

UNITED STATES BUREAU OF EDUCATION
BULLETIN, 1914, NO. 37 WHOLE NUMBER 611

EDUCATION FOR THE HOME

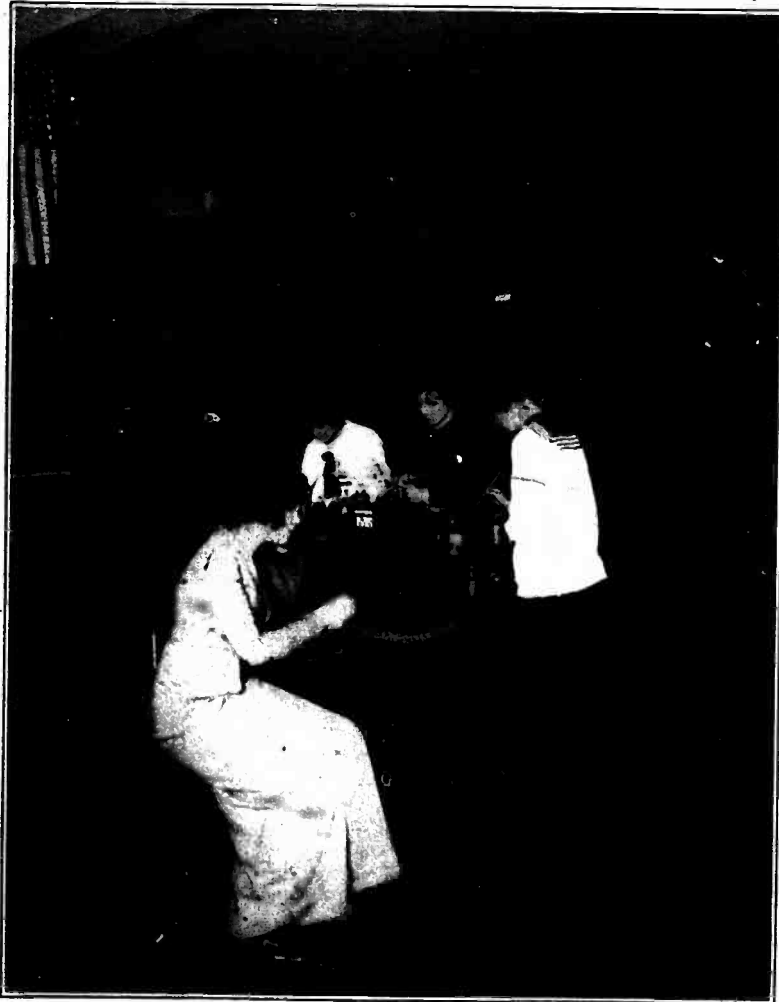
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PART II

THE STATES AND EDUCATION FOR THE HOME
RURAL SCHOOLS
ELEMENTARY SCHOOLS
HIGH SCHOOLS
NORMAL SCHOOLS
TECHNICAL INSTITUTES
VARIOUS AGENCIES AND ORGANIZATIONS



WASHINGTON
GOVERNMENT PRINTING OFFICE
1913



PHYSICS AND THE HOME.

Testing the efficiency of gas ranges and kitchen utensils in the Hollywood High School, Los Angeles, Cal.

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EDUCATION FOR THE HOME—PART II.

I. THE STATES AND EDUCATION FOR THE HOME.

The National Government.—While American education is exclusively under the direction of the individual States, so that its organization and administration are determined by their school laws, the Federal Government has in certain limited ways concerned itself with education. Education for the home has specifically been aided (a) by the Federal legislation which established the land-grant colleges in 1862, and has since contributed to their development, for in certain of these institutions collegiate education for the home first took shape (see Part I); (b) by Federal grants for agricultural research, from which benefits have arisen for home education, especially through the scientific study of nutrition; (c) by the work of the United States Department of Agriculture in nutrition investigations; (d) by the services of the United States Bureau of Education, particularly in the newly organized Division of Home Education; and now (e) by the adoption of the Smith-Lever bill, which provides liberal Federal aid to State systems of extension teaching of agriculture and home economics (1914). Other legislation directly involving education for the home is now pending in Congress (pp. 179, 181).

The States and education for the home.—Education for the home will primarily turn on the provision made for it in the school laws of the various States. There is, therefore, presented in this chapter a statement of State legislation in relation to education for the home.

Section 1. GENERAL TENDENCIES IN STATE LEGISLATION AS TO EDUCATION FOR THE HOME.

