	66,378	60,618	71,967	70,397	74,347	655,395
Oklahoma	51,684	47,607	48,591	40,782	39,761	40,578	46,589	50,201	60,506	48,533	50,695	49,867	575,394
Texas	256,108	219,773	241,871	219,277	238,482	238,595	240,357	266,265	279,168	282,478	274,659	279,663	3,036,696

Mountain:													
Montana	331	307	218	240	148	224	220	374	239	157	223	198	2,879
Wyoming	5,406	5,848	5,971	5,480	5,347	5,174	5,753	5,427	5,277	6,091	5,292	8,045	69,111
New Mexico	1,922	1,924	2,186	2,140	2,453	2,123	2,523	2,369	2,095	1,961	1,766	1,610	25,072
Arizona	11,922	11,938	12,292	11,283	11,539	13,347	15,212	15,024	15,269	16,924	18,340	18,619	171,709
Nevada	286	183	275	67	20	10	158	236	227	289	210	331	2,292
Pacific:													
Washington	8,855	16,050	23,801	8,150	4,831	4,658	3,866	13,431	22,040	25,534	9,785	12,546	153,537
Oregon	3,636	1,456	733	458	321	283	829	1,363	4,919	8,120	8,189	19,288	49,595
California	269,705	236,492	180,916	152,406	168,645	171,892	197,441	238,002	302,272	280,385	254,718	246,195	2,699,069

NATURAL GAS (M CUBIC FEET)

United States	1,631,945	1,599,977	1,598,966	1,850,185	2,212,852	2,344,791	2,606,783	3,056,145	3,125,063	2,833,835	2,383,285	1,926,401	27,172,228
Middle Atlantic	140,703	106,731	112,462	104,050	133,565	78,391	84,762	74,430	71,354	79,788	84,029	75,198	1,145,463
East North Central	163,204	217,065	285,285	521,499	613,456	627,191	657,509	654,889	703,720	699,977	595,266	409,746	6,148,807
West North Central	223,785	247,949	217,708	223,079	289,118	371,208	378,769	435,927	348,823	164,951	155,797	156,982	3,214,096
South Atlantic	190,448	175,570	186,409	201,274	245,190	219,977	247,573	252,719	238,635	225,680	208,034	163,948	2,555,457
East South Central	8,044	6,878	7,230	8,455	7,855	13,160	16,673	22,531	15,917	22,711	24,330	22,573	176,357
West South Central	722,993	740,554	762,905	757,470	791,574	865,366	976,458	1,090,797	1,097,233	1,017,928	984,762	928,586	10,736,626
Mountain	7,894	6,435	6,597	6,185	6,661	6,663	5,544	5,849	6,153	11,896	13,019	12,190	95,086
Pacific	174,874	98,795	20,370	28,173	125,433	162,835	239,495	519,003	643,328	610,904	318,048	159,178	3,100,336
Middle Atlantic:													
New York	10,625	11,951	12,978	10,350	18,278	6,401	12,388	20,516	15,460	24,774	16,185	15,620	175,526
Pennsylvania	130,078	94,780	99,484	93,700	115,287	71,990	72,374	53,914	55,894	55,014	67,844	59,578	969,937
East North Central:													
Ohio	161,204	215,189	282,840	519,478	611,579	625,115	655,665	652,524	701,207	698,745	593,171	407,820	6,124,537
Indiana	2,000	1,876	2,445	2,021	1,877	2,076	1,844	2,365	2,513	1,232	2,095	1,926	24,270
West North Central:													
Missouri	0	1,223	2,635	0	0	0	0	0	0	0	0	0	3,858
Kansas	223,785	246,726	215,073	223,079	289,118	371,208	378,769	435,927	348,823	164,951	155,797	156,982	3,210,238
South Atlantic:													
Maryland	590	590	590	590	590	590	590	590	590	0	0	0	5,310
West Virginia	189,839	174,970	185,813	200,679	244,595	219,384	246,983	252,121	238,041	225,676	208,029	163,943	2,550,073
Florida	19	10	6	5	5	3	0	8	4	4	5	5	74
East South Central:													
Kentucky	8,044	6,878	7,230	8,455	7,855	13,160	16,673	22,531	15,917	22,711	24,330	22,573	176,357
West South Central:													
Arkansas	137,556	125,370	117,106	111,909	135,714	128,909	187,985	260,913	280,934	191,129	178,037	162,663	2,018,225
Louisiana	114,192	119,854	103,017	101,664	87,471	86,440	91,030	93,995	91,995	92,339	98,290	99,303	1,179,590
Oklahoma	351,838	342,820	386,369	366,323	391,765	440,600	451,126	456,696	443,105	464,123	448,351	439,437	4,982,553
Texas	119,407	152,510	156,413	177,574	176,624	209,417	246,317	279,193	281,199	270,337	260,084	227,183	2,556,258
Mountain:													
Montana	1,199	1,035	1,079	1,005	1,123	1,042	1,066	1,146	1,216	1,255	1,223	1,292	13,681
Wyoming	6,695	5,400	5,518	5,180	5,538	5,621	4,478	4,703	4,937	10,641	11,796	10,898	81,405
Pacific:													
California	174,874	98,795	20,370	28,173	125,433	162,835	239,495	519,003	643,228	610,904	318,048	159,178	3,100,336

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1923

COAL (SHORT TONS)

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
United States	3,566,524	3,252,084	3,357,129	2,981,058	2,952,676	2,958,508	3,050,293	3,218,013	3,178,569	3,588,626	3,466,398	3,396,122	38,966,000
New England	248,100	228,653	227,026	188,618	185,968	198,541	211,933	222,038	217,733	237,012	207,008	207,867	2,580,497
Middle Atlantic	1,138,573	1,043,329	1,084,194	962,000	951,934	946,307	973,845	989,514	969,833	1,084,382	1,046,304	1,026,794	12,217,009
East North Central	1,281,115	1,183,079	1,220,051	1,097,977	1,096,389	1,073,221	1,082,927	1,164,549	1,125,102	1,248,629	1,243,118	1,257,118	14,073,275
West North Central	401,129	366,431	348,913	296,784	281,884	284,752	290,303	339,488	332,179	363,046	362,684	376,643	4,044,236
South Atlantic	286,845	246,114	276,686	264,354	266,278	282,834	311,037	312,704	310,731	372,200	341,148	311,738	3,582,669
East South Central	109,819	91,889	102,607	84,574	87,094	85,609	89,828	97,519	125,850	173,255	150,032	102,375	1,300,451
West South Central	40,707	37,515	38,642	37,175	35,797	41,586	43,418	43,353	43,872	47,811	46,544	46,360	502,780
Mountain	55,146	50,406	55,224	48,693	46,207	44,434	45,354	47,329	48,905	53,756	57,021	61,976	614,451
Pacific	5,090	4,668	3,786	883	1,125	1,224	1,648	1,519	4,364	8,535	12,539	5,251	50,632
New England:													
Maine	731	552	1,308	474	476	198	562	2,575	1,247	1,547	1,717	2,377	13,764
New Hampshire	4,228	3,981	3,382	2,361	2,465	3,135	4,462	4,590	4,649	5,068	3,742	3,322	45,385
Vermont	65	393	97	22	20	20	397	733	482	398	84	28	2,739
Massachusetts	156,456	142,668	143,815	116,173	112,808	120,315	126,037	131,401	131,095	146,549	129,612	128,044	1,584,973
Rhode Island	12,569	10,966	11,533	9,458	9,717	8,928	7,663	7,597	7,461	8,529	8,688	9,484	112,593
Connecticut	74,051	70,093	66,891	60,130	60,482	65,945	72,812	75,142	72,799	74,921	63,165	64,612	821,043
Middle Atlantic:													
New York	470,816	441,881	442,669	389,206	384,736	390,507	407,509	427,715	427,451	474,697	449,782	435,778	5,142,747
New Jersey	130,688	117,801	124,820	112,075	109,721	108,653	111,721	93,243	95,220	117,958	122,528	122,313	1,366,741
Pennsylvania	537,069	483,647	516,705	460,719	457,477	447,147	454,615	468,556	447,162	491,727	473,994	468,703	5,707,521
East North Central:													
Ohio	360,605	337,075	359,362	326,794	331,920	310,767	306,020	323,054	318,811	357,921	365,361	352,750	4,050,440
Indiana	203,210	185,899	185,109	177,439	175,449	179,929	174,538	180,624	177,222	191,141	197,912	198,419	2,226,891
Illinois	460,867	418,984	441,527	391,621	391,977	383,056	393,522	426,005	408,639	457,470	440,843	464,443	5,078,954
Michigan	165,665	156,710	152,516	133,999	137,294	143,690	151,494	162,571	151,333	166,593	166,079	166,723	1,854,667
Wisconsin	90,768	84,411	81,537	68,124	59,749	55,779	57,353	72,295	69,097	75,504	72,923	74,783	862,323
West North Central:													
Minnesota	76,112	74,439	69,651	41,239	36,697	38,238	39,590	55,509	58,029	68,886	70,950	77,251	706,591
Iowa	93,957	85,771	89,010	80,510	73,238	72,632	73,714	78,542	79,401	86,213	85,728	89,466	988,182
Missouri	134,306	124,412	111,685	102,723	105,929	106,537	110,846	131,280	123,627	133,952	132,258	133,052	1,450,607
North Dakota	21,585	19,755	15,414	11,798	10,131	11,762	12,380	12,617	12,514	14,317	15,122	15,669	173,064
South Dakota	9,923	8,152	8,082	6,763	6,597	6,275	6,584	7,206	7,491	8,165	8,169	9,311	92,718
Nebraska	34,997	31,366	32,775	30,887	29,779	30,138	31,308	33,349	31,689	33,451	31,284	33,578	384,601
Kansas	30,249	22,536	22,296	22,864	19,513	19,170	15,881	20,985	19,428	18,062	19,173	18,316	248,473

South Atlantic:													
Delaware	9,031	7,865	9,023	7,665	7,363	8,866	8,771	9,142	8,686	8,868	8,193	8,423	101,896
Maryland	39,890	32,703	33,654	29,256	27,546	39,232	51,563	51,287	50,655	58,816	50,395	29,478	494,475
District of Columbia	23,790	20,689	21,360	21,570	20,525	21,270	20,712	21,247	20,693	21,878	22,069	22,655	258,458
Virginia	37,754	32,872	41,467	41,547	40,618	46,080	52,050	50,620	52,563	54,944	51,354	51,409	553,778
West Virginia	136,849	120,836	142,383	134,644	138,771	135,178	139,630	139,003	127,738	140,783	136,732	141,494	1,634,041
North Carolina	20,963	14,899	11,753	13,774	16,013	17,236	23,357	25,324	34,547	56,449	51,407	41,418	327,140
South Carolina	8,638	7,795	8,180	7,607	7,007	7,370	7,010	7,681	7,692	11,203	10,013	8,788	98,984
Georgia	8,335	7,175	7,472	6,813	7,003	6,218	6,224	6,706	6,554	17,357	8,942	6,387	95,186
Florida	1,595	1,280	1,394	1,478	1,432	1,384	1,720	1,694	1,603	1,902	1,543	1,686	18,711
East South Central:													
Kentucky	44,362	40,843	44,788	40,670	41,871	41,939	43,491	44,293	43,219	47,626	47,690	49,183	529,975
Tennessee	26,056	23,195	29,895	21,380	23,775	22,969	24,697	25,037	27,783	47,472	44,691	32,782	349,732
Alabama	31,148	20,021	19,646	14,401	13,312	12,901	13,627	19,937	46,471	68,963	48,965	10,952	320,344
Mississippi	8,253	7,830	8,278	8,123	8,136	7,800	8,013	8,252	8,377	9,194	8,686	9,458	100,400
West South Central:													
Arkansas	10,701	10,348	10,012	9,070	8,753	9,098	9,069	9,460	9,141	10,050	10,531	10,915	117,148
Louisiana	3,026	2,720	3,341	4,594	3,172	6,718	7,585	7,325	7,618	8,408	9,179	7,688	71,374
Oklahoma	6,357	5,920	6,393	5,858	6,007	6,008	5,951	5,056	6,154	7,281	7,089	7,075	75,149
Texas	20,623	18,527	18,896	17,653	17,865	19,762	20,813	21,512	20,959	22,072	19,745	20,682	239,109
Mountain:													
Montana	4,034	4,519	4,435	3,631	3,780	3,577	3,585	3,672	3,718	3,718	3,996	4,235	46,900
Wyoming	8,824	6,870	7,116	7,076	7,953	7,553	6,283	7,696	7,493	8,157	8,892	8,920	92,833
Colorado	39,002	36,419	41,106	35,228	31,534	30,801	31,487	32,985	33,855	34,625	35,828	40,655	423,525
New Mexico	3,276	2,598	2,437	2,758	2,680	2,503	2,589	2,556	2,699	3,075	3,442	3,532	34,145
Utah	10	0	130	0	260	0	1,410	420	1,140	4,181	4,863	4,634	17,048
Pacific:													
Washington	4,950	4,549	3,686	818	1,024	1,119	1,524	1,331	4,236	8,408	12,404	5,111	49,160
Oregon	140	119	100	65	101	105	124	188	128	127	135	140	1,472

FUEL OIL (BARRELS)

