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**UNITED STATES
GOVERNMENT PRINTING OFFICE**



WASHINGTON, D. C.

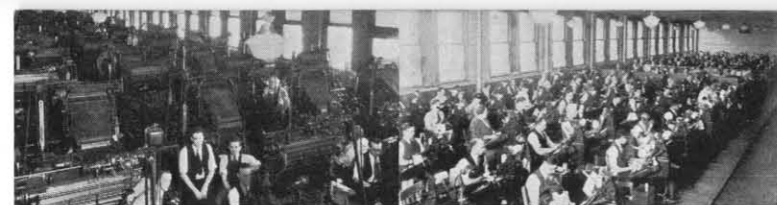
FACTS AND FIGURES

BY

HON. GEORGE H. CARTER

PUBLIC PRINTER

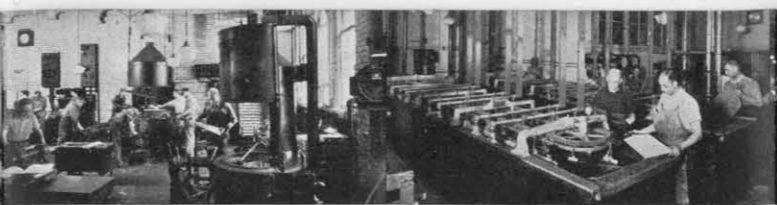
Revised April 16, 1934



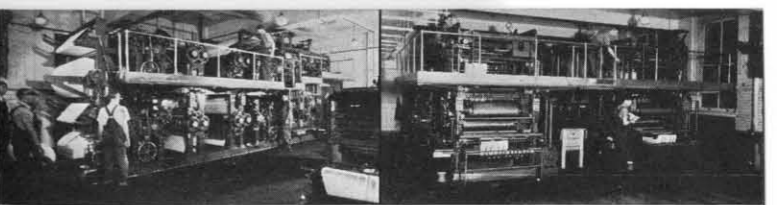
Linotypes



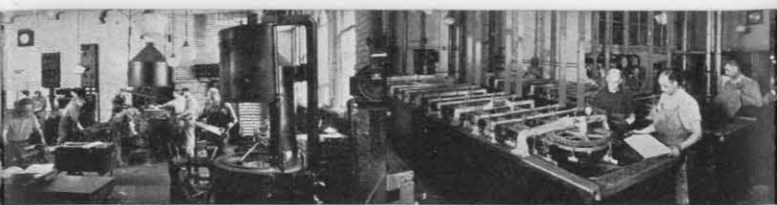
Monotype Keyboards



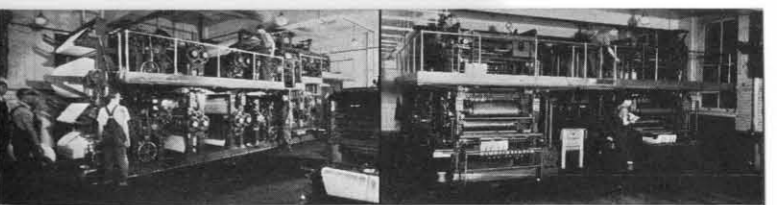
Monotype Casters



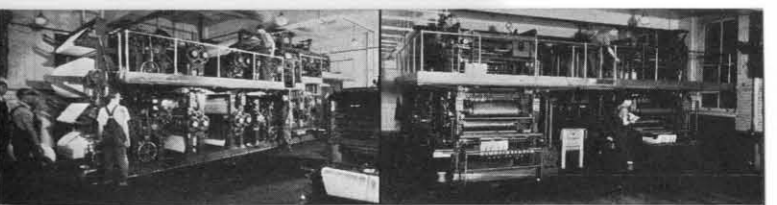
Proofreading



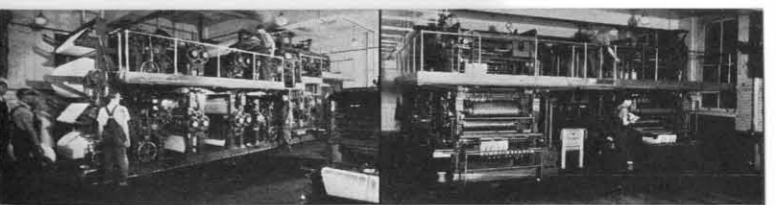
Stereotyping



Electroplating



A Congressional Record Press



Book Presses (64 pages each)

FACTS AND FIGURES

ON JUNE 23, 1860, Congress authorized the erection or purchase of a Government printing office to execute printing and binding for "the Senate and House of Representatives, the Executive and Judicial Departments, and the Court of Claims." Accordingly, a printing plant which had done work for the Government by contract was purchased with all its machinery and equipment for \$135,000. Possession was taken on March 4, 1861, when the Government Printing Office began to operate with 350 employees under a Superintendent of Public Printing appointed by President Lincoln.