(The following discussion is based on the data presented in Sections 2 and 5.)

Authorization and requirement of education for the home in public schools.—Education for the home is specifically authorized as a subject of instruction in the schools of approximately three-fourths of the States: All of the New England States; all of the Middle States except Delaware; all of the Southern States except West Virginia, Georgia, Florida, and Alabama; all of the Central States except Missouri and South Dakota; and all of the Mountain and

Pacific States except Wyoming and Colorado have in one way or another authorized the teaching of household subjects in their elementary school or high school, or in both. Thirty States have authorized the teaching in elementary schools, and 33 States in secondary schools. (Table 1, p. 42.) Formal recognition by the State government of household arts as a suitable subject of instruction has therefore taken place very generally throughout the whole country save in a block of adjoining Southern States, a similar block of Mountain States, and a few other scattering Commonwealths.

Sometimes the authorization is in terms of manual training; sometimes one or more household subjects are specifically mentioned in the list of statutory subjects to be taught in the public schools; and sometimes local school authorities are authorized by statute to levy necessary taxes, as for manual training, including domestic science, or for household arts. In the absence of such declaration, State approval may be assumed from legislation offering State financial aid in the introduction of home economics.

The enabling legislation may make provision for its own effective administration, as in the New Mexico statute of 1912, which not only authorizes the instruction, but provides for a course of study and a special assistant to the State superintendent to encourage industrial education. The present vocational education movement, as well as the manual training movement, is reflected in the permissive legislation regarding elementary and high schools, but appears more distinctly in the legislative provision for teaching household subjects in the industrial and vocational schools of 23 States. (Table 1, p. 42.)

The progress of agricultural education is one of the most striking features of this vocational movement, and preparation for rural homemaking is almost uniformly a feature of the programs of agricultural education. Up to the present 22 States have authorized the teaching of household arts in the rural public schools. (Table 1, p. 42.) This educational union of agriculture and home economics is especially illustrated in the laws establishing special secondary schools of agriculture, such as the Wisconsin county "schools of agriculture and domestic economy," the district agricultural schools of Alabama, Georgia, Oklahoma, and Virginia, the State agricultural schools of New York and Vermont, the "rural high schools" of Idaho, and the vocational "schools of agriculture, mechanic arts, and homemaking" of New York. Almost invariably the statutory provision for special schools of agriculture requires that instruction in domestic science shall be provided for girls.

In addition to the legal provision for domestic science in schools of certain types, it is significant that four States at least (Table 1, p. 42)—Oklahoma, Louisiana, Indiana, and Iowa—have made an outright requirement of the teaching of domestic science in the

public schools, and a fifth, Massachusetts, requires (1904) manual training in the elementary and high schools of cities of over 20,000 population. Oklahoma in its constitution, adopted in 1907, charges the legislature "to provide for the teaching of the elements of agriculture, horticulture, stock feeding, and domestic science in the common schools of the State"; Louisiana, in 1910, provided by law that "instruction shall be given in all elementary and secondary schools in the principles of agriculture or horticulture and in home and farm economy"; and Indiana and Iowa took similar action in 1913. Washington requires either domestic science, manual training, or agriculture in its eighth-grade examinations; so that household-arts teaching is practically compulsory in the elementary school.

Such a legislative fiat does not create the trained teachers, revised courses of study, and other necessary conditions of the new education, but it does give expression to public conviction and it raises up new educational standards for a whole State, to which individual communities are seeking as rapidly as possible to attain. Such permissive and mandatory legislation, while not yet carried into effect, is by no means to be classed with the ordinary dead legal letter. It states the normal requirement to be expected of communities; it encourages petitions for such instruction by local voluntary organizations to local school boards, and it spurs hesitant school officials into action. One favoring item in the readiness of legislatures to authorize; if not require, this teaching. Home economics has largely enjoyed the same advantage; and, clearly, every Commonwealth ought now not only to clear the way for such teaching from all impediments (for the absence of statutory permission may be an obstacle in securing local action), but ought to take positive measures to expedite teaching for homemaking. This encouragement of household arts in education may take the form of direct mandate that the subject shall be taught, or, as has so often been done in securing desirable readjustments in local school systems, the State may offer a financial grant toward the expense of the innovation. State aid for manual training and the more recent State aid for vocational education have both directly facilitated the local introduction of household-arts instruction. There is something inherently attractive about an undertaking in which some one else pays one-third, one-half, or two-thirds the expense, and the proposal to do something that you would like to do, anyway becomes irresistible under such circumstances.