United States	1,257,338	1,158,272	1,151,079	980,985	1,011,776	1,035,868	1,174,525	1,352,686	1,321,733	1,376,463	1,379,550	1,483,945	14,684,220
New England	206,918	204,106	204,600	157,898	165,142	185,297	199,647	245,885	239,753	258,722	200,316	158,479	2,426,763
Middle Atlantic	27,307	20,106	21,502	18,135	19,350	22,978	27,624	30,151	33,200	33,601	25,669	24,712	304,335
East North Central	2,850	2,727	2,529	2,499	2,447	2,418	2,635	2,945	2,824	3,574	4,048	3,846	35,342
West North Central	184,527	177,086	160,289	144,110	136,416	137,194	147,099	150,067	151,322	170,209	172,141	181,710	1,912,170
South Atlantic	104,040	97,637	107,676	96,320	95,706	90,349	87,409	90,251	93,241	108,227	107,230	114,513	1,192,599
East South Central	18,696	16,514	16,390	15,598	15,873	16,449	16,523	16,655	18,013	17,169	16,164	17,111	201,155
West South Central	415,309	368,111	388,640	355,665	357,118	350,785	373,804	408,639	392,359	413,099	407,893	424,391	4,655,813
Mountain	28,899	26,958	26,759	25,866	26,617	28,404	26,313	27,436	27,063	30,605	28,818	29,119	332,857
Pacific	268,792	245,027	222,694	164,894	193,107	201,994	293,471	380,657	363,958	341,257	417,271	530,064	3,623,186
New England:													
Maine	15,081	18,766	17,605	3,799	7,422	5,120	9,562	16,518	25,953	28,546	15,628	3,988	167,988
New Hampshire	8	0	3	0	0	0	18	19	3	51	79	0	181
Vermont	1,085	4,322	2,218	4,913	2,227	2,535	5,990	11,018	10,632	10,208	2,672	1,976	59,796
Massachusetts	60,389	52,540	61,500	51,129	52,497	51,371	45,374	49,626	49,830	55,222	53,769	50,370	633,617
Rhode Island	129,362	127,072	121,615	96,769	101,476	124,927	137,382	167,232	151,920	163,159	127,189	101,463	1,549,566
Connecticut	993	1,406	1,659	1,288	1,520	1,344	1,321	1,472	1,415	1,536	979	682	15,615

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1923—Continued

FUEL OIL (BARRELS)—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
Middle Atlantic:													
New York	26,380	19,286	20,655	17,487	18,529	21,702	26,680	29,123	32,281	31,519	24,584	23,616	291,842
New Jersey	476	447	516	296	496	897	514	561	516	620	561	574	6,474
Pennsylvania	451	373	331	352	325	379	430	467	403	1,462	524	522	6,019
East North Central:													
Ohio	351	304	326	312	316	298	284	210	410	668	671	680	4,830
Indiana	755	690	714	738	533	525	583	560	458	622	659	770	7,607
Illinois	869	877	837	813	809	794	820	939	919	1,087	1,280	1,200	11,244
Michigan	598	598	382	370	512	517	679	922	729	839	972	764	7,882
Wisconsin	277	258	270	266	277	284	269	314	308	358	466	432	3,779
West North Central:													
Minnesota	1,244	1,046	1,001	715	660	554	1,581	877	851	801	1,052	1,135	11,517
Iowa	3,212	1,888	1,542	1,413	1,470	1,684	2,666	2,659	1,957	1,830	1,931	2,090	24,342
Missouri	36,170	38,371	27,128	18,781	17,078	15,755	18,222	16,978	16,127	24,122	23,979	27,461	280,172
North Dakota	259	226	230	230	224	264	275	284	267	305	323	304	3,191
South Dakota	2,729	2,569	2,603	2,361	2,393	2,327	2,623	2,623	2,748	3,534	4,610	3,789	34,909
Nebraska	21,523	19,865	21,016	16,255	16,326	17,537	19,712	19,077	22,047	22,509	22,643	24,571	243,081
Kansas	119,390	113,121	106,769	104,355	98,265	99,073	102,020	107,569	107,325	117,108	117,603	122,360	1,314,958
South Atlantic:													
Delaware	4	0	0	0	16	0	0	0	3	3	0	0	26
Maryland	20	18	21	50	46	60	140	185	141	140	143	135	1,099
Virginia	0	0	0	0	0	0	80	347	427	447	436	368	2,105
North Carolina	367	391	367	367	387	387	387	397	389	389	329	210	4,367
South Carolina	0	0	0	0	0	0	0	0	0	253	254	270	777
Georgia	22,217	21,035	23,116	20,643	21,245	21,797	20,282	22,053	24,252	30,150	26,048	24,262	277,100
Florida	81,432	76,193	84,172	75,260	74,012	68,105	66,520	67,269	68,029	76,845	80,020	89,268	907,125
East South Central:													
Kentucky	3,325	1,850	671	431	431	1,030	1,161	1,336	2,604	1,450	535	535	15,359
Tennessee	119	104	112	107	110	110	110	110	110	203	203	203	1,601
Alabama	2,707	2,707	2,921	2,837	3,038	3,133	2,934	2,974	3,322	3,054	2,937	2,994	35,558
Mississippi	12,545	11,853	12,686	12,223	12,294	12,176	12,318	12,235	11,977	12,462	12,489	13,379	148,637
West South Central:													
Arkansas	21,241	23,617	17,630	21,465	16,713	18,943	25,809	27,169	20,807	26,892	25,686	23,643	269,615
Louisiana	73,895	65,733	69,054	62,004	68,601	53,949	51,983	53,285	48,654	54,475	50,881	61,773	714,287
Oklahoma	50,998	46,034	48,600	43,185	41,035	40,154	45,607	48,850	41,512	45,116	40,790	44,571	536,452
Texas	269,175	232,727	253,356	229,011	230,769	237,739	250,405	279,335	281,386	286,616	290,536	294,404	3,135,459

Mountain:													
Montana	195	123	126	305	151	90	281	280	300	287	277	291	2,706
Wyoming	7,476	7,034	6,411	5,711	4,945	5,382	5,314	5,440	6,338	6,633	7,071	6,874	74,629
New Mexico	505	430	559	478	559	605	630	605	990	656	572	645	7,234
Arizona	20,373	19,077	19,445	19,167	20,918	22,241	19,904	20,733	19,076	22,709	20,736	21,099	245,478
Nevada	350	294	218	205	44	86	184	378	359	320	162	210	2,810
Pacific:													
Washington	7,845	22,699	12,039	5,594	4,754	3,462	6,515	9,786	35,243	35,684	47,918	27,353	218,892
Oregon	8,598	7,520	4,693	4,646	4,491	4,136	6,061	6,115	5,875	7,389	7,578	8,032	75,134
California	252,349	214,808	205,962	154,654	183,862	194,396	280,895	364,756	322,840	298,184	361,775	494,679	3,329,160

NATURAL GAS (M CUBIC FEET)

United States	2,079,476	1,823,994	2,271,851	2,297,481	2,791,464	2,860,443	3,170,258	3,377,980	3,196,790	2,896,628	2,205,356	2,511,326	31,483,047
Middle Atlantic	71,056	65,716	70,723	62,070	71,186	78,745	51,954	48,123	49,721	48,351	50,837	46,541	715,023
East North Central	447,834	288,955	400,999	412,344	559,548	699,658	709,343	733,479	646,682	452,435	119,779	295,963	5,767,019
West North Central	148,309	156,418	189,824	224,220	254,194	248,019	313,402	381,760	340,086	337,248	196,351	154,928	2,944,759
South Atlantic	152,759	122,992	139,646	139,751	162,876	198,652	220,624	211,612	203,110	218,274	178,746	117,399	2,066,441
East South Central	26,533	20,954	19,490	23,569	18,119	26,214	25,526	23,301	21,296	14,551	10,837	15,365	245,755
West South Central	1,027,078	981,004	961,798	1,015,398	1,154,663	1,111,459	1,182,038	1,184,036	1,149,086	1,150,964	996,203	1,017,098	12,930,825
Mountain	12,131	11,094	17,856	11,743	10,591	10,503	10,881	10,304	10,793	11,292	9,640	10,102	136,930
Pacific	193,776	176,861	471,515	408,386	560,287	487,193	656,490	785,365	776,016	663,513	642,963	853,930	6,676,295
Middle Atlantic:													
New York	16,387	15,280	15,813	14,234	13,971	13,420	14,343	14,676	14,333	14,285	13,482	13,006	173,230
Pennsylvania	54,669	50,436	54,910	47,836	57,215	65,325	37,611	33,447	35,388	34,066	37,355	33,535	541,793
East North Central:													
Ohio	446,502	287,349	399,596	411,016	558,160	697,990	707,160	731,361	643,828	450,099	117,926	294,358	5,745,345
Indiana	1,332	1,606	1,403	1,328	1,388	1,668	2,183	2,118	2,854	2,336	1,853	1,605	21,674
West North Central:													
Minnesota	0	0	0	0	0	0	0	0	89	21	0	0	110
North Dakota	0	0	0	0	0	0	0	0	0	0	1,200	1,100	2,300
Kansas	148,309	156,418	189,824	224,220	254,194	248,019	313,402	381,760	339,997	337,227	195,151	153,828	2,942,349
South Atlantic:													
West Virginia	152,748	122,977	139,638	139,741	162,876	198,652	220,614	211,605	203,105	218,265	178,730	117,379	2,066,330
Florida	11	15	8	10	0	0	10	7	5	9	16	20	111
East South Central:													
Kentucky	26,533	20,954	19,484	23,569	18,119	26,214	25,526	23,301	21,296	14,551	10,837	15,365	245,749
Tennessee	0	0	6	0	0	0	0	0	0	0	0	0	6
West South Central:													
Arkansas	164,539	145,324	161,664	159,655	156,376	163,746	165,301	157,922	160,315	161,942	148,830	163,076	1,908,690
Louisiana	100,660	91,553	102,450	97,035	99,630	102,614	106,081	117,126	110,863	115,532	112,155	109,235	1,264,934
Oklahoma	478,892	445,955	407,389	411,515	487,287	467,059	486,118	497,450	480,673	497,365	505,769	496,347	5,661,819
Texas	282,987	298,172	290,295	347,193	411,370	378,040	424,538	411,538	397,235	376,125	229,449	248,440	4,095,382
Mountain:													
Montana	1,254	1,062	1,155	1,071	1,131	1,170	1,265	1,194	1,083	1,258	1,276	1,301	14,220
Wyoming	10,877	10,032	16,701	10,672	9,460	9,333	9,616	9,110	9,710	10,034	8,364	8,801	122,710
Pacific:													
California	193,776	176,861	471,515	408,386	560,287	487,193	656,490	785,365	776,016	663,513	642,963	853,930	6,676,295

TABLE 43.—*Monthly consumption of fuel in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1924

COAL (SHORT TONS)

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
United States	3,669,973	3,333,636	3,243,786	2,898,381	2,822,988	2,689,716	2,789,507	2,944,993	3,012,582	3,221,693	3,293,619	3,635,251	37,556,125
New England	217,211	223,544	211,351	180,189	168,346	171,662	185,296	199,053	197,384	216,667	226,904	244,321	2,441,928
Middle Atlantic	1,095,842	1,009,855	995,087	923,197	907,297	850,483	885,252	906,048	902,810	967,914	990,323	1,106,056	11,540,164
East North Central	1,398,241	1,264,391	1,255,031	1,109,865	10,077,056	1,000,610	1,023,999	1,060,492	1,076,267	1,162,190	1,176,347	1,335,187	13,939,675
West North Central	423,754	347,206	316,676	265,037	256,823	261,342	267,543	259,015	266,077	291,914	304,492	375,057	3,634,936
South Atlantic	318,051	295,016	270,785	242,802	236,808	232,211	241,481	286,165	311,716	299,899	312,990	310,917	3,358,841
East South Central	102,503	92,962	90,201	82,097	85,506	82,992	88,871	126,647	135,848	155,490	166,383	127,190	1,337,690
West South Central	48,519	44,776	49,057	44,673	44,734	44,115	44,992	48,077	47,950	54,353	53,278	56,635	581,159
Mountain	62,137	52,986	53,603	47,749	44,764	44,970	50,293	52,561	58,330	62,116	61,036	75,011	665,556
Pacific	3,715	2,900	1,995	1,772	1,655	1,331	1,780	6,935	16,200	11,150	1,866	4,877	56,176
New England:													
Maine	247	114	200	233	200	217	174	192	207	183	658	302	2,927
New Hampshire	3,518	3,610	2,310	1,768	1,917	3,601	4,450	4,768	4,470	4,785	5,235	5,493	45,925
Vermont	114	25	192	162	61	167	121	278	387	172	306	232	2,217
Massachusetts	136,521	138,570	132,099	112,881	104,582	101,456	108,199	119,268	118,796	133,876	135,855	151,981	1,494,084
Rhode Island	9,736	10,131	9,567	7,694	7,818	9,570	11,263	10,837	9,760	10,456	15,735	12,908	125,475
Connecticut	67,075	71,094	66,983	57,451	53,768	56,651	61,089	63,710	63,764	67,195	69,115	73,405	771,300
Middle Atlantic:													
New York	458,123	422,583	416,280	381,074	375,285	363,607	395,251	408,211	395,128	421,608	432,680	479,437	4,949,267
New Jersey	123,931	114,600	113,535	102,929	99,214	95,166	100,277	104,088	106,091	112,491	114,503	126,872	1,313,697
Pennsylvania	513,788	472,672	465,272	439,194	432,798	391,710	389,724	393,749	401,591	433,815	443,140	499,747	5,277,200
East North Central:													
Ohio	393,600	364,745	357,323	318,125	320,848	291,160	295,554	308,993	303,827	324,525	323,410	359,037	3,961,147
Indiana	203,875	182,492	183,838	166,767	160,987	151,825	151,905	155,134	155,707	165,846	170,357	192,907	2,041,640
Illinois	524,472	462,324	468,940	424,395	410,438	385,956	396,047	412,284	419,382	455,995	466,826	534,000	5,361,059
Michigan	192,971	175,173	165,649	139,454	130,033	124,358	130,057	132,489	143,836	154,130	149,074	170,827	1,808,051
Wisconsin	83,323	79,657	79,281	61,124	54,749	47,311	50,436	51,592	53,515	61,694	66,680	78,416	767,778
West North Central:													
Minnesota	87,134	72,990	65,745	37,937	30,058	36,764	44,056	31,218	35,385	36,366	48,116	64,338	590,107
Iowa	95,359	81,911	81,307	70,003	69,920	69,831	70,250	70,597	73,176	79,767	82,751	95,760	940,632
Missouri	157,035	117,404	98,771	89,764	90,913	86,957	82,462	83,723	84,714	92,705	89,782	120,092	1,194,322
North Dakota	16,603	13,759	12,356	12,394	11,384	10,383	11,527	12,574	12,352	13,629	15,387	17,980	160,328
South Dakota	9,345	8,081	7,695	6,541	6,776	6,338	6,040	6,909	7,190	7,912	8,207	9,245	90,279
Nebraska	35,588	31,290	30,495	29,089	29,745	31,138	34,478	34,634	34,319	37,696	37,088	40,995	406,555
Kansas	22,690	21,771	20,307	19,309	18,027	19,931	18,730	19,360	18,941	23,839	23,161	26,647	252,713