The original building, containing 46,397 square feet, is still a part of the present plant which occupies 960,360 square feet (22 acres) of floor space and cost approximately \$5,260,000. Machinery and equipment now in use is valued at \$5,433,000, making the Government Printing Office the largest, best-equipped, and most complete plant in the world for the production of printing, binding, presswork, platemaking, photo-engraving, and the distribution and sale of publications.

The total charges for work done in the fiscal year 1933 for all branches of the Government service amounted to approximately \$13,000,000, indicating the great growth of the Office since its beginning in 1861 when the total charges amounted to \$700,000.

Employees now number 4,709, and their annual compensation amounts to approximately \$10,000,000. All permanent employees must qualify through examinations and ratings by the Civil Service Commission.

The Government Printing Office is part of the legislative branch of the United States Government and is subject to certain powers vested in the Congressional Joint Committee on Printing. In 1867 the title of the administrative head of the Government Printing Office was changed by law from "Superintendent of Public Printing" to "Congressional Printer" who was elected by and deemed an officer of the Senate. The title "Public Printer" dates from 1876 when Congress transferred this appointment to the President of the United States with the advice and consent of the Senate.

PRINTING DIVISION

The Printing Division is equipped with 406 typesetting and casting machines, including 173 linotypes and 130 monotype casters, fitted with electrically-heated metal pots and automatic feeders; 100 monotype keyboards; an intertype, and 2 Ludlows—by far the largest number in any printing plant. A linotype machine which was used during the war at General Pershing's headquarters in France is now doing veteran service in this Office. There are on hand a total of 1,741,117 linotype and monotype matrices for casting a vast variety of type faces and sizes. These matrices set about 2 1/2 billion ems (units) of type annually, which would equal a newspaper column 218 miles in length, or the distance from Washington to New York City. It has been estimated that this Office could set up, print, and bind a book as large as the Bible in 24 hours.

Many of the typesetting machines are operated 16 hours daily, especially when Congress is in session. The daily Congressional Record is set up, printed, and delivered within 12 hours each night, regardless of the number of pages. The largest daily Record to date contained 366 pages, and the present average is more than 80 pages and 36,000 copies daily. The annual cost of printing and binding the daily and permanent editions of the Record is approximately \$600,000.

A special section of the Printing Division, with 64 typesetting machines and 4 presses, is devoted exclusively to the printing of patent specifications and the weekly Gazette of the Patent Office. Patent specifications printed

in the fiscal year 1933 totaled 192,997 pages, costing approximately \$1,000,000. The Gazette made 18,527 pages and cost \$259,000.

There is a branch of the Printing Division in the Library of Congress with 8 linotype machines and 4 presses for the printing of library catalog cards, of which 24,699,600 copies were produced in 1933.

The Printing Division has a total of 1,532 employees, including 1,214 printers of whom 307 are type-machine and keyboard operators, 339 proofreaders, 399 compositors, and 169 are on related work; other employees of the Printing Division include 65 monotype castermen and 33 machinists.

PLATEMAKING DIVISION

The Platemaking Division produces the stereotype, electrotype, and photo-engraving plates required for the various kinds of presswork, the annual output totaling approximately 12 million square inches. The Division is equipped with 2 electrically heated hydraulic matrix molding presses; 4 electrically heated matrix drying presses; one 5-ton electrically heated stereotype metal pot with automatic pump and 5 water-cooled casting boxes; 1 hydraulic plate solidifying and straightening press; 1 lead-molding press for half-tone plates; 3 combination plate roughers and shavers; 16 plate routers; 18 saws and trimmers; 10 plate bevelling and squaring machines; 2 wax-ruling machines; 4 wax-molding presses; 2 semi-automatic copper-plating tanks, each having a capacity of 1,250 gallons of solution for the rotation of 30 cases at a time; 4 nickel and chromium-plating tanks; an electrically heated backing-up metal pot; wood-blocking equipment with dust-collecting system; and 5 cameras and other equipment for a complete photo-engraving section.