State aid for education for the home.—State aid to the local school unit toward the cost of domestic science may be classified, first, as regards the grade of school receiving aid. In 11 States—Iowa, Louisiana, Maine, Minnesota, Montana, Nebraska, New Jersey, North

Dakota, Rhode Island, Vermont, and Wisconsin—the State grants aid, directly or indirectly, to elementary schools (Table 1, p. 42); in 29 States aid is given for domestic science in secondary schools. This aid may be open to any secondary school upon certain conditions, or it may be limited to a certain group of secondary schools. (Table 1, p. 42.) In certain States special State appropriations have been made for domestic science in normal schools, as illustrated by California's establishment of a "State Normal School of Manual Training and Home Economics" in 1909; the special aid to the Texas normal schools since 1909; the Maine statute of 1911, which provides for household-arts departments in all normal schools, and a more advanced department for training of special teachers of home economics in one normal school; the Arizona provision of the same aid to normal schools as to high schools, in introducing domestic science; and the special provision for domestic science in certain normal schools, as in Wisconsin. These facts indicate that the subject of training teachers of home science in the State normal schools has been a matter of special legislative consideration in a number of States. Similarly there has been legislative action regarding higher education in home economics in State universities and colleges, and regarding extension education in homemaking in several of the States, but as regards normal schools and colleges alike there seems little need for a detailed review of legislation by different States, since both types of institutions are usually directed in their development by administrative boards rather than by the legislature. The facts of the present status of normal schools and higher institutions as to education for the home are presented elsewhere.

It is of interest to consider further, however, the basis of State aid to elementary and secondary public schools.

The aid for household arts in elementary schools may be classified as to method as follows: (a) A direct money grant, definite in amount, conditioned on the introduction of household arts, is the simplest administrative device. North Dakota gives \$150 to first-class graded schools providing two years of high school and meeting certain other conditions, including courses in manual training, domestic science, and elementary agriculture, and \$100 to second-class graded schools which have two teachers and give courses in manual training, domestic science, and agriculture, while first and second class rural schools receive \$100 and \$50, respectively, if they teach agriculture. Wisconsin grants \$350 to schools which introduce domestic science in the sixth, seventh, and eighth grades and the high school, and \$250 for work done in the high school alone. Similar provision is made for other departments of manual training, with the limitation that aid shall not be given to one school for more than three departments. Louisiana has made an appropriation

of \$50,000 a year for departments of agriculture and domestic science in schools. (b) A direct money grant, proportioned in amount to the local expense, is a slightly different and decidedly more efficient form of State aid. Maine grants two-thirds the expense of salary for domestic science and manual training up to \$800 for elementary schools and \$500 for high schools; New Jersey duplicates the local contribution, i. e., bears one-half, up to a maximum of \$5,000, for both high and elementary schools in a district; and Rhode Island meets one-half the expenditure for "vocational" instruction, including the elementary school in its provisions. (c) A third method of State aid to elementary instruction in domestic science is by grants toward the cost of supervising household-arts teaching. Maryland grants \$1,500 toward the support of county industrial schools for colored children, one-half to be used for the school itself and one-half for supervision of industrial instruction in the colored schools of the county; several of the States encourage the appointment of county organizers of industrial work. (d) A fourth method of giving financial aid for household arts in elementary schools is the Minnesota system (1909) of rural associated schools and central schools. A grant of two-thirds the cost, up to \$2,500, is given to each of 30 high, graded, or consolidated schools to maintain courses of agriculture, manual training, and home economics; in addition, \$150 to the central school for each associated rural school into which it extends the teaching of these subjects, and \$50 to each rural school so associated. State aid and additional authority are thus bestowed upon the central school, which in turn will seek to extend its industrial work to surrounding districts, and these districts also receive grants to help meet the expense of the new instruction. North Dakota in 1912 adopted this associated-school plan of State aid for vocational education, including household arts. This Minnesota plan, it is to be observed, is not that of school consolidation (Minnesota uses that method, too); school districts retain their individual existence. State aid granted for the consolidation of schools, a matter apart from this discussion, has a bearing here, however, as the consolidation of schools is among the strongest influences making for the country-wide adoption of home economics into the schools, and State aid in consolidation has been made contingent upon manual training, including home economics, as in Minnesota.