South Atlantic:													
Delaware	8,987	8,359	8,181	7,653	7,409	7,329	7,449	7,191	7,811	7,901	8,062	9,593	95,925
Maryland	35,072	35,000	27,971	25,732	24,315	23,801	27,013	39,738	44,182	36,083	45,955	44,966	409,828
District of Columbia	24,493	23,742	26,611	22,398	22,674	22,532	23,357	23,156	22,859	23,544	22,897	25,474	283,737
Virginia	44,828	40,900	38,503	34,735	37,532	38,442	39,102	42,857	46,574	45,120	44,236	43,598	496,427
West Virginia	149,055	144,147	146,434	131,587	126,063	120,556	123,967	126,151	129,850	144,006	129,786	137,233	1,608,835
North Carolina	36,213	25,703	9,149	7,653	7,109	7,441	7,235	26,400	36,461	20,505	29,416	20,197	233,482
South Carolina	10,773	9,117	6,103	5,587	5,259	5,673	5,667	8,270	12,432	12,179	18,747	15,134	114,941
Georgia	6,723	6,382	6,231	6,112	5,101	5,040	6,176	10,978	10,012	8,774	12,257	9,636	93,422
Florida	1,907	1,666	1,602	1,345	1,346	1,397	1,515	1,424	1,535	1,787	1,634	5,086	22,244
East South Central:													
Kentucky	51,961	48,627	48,623	43,493	43,554	41,514	42,239	43,862	45,880	49,225	47,292	49,041	555,311
Tennessee	29,144	24,316	25,167	24,076	24,522	23,855	22,268	33,033	36,719	36,871	47,118	35,994	363,083
Alabama	11,553	10,678	9,281	8,282	10,767	11,105	17,202	42,558	44,989	60,506	62,366	33,407	322,694
Mississippi	9,845	9,341	7,130	7,246	6,663	6,518	7,162	7,194	8,260	8,888	9,607	8,748	96,602
West South Central:													
Arkansas	13,595	9,552	9,990	8,712	8,999	8,663	8,735	9,250	8,973	13,412	13,681	12,870	126,432
Louisiana	6,417	6,540	6,545	5,550	6,205	5,829	7,494	6,800	7,097	7,624	7,233	9,517	82,851
Oklahoma	8,007	9,603	11,395	9,868	9,116	10,218	9,329	12,676	13,795	14,989	13,823	15,261	138,080
Texas	20,500	19,081	21,127	20,543	20,414	19,405	19,434	19,351	18,085	18,328	18,541	18,987	233,796
Mountain:													
Montana	4,173	3,442	3,442	3,471	3,717	3,622	3,817	3,318	3,396	3,693	3,935	4,589	44,615
Wyoming	9,053	7,678	8,281	8,026	8,236	8,714	8,804	7,335	8,232	9,546	9,681	10,570	104,156
Colorado	39,701	34,289	36,872	33,689	30,397	30,280	31,211	35,085	40,074	42,006	40,460	51,288	445,352
New Mexico	3,246	2,836	2,448	2,526	2,414	2,354	2,323	2,431	2,359	2,317	2,406	2,459	30,119
Utah	5,964	4,741	2,560	37	0	0	4,138	4,392	4,269	4,554	4,554	6,105	41,314
Pacific:													
Washington	3,584	2,777	1,880	1,657	1,537	1,226	1,660	6,820	16,080	10,835	1,702	4,746	54,504
Oregon	131	123	115	115	118	105	120	115	120	315	164	131	1,672

FUEL OIL (BARRELS)

United States	1,616,471	1,443,908	1,542,007	1,232,857	1,208,009	1,343,171	1,431,802	1,502,509	1,389,359	1,405,345	1,139,899	1,374,315	16,629,652
New England	179,269	195,585	145,856	125,178	110,570	99,215	96,243	114,828	110,883	132,691	167,832	172,868	1,651,018
Middle Atlantic	26,831	23,411	22,595	22,348	21,567	20,892	23,672	24,699	23,843	26,791	23,259	25,722	285,630
East North Central	3,930	4,124	4,530	3,082	2,566	2,417	2,740	2,516	3,953	3,883	4,180	6,242	44,113
West North Central	194,548	159,349	150,187	133,598	134,374	97,237	103,678	104,211	108,492	103,615	109,915	142,096	1,541,300
South Atlantic	121,795	114,219	111,502	98,162	96,803	97,985	98,029	99,962	105,326	112,363	116,489	117,929	1,290,564
East South Central	18,393	17,657	16,420	20,442	19,744	20,221	20,320	20,843	19,025	17,152	14,647	16,319	221,183
West South Central	448,777	410,349	396,916	347,772	320,215	337,563	359,117	359,133	320,247	321,472	286,886	339,203	4,247,650
Mountain	26,972	24,597	23,734	24,042	20,701	19,613	20,392	21,761	21,893	23,516	24,036	24,629	275,886
Pacific	595,956	494,617	670,267	458,233	481,469	648,028	707,611	754,556	675,697	663,912	392,655	529,307	7,072,308
New England:													
Maine	7,605	8,377	5,069	2,367	2,322	442	4,472	9,794	1,862	10,241	21,642	18,374	92,567
New Hampshire	5	353	2	20	12	0	1	32	30	5	100	90	650
Vermont	3,253	2,417	1,785	2,410	740	1,433	2,525	8,322	3,617	5,655	7,438	2,552	42,147
Massachusetts	54,075	41,933	40,044	33,728	29,861	23,660	25,347	29,345	30,782	37,324	35,861	40,956	422,916
Rhode Island	113,281	142,040	98,213	86,132	77,210	73,497	63,710	66,616	73,407	78,236	101,899	109,878	1,084,119
Connecticut	1,050	465	743	521	425	183	188	719	1,185	1,230	892	1,018	8,619

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1924—Continued

FUEL OIL (BARRELS)—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
Middle Atlantic:													
New York	25,657	22,398	21,462	21,370	20,524	19,827	22,574	23,934	22,640	25,591	21,914	24,381	272,272
New Jersey	633	564	613	493	630	637	690	701	698	745	723	777	7,904
Pennsylvania	541	449	520	485	413	428	408	64	505	455	622	564	5,454
East North Central:													
Ohio	762	734	901	811	934	775	767	835	899	959	957	1,000	10,334
Indiana	753	669	641	706	600	566	610	615	662	778	802	862	8,264
Illinois	1,185	836	418	572	318	347	256	176	210	201	194	192	4,905
Michigan	705	1,399	2,360	706	364	414	843	633	1,834	1,418	1,612	3,208	15,496
Wisconsin	525	486	210	287	350	315	264	257	348	477	615	980	5,114
West North Central:													
Minnesota	864	980	866	571	463	607	653	782	863	941	956	1,048	9,594
Iowa	2,098	2,223	1,682	1,741	2,124	2,156	2,326	2,473	2,336	2,211	2,292	2,795	26,457
Missouri	34,476	23,682	21,841	12,262	12,248	11,102	12,343	12,181	13,888	10,159	15,403	27,747	207,332
North Dakota	335	301	313	172	276	270	256	270	388	336	348	350	3,615
South Dakota	3,662	3,620	3,644	3,246	3,266	3,000	3,182	3,443	3,621	3,525	3,152	3,731	41,092
Nebraska	28,942	24,259	23,086	19,578	20,283	11,870	10,045	8,990	7,990	8,795	10,054	16,027	189,919
Kansas	124,171	104.284	98,755	96,028	95,714	68,232	74,873	76,072	79,406	77,648	77,710	90,398	1,063,291
South Atlantic:													
Delaware	5	0	0	0	0	0	4	0	0	0	0	0	9
Maryland	135	132	134	133	81	81	79	79	81	80	90	97	1,202
Virginia	650	55	12	196	685	243	464	497	574	418	492	275	4,561
North Carolina	270	270	270	270	160	150	150	150	150	150	150	150	2,290
South Carolina	243	180	168	196	176	243	224	234	254	243	258	204	2,623
Georgia	24,229	23,315	21,905	17,305	17,387	18,948	19,488	19,760	20,843	22,917	23,852	24,454	254,403
Florida	96,263	90,267	89,013	80,062	78,314	78,320	77,620	79,242	83,424	88,555	91,647	92,749	1,025,476
East South Central:													
Kentucky	575	569	560	499	248	479	389	442	426	450	386	501	5,524
Tennessee	235	219	229	220	238	401	407	502	492	543	496	581	4,563
Alabama	3,000	2,969	2,973	2,851	3,148	2,782	2,800	2,957	2,688	45	45	87	26,345
Mississippi	14,583	13,900	12,658	16,872	16,110	16,559	16,724	16,942	15,419	16,114	13,720	15,150	184,751
West South Central:													
Arkansas	18,866	19,418	16,671	16,064	15,804	24,594	29,196	28,394	25,988	33,117	33,369	25,356	286,837
Louisiana	69,482	62,220	61,173	57,631	53,387	54,805	52,489	57,291	54,704	57,425	57,821	57,939	696,367
Oklahoma	48,490	42,313	40,914	41,187	40,735	41,219	43,869	40,352	36,536	37,272	36,270	39,950	489,107
Texas	311,939	286,398	278,158	232,890	210,289	216,945	233,563	233,096	203,019	193,658	159,426	215,958	2,775,339

Mountain:													
Montana	290	235	232	229	71	66	69	254	257	270	272	273	2,518
Wyoming	6,422	6,491	5,112	4,901	5,286	3,620	4,066	4,124	4,231	5,641	5,683	5,957	61,534
New Mexico	792	597	644	598	646	667	697	690	756	880	740	776	8,483
Arizona	18,926	16,957	17,519	18,153	14,613	15,080	15,212	16,377	16,155	16,098	16,877	17,058	199,025
Nevada	542	317	227	161	85	180	348	316	494	627	464	565	4,326
Pacific:													
Washington	29,724	11,372	15,774	18,405	12,783	16,332	29,964	40,095	31,637	25,017	11,198	17,438	259,739
Oregon	7,630	6,016	2,263	860	508	393	16,093	4,522	2,128	1,539	12,694	31,284	85,930
California	558,602	477,229	652,230	438.968	468,178	631,303	661,554	709,939	641,932	637,356	368,763	480,585	6,726,639

NATURAL GAS (M CUBIC FEET)

United States	2,434,746	2,585,200	3,173,549	2,800,529	3,017,848	4,264,323	5,071,757	5,391,216	5,883,665	6,162,567	4,632,547	3,024,739	48,442,686
Middle Atlantic	43,789	40,742	41,716	37,301	40,330	36,025	28,968	29,238	33,341	29,028	28,792	30,139	419,409
East North Central	100,678	68,574	314,636	336,017	160,618	158,211	134,949	150,018	528,451	602,203	361,174	203,364	3,138,893
West North Central	182,500	185,653	242,461	258,240	253,469	308,423	356,319	377,682	423,919	487,315	428,828	280,335	3,785,144
South Atlantic	142,839	108,063	125,342	98,223	98,161	85,658	91,117	76,095	78,006	75,308	68,447	71,301	1,118,560
East South Central	16,260	12,181	15,806	12,016	13,034	13,548	6,263	8,612	6,991	7,854	8,506	8,216	129,287
West South Central	973,071	908,931	1,009,213	1,187,409	1,453,669	1,495,649	1,602,835	1,671,281	1,678,043	1,914,158	1,804,524	1,556,707	17,255,490
Mountain	10,608	10,856	18,227	18,304	18,659	17,213	16,404	17,153	18,272	16,889	17,607	14,481	194,673
Pacific	965,001	1,250,200	1,406,148	853,019	979,908	2,149,596	2,834,902	3,061,137	3,116,642	3,029,812	1,914,669	840,196	22,401,230
Middle Atlantic:													
New York	12,367	12,574	11,665	8,651	10,570	7,797	3,785	4,783	4,904	4,505	4,511	4,629	91,741
Pennsylvania	31,422	28,168	30,051	28,650	29,760	28,228	25,183	24,455	27,437	24,523	24,281	25,510	327,668
East North Central:													
Ohio	99,204	67,006	312,945	334,337	158,223	156,875	133,349	148,227	526,650	601,294	359,654	222,173	3,119,937
Indiana	1,474	1,568	1,691	1,680	2,395	1,336	1,600	1,791	1,801	909	1,520	1,191	18,956
West North Central:													
Kansas	182,500	185,653	242,461	258,240	253,469	308,423	356,319	377,682	423,919	487,315	428,828	280,335	3,785,144
South Atlantic:													
West Virginia	142,816	108,043	125,299	98,178	98,153	85,647	91,109	76,095	68,006	75,308	68,447	71,301	1,118,402
Florida	23	20	43	45	8	11	8	0	0	0	0	0	158
East South Central:													
Kentucky	16,260	12,181	15,806	12,016	13,034	13,548	6,263	8,612	6,991	7,854	8,506	8,216	129,287
West South Central:													
Arkansas	188,682	157,832	167,204	144,937	151,487	164,240	188,521	190,310	183,935	195,206	173,859	163,650	2,069,863
Louisiana	113,951	104,765	134,909	131,028	121,243	139,465	148,960	149,979	145,868	155,468	155,742	168,720	1,669,998
Oklahoma	465,809	408,844	365,732	355,195	400,204	399,790	411,936	404,683	369,828	409,339	366,935	394,933	4,753,228
Texas	204,629	237,490	341,368	556,249	780,735	792,154	853,418	926,309	978,512	1,154,145	1,107,988	829,404	8,762,401
Mountain:													
Montana	1,317	2,838	3,001	2,484	2,401	2,505	2,165	2,590	2,599	2,727	2,786	2,834	30,247
Wyoming	9,291	8,018	15,226	15,820	16,258	14,708	14,239	14,563	15,673	14,162	14,821	11,647	164,426
Pacific:													
California	965,001	1,250,200	1,406,148	853,019	979,908	2,149,596	2,834,902	3,061,137	3,116,642	3,029,812	1,914,669	840,196	22,401,230