The Platemaking Division also has charge of the vast plate vaults in which are stored approximately 3 million electrotype and stereotype plates awaiting reprint orders. The Division has 133 employees.

PRESSWORK DIVISION

The Presswork Division has a total of 192 presses and 665 employees. The press equipment includes 24 rotary web presses (eight printing 64 pages and four 32 pages each), 108 cylinder presses, 12 platen presses, 8 sheet-fed rotary presses, 10 automatically fed envelope presses, 16 tabulating card presses, 2 web-fed fanfold presses with a combination winding and folding machine, 6 vertical presses, 2 embossing presses, and 4 rotary offset presses (one printing both sides at a time). The offset press section also has complete platemaking equipment, with duplicating, coating, and graining machines, and vacuum printing frames.

Three of the 64-page presses were especially constructed for printing the Congressional Record with pasting and wire stapling attachments, paper dust-collecting systems, and moistening devices. Postal cards are produced on 3 rotary web presses, each printing, cutting, delivering, and banding cards in packs of 50 at the rate of 6,400 per minute, with a total average of 5 million cards daily and 1 1/2 billion annually. Postal money orders printed in 1933 totaled 169 million copies, which were shipped direct from the Government Printing Office to post offices throughout the United States. The tabulating card presses produced about 230 million cards in 1933 for statistical and accounting use.

During 6 months of 1933-34, more than 500 million copies of forms and pamphlets were printed for the new emergency relief activities of the Government. The greatest monthly production ever attained was recorded in January 1934, with a total of 116,166,241 actual press impressions. Actual impressions for the fiscal year 1933 totaled 684,687,076.

Production meters automatically record in detail the operations and output of nearly all presses and binding machines.

BINDING DIVISION

The Binding Division consists of three principal sections for book, pamphlet, and blank work, with a branch in the Library of Congress for repairing and rebinding library books and manuscripts. The bindery has been completely re-equipped in recent years with the most modern and ingenious machines obtainable and is now cited as a model for the entire bookbinding industry.

Among the bindery equipment are 57 cutting and trimming machines; 59 book sewing machines; 30 sheet folding machines; 17 pamphlet wire-stitching machines; 7 book signature gathering machines; 12 pen and 1 disk ruling machines; 1 combination rounding, backing, lining, crashing, and head-banding machine; 1 straight-line crashing and lining machine; 1 forwarding machine which attaches crash and lining paper to books, pastes end papers to cover and automatically delivers the bound books to air presses in one continuous operation; 1 large perfect binder with roughing, fanning, gluing, crashing, and paper covering attachments; 1 continuous case (cover) making machine with cloth roll feed; 4 other case making machines; 3 casing-in machines; and 11 stamping presses.

Among the principal annual jobs handled by the bindery are the binding of 250,000 copies of the Agricultural Year Book, which require 110,000 pounds of binders boards and 35,000 yards of book cloth; 10,000,000 pamphlet copies of Farmers' Bulletins; 93,000 copies of the Postal Guide; 430,000 copies of annual reports; and 35,000 to 75,000 volumes of the Congressional Record.

The bindery also operates two large mailing machines used for enclosing and sealing copies of the Congressional Record and other publications in addressed wrappers and conveying them into mail sacks. As the sacks are filled and labeled, they are dropped through a chute onto a continuous belt 1,000 feet in length which automatically conveys them through a tunnel to the City Post Office at the rate of 360 sacks an hour.

Highly skilled bookbinders are also employed in hand tooling and inlaying leather covers for special volumes and in preserving historic documents, such as the personal papers of Washington and other Presidents.

The Binding Division has 1,115 employees on its rolls.

STORES AND DELIVERY

The Stores Division handles more than 40,000,000 pounds of paper annually used in the work of the Government Printing Office in addition to thousands of other items of materials and supplies. The general stores include 20,000 different items. More than 90,000 orders on the storekeepers for paper and materials were filled in the fiscal year 1933.

Paper and all heavy materials are handled with power-lift trucks, electric-crane trucks, tiering machines, and tractors hauling trains of trailers. Loaded motor trucks are lowered to the basement by elevator or inclined driveway to facilitate handling deliveries with a traveling crane or continuous conveyor. A fleet of 30 motor trucks, ranging from 1 to 5 1/2-ton capacity, haul and distribute approximately 100,000,000 pounds of materials and products annually. The Stores Division has 121 employees.