State grants in aid of home economics in secondary schools, usually in connection with other manual training and vocational subjects, may be either (a) the definite money grant, as the \$250 Wisconsin grant, the Maryland grant of \$400 for a teacher, the Minnesota grant of \$1,000 for courses in agriculture and in either home economics or in manual training in high or graded schools, and the North Dakota

grant of \$2,500 to high, graded, and consolidated schools, to five schools the first year and to not more than five additional each succeeding two years; or (b) the more common graduated grant, as in Arizona, one-half up to \$2,500; in Maine, two-thirds up to \$500; in Minnesota, two-thirds up to \$2,500; in New Jersey, one-half up to \$5,000 for a district, and for a vocational school up to \$10,000; Rhode Island, one-half the amount expended for teaching and apparatus; and Texas, duplicating from \$500 to \$1,000 provided locally for a department of domestic science. (c) The granting of aid to a restricted group of secondary schools may be separately considered. Alabama has established State-supported agricultural departments in nine high schools and "a system of domestic science" by statute shares in the State appropriation. In the 10 similar agricultural high schools of Virginia, the 11 district agricultural high schools of Georgia, the 4 district agricultural schools of Arkansas, and the congressional district agricultural schools of Oklahoma—all supported by State appropriations—there are departments of home economics. Wisconsin has had since 1901 a well-known system of county schools of agriculture and domestic economy, 7 of which have been established, receiving State aid from \$6,000 to \$8,000, dependent upon the attendance; Michigan has a similar plan (1907), with State aid on a two-thirds basis up to \$4,000; and Minnesota adopted, in 1905, a similar plan for county schools of agriculture and domestic science, though no schools have been organized under this law. North Carolina's law authorizing "farm-life schools" (1911) for each county is similar in scope. Analogous, if not identical, are the provisions for county high schools in Tennessee—aid to a maximum of one-third the amount received from other sources (1909), since (1913) increased by duplicating expenditures for agriculture, home economics, and manual training; the provision for county agricultural high schools in Mississippi with State aid up to a maximum of \$1,500 to a county; the aid given in Iowa and Kansas to a special group of high schools, "the normal-training high schools," which are to prepare teachers of rural schools, conditioned upon the adoption of a curriculum which includes elementary agriculture and domestic science. These two subjects, it is obvious, are absolutely essential in the new rural school. Other States with normal-training high schools or normal-training classes in high schools have a most important suggestion here. (d) Indefinite grants are made in the South Carolina law (1907) for State aid to high schools by the provision of possible additional aid for commercial and industrial subjects, and the Louisiana appropriation of \$50,000 (1912) for agriculture and domestic science in the public schools; but by action of State boards of education these grants have been made definite in amount.

The relation of the new plans for State aid in distinctly vocational education for the home merits separate consideration. The New Jersey industrial education act dates from 1851, with various recent amendments, and provides for State duplication within limits of money raised locally for industrial schools. The Massachusetts vocational education law of 1906, as amended, provides for the organization of independent industrial, agricultural, or household-arts schools, with day classes and continuation classes for persons over 15 and evening classes for persons over 17, including the new evening classes in household arts (law of 1912), and for all these State supervision and State aid equal to one-half the net maintenance cost; also agricultural departments in high-schools, with aid of two-thirds the salary expense. The New York law of 1908 provides aid to general industrial and trade schools, and the amendments of 1911 and 1913 to "schools of agriculture, mechanic arts, and homemaking," which may be organized as separate "schools" within high schools; aid of two-thirds the salary of the first vocational teacher and one-third that of additional teachers is given, and a State supervisor of industrial education provided. Maine has provided aid for general industrial schools (1911); Connecticut, in 1909, established two State trade schools, and in 1913 a general plan of vocational education was adopted; Michigan, in 1911, authorized vocational schools; Ohio, in 1910, authorized local boards of education to establish part-time day schools for youths between 14 and 16 in employment and to require their attendance not to exceed eight hours a week; Wisconsin, in 1911, provided for a system of industrial education, including industrial, continuation, evening, and commercial schools, with State aid of one-half the expense; Pennsylvania, in 1911, authorized local school directors to establish vocational schools, and in 1913 adopted a comprehensive plan for vocational schools; Indiana in the same year adopted a vocational education law.