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1925

COAL (SHORT TONS)

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
United States	3,723,274	3,146,334	3,201,753	2,978,728	2,998,138	3,127,474	3,197,823	3,380,998	3,477,432	3,715,001	3,471,418	3,803,633	40,222,006
New England	287,726	220,921	212,351	196,021	193,984	212,987	21b,469	224,275	237,766	248,375	228,213	251,777	2,729,865
Middle Atlantic	1,150,047	981,511	1,008,767	935,432	916,324	925,930	949,389	979,223	992,127	1,086,771	1,033,370	1,134,765	12,093,656
East North Central	1,354,320	1,164,468	1,191,559	1,103,546	1,106,698	1,117,346	1,135,793	1,182,292	1,196,226	1,328,978	1,276,835	1,385,346	14,543,407
West North Central	387,856	321,388	307,286	257,217	267,843	257,655	265,854	297,791	306,299	319,351	313,728	364,958	3,667,126
South Atlantic	305,944	260,609	277,708	282,152	283,049	335,254	348,552	372,186	398,267	394,872	357,985	390,054	4,006,632
East South Central	113,191	81,794	94,578	104,293	132,075	172,569	174,747	201,051	217,037	193,444	127,289	140,862	1,752,930
West South Central	52,140	44,608	47,432	49,455	49,797	51,549	54,732	62,893	61,152	63,568	63,991	71,212	672,529
Mountain	69,735	69,818	61,331	49,570	47,274	52,909	52,907	55,431	53,356	59,503	57,145	64,458	693,437
Pacific	2,415	1,217	741	1,042	1,094	1,275	380	5,856	15,202	20,139	12,862	201	62,424
New England:													
Maine	782	¶60	270	205	194	189	213	353	303	324	379	249	3,621
New Hampshire	6,314	4,301	2,672	1,760	2,155	2,978	3.092	3,938	4,206	4,030	3,284	3,725	42,455
Vermont	608	327	129	100	50	50	10	322	165	150	0	0	1,911
Massachusetts	169,017	133,598	129,902	117,838	112,164	119,936	121,087	123,162	131,343	141,588	133,301	147,968	1,580,904
Rhode Island	27,285	19,421	22,616	23,115	22,841	23,710	25,175	23,980	25,228	26,375	24,159	28,615	292,520
Connecticut	83,720	63,114	56,762	53,003	56,580	66,124	65,892	72,520	76,521	75,908	67,090	71,220	808,454
Middle Atlantic:													
New York	509,526	413,055	413,485	375,519	371,375	384,064	395.178	408,073	423,359	452,641	421,106	463,160	5,030,541
New Jersey	123,942	103,689	111,171	105,210	99,495	100,738	110,850	109,506	114,476	124,366	126,407	137,346	1,367,196
Pennsylvania	516,579	464,767	484,111	454,703	445,454	441,128	443,361	461,644	454,292	509,764	485,857	534,259	5,695,919
East North Central:													
Ohio	376,109	331,937	345,709	320,748	323,349	313,589	309,690	318,490	313,483	365,005	355,756	379,540	4,053,405
Indiana	195,344	163,813	161,917	156,732	159,441	170,321	173,851	177,192	179,992	192,915	189,677	200,039	2,121,234
Illinois	529,416	449,782	461,996	428,941	418,093	421,392	429,661	448,175	460,469	508,027	482,267	539,099	5,577,318
Michigan	170,384	145,622	151,792	139,756	144,696	153,699	162,581	166,491	168,793	187,348	174,186	183,748	1,949,096
Wisconsin	83,067	73,314	70,145	57,369	61,119	58,345	60,010	71,944	73,489	75,683	74,949	82,920	842,354
West North Central:													
Minnesota	68,447	60,697	49,464	29,801	37,360	30,447	34,682	51,809	48,365	52,029	53,089	68,364	584,554
Iowa	92,732	80,842	76,739	70,357	74,116	68,682	68,647	74,279	76,665	80,758	76,759	86,620	927,196
Missouri	123,708	94,237	94,525	80,450	83,542	87,211	87,981	93,852	101,322	96,990	92,341	108,604	1,144,763
North Dakota	19,532	15,016	13,758	11,264	10,567	9,672	9,939	10,323	11,219	12,641	14,916	16,071	154,918
South Dakota	9,927	8,733	8,188	7,476	7,626	7,347	7,746	8,184	8,570	9,633	8,973	10,054	102,457
Nebraska	39,519	32,799	35,238	35,235	34,648	35,571	36,041	35,810	37,016	39,241	37,836	39,409	438,363
Kansas	33,891	29,064	29,374	22,634	19,984	18,725	20,818	23,534	23,142	28,059	29,814	35,836	314,875

South Atlantic:												
Delaware	10,090	8,524	8,219	7,380	7,399	7,375	7,616	8,770	8,491	8,831	8,437	8,665	99,797
Maryland	52,137	32,665	28,895	28,026	26,492	42,550	39,993	40,505	47,583	48,926	33,470	39,210	460,452
District of Columbia	25,813	20,364	23,387	22,440	22,753	24,930	24,164	24,376	24,290	25,134	26,394	26,933	290,978
Virginia	42,759	41,501	42,854	41,782	40,707	50,516	52,954	58,500	61,616	60,680	55,148	68,013	617,030
West Virginia	140,005	122,705	120,309	112,262	108,282	114,806	124,467	131,719	125,226	131,877	129,983	135,580	1,497,201
North Carolina	14,109	16,000	28,115	41,213	40,639	50,311	52,006	54,420	63,125	62,244	58,513	62,787	543,482
South Carolina	8,955	11,184	15,848	21,795	23,496	28,599	28,582	29,632	35,434	34,466	30,731	31,679	303,401
Georgia	10,024	6,146	5,625	5,916	11,599	14,463	17,132	22,622	30,676	21,029	13,644	15,422	174,298
Florida	2,052	1,520	1,456	1,338	1,682	1,704	1,638	1,642	1,826	1,685	1,685	1,765	19,993
East South Central:													
Kentucky	49,581	42,059	46,014	42,189	43,289	44,840	46,665	48,738	50,602	53,409	50,773	48,629	566,788
Tennessee	22,725	19,733	22,703	25,277	28,100	49,203	51,677	58,851	63,626	53,012	30,014	39,179	464,107
Alabama	32,809	11,915	17,703	29,143	53,137	69,979	67,763	82,981	93,168	75,237	33,581	41,204	608,620
Mississippi	8,076	8,087	8,158	7,684	7,549	8,547	8,642	10,481	9,641	11,779	12,921	11,850	113,415
West South Central:													
Arkansas	10,427	9,046	8,066	7,905	8,122	9,040	9,782	9,088	10,130	9,288	8,155	8,382	107,431
Louisiana	7,540	6,247	7,124	11,576	12,381	12,813	13,089	13,710	14,199	17,247	18,663	25,542	160,132
Oklahoma	15,617	12,643	14,305	11,649	12,325	13,099	13,453	21,941	17,620	19,255	18,895	18,649	189,461
Texas	18,556	16,672	17,937	18,325	16,959	16,597	18,408	18,154	19,203	17,778	18,278	18,638	215,505
Mountain:													
Montana	3,982	3,807	3,807	3,407	3,318	3,886	3,568	3,508	3,385	3,709	3,575	3,548	43,500
Wyoming	10,931	9,256	9,481	8,777	8,409	8,419	8,237	8,390	8,892	9,817	9,544	9,911	110,064
Colorado	46,360	48,875	39,203	34,340	33,141	33,034	33,978	36,067	33,522	38,289	36,738	40,749	454,796
New Mexico	2,423	2,287	2,646	2,646	2,406	2,154	1,854	1,760	1,827	1,772	1,747	1,749	25,171
Utah	6,039	5,593	6,194	0	0	5,416	5,270	5,706	5,730	5,916	5,541	8,501	59,906
Pacific:													
Washington	2,285	1,111	633	934	995	1,176	270	5,741	15,087	20,028	12,747	75	61,080
Oregon	130	106	108	108	99	99	110	115	115	113	115	126	1,344

FUEL OIL (BARRELS)

United States	1,374,422	992,466	833,564	698,060	675,589	791,257	852,852	759,262	813,804	853,618	790,006	810,960	10,246,450
New England	174,149	117,192	70,958	51,948	48,532	54,624	53,122	63,072	82,948	80,584	65,861	69,118	931,507
Middle Atlantic	23,939	22,436	22,456	21,877	21,319	23,901	26,045	26,064	27,151	28,368	28,752	30,928	303,240
East North Central	5,088	5,772	5,094	3,226	3,496	2,997	2,910	5,714	4,951	4,686	5,647	6,548	55,431
West North Central	149,793	108,299	95,434	79,450	77,547	74,126	86,150	83,897	94,046	92,915	90,871	101,770	1,134,298
South Atlantic	135,855	129,718	134,679	129,598	127,045	134,571	134,329	139,143	152,313	164,178	164,939	178,096	1,724,464
East South Central	18,620	14,905	17,301	14,421	15,140	12,143	12,694	9,699	15,651	8,480	3,940	5,261	148,255
West South Central	364,117	298,202	247,856	228,375	236,630	278,472	286,913	262,923	271,475	289,863	218,329	290,769	3,187,466
Mountain	24,048	19,184	17,942	15,730	16,216	18,392	20,606	19,886	19,230	20,500	21,414	24,058	237,206
Pacific	478,820	276,758	221,842	154,033	129,634	192,631	228,083	147,854	146,039	194,659	189,743	164,437	2,524,533
New England:													
Maine	38,816	26,420	3,358	1,698	870	2,461	2,691	7,247	16,136	4,791	3,465	4,463	112,416
New Hampshire	199	234	205	44	202	104	120	125	104	96	168	122	1,723
Vermont	10,978	5,766	2,128	1,788	1,636	2,196	1,683	5,182	4,968	3,027	1,806	1,695	42,853
Massachusetts	42,627	34,783	36,431	32,161	30,995	36,891	30,685	30,663	38,468	46,794	47,191	49,180	450,869
Rhode Island	80,006	49,523	28,816	16,132	14,716	18,339	17,938	19,851	23,269	25,870	13,231	13,658	321,349
Connecticut	1,522	466	20	125	113	33	5	4	3	6	0	0	2,297

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

1925—Continued

FUEL OIL (BARRELS)—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
Middle Atlantic:													
New York	22,611	20,842	20,982	20,695	20,205	22,896	24,826	24,750	25,835	26,982	27,429	29,483	287,536
New Jersey	672	661	742	681	691	622	700	742	767	793	757	821	8,649
Pennsylvania	650	933	732	501	423	383	519	572	549	608	566	619	7,055
East North Central:													
Ohio	931	810	846	882	589	347	471	508	637	554	597	645	7,817
Indiana	850	674	689	704	744	698	243	753	768	989	1,108	922	9,142
Illinois	20	162	150	171	235	230	223	242	235	226	376	196	2,466
Michigan	2,254	3,408	2,772	936	1,360	1,250	1,473	3,406	2,419	1,225	2,538	3,585	26,626
Wisconsin	1,033	718	637	535	568	472	500	805	892	1,042	1,028	1,200	9,430
West North Central:													
Minnesota	939	628	430	316	313	254	203	599	490	256	386	459	5,273
Iowa	2,768	2,552	2,751	2,476	2,714	2,928	2,810	3,332	3,143	3,111	2,603	3,295	34,483
Missouri	25,330	16,375	16,748	12,099	13,353	12,413	11,618	12,590	19,237	15,025	20,090	20,304	195,182
North Dakota	390	388	292	276	328	308	275	288	306	342	367	309	3,869
South Dakota	3,657	3,314	3,447	3,049	3,006	2,820	2,962	2,138	3,675	3,645	3,776	3,963	39,452
Nebraska	14,484	10,903	8,867	5,847	4,128	5,210	9,028	6,468	5,860	7,206	7,618	10,894	96,513
Kansas	102,225	74,139	62,899	55,387	53,705	50,193	59,254	58,482	61,335	63,330	56,031	62,546	759,526
South Atlantic:													H
Maryland	90	90	83	94	96	86	198	192	193	195	195	199	1,711
Virginia	222	290	180	399	496	585	770	983	1,091	952	711	581	7,260
North Carolina	290	360	334	184	207	216	55	0	0	0	0	0	1,646
South Carolina	174	167	165	188	218	315	368	442	560	570	561	522	4,250
Georgia	24,597	22,404	24,171	21,707	19,775	26,850	24,906	28,311	34,327	33,602	24,577	23,836	309,063
Florida	110,482	106,407	109,746	107,026	106,253	106,519	108,032	109,215	116,142	128,859	138,895	152,958	1,400,534
East South Central:													
Kentucky	341	307	287	232	276	285	274	287	274	275	260	260	3,358
Tennessee	566	559	578	593	613	603	630	622	645	680	680	656	7,425
Alabama	86	80	2,568	736	80	80	80	80	80	80	80	80	4,110
Mississippi	17,627	13,959	13,868	12,860	14,171	11,175	11,710	8,710	14,652	7,445	2,920	4,265	133,362
West South Central:													
Arkansas	26,470	16,637	14,780	23,207	17,352	40,040	40,936	29,816	37,401	21,148	24,864	14,727	307,468
Louisiana	59,162	53,534	52,640	33,570	33,954	36,199	38,566	37,776	41,375	35,281	21,684	16,934	460,675
Oklahoma	40,065	32,177	30,143	32,026	25,543	23,898	23,324	13,671	13,640	15,011	15,044	14,838	279,380
Texas	238,420	195,854	150,295	139,482	159,781	178,335	186,087	182,670	179,059	188,443	157,247	184,270	2,139,943