TESTS AND TECHNICAL CONTROL

A Division of Tests and Technical Control was established in 1922 for the preparation of technical specifications for paper and other printing materials, the testing of all purchased materials to maintain standards of quality, the technical control and research of all chemical processes used in plant operations, and the undertaking of cooperative industrial research work. The Division has been equipped with the most complete laboratory that is devoted exclusively to the service of printing and related industries.

The Technical Division also has temperature and humidity controlled testing and experimental rooms, and special equipment for testing paper, inks, metals, textiles, oils, gasolines, and glues, and for research work in photo-engraving, lithographing, electro and stereotyping, with a completely equipped electroplating room for experimental work under plant conditions.

The Technical Division also operates separate sections for the making of printing inks, press rollers, and bindery glues for the use of the Office. Approximately 155,000 pounds of printing inks were made in 1933.

Another section is devoted to the remelting and reconditioning of type metals and plates. The metal section, which has been entirely mechanized with new equipment especially designed by this Office to minimize manual labor, remelts and corrects with alloys an average of 14 tons daily of type and plate metal for further use in typesetting and platemaking machines.

MAINTENANCE DIVISION

The Maintenance Division, with 350 employees, operates the following workshops which have the latest types of machine tools, including a dust-collecting system for all woodworking equipment; Carpenter, cabinetwork, box-making, paint, machine, blacksmith, electrical, pipe-fitting and sheet-metal. The Division also has charge of the maintenance and repair of buildings, machinery and equipment; engineering, drafting and specification writing for mechanical and electrical equipment and construction work; heating; ventilating; lighting; and operating 29 elevators ranging from 1,500 to 32,000 pounds capacity each, and several belt-conveyor systems.

Steam and electric power are transmitted from the Capitol power plant to this Office through a tunnel 1 1/4 miles in length. The Government Printing Office power plant converts the electric current to meet various special requirements, and provides steam, water, compressed air, and refrigeration services. It also has two Diesel engine-driven generators for stand-by service. These engines, originally built for a United States Navy submarine, have been completely reconditioned for stationary service in the Government Printing Office.

APPRENTICE SCHOOL

An apprentice school was started in the Government Printing Office 12 years ago for the training of young men and women in the various printing trades. During that time nearly 500 apprentices have been trained, and 303 of the number have completed the 4-year courses. On graduation, the apprentices, who thus become journeymen at their respective trades, are given permanent employment in the Government Printing Office.

Apprentices are appointed through civil service examination between the ages of 16 and 20 years and must have had the equivalent of an eighth grade school education. On account of general unemployment in the printing trades, no apprentices have been appointed in the last 2 years, but it is hoped that as times become better, appointments may be resumed.

The school is limited by law to 200 apprentices at any one time. It now numbers 99. About 44 will be graduated as journeymen this year. Graduation exercises are held annually in the Office auditorium.

In addition to technical training as printers, bookbinders, pressmen, stereotypers, electrotypers, photo-engravers, or machinists, the apprentices are required to continue certain academic studies deemed essential in their work. All instruction is given by the school staff and its assistants in the respective trades. Apprentices also aid in production work.

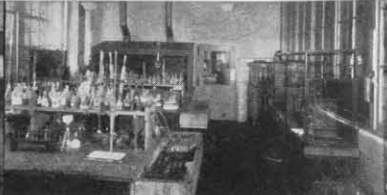
The work of the school has been highly commended by many prominent vocational authorities, and it has won several prizes for printing exhibits in national competition with other trade schools.



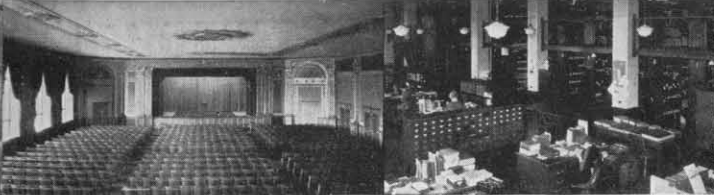
Postal Card Presses



Bookbinding



Technical Laboratory



Harding Hall

Documents Library

PERSONNEL SERVICES

A cooperative organization of employees known as the Government Printing Office Cafeteria and Recreation Association operates a large Cafeteria on the eighth floor of the Office and supervises a spacious auditorium for entertainment, exhibition, and educational purposes, and suitably furnished recreation rooms for the use of men and women employees. In addition, the association sponsors 6 bowling alleys, 2 organizations for the 900 war-veteran employees, several athletic clubs, and an orchestra of 25 members and a chorus of 40 which entertain with weekly concerts in the auditorium during the lunch periods.