These legal provisions for education of a strictly vocational nature may be relevant to an education for the home at any one or more of the following points: (1) The household trades of cooking, cleaning, laundering, service, may be included in their curricula, although, so far, much less has been done with them than with the former household trades of sewing and millinery; the laws generally give a basis, however, for full curricula for professional homemaking or the home trades; (2) there is a tendency to include something of home arts in vocational courses for girls preparing for business and industry, i. e., the double vocational future of the average woman is recognized, first, outside industry and later homemaking; (3) this tendency to recognize homemaking appears in provisions made for girls' continuation education; for example, specifically in the Massachusetts law for evening practical arts classes which have been organized as even-

ing household arts classes for young women over 17 who wish to equip themselves for homemaking—a provision since adopted by several other States.

It is important to note that a law simply providing continuation instruction in the vocation or industry followed may not, in the case of industrial young women, meet this vital need of preparation for homemaking; what is necessary for them is not only further skill in the industrial vocation they are now following, but acquaintance with the homemaking arts, their vocation of to-morrow. Such plans as the Ohio part-time day schools, the Wisconsin and other continuation schools, should be so administered as to meet this double vocational need of girls and young women.

Fifteen States—California, Colorado, Florida, Illinois, Indiana, Maine, Massachusetts, Minnesota, Nebraska, New Jersey, New York, Pennsylvania, Rhode Island, Virginia, and Wisconsin—report definitely in response to an inquiry addressed to their State superintendents that “continuation instruction in household arts is authorized in evening schools or otherwise for home women and for working girls,” and such instruction is found in many other States. (Table 1, p. 42.) Replies to a similar inquiry as to whether “vocational instruction for cooks, dressmakers, milliners, children’s nurses, and in other household fields is authorized in the industrial schools of the State,” were in certain cases ambiguous, but such authorization for teaching housework as a trade exists in the following States at least: Connecticut, Indiana, Maine, Massachusetts, New Jersey, Michigan, New York, Pennsylvania, and Wisconsin.

Section 2. THE LAWS OF THE STATES ON EDUCATION FOR THE HOME, BY STATES.

Alabama.—Part of the appropriation for the district agricultural high schools is, by law, to be used for “a system of domestic science.”

Arizona.—The Territorial legislature in 1905 authorized instruction in manual training and domestic science in public schools with 200 or more pupils, to be given by special teachers, supported by special tax, and to follow approved courses of study.

The School Code of 1913, chapter 23 (originally adopted, 1912), provides: “That in all school districts instruction may be given in manual training, domestic science, and kindergarten; provided that such subjects can be pursued without excluding or neglecting the subjects previously provided by law.” Courses of study are to be prescribed by the local board of trustees subject to State approval; and boards of supervisors are authorized to levy additional tax for salaries and materials; no tuition is to be charged bona fide residents.

Chapter 13, paragraph 2791, School Law, 1913 (originally adopted, 1912) provides that “Any high school having satisfactory rooms and equipment, and having shown itself fitted by location and otherwise to give elementary instruction in agriculture, mining, manual training, domestic science, or other vocational pursuits, may upon application to the State board of education be designated to maintain such departments”; each such high school shall employ trained in-

structors whose qualifications shall be fixed by the State board, shall provide suitable classrooms and laboratories, and may provide a tract of land for field work; instruction is to be free to residents; State aid will be given, to be used for salaries and equipment only, not to exceed \$2,500 per annum and one-half the total sum expended per school; normal schools are entitled to participate in this aid on identical terms.

California.—Article X, section 1665, of the school laws, in defining the "statutory school studies," includes "nature study with special reference to agriculture," "and when competent teachers thereof can be secured and there are sufficient funds in the district to pay their salaries, manual training and domestic science."

The joint board of State normal schools is directed to make for the normal schools "a uniform course of study which will include manual training, domestic science, agriculture, physiology and hygiene, and the methods of distinguishing physical defects."

In 1909 the State took over a special normal school established some years previously, "the Santa Barbara State Normal School of Manual Arts and Home Economics," intended for fitting both sexes "to teach in the public schools of this State and in the departments of manual arts and home economics."

Connecticut.—The school law (sec. 40) provides that in the public schools "shall be taught reading, spelling, * * * and such other studies, including elementary science and training in manual arts, as may be prescribed by the board of school visitors or town school committee."

Chapter 85, 1909, directs the State board of education to establish two trade schools and to provide in them at State expense and under State management, day, part-time, and evening classes.

Chapter 212, 1913, provides that "the State board of education, town school committees, and district boards of education may jointly or severally establish and maintain schools or courses of instruction in distinct trades, useful occupations, and avocations. Such courses may be organized into day or evening, continuation, or part-time classes." Advisory committees may be appointed. Approved schools may be granted State aid to the extent of "one-half the gross expenses of maintenance less returns from sales of product, not to exceed annually in any case \$50 per pupil in average attendance, and not to exceed the amount expended for such net cost of maintenance by the district boards or school committees." Buildings and equipment must be furnished by the local authorities, except that the State may rent during a preliminary two-year demonstration. An appropriation of \$125,000 is available for the first year.