Mountain:													
Montana	267	252	250	248	307	296	321	315	318	308	319	278	3,479
Wyoming	5,500	4,238	4,572	3,909	3,767	3,321	3,104	3,357	3,694	4,219	3,885	3,528	47,094
Colorado	0	0	0	0	0	0	42	40	40	48	50	50	270
New Mexico	768	682	511	735	775	2,024	2,896	2,112	1,858	2,812	3,102	2,760	21,035
Arizona	17,090	13,737	12,401	10,738	11,292	12,643	13,989	13,827	13,065	12,894	13,815	17,178	162,669
Nevada	423	275	208	100	75	108	254	235	255	219	243	264	2,659
Pacific:													
Washington	14,290	10,470	9,635	9,252	7,139	7,936	6,474	16,294	19,669	62,721	36,494	12,619	212,993
Oregon	2,902	2,066	2,595	1,094	194	400	498	280	1,356	898	1,881	2,192	16,356
California	461,628	264,222	209,612	143,687	122,301	184,295	221,111	131,280	125,014	131,040	151,368	149,626	2,295,184

NATURAL GAS (M CUBIC FEET)

United States	2,954,411	2,536,173	3,311,263	3,452,792	3,519,712	3,761,600	4,293,965	4,892,098	5,184,563	4,595,144	4,257,261	3,762,000	46,520,982
Middle Atlantic	23,997	20,961	23,296	22,449	20,757	16,939	14,517	14,704	21,146	18,246	15,047	15,457	227,516
East North Central	236,381	225,704	370,853	611,922	642,975	659,179	762,489	834,502	952,569	618,519	328,434	295,872	6,539,399
West North Central	120,464	181,871	313,022	415,297	502,019	595,986	596,407	590,816	604,678	519,812	493,420	449,747	5,383,539
South Atlantic	55,992	36,658	35,043	22,916	23,567	26,235	42,082	68,833	84,702	77,671	49,415	53,559	576,673
East South Central	8,034	4,426	8,317	6,635	3,892	1,418	1,620	900	1,000	1,200	4,480	8,453	50,465
West South Central	1,443,678	1,426,150	1,833,014	1,952,494	1,826,483	1,905,603	1,980,784	2,103,369	2,078,513	2,190,751	2,412,714	2,093,394	23,246,947
Mountain	14,124	11,135	12,984	10,195	11,088	10,701	13,874	12,499	12,218	13,125	11,893	12,559	146,395
Pacific	1,051,741	629,268	714,734	410,884	488,931	545,539	882,192	1,266,475	1,429,737	1,155,820	941,858	832,869	10,350,048
Middle Atlantic:													
New York	1,727	1,200	1,116	1,000	1,012	1,072	1,147	1,263	1,802	1,425	1,412	1,618	15,794
Pennsylvania	22,270	19,761	22,180	21,449	19,745	15,867	13,370	13,441	19,344	16,821	13,635	13,839	211,722
East North Central:													
Ohio	235,338	224,588	369,950	611,228	642,390	658,488	761,683	833,725	951,747	617,349	327,358	294,721	6,528,565
Indiana	1,043	1,116	903	694	585	691	806	777	822	1,170	1,076	1,151	10,834
West North Central:													
Kansas	120,464	181,871	313,022	415,297	502,019	595,986	596,407	590,816	604,678	519,812	493,420	449,747	5,383,539
South Atlantic:													
West Virginia	55,992	36,658	35,043	22,916	23,567	26,235	42,082	68,833	84,702	77,671	49,415	53,559	576,673
East South Central:													
Kentucky	8,034	4,426	8,317	6,635	3,892	1,418	1,620	900	1,000	1,200	4,480	8,543	50,465
West South Central:													
Arkansas	138,716	146,759	155,656	182,151	142,874	173,867	184,093	168,948	179,699	167,909	191,581	152,572	1,984,825
Louisiana	166,064	151,065	156,020	152,613	154,288	163,615	177,095	181,528	185,352	189,397	180,693	189,574	2,047,304
Oklahoma	385,138	348,993	376,416	433,215	431,880	456,655	476,256	496,765	505,670	534,418	505,584	512,946	5,463,936
Texas	753,760	779,333	1,144,922	1,184,515	1,097,441	1,111,466	1,143,340	1,256,128	1,207,792	1,299,027	1,534,856	1,238,302	13,750,882
Mountain:													
Montana	1,387	1,196	1,255	1,162	1,241	1,252	3,158	3,482	3,576	3,472	4,000	4,071	29,252
Wyoming	12,737	9,939	11,729	9,033	9,847	9,449	10,716	9,017	8,642	9,653	7,893	8,488	117,143
Pacific:													
California	1,051,741	629,268	714,734	410,884	488,931	545,539	882,192	1,266,475	1,429,737	1,155,920	941,858	832,869	10,350,048

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No cousumption in States omitted]

1926

COAL (SHORT TONS)

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
United States	3,710,602	3,208,418	3,489,571	3,124,762	3,082,471	3,172,440	3,362,341	3,450,472	3,482,534	3,696,894	3,590,982	3,849,341	41,310,828
New England	254,100	234,606	237,568	195,381	186,089	205,118	217,322	243,539	258,686	260,463	227,994	266,074	2,786,960
Middle Atlantic	1,134,047	1,041,193	1,128,586	1,010,630	975,068	976,777	1,005,200	1,055,710	1,035,306	1,099,660	1,095,502	1,195,393	12,753,672
East North Central	1,372,692	1,232,843	1,312,362	1,177,627	1,121,761	1,132,515	1,186,253	1,249,228	1,252,707	1,317,903	1,278,246	1,392,262	15,026,494
West North Central	350,243	306,614	303,457	264,384	260,902	271,683	295,051	294,256	279,377	293,321	310,901	343,756	3,573,345
South Atlantic	356,744	276,954	301,585	290,556	333,468	355,854	366,536	364,647	370,454	388,918	392,704	379,607	4,177,974
East South Central	105,442	89,037	82,154	79,857	96,398	113,225	159,700	98,598	123,401	177,589	116,946	92,902	1,335,249
West South Central	71,473	63,396	66,163	59,875	63,527	66,895	80,617	84,276	99,508	95,910	100,530	109,640	961,900
Mountain	65,066	54,259	57,493	46,304	45,150	50,263	51,421	56,539	57,269	62,752	67,155	68,630	632,301
Pacific	195	116	233	151	108	110	241	3,684	5,736	1,278	1,004	1,077	13,933
New England:													
Maine	217	124	121	163	165	192	183	188	180	138	119	129	1,919
New Hampshire	4,113	3,969	3,679	2,982	1,812	3,525	4,585	4,792	5,832	5,519	3,987	4,298	49,143
Vermont	0	0	0	0	0	0	70	68	46	0	0	0	184
Massachusetts	143,637	134,124	137,428	113,195	108,448	111,799	116,850	125,529	129,675	139,662	133,338	152,767	1,546,952
Rhode Island	29,833	26,191	31,173	24,004	22,303	24,979	23,260	34,779	42,414	36,223	29,796	29,704	348,459
Connecticut	76,300	70,198	65,187	55,037	53,361	64,623	72,374	78,183	80,489	78,921	66,454	79,176	840,303
Middle Atlantic:													
New York	470,605	431,837	451,399	395,485	384,658	390,966	405,692	441,834	430,309	457,145	454,204	503,449	5,216,074
New Jersey	135,293	124,595	132,113	119,564	112,697	114,198	117,682	125,644	122,789	131,055	129,308	141,845	1,506,783
Pennsylvania	528,749	484,761	545,074	495,581	477,713	472,513	481,826	488,232	482,217	511,460	511,990	550,099	6,030,215
East North Central:													
Ohio	375,952	334,569	356,984	331,172	307,515	317,441	320,368	329,454	331,896	355,526	344,054	367,914	4,072,845
Indiana	196,950	172,390	189,026	167,989	161,449	159,946	167,660	178,902	176,654	184,409	189,101	201,300	2,145,645
Illinois	525,618	467,707	502,749	463,229	439,728	441,958	460,405	484,624	495,525	521,727	515,369	570,139	5,888,776
Michigan	186,152	172,929	182,618	156,859	158,409	160,694	174,556	188,655	188,419	192,644	167,234	179,310	2,108,479
Wisconsin	88,020	85,248	80,985	58,478	54,661	52,476	63,296	67,588	60,213	62,697	62,488	73,599	809,749
West North Central:													
Minnesota	68,941	61,543	50,949	28,567	35,783	41,056	48,346	41,785	29,316	27,331	37,545	52,866	524,528
Iowa	84,739	71,551	76,513	70,539	68,457	66,058	68,931	70,156	72,408	77,323	81,041	86,310	894,026
Missouri	97,286	86,251	89,582	84,119	82,885	83,804	92,471	90,558	89,285	93,196	88,552	97,998	1,075,087
North Dakota	15,506	13,616	12,705	12,746	10,992	11,431	11,402	12,344	13,277	15,981	18,564	19,224	167,790
South Dakota	10,553	8,338	8,973	8,630	8,936	8,351	8,935	9,023	9,216	9,626	10,527	11,645	112,658
Nebraska	37,851	31,874	34,595	33,177	33,952	34,665	35,502	36,700	36,099	37,419	38,174	40,394	430,272
Kansas	35,365	32,841	30,240	26,606	19,897	26,318	29,404	33,655	29,366	31,945	36,488	36,219	368,884

South Atlantic:													
Delaware	8,897	8,207	9,348	8,881	9,025	9,551	10,677	11,470	11,106	11,452	6,723	8,546	113,883
Maryland	41,619	32,771	34,153	31,282	36,090	41,145	43,541	44,770	41,502	36,716	35,862	44,189	468,640
District of Columbia	26,807	23,346	25,288	23,759	24,850	24,289	25,170	26,034	25,800	26,217	27,436	30,182	309,678
Virginia	58,706	42,992	46,646	42,556	52,528	62,360	61,771	61,375	64,691	66,776	57,298	51,644	664,537
West Virginia	137,353	126,145	136,867	127,334	124,625	118,724	121,412	130,685	131,116	135,953	140,516	161,129	1,584,850
North Carolina	50,977	26,816	25,431	29,044	51,388	60,150	56,112	58,150	57,157	66,404	74,551	63,781	614,062
South Carolina	24,067	15,359	15,185	20,706	27,758	31,784	32,767	29,071	31,221	37,098	32,281	23,782	321,600
Georgia	12,083	4,980	5,616	4,757	5,187	5,754	7,887	5,942	5,580	6,138	7,012	5,053	75,989
Florida	2,135	1,888	2,601	2,235	2,017	2,007	2,178	2,150	1,681	2,184	2,090	1,301	24,027
East South Central:													
Kentucky	48,565	42,036	42,954	44,887	43,428	43,615	43,563	49,462	46,168	48,528	48,531	50,159	551,862
Tennessee	30,312	22,309	20,502	19,712	28,642	32,949	44,930	24,146	35,688	59,211	33,563	23,644	375,608
Alabama	14,430	14,200	10,131	7,525	15,100	27,692	61,029	13,895	32,415	60,542	26,806	11,061	294,826
Mississippi	12,135	10,402	8,567	8,223	9,038	8,969	10,178	11,095	9,130	9,508	8,045	6,047	113,143
West South Central:													
Arkansas	9,653	8,862	8,959	8,159	8,797	11,008	12,434	10,656	9,464	8,918	9,179	10,124	116,206
Louisiana	22,228	20,306	19,043	18,514	18,504	18,465	19,155	19,440	18,614	20,122	20,401	22,296	237,408
Oklahoma	19,869	16,516	17,643	16,057	18,407	19,187	20,958	16,364	21,948	21,388	23,457	23,449	235,285
Texas	19,723	17,712	20,513	17,145	17,729	18,235	28,073	37,816	49,677	45,487	47,403	53,899	379,062
Mountain:													
Montana	3,632	3,091	3,082	3,420	3,418	3,160	3,397	3,353	3,610	3,482	3,424	3,601	40,670
Wyoming	10,766	8,868	8,288	6,930	6,406	6,730	6,945	7,521	7,750	8,614	8,608	9,424	96,640
Colorado	40,743	33,162	35,823	33,372	31,287	31,936	31,916	35,167	35,823	38,540	41,794	43,221	433,284
New Mexico	1,789	1,501	1,714	1,619	1,754	1,752	2,209	2,172	2,282	2,124	2,111	2,806	23,763
Utah	8,136	7,637	8,586	963	2,285	6,985	6,954	8,326	8,354	8,992	11,228	9,581	87,727
Pacific:													
Washington	60	12	4	5	0	0	115	8,562	5,621	1,185	880	960	12,404
Oregon	185	104	229	146	108	110	126	122	115	93	124	117	1,529