The Cafeteria has table and seating facilities for 800 and serves an average of 2,500 meals daily to both day and night employees, their lunch periods being staggered to facilitate this service. The airy, white-tiled kitchen, with all electric equipment including ovens, ranges, dish-washing machines, and several large refrigerators, prepares all the food and also makes its own breads, pies, cakes, and ice creams.

The auditorium, named Harding Hall for the first printer President, has a fully-equipped stage and a seating capacity of 1,800, including a balcony on which is also located the projection room for two motion-picture machines. The outstanding event of the year is the annual Christmas treat and entertainment provided by the association for more than 2,600 children of employees.

A permanent exhibit of the products of the Office, the work of the apprentice school, and the activities of the research laboratory, is located in the hall and augmented from time to time by special exhibitions of printing and binding. A similar Government Printing Office exhibit is in the Federal Building at the Chicago Century of Progress Exposition.

Among other employee activities are a Group Life Insurance Association with 2,700 members and a total insurance of \$3,272,250 carried in a private company, and a score or more of relief and savings clubs.

Employees also have the benefit of Government retirement annuities based on age and service, workmen's compensation for injuries in line of duty, 15 days' annual leave and all legal holidays with pay, and a 40-hour work week with pay at their former compensation for 48 hours as authorized by the act of March 28, 1934. Under the Collective Bargaining Wage Law of 1924 employees have the right to negotiate wage scales from time to time through committees of their own selection.

HEALTH AND SAFETY

An emergency hospital, with five beds and a staff of two physicians and three registered nurses, is maintained in the Government Printing Office for the treatment of employees who may be taken suddenly ill or receive injury while on duty, and for their physical examination from time to time to determine fitness for work. The hospital is in charge of the Medical and Sanitary Director, who also has supervision over the sanitation of the entire plant and the safeguarding of all machinery. Every effort is made to protect the health and safety of employees at all times. Hospital treatments of employees in 1933 totaled 16,829.

Health and safety provisions for employees of the Government Printing Office, according to a recent report of the United States Department of Labor, "have been carefully developed and maintained by the administration, with the assistance of an efficiently organized hospital department under the direction of a medical and sanitary officer." In this connection the Labor Review of March 1934, further states:

"In spite of the manual work performed, the experience of the Government Printing Office shows proportionately fewer injuries, in each year from 1922 to 1932, than in any other branch of the service. Its frequency

rates are also considerably less than the average frequency rates quoted by the National Safety Council for its members in the printing and publishing industry, presumably the best-regulated private establishments of similar character."

AVERAGE DAILY PRODUCTION

Type, ems (units) set	10,000,000
Book pages, copies printed	13,000,000
Presswork, actual impressions	3,000,000
Postal cards printed	5,000,000
Paper sheets machine folded	1,500,000
Book signatures (sections) gathered	500,000
Publications distributed, copies	275,000
Charges for work done	\$50,000
Compensation of employees	\$37,500

DISTRIBUTION AND SALE OF PUBLICATIONS

One of the main divisions of the Government Printing Office is the Office of the Superintendent of Documents, who has charge of the distribution and sale of practically all Government publications, including Farmers' Bulletins allotted to Members of Congress. The Documents Division distributed approximately 70,000,000 copies in 1933, including 8,200,000 copies sold to the public and approximately 2,000,000 copies sent to the 499 depository libraries throughout the United States. The receipts from the sales in 1933 amounted to \$540,532.29. The Superintendent of Documents does not make any free distribution of Government publications except on order of the respective departments having copies to their credit.

The Documents Division also prepares and issues catalogs and price lists of Government publications and maintains a library of 625,000 Government books, pamphlets, and maps, which is the most complete collection of United States Government publications that have been grouped by their respective departments, establishments, bureaus, or offices.

The most practical way to keep in touch with the issuance of United States Public Documents is to place a subscription for the Monthly Catalog of United States Public Documents, which is priced at 75 cents a year, domestic delivery, and \$1.35 a year, foreign. This catalog lists the publications of all departments that are issued each month, and quotes prices in all instances where the publications are for sale. No catalog is issued showing under one cover all Government publications.