Colorado.—In 1911 the State accepted from the National Government the property of the Fort Lewis Indian School and established the Agricultural School at Fort Lewis, "a school of agriculture, mechanic arts, and household arts," under the State board of agriculture.

Idaho.—Article I, section 6, of the school law of 1911, includes among the duties and powers of the State board of education "to encourage and promote agricultural education, manual training, domestic science, and such other vocational and practical education as the needs of this State may from time to time require."

In the law providing for the establishment of rural high schools (section 137, law of 1911), the trustees are empowered: "(f) To provide a course of study which shall be approved by the State board of education, shall consist of not more than four years beyond the elementary school, and shall include manual training, domestic science, nature study, and the elements of agriculture."

Illinois.—In 1909 a bill was passed authorizing a referendum to establish manual-training departments in the township high schools.

Indiana.—A law in 1903 authorized, in cities of 50,000 to 100,000, the introduction of industrial or manual training and of domestic science. School boards in cities of 100,000 or more have power to levy 5 cents per \$100 as a manual-training fund for manual training or vocational schools or for instruction in schools or high schools. Trade and industrial schools may be established in cities of 200,000 population or over, and a tax of 3 cents per \$100 for this purpose may be levied.

"The several boards of county school commissioners are hereby authorized (ch. 386, 1910) to make manual training, domestic science, and agriculture a part of the course of instruction."

The vocational education law of 1913 requires "vocational" subjects to be taught in the grades, including "domestic science in the grades of all city, town, and township schools"; the State board of education "shall also outline a course of study in agriculture, domestic science, and industrial work, which they may require city, town, and township high schools to offer as regular courses"; the law, in addition to authorizing "instruction in elementary domestic science, industrial and agricultural subjects as a part of the regular course of instruction," makes provision for a State-aided system of "industrial, agricultural, or domestic science schools or departments." The law gives definitions of vocational education, industrial education, agricultural education, evening class, part-time class, and of domestic-science education, the latter as "that form of vocational education which fits for occupations connected with the home"; and evening classes in domestic science are to be "open to all women over 17 who are employed in any capacity during the day." The "approved industrial, agricultural, or domestic science school or department shall mean an organization under a separate director or head of courses, pupils and teachers approved by the State board of education." Any city, town, or township school trustees may establish such special schools or departments, and may levy a special tax not to exceed 10 cents on \$100. Two or more such communities may join in establishing a cooperative school; and residents of communities in which there are no such schools may apply for admission in the school of another city, town, or township, subject to approval by the State board of education and the payment of a fee, fixed by the State board, by the city, town, or township of residence; one-half the fee so paid will be reimbursed by the State. Local expenditures for approved vocational schools and departments are reimbursed by the State to an amount equal to two-thirds the sum, beginning with the school year of 1914-15.

The State board is directed to aid in the introduction of vocational education and to supervise and approve such schools and departments; and the board is reorganized by the law to include in its membership "three persons actively interested in and of known sympathy with vocational education, one of whom shall be a representative of employees and one of employers." A deputy State superintendent of public instruction is to be appointed "in charge of industrial and domestic education."

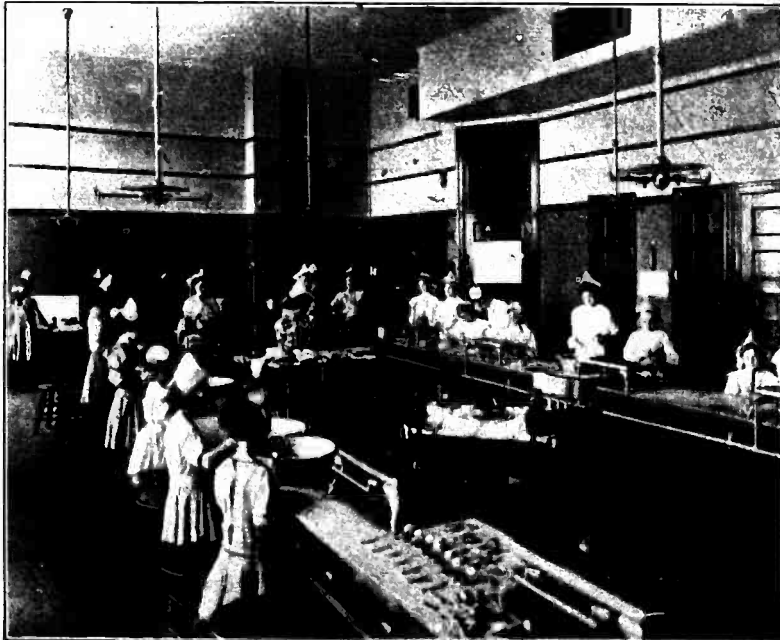
Local boards of education shall appoint "an advisory committee composed of members representing local trades, industries, and occupations." Local boards, after establishing vocational schools, are authorized to prescribe compulsory attendance five hours per week, between 8 and 5 o'clock, of youths between 14 and 18 in employment.