FUEL OIL (BARRELS)

United States	1,027,323	728,984	714,942	639,047	606,838	624,677	704,450	761,491	915,667	913,764	959,067	802,972	9,399,222
New England	60,202	63,001	76,171	57,322	56,299	69,397	68,046	96,779	110,761	97,725	84,400	90,100	929,703
Middle Atlantic	33,119	30,228	32,418	28,606	23,920	26,371	30,330	39,436	29,137	30,161	27,274	29,709	351,899
East North Central	6,921	5,158	3,950	3,184	3,551	3,695	4,286	8,541	3,241	3,286	3,263	3,666	47,654
West North Central	100,753	83,503	80,762	66,680	57,248	69,049	78,783	81,479	79,586	76,183	97,908	102,263	974,197
South Atlantic	190,161	185,818	188,485	198,346	185,455	186,812	181,101	189,387	191,962	192,177	204,774	204,935	2,299,413
East South Central	8,146	6,911	6,081	5,350	4,173	3,744	4,083	4,844	5,883	5,803	3,930	3,755	62,703
West South Central	204,613	167,251	154,273	137,073	154,507	155,778	156,019	158,256	137,758	134,432	114,787	105,459	1,776,986
Mountain	24,343	20,689	19,792	16,717	19,604	21,335	21,564	22,842	24,235	23,931	24,919	24,875	264,846
Pacific	399,065	166,325	153,010	124,869	102,081	98,086	159,336	178,927	333,104	350,066	397,832	238,120	2,700,821
New England:													
Maine	3,644	2,172	2,161	1,919	1,797	2,057	7,570	25,830	37,610	24,438	3,371	3,948	116,517
New Hampshire	159	64	29	66	106	36	109	235	388	115	68	99	1,474
Vermont	1,674	2,336	3,607	2,580	2,430	2,166	2,889	5,164	5,637	3,120	2,514	1,935	37,052
Massachusetts	43,723	47,319	56,224	43,024	42,754	47,700	41,476	50,561	50,802	54,279	48,556	55,755	582,173
Rhode Island	10,989	11,087	14,085	9,664	8,260	7,869	14,963	14,966	16,273	15,716	29,824	28,279	181,975
Connecticut	13	23	65	69	952	69	39	23	51	57	67	84	1,512

TABLE 43.—*Monthly consumption of fuels in generating electric power by public-utility power plants in the United States, 1919–1926*—Con.

[No consumption in States omitted]

FUEL OIL (BARRELS)—Continued

1926—Continued

Division and State	January	February	March	April	May	June	July	August	September	October	November	December	Total
Middle Atlantic:													
New York	31,626	28,957	31,012	27,259	22,607	25,079	28,770	28,843	27,629	28,596	25,765	28,210	334,353
New Jersey	805	777	835	766	795	773	775	1,007	845	839	807	827	9,851
Pennsylvania	688	594	571	581	518	519	785	586	663	726	702	762	7,695
East North Central:													
Ohio	627	525	513	476	481	451	475	494	505	540	539	580	6,206
Indiana	857	790	855	772	803	824	870	915	813	991	839	813	10,142
Illinois	1,110	1,320	22	435	930	900	1,138	221	223	272	363	430	7,364
Michigan	2,611	1,522	1,034	760	763	771	1,032	1,161	1,192	946	949	1,003	13,744
Wisconsin	1,716	1,001	1,526	741	574	659	773	750	508	537	573	840	10,198
West North Central													
Minnesota	716	645	550	506	543	503	414	556	561	477	606	615	6,692
Iowa	2,877	2,401	2,285	2,417	2,615	2,854	2,737	3,123	3,157	2,819	3,138	3,426	33,849
Missouri	22,711	19,515	18,931	14,407	9,102	7,712	10,605	8,148	8,371	9,143	9,254	11,863	149,762
North Dakota	278	200	215	168	206	202	206	244	242	265	245	207	2,678
South Dakota	3,914	3,541	3,382	3,608	3,548	3,655	3,644	3,441	3,588	3,140	3,554	4,019	43,034
Nebraska	9,688	7,763	6,166	4,183	4,764	4,833	6,872	9,247	6,553	5,530	7,133	5,713	78,445
Kansas	60,569	49,438	49,233	41,391	36,470	49,290	54,305	56,720	57,114	54,809	73,978	76,420	659,737
South Atlantic:													
Maryland	197	203	203	201	197	42	42	42	44	50	50	55	1,326
Virginia	496	479	554	580	461	350	637	578	300	381	652	794	6,262
West Virginia	40	40	40	40	40	40	40	40	40	40	40	40	480
North Carolina	0	0	119	120	120	120	120	213	210	210	176	159	1,567
South Carolina	591	533	530	485	572	670	574	695	862	786	691	604	7,593
Georgia	24,002	22,106	23,175	21,147	21,844	22,879	24,108	24,464	27,361	27,454	25,171	23,287	286,998
Florida	164,835	162,457	163,864	175,773	162,221	162,711	155,580	163,355	163,145	163,256	177,994	179,996	1,995,187
East South Central:													
Kentucky	260	250	255	255	255	255	255	255	275	264	234	241	3,054
Tennessee	532	502	503	519	471	505	442	572	565	806	834	854	7,105
Alabama	541	1,002	0	0	0	0	0	757	1,901	1,819	311	203	6,534
Mississippi	6,813	5,157	5,323	4,576	3,447	2,984	3,386	3,260	3,142	2,914	2,551	2,457	46,010
West South Central:													
Arkansas	11,818	9,742	8,303	6,676	7,520	13,217	10,663	11,041	10,416	8,597	9,077	7,943	115,013
Louisiana	17,594	17,588	21,395	14,658	14,046	16,086	17,046	18,334	19,401	20,788	14,455	12,993	204,384
Oklahoma	16,243	13,728	12,480	12,113	12,069	12,790	14,168	14,880	15,636	14,969	14,880	13,838	167,794
Texas	158,958	126,193	112,095	104,526	120,872	113,685	115,042	109,001	92,305	90,078	76,355	70,685	1,289,795

Mountain:													
Montana	403	385	385	253	194	180	180	180	180	180	180	180	2,880
Wyoming	4,087	3,434	3,664	3,363	3,480	3,568	3,392	3,420	3,684	3,934	3,509	2,653	42,188
Colorado	46	42	46	103	177	170	170	170	170	170	170	170	1,604
New Mexico	2,565	2,218	2,529	2,445	2,540	2,823	3,439	3,705	2,888	3,166	5,322	5,221	38,861
Arizona	16,929	14,307	12,948	10,488	13,130	14,488	14,109	14,923	16,740	15,953	15,294	16,097	175,406
Nevada	313	303	220	65	83	106	274	444	573	528	444	554	3,907
Pacific:													
Washington	12,403	9,028	8,830	8,566	6,678	8,084	10,333	15,073	33,895	14,130	12,785	16,056	155,861
Oregon	1,494	831	705	666	753	331	715	409	2,145	719	2,307	1,989	13,064
California	385,168	156,466	143,475	115,637	94,650	89,671	148,288	163,445	297,064	335,217	382,740	220,075	2,531,896

NATURAL GAS (M CUBIC FEET)

United States	3,884,378	3,534,374	4,077,118	3,653,552	3,932,212	4,264,768	5,591,037	5,777,563	5,209,058	5,368,052	4,066,722	3,848,310	53,207,144
Middle Atlantic	13,812	12,154	12,562	12,125	11,707	11,024	11,181	9,613	11,804	13,589	14,278	13,972	147,821
East North Central	275,145	306,770	309,330	293,977	478,566	435,195	466,111	533,813	604,009	513,385	436,417	427,015	5,079,733
West North Central	419,437	404,554	451,733	457,373	529,858	532,408	567,680	620,113	569,212	595,073	388,502	380,904	5,916,847
South Atlantic	15,398	11,683	16,792	11,594	10,857	11,758	11,353	11,715	12,368	12,378	15,009	16,397	157,302
East South Central	11,490	8,237	5,980	1,510	525	525	800	950	950	1,100	4,219	3,956	40,242
West South Central	2,199,086	2,009,363	2,383,168	2,373,032	2,322,407	2,549,727	2,990,665	2,906,787	3,077,701	3,166,465	2,531,060	2,828,459	31,337,920
Mountain	12,244	11,439	12,195	12,432	11,328	10,770	13,677	10,785	12,416	15,984	14,623	22,876	160,769
Pacific	937,766	770,174	885,358	491,509	566,964	713,361	1,529,570	1,683,787	920,598	1,050,078	662,614	154,731	10,366,510
Middle Atlantic:													
New York	1,399	1,410	1,322	1,148	1,130	1,142	1,244	1,432	1,560	1,545	1,591	1,725	16,648
Pennsylvania	12,413	10,744	11,240	10,977	10,577	9,882	9,937	8,181	10,244	12,044	12,687	12,247	131,173
East North Central:													
Ohio	274,104	305,901	308,518	293,019	477,616	434,053	464,966	532,668	604,009	513,385	436,302	426,940	5,071,481
Indiana	1,041	869	812	958	950	1,142	1,145	1,145	0	0	115	75	8,252
West North Central:													
Kansas	419,437	404,554	451,733	457,373	529,858	532,408	567,680	620,113	569,212	595,073	388,502	380,904	5,916,847
South Atlantic:													
West Virginia	15,398	11,683	16,792	11,594	10,857	11,758	11,353	11,715	12,368	12,378	15,009	16,397	157,302
East South Central:													
Kentucky	11,490	8,237	5,980	1,510	525	525	800	950	950	1,100	4,219	3,956	40,242
West South Central:													
Arkansas	111,217	110,025	102,787	102,262	107,508	189,985	212,293	171,403	163,957	162,900	135,039	127,986	1,697,362
Louisiana	321,275	288,828	275,341	281,675	322,964	194,438	643,720	486,879	501,478	519,210	265,276	468,144	4,569,228
Oklahoma	488,363	470,295	488,402	468,380	442,574	479,141	480,846	521,486	520,896	576,332	493,292	533,103	5,963,110
Texas	1,278,231	1,140,215	1,516,638	1,520,715	1,449,361	1,686,163	1,653,806	1,727,019	1,891,370	1,908,023	1,637,453	1,699,226	19,108,220
Mountain:													
Montana	3,887	3,399	3,400	3,474	3,323	3,467	3,455	3,572	3,721	4,804	3,290	4,680	44,472
Wyoming	8,357	8,040	8,795	8,958	8,005	7,303	10,222	7,213	8,695	11,180	11,333	18,196	116,297
Pacific:													
California	937,766	770,174	885,358	491,509	566,964	713,361	1,529,570	1,683,787	920,598	1,050,078	662,614	154,731	10,366,510

TABLE 44.—*Annual production of electricity by public-utility power plants in the United States, 1919–1926*

Year	Total		Water power			Fuel power		
	Kilowatt-hours	Change from previous year (per cent)	Kilowatt-hours	Per cent of total	Change from previous year (per cent)	Kilowatt-hours	Per cent of total	Change from previous year (per cent)
1919 [a]	38,921,000,000		14,606,000,000	37.5		24,315,000,000	62.5	
1920	43,555,000,000	+11.9	16,150,000,000	37.1	+10.6	27,405,000,000	62.9	+12.7
1921	40,975,000,000	−5.9	14,976,000,000	36.5	−7.3	26,005,000,000	63.5	−5.1
1922	47,654,000,000	+16.3	17,297,000,000	36.1	+14.9	30,447,000,000	63.9	+17.1
1923	55,665,000,000	+16.8	19,343,000,000	34.6	+12.4	36,322,000,000	65.2	+19.3
1924	59,014,000,000	+6.0	19,969,000,000	33.8	+3.2	39,044,000,000	66.2	+7.5
1925	65,870,000,000	+11.6	22,356,000,000	33.9	+11.9	43,514,000,000	66.1	+11.4
1926	73,791,000,000	+12.0	26,189,000,000	35.5	+17.1	47,602,000,000	64.5	+9.4

[a] Based on reports for February, March, April, July, September, and October, 1919, and January, 1920.

TABLE 45.—*Annual consumption of fuel in the production of electricity by public-utility power plants in the United States, 1919–1926*

Year	Coal		Fuel oil		Gas	
	Short tons	Change from previous year (per cent)	Barrels	Change from previous year (per cent)	M cubic feet	Change from previous year (per cent)
1919 [a]	35,100,000		11,050,000		21,406,000	
1920	37,124,000	+5.8	13,123,000	+18.8	24,702,000	+15.4
1921	31,585,000	−14.9	12,045,000	−8.2	23,722,000	−4.0
1922	34,179,000	+8.2	13,197,000	+9.6	27,172,000	+14.5
1923	38,966,000	+14.0	14,684,000	+11.3	31,483,000	+15.9
1924	37,556,000	−3.6	16,630,000	+13.3	48,443,000	+53.9
1925	40,222,000	+7.1	10,246,000	−38.4	46,521,000	−4.0
1926	41,311,000	+2.7	9,399,000	−8.3	53,207,000	+14.4

[a] Based on reports for February, March, April, July, September, and October, 1919, and January, 1920.