Publications printed by the Government Printing Office are sold to the public by the Superintendent of Documents at cost of paper, presswork and binding, plus 50 percent as required by law. The Superintendent of Documents is also authorized to allow a discount of 25 percent to book dealers and purchasers of 100 or more copies, on condition that they will adhere to the sales price and that publications shall not be used for, or in connection with, advertising purposes.

Remittances should be made to the Superintendent of Documents, Washington, D.C., in advance of shipment of publications, either by coupons, sold in sets of 20 for \$1 and good until used, or by check or money order payable to the Superintendent of Documents. Currency may be sent at sender's risk. Postage stamps, foreign money, and defaced coins are not acceptable.

Postage is not required for shipment within the United States and its possessions, and to other North American countries. For shipment to all other countries an additional amount of about one third of the purchase price is required. Remittances from foreign countries should be by international money order or draft on an American bank payable to the Superintendent of Documents.

PRICE LISTS

Price lists of Government publications as classified below will be mailed free of charge on application to Superintendent of Documents, Washington, D.C. (State list numbers desired.)

10. Laws.—Federal statutes and compilations of laws on various subjects.
11. Foods and Cooking.—Home economics, recipes, etc.
15. Geological Survey.—Covers geology and water supply.
18. Engineering and Surveying.—Leveling, tides, magnetism, etc.
19. Army and Militia.—Manuals, aviation, ordnance pamphlets, pensions.
20. Public Domain.—Public lands, conservation, naval oil leases.
21. Fishes.—Includes oysters, salmon, mussels, propagation.
24. Indians.—Publications pertaining to Indian antiquities.
25. Transportation and Panama Canal.—Railroad and shipping problems, postal service, telegraphs and telephones, Panama Canal.
28. Finance.—Accounting, budget, banking.
31. Education.—Includes agricultural and vocational education and libraries.
32. Insular Possessions (Philippines, Puerto Rico, Guam, American Samoa, Virgin Islands).
33. Labor.—Child labor, women, wages, workmen's insurance, etc.
35. Geography and Explorations.—National Parks, explorations, etc.
36. Government Periodicals for which subscriptions are taken.
37. Tariff.—Acts, decisions, etc., on tariff, taxation, and income tax, etc.
38. Animal Industry.—Domestic animals, poultry and dairy industries.
39. Birds and Wild Animals.—North American fauna.
41. Insects.—Bees and insects harmful to agriculture and to health.
42. Irrigation, Drainage, Water Power.—Pumps, reclamation, water, etc.
43. Forestry.—Tree planting, management of forests, lumber industry.
44. Plants.—Culture of fruits, vegetables, cereals, grasses, grain.
45. Roads.—Construction, improvement, and maintenance.
46. Agricultural Chemistry, and Soils and Fertilizers.—Muscle Shoals, soil surveys, fertilizers, nitrates, and potash.
48. Weather, Astronomy, and Meteorology.—Climate, floods, aerological observations, and Nautical Almanac Office publications.
49. Proceedings of Congress.—Bound volumes of Congressional Record.
50. American History and Biography.—The Revolution, Civil War, World War.
51. Health.—Disease, drugs, sanitation, water pollution, care of infants.
53. Maps.—Government maps and directions for obtaining them.
54. Political Science.—Prohibition, political parties, elections.
55. National Museum.—Contributions from National Herbarium, National Academy of Sciences, and Smithsonian Reports.
58. Mines.—Mineral resources, fuel testing, coal, gas, gasoline, explosives.
59. Interstate Commerce Commission Publications.
60. Alaska and Hawaii.—Mineral and agricultural resources, coal lands, geology, water supply, seal fisheries, etc.
62. Commerce and Manufactures.—Foreign trade, patents, trusts, etc.
63. Navy.—Marine Corps, Coast Guard, Naval Reserve.
64. Standards of Weight and Measure.—Electricity, radiotelegraphy, etc.
65. Foreign Relations.—Foreign debt, naval disarmament, treaties, etc.
67. Immigration.—Aliens, negroes, citizenship, naturalization.
68. Farm Management.—Agricultural statistics, farm accounts, credits, marketing, and conveniences for farm homes.
69. Pacific States.—California, Oregon, Washington.
70. Census.—Statistics population, manufactures, agriculture, mining, etc.
71. Children's Bureau, and other publications relating to children.
72. Publications of interest to suburbanites and home builders.
73. Handy Books.—Books for ready reference, covering many topics. Radio List.