A special State levy of 1 cent on each \$100 of taxable property is to be made for vocational education, and the balance at the close of any fiscal year is to be placed in a "permanent fund for vocational education."

The law provides that a county agricultural agent may be appointed in each county, who shall, under the supervision of Purdue University, "cooperate with



A. DOLL'S WASH DAY IN THE KINDERGARTEN, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, NEW YORK, N. Y.



B. COOKING LABORATORY IN ELEMENTARY SCHOOL, NEW YORK, N. Y.

farmers' institutes, farmers' clubs, and other organizations, conduct practical farm demonstrations, boys' and girls' clubs and contest work, and other movements for the advancement of agriculture and country life, and to give advice to farmers on practical farm problems, and aid the county superintendent of schools and the teachers in giving practical education in agriculture and domestic science." An initial \$500 for expenses must be raised by subscription; thereupon the county council must appropriate \$1,500 annually for salary and expense, and the State will grant one-half the salary up to \$1,000, making the grant through Purdue University, which is to select and direct the county agents.

Iowa.—The school law (sec. 2796) authorizes "industrial expositions," by the board of any school corporation, of pupils' work "in mechanics, manufacture, art, science, agriculture, and the kitchen" as often as once a term and not oftener than once a month.

The State normal-training high-school law (1911, as amended 1913) "for the purpose of increasing facilities for training teachers for rural schools by requiring a review of the common branches, and for instruction in elementary pedagogy and the art of teaching elementary agriculture and home economics," provides \$750 aid to high schools designated to conduct training classes which have at least a minimum of 10 members. County high schools or township high schools are to have preference over city high schools; the original appropriation of \$25,000 was raised to \$100,000 for 1913-14 and \$125,000 thereafter. The course of study provides for one-half year of home economics, including in each week's program two recitation periods of 45 minutes, two laboratory periods of 90 minutes, and one sewing period of 45 minutes.

By an act approved May, 1913, State aid is granted to consolidated schools of two or more rooms which provide in their course of study for industrial and vocational subjects, including home economics, to be taught by teachers certificated to teach such subjects: For the two-room school, \$250 for equipment and \$200 annually; for the three-room school, \$350 for equipment and \$500 annually; for the school of four or more rooms, \$500 for equipment and \$750 annually. Thirty thousand dollars is appropriated for 1913-14 and \$50,000 annually thereafter.

By an act approved March 20, 1913, "The teaching of elementary agriculture, domestic science, and manual training shall after July 1, 1915, be required in the public schools of the State." The State superintendent is to prescribe the extent of instruction, and after that date elementary agriculture and domestic science are to be included in the examination of teachers required to teach these subjects.

Kansas.—By an act of 1903, inoperative since the lapsing of the appropriation made that year, the board of education of each city of the first class and second class and the annual school meeting of any school district may levy a special tax not to exceed one-half mill (now one-eighth) in cities of the first and second class and not to exceed 1 mill in other cities and school districts for the equipment and maintenance of industrial training schools or industrial training departments of the public schools.

Either a separate school or a separate department in some existing school may be arranged. A course of study to meet the special needs of the district or city is to be prescribed by the local board, subject to approval by the State board of education. The State board shall establish a standard for teachers of industrial training, shall grant special teachers' certificates, and shall prescribe the course of study in industrial training to be used in the State.

For industrial schools or departments maintained six months in the preceding year and taught by special teachers a State grant is made equal to the

expense of the school or department, but not exceeding \$250 for a school district and not exceeding \$10,000 in any one year. The appropriation of \$20,000 in 1903 has not been renewed, and the above provisions are therefore inoperative.