TABLE 46.—*Average consumption of coal per kilowatt-hour by public-utility power plants in the United States, 1919–1926*

Year	Output by the use of fuel (coal, oil, and gas)		Consumption of coal and coal equivalent of other fuels [a]			
			Total		Per kilowatt-hour	
	Kilowatt-hours	Change from previous year (per cent)	Net tons	Change from previous year (per cent)	Pounds	Per cent of rate in 1919
1919	24,175,000,000		38,580,000		3.2	100
1920	27,248,000,000	+12.7	41,420,000	+6.5	3.0	94
1921	25,863,000,000	−5.1	35,240,000	−14.9	2.7	84
1922	30,234,000,000	+16.9	38,000,000	+7.8	2.5	78
1923	36,088,000,000	+19.4	43,522,000	+14.5	2.4	75
1924	38,808,000,000	+7.5	43,130,000	−.9	2.2	69
1925	43,264,000,000	+11.5	44,780,000	+3.8	2.1	66
1926	47,274,000,000	+9.3	45,856,000	+2.4	1.95	61

[a] 1 ton of coal=4.3 barrels of oil=23,000 cubic feet of gas in 1926 (approximately).

TABLE 47.—*Public-utility power companies in the United States and capacity of generators, January 1, 1920–1927*

Division and State	1920			1921		
	Operating companies	Plants	Capacity of generators (kilowatts)	Operating companies	Plants	Capacity of generators (kilowatts)
United States	**2,955**	**4,283**	**13,093,972**	**2,685**	**3,981**	**14,399,052**
New England	211	390	1,416,020	205	367	1,577,481
Middle Atlantic	419	610	3,484,807	378	566	3,812,134
East North Central	681	965	2,886,761	580	875	3,175,708
West North Central	568	739	1,097,555	517	665	1,193,970
South Atlantic	333	436	1,317,004	310	395	1,614,177
East South Central	172	222	553,647	156	199	514,166
West South Central	267	333	363,580	253	320	414,822
Mountain	182	308	708,796	180	276	709,481
Pacific	122	280	1,265,802	106	268	1,387,113
New England:						
Maine	35	75	96,905	36	79	111,617
New Hampshire	29	49	47,355	25	43	69,483
Vermont	34	76	86,371	33	69	67,554
Massachusetts	74	125	742,644	71	111	859,947
Rhode Island	7	10	155,575	7	10	171,655
Connecticut	32	55	287,170	33	50	297,225
Middle Atlantic:						
New York	202	304	2,025,213	184	287	2,209,632
New Jersey	44	63	348,270	45	63	372,357
Pennsylvania	173	243	1,111,324	149	216	1,230,145
East North Central:						
Ohio	168	220	860,990	139	192	1,005,842
Indiana	116	133	319,174	107	148	358,976
Illinois	130	215	805,545	111	192	909,725
Michigan	140	215	551,985	118	189	550,522
Wisconsin	127	182	349,067	105	154	350,643
West North Central:						
Minnesota	96	131	268,941	83	117	306,697
Iowa	114	162	274,998	97	139	318,290
Missouri	98	129	283,106	90	113	267,932
North Dakota	35	44	20,422	29	36	19,220
South Dakota	37	45	21,885	36	42	23,721
Nebraska	76	103	75,891	75	100	86,355
Kansas	112	125	152,312	107	118	171,755
South Atlantic:						
Delaware	6	8	20,617	6	6	32,355
Maryland District of Columbia	26	35	230,094	24	30	280,053
Virginia	49	67	177,080	56	62	197,590
West Virginia	42	48	250,480	40	46	336,796
North Carolina	54	72	171,149	48	68	204,115
South Carolina	40	58	194,762	35	49	262,768
Georgia	75	94	214,354	65	84	231,980
Florida	41	54	58,468	36	50	68,520
East South Central:						
Kentucky	44	62	103,404	41	59	109,574
Tennessee	50	65	226,117	46	57	184,750
Alabama	33	46	190,842	30	43	186,809
Mississippi	45	49	33,284	39	40	33,033
West South Central:						
Arkansas	43	50	39,555	38	50	43,144
Louisiana	33	38	61,378	34	38	83,127
Oklahoma	72	93	65,877	76	93	86,806
Texas	119	152	196,770	105	139	201,745
Mountain:						
Montana	23	50	241,514	34	44	218,886
Idaho	26	48	114,605	25	44	137,484
Wyoming	24	29	20,954	20	21	22,847
Colorado	39	66	129,780	33	58	143,053
New Mexico	20	21	13,215	17	19	11,392
Arizona	22	31	100,848	23	29	91,318
Utah	22	51	77,237	23	50	74,457
Nevada	6	12	10,643	5	11	10,044
Pacific:						
Washington	37	73	275,049	32	71	328,391
Oregon	37	64	119,105	34	62	124,605
California	48	143	871,648	40	135	934,117

TABLE 47.—*Public-utility power companies in the United States and capacity of generators, January 1, 1920–1927*—Continued

Division and State	1922			1923		
	Operating companies	Plants	Capacity of generators (kilowatts)	Operating companies	Plants	Capacity of generators (kilowatts)
United States	2,620	3,792	15,482,526	2,628	3,817	15,970,787
New England	207	350	1,675,740	207	352	1,697,199
Middle Atlantic	360	542	4,434,683	353	526	4,352,030
East North Central	550	839	3,323,635	550	826	3,453,422
West North Central	519	642	1,249,837	517	656	1,305,645
South Atlantic	298	383	1,584,798	306	398	1,658,916
East South Central	153	193	527,002	152	193	596,806
West South Central	257	311	437,303	265	321	516,539
Mountain	166	264	712,765	167	264	695,655
Pacific	110	268	1,536,763	111	281	1,694,575
New England:						
Maine	39	72	126,014	37	72	122,184
New Hampshire	29	48	70,203	30	49	71,065
Vermont	32	68	66,959	31	71	72,090
Massachusetts	69	104	901,708	71	103	901,459
Rhode Island	7	9	194,630	6	8	193,830
Connecticut	31	49	316,226	32	49	336,571
Middle Atlantic:						
New York	186	274	2,667,393	176	269	2,551,772
New Jersey	42	61	373,062	41	60	370,662
Pennsylvania	132	207	1,394,228	136	197	1,429,596
East North Central:						
Ohio	122	181	1,092,337	123	168	1,026,812
Indiana	102	145	365,670	100	145	394,939
Illinois	105	189	961,592	106	183	1,008,126
Michigan	112	170	545,785	117	173	598,328
Wisconsin	109	154	358,251	104	157	425,217
West North Central:						
Minnesota	81	111	308,494	79	112	307,079
Iowa	98	137	329,889	94	136	332,328
Missouri	91	105	308,511	87	104	350,133
North Dakota	29	35	18,563	28	36	19,349
South Dakota	39	43	24,027	37	42	28,331
Nebraska	76	98	87,809	76	102	89,275
Kansas	105	113	172,544	116	124	178,650
South Atlantic:						
Delaware	6	6	32,355	6	6	32,355
Maryland District of Columbia	23	28	273,578	20	25	315,371
Virginia	43	59	198,736	45	62	204,248
West Virginia	40	42	365,396	39	46	383,409
North Carolina	49	64	146,659	52	69	150,651
South Carolina	34	50	261,190	34	48	258,080
Georgia	65	83	238,143	67	85	235,641
Florida	38	51	68,741	43	57	79,161
East South Central:						
Kentucky	40	60	112,693	41	59	121,911
Tennessee	46	54	184,736	43	52	182,971
Alabama	29	41	196,754	30	44	259,257
Mississippi	38	38	32,819	38	38	32,667
West South Central:						
Arkansas	39	49	46,999	40	49	53,595
Louisiana	34	36	83,372	38	38	102,990
Oklahoma	78	91	86,912	77	97	103,007
Texas	106	135	220,020	110	137	256,947
Mountain:						
Montana	25	41	214,796	25	41	214,796
Idaho	22	42	148,015	21	41	157,405
Wyoming	20	20	23,849	19	19	23,620
Colorado	34	58	143,905	33	57	151,395
New Mexico	18	19	11,932	20	20	13,984
Arizona	21	27	86,348	21	28	44,214
Utah	20	46	73,876	22	48	80,316
Nevada	6	11	10,044	6	10	9,925
Pacific:						
Washington	38	69	330,742	35	73	361,649
Oregon	34	61	140,705	34	64	150,020
California	38	138	1,065,316	42	144	1,182,906

TABLE 47.—*Public-utility power companies in the United States and capacity of generators, January 1, 1920–1927*—Continued

Division and State	1924			1925		
	Operating companies	Plants	Capacity of generators (kilowatts)	Operating companies	Plants	Capacity of generators (kilowatts)
United States	2,562	3,888	17,369,127	2,425	3,882	19,519,000
New England	211	360	1,813,360	198	350	1,949,777
Middle Atlantic	334	520	4,678,421	301	497	5,150,367
East North Central	500	821	3,747,686	477	818	4,402,070
West North Central	527	696	1,390,282	497	701	1,489,348
South Atlantic	304	413	1,893,707	297	416	2,119,758
East South Central	148	196	721,501	138	199	838,086
West South Central	256	328	536,779	247	341	689,937
Mountain	173	278	714,120	172	281	763,615
Pacific	109	276	1,873,271	98	279	2,116,042
New England:						
Maine	40	77	137,207	35	72	132,982
New Hampshire	31	50	71,035	27	48	70,602
Vermont	32	73	75,283	30	75	104,833
Massachusetts	70	103	980,339	71	101	1,028,639
Rhode Island	6	8	203,830	6	8	203,330
Connecticut	32	49	345,666	29	46	409,391
Middle Atlantic:						
New York	170	269	2,649,069	154	263	3,066,576
New Jersey	35	58	390,352	29	53	385,417
Pennsylvania	129	193	1,639,000	118	181	1,698,374
East North Central:						
Ohio	115	161	1,082,101	109	155	1,243,775
Indiana	87	142	446,641	79	138	503,395
Illinois	92	177	1,170,182	82	174	1,417,722
Michigan	109	184	604,058	104	182	737,314
Wisconsin	97	157	444,704	103	169	499,864
West North Central:						
Minnesota	81	122	332,591	73	125	435,791
Iowa	88	133	339,323	88	135	311,486
Missouri	88	112	369,830	77	111	373,602
North Dakota	30	38	18,960	28	37	24,118
South Dakota	46	52	33,211	42	52	33,400
Nebraska	88	119	95,874	84	117	103,396
Kansas	106	120	200,493	105	124	207,555
South Atlantic:						
Delaware	6	6	32,355	5	5	32,145
Maryland	22	29	343,422	21	28	363,242
District of Columbia						
Virginia	44	64	215,861	46	65	250,927
West Virginia	38	46	456,669	39	45	455,354
North Carolina	48	71	211,012	44	75	303,289
South Carolina	37	52	269,467	37	53	344,429
Georgia	66	88	281,462	63	86	285,342
Florida	43	57	83,459	42	59	85,030
East South Central:						
Kentucky	39	59	179,966	33	59	203,226
Tennessee	43	52	190,042	44	55	256,970
Alabama	27	46	318,556	25	46	344,059
Mississippi	39	39	32,837	36	39	33,831
West South Central:						
Arkansas	38	48	56,163	37	48	62,194
Louisiana	37	39	103,425	36	39	124,872
Oklahoma	73	98	119,148	67	97	177,188
Texas	108	143	258,043	107	157	325,683
Mountain:						
Montana	25	42	220,891	25	42	221,144
Idaho	22	44	157,735	22	44	171,075
Wyoming	21	23	31,138	27	30	34,221
Colorado	35	60	155,370	32	59	182,480
New Mexico	20	20	12,312	20	20	11,962
Arizona	21	28	45,234	19	27	51,971
Utah	23	51	81,515	21	49	80,780
Nevada	6	10	9,925	6	10	9,982
Pacific:						
Washington	35	69	362,293	28	70	447,695
Oregon	34	63	166,218	31	60	200,378
California	40	144	1,344,760	39	149	1,467,969

TABLE 47.—*Public-utility power companies in the United States and capacity of generators, January 1, 1920–1927*—Continued

Division and State	1926			1927		
	Operating companies	Plants	Capacity of generators (kilowatts)	Operating companies	Plants	Capacity of generators (kilowatts)
United States	2,249	3,808	23,618,762	2,058	3,805	25,398,385
New England	190	342	2,124,353	185	338	2,358,989
Middle Atlantic	269	468	6,238,768	256	468	6,648,142
East North Central	442	776	5,379,675	414	786	5,825,149
West North Central	452	707	1,816,798	422	706	1,886,186
South Atlantic	284	414	2,763,380	253	412	2,835,074
East South Central	126	200	1,116,574	110	196	1,221,372
West South Central	227	342	812,474	176	339	910,056
Mountain	165	277	830,715	151	277	877,911
Pacific	94	282	2,536,025	91	281	2,737,556
New England:						
Maine	31	71	161,139	31	71	180,362
New Hamsphire	28	47	101,437	28	48	111,837
Vermont	30	72	111,415	31	73	126,800
Massachusetts	68	99	1,080,522	63	96	1,186,735
Rhode Island	6	9	224,325	5	8	259,800
Connecticut	27	44	445,515	27	44	493,405
Middle Atlantic:						
New York	131	249	3,406,251	129	257	3,638,322
New Jersey	25	48	647,666	22	43	658,976
Pennsylvania	113	171	2,184,851	105	168	2,348,844
East North Central:						
Ohio	102	147	1,512,001	93	142	1,742,941
Indiana	69	121	660,665	70	124	674,719
Illinois	78	164	1,674,889	74	170	1,808,538
Michigan	94	174	955,555	87	176	1,067,584
Wisconsin	99	170	576,565	90	174	636,367
West North Central:						
Minnesota	67	120	468,039	64	120	491,653
Iowa	81	145	391,457	71	151	430,461
Missouri	72	107	450,520	72	103	451,687
North Dakota	25	37	28,196	22	37	31,398
South Dakota	32	49	42,499	22	49	42,944
Nebraska	72	122	165,309	71	122	165,426
Kansas	103	127	270,778	100	124	272,617
South Atlantic:						
Delaware	6	6	29,345	6	6	29,730
Maryland	22	27	402,435	22	27	402,435
District of Columbia						
Virginia	41	65	285,609	37	65	296,391
West Virginia	34	43	495,391	29	43	552,426
North Carolina	41	71	457,969	37	70	532,122
South Carolina	32	55	606,176	30	51	437,737
Georgia	64	88	340,097	56	87	361,111
Florida	44	59	146,358	36	63	228,122
East South Central:						
Kentucky	31	52	244,848	28	50	249,648
Tennessee	39	53	296,280	36	55	309,058
Alabama	24	50	528,574	22	48	614,381
Mississippi	32	45	46,872	24	43	48,285
West South Central:						
Arkansas	35	53	77,478	25	57	78,950
Louisiana	35	37	127,410	32	37	131,349
Oklahoma	61	87	184,181	55	85	207,149
Texas	96	165	423,405	64	160	492,608
Mountain:						
Montana	23	42	243,017	17	36	242,587
Idaho	21	42	176,765	21	43	189,068
Wyoming	26	31	34,388	24	32	36,338
Colorado	34	60	199,199	32	62	226,474
New Mexico	18	19	12,174	17	19	12,017
Arizona	19	27	54,292	17	27	60,682
Utah	18	46	100,528	17	48	100,393
Nevada	6	10	10,352	6	10	10,352
Pacific:						
Washington	26	69	524,828	23	69	556,264
Oregon	31	62	213,475	29	61	233,135
California	37	151	1,797,722	39	151	1,948,157

GROWTH OF WATER-POWER DEVELOPMENT IN THE UNITED STATES

BY

R. W. DAVENPORT

ILLUSTRATIONS

TABLE

GROWTH OF WATER-POWER DEVELOPMENT IN THE UNITED STATES

By R. W. DAVENPORT

Plate 3 shows the amount of water-power development by years from 1910 to 1926 for the United States and its principal geographic divisions. This information was obtained in part from the records of the Geological Survey of water-power plants in the United States having a capacity of 100 horsepower or more. The increased capacity of each of these plants during the period covered, whether from new installation or redevelopment of a power site, was determined for each year. The dates of beginning operation determined the years to which the increased installations were allocated. This information was obtained from numerous sources, consisting principally of articles in engineering periodicals and published and unpublished reports of various kinds available in files of Government offices. Development was not determined by this method prior to 1910, because for the earlier years it was somewhat difficult to obtain authentic information regarding a plant, and consequently it was thought that the value of data for those years would not be sufficient to justify the labor involved in obtaining them. When efforts to determine the exact year of beginning operation were not successful, the capacity of the plant was distributed over the years between the latest date when available information showed that it was not in operation and the earliest date when it was known to have been in operation. However, the proportion of the total capacity so estimated was practically insignificant.

Plate 3 also shows for the United States for each year, beginning with 1910, the increase in installation in water-power plants requiring authorization by the Federal Government in some manner. This covers developments authorized by congressional legislation, both special and general, including the Federal water-power act.

Table 48 shows the installed capacity of water wheels in water-power plants in the United States at the end of each year from 1909 to 1926 and for certain earlier years. The data for 1909–1926 were obtained by progressively subtracting the results for the indivdual years shown in Plate 3 from the records of the Geological Survey for

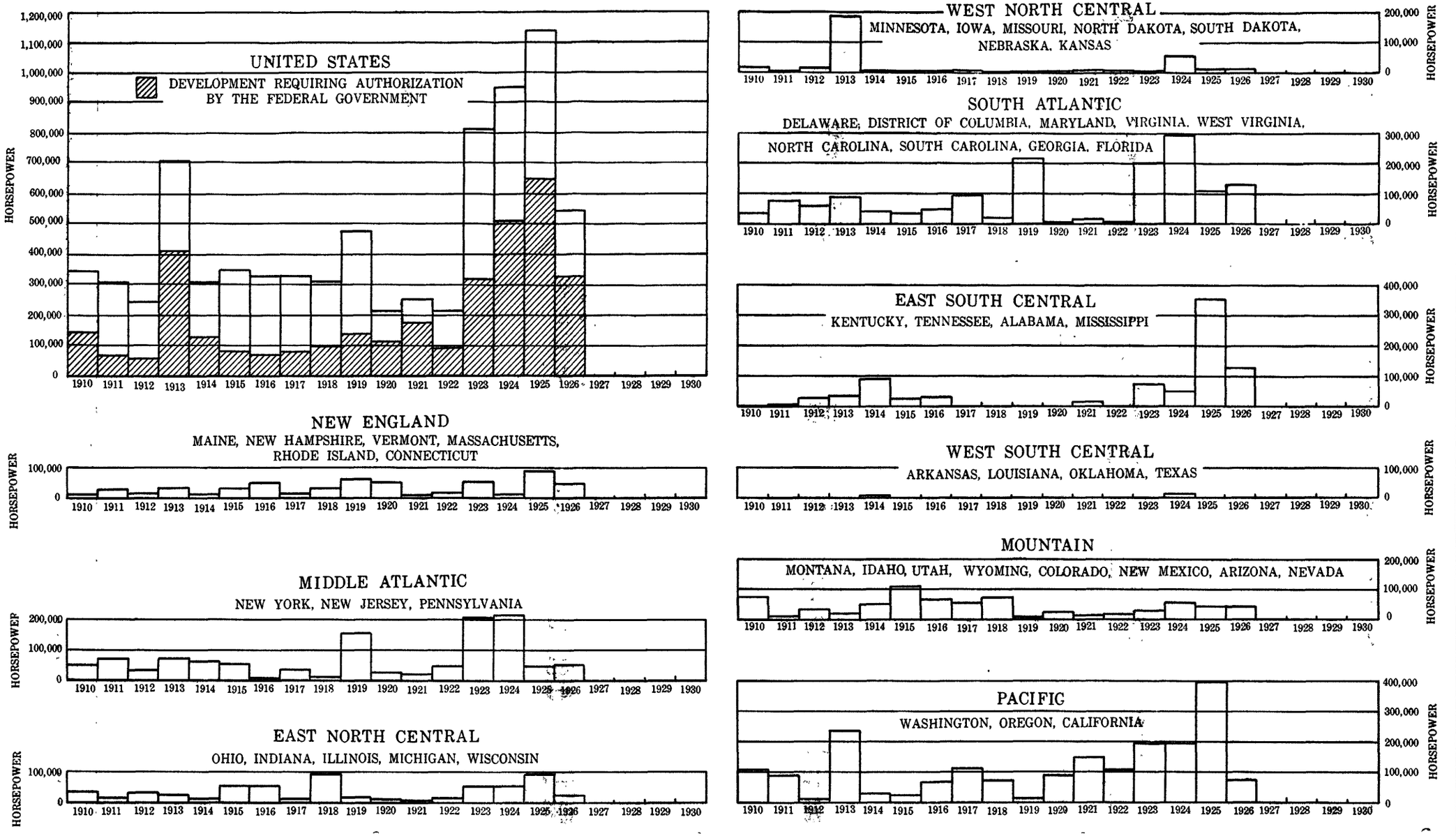
the late years. The results shown in the table for 1869, 1879, and 1889 were determined by adding to the water-power development for those years, as given in the census of manufactures, a capacity relatively very small, estimated as utilized in mining, public utilities, and uses other than those comprehended by manufactures. The data for 1902 and 1907 were determined from the results of the Bureau of the Census for the electrical industries for those years, by adding thereto estimates of the developed power in mines and quarries and in manufactures as found by interpolating between the years for which the Bureau of the Census reported these data. The results differ from results of certain years as given elsewhere in this publication, but these differences are small and are such as usually occur in consequence of determination by different persons using different methods.

TABLE 48.—*Growth of water-power development in the United States, 1869–1926, as shown by capacity of water wheels installed at end of year*

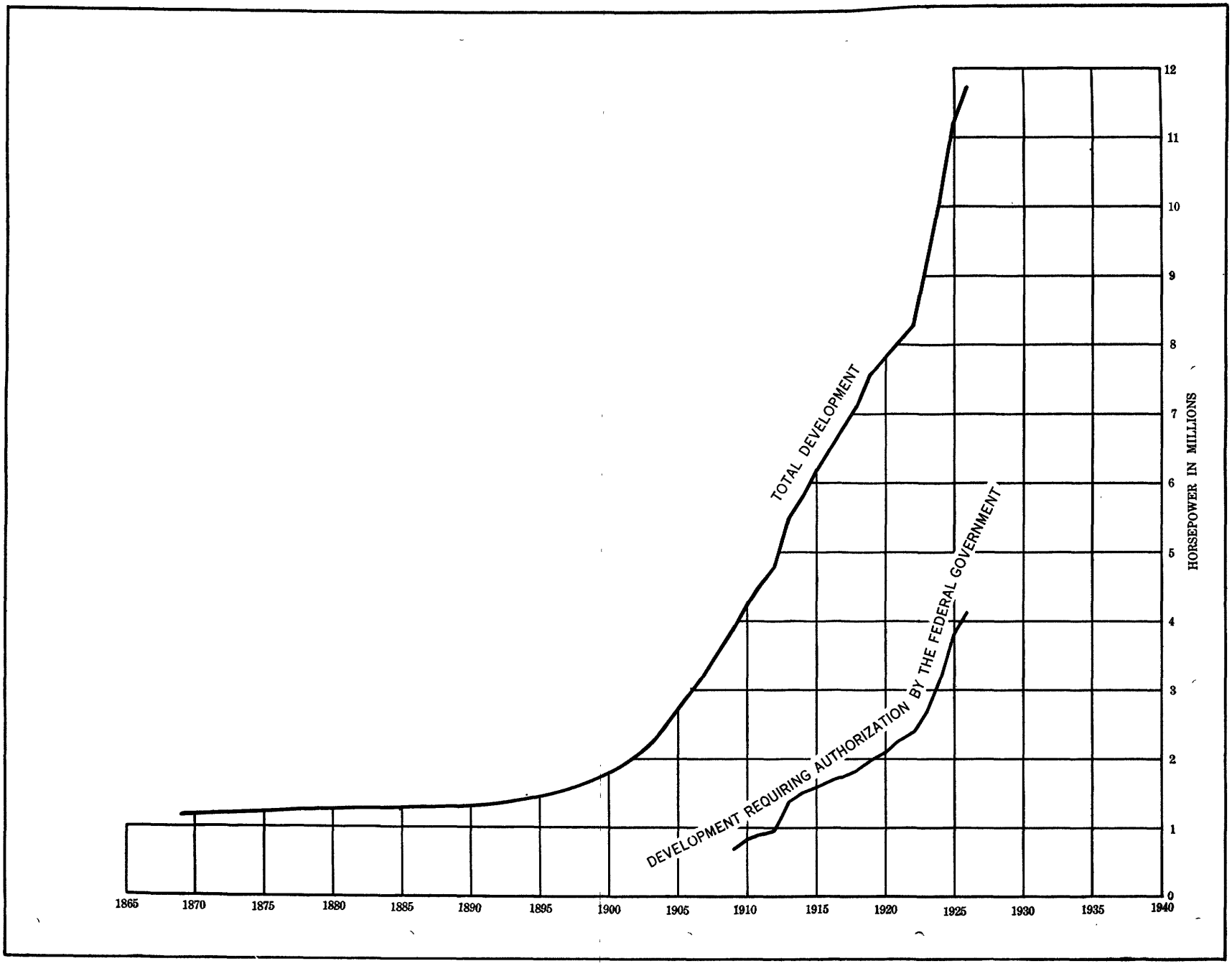
	Horsepower		Horsepower
1869	1, 150, 000	1916	6, 470, 000
1879	1, 250, 000	1917	6, 800, 000
1889	1, 300, 000	1918	7, 110, 000
1902	2, 050, 000	1919	7, 590, 000
1907	3, 250, 000	1920	7, 800, 000
1909	3, 870, 000	1921	8, 050, 000
1910	4, 220, 000	1922	8, 270, 000
1911	4, 530, 000	1923	9, 090, 000
1912	4, 770, 000	1924	10, 040, 000
1913	5, 480, 000	1925	11, 180, 000
1914	5, 790, 000	1926	11, 720, 000
1915	6, 140, 000		

Plate 4, in the graph designated "Total development," presents the data given in Table 48. This diagram also shows, beginning at the end of 1909, the capacity of water-power plants requiring Federal authorization.

Notable activity in water-power development commenced in the nineties, when electric transmission of power became feasible and the hydroelectric plant became a factor in the generation of power, and up to 1910 the rate of growth gradually increased. The annual growth from 1910 to 1923 was reasonably uniform except possibly in the years 1913 and 1919. The somewhat abnormally large development in 1913 is explained in part by the fact that it includes large installations on Mississippi River at Keokuk, Iowa, and on Big Creek, Calif. Similarly, the result for 1919 is explained in part by a large additional installation at Niagara Falls. The great increase in development beginning with 1923 may be accounted for by several factors, the more influential of which are the increasing demand



WATER-POWER DEVELOPMENT IN THE UNITED STATES, 1910–1926



GROWTH OF WATER-POWER DEVELOPMENT IN THE UNITED STATES

for power, the reaction from retarded growth during the war period, the stabilization of construction costs after the war, and, in 1920, the passage of the Federal water-power act, which afforded a more satisfactory basis for the development of projects requiring Federal authorization. On January 1, 1927, the capacity of plants in the United States, exclusive of Alaska, authorized under the Federal water-power act and in operation was 1,500,000 horsepower. Licenses issued under the Federal water-power act on January 1, 1927, covered the completion of a total installed capacity of 3,200,000 horsepower in the next 10 years. Such of these projects as fail will undoubtedly be more than offset by new projects that will be licensed hereafter. In addition to these developments under the Federal water-power act, there will continue to be new developments and increased installations at former plants not requiring Federal authorization. Steady growth in water-power development appears to be assured for many years.

61750—28——14

INDEX

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