In 1911 State aid of \$250 (\$500 beginning with 1914) per year was provided high schools which (1) maintain a normal training course or shall put into operation such course, and (2) which maintain courses in the elements of agriculture and domestic science as approved by the State board of education, with at least 10 pupils in these industrial courses. An appropriation of \$25,000 was made for 1912-13; increased to \$50,000 for 1914-15.

Kentucky.—A law was passed in 1908 providing for instruction in manual training, domestic science, and elementary agriculture in county high schools, the course to be approved by the State board of education.

The county high school law, 1912, which provides for the establishment of one or more county high schools, grades these schools and provides that in schools of the first class, which are to maintain a four-year course of study, "such course may provide for instruction in manual training, domestic science, and elementary agriculture."

Louisiana.—By act 306, 1910, "in addition to the branches now given in the public schools of the State of Louisiana, instruction shall also be given in all the elementary and secondary schools of the State in the principles of agriculture or horticulture and in home and farm economy."

In 1910, \$25,000 was appropriated "to be used in establishing agricultural departments in the secondary schools of the State," but no provision for home economics was made except that each school farm should have a "home canning plant."

By act 186, 1912, the sum of \$50,000 for the years ending June 30, 1913 and 1914, was appropriated to be used "for aid and support of the departments of agriculture and domestic science in the public schools of Louisiana."

Maine.—Chapter 188, 1911, "An act for the encouragement of industrial education," provides:

SECTION 1. The State superintendent of public schools is charged with the supervision of such instruction.

SEC. 2. The trustees of the State normal schools shall cause to be introduced such courses in manual arts, domestic science, and agriculture as will enable their graduates to teach elementary courses in those subjects in the rural and grade schools. In not more than one of said schools the course in manual training shall be so extended as to offer opportunity to persons desiring to qualify as special teachers of that branch, and in not more than one the course in domestic science shall be so extended as to offer similar opportunity to persons desiring to qualify as special teachers thereof. For the two special courses thus offered the trustees are authorized to expend annually not to exceed \$3,000 (since made \$6,000), which shall be additional to other sums appropriated for the support of said normal schools and which the treasurer of State shall deduct from any funds raised for the support of common schools.

SEC. 3. For approved manual training or domestic science in the elementary schools of any town for the preceding year State aid shall be paid to the amount of two-thirds the total salary paid each teacher: *Provided*, That the amount so paid by the State for the employment of any one instructor shall not exceed \$800 in one year; "And provided further, That the course of study, equipment, and qualifications of instructors shall have been approved by the State superintendent of public schools."

SEC. 4. For instruction in the principles of agriculture, mechanic arts, or domestic science given in any free high school, or incorporated academy, there

shall be paid "In addition to other State aid, if any, a sum equal to two-thirds the total expenditure for instruction in each of said courses: *Provided, however,* That no school shall receive a total in excess of \$500 in any one year for the support of said courses: *And provided,* That State aid shall not be allowed for any course which has an average attendance of less than 12 students: *And provided further,* That such aid shall not be granted unless the course of study, equipment, and qualifications of instructors shall first have been approved by the State superintendent of public schools."

Sec. 6. For an evening school the "town shall be reimbursed by the State a sum equal to two-thirds the amount paid for instruction, provided there shall have been offered, in addition to the subjects elsewhere prescribed for evening schools, courses in free-hand or mechanical drawing, domestic science or manual training, or the elements of the trades."

Sec. 7. "The superintending school committee of any town, when authorized by vote of the town, shall establish and maintain as a part of the public-school system of such town a general industrial school for the teaching of agriculture, household science, the mechanic arts, and the trades." Such general industrial schools shall be open to pupils who have completed the elementary-school course or who have attained the age of 15 years." "For such a school maintained therein for a period of 36 weeks during the school year and employing at least one teacher, whose work is devoted exclusively to such instruction, and having an average attendance of at least 20 pupils," a sum equal to two-thirds the total amount spent for instruction (but not more than \$2,000 to any one town) shall be paid by the State.

Sec. 8. Appropriates \$27,500 (since made \$40,000) for industrial education.

Maryland.—Chapter 589, 1904: "In every district school there shall be taught orthography, etc. * * * Vocal music, drawing, physiology, laws of health and domestic economy, civil government, and the elements of agricultural science may, in the discretion of the State board of education, be added to the branches taught in the State normal school and in the public schools of the various counties of the State."

Chapter 386, 1910, provides for State aid to high schools, which are classified into two groups: Class one is to provide for manual training and domestic science courses and also for commercial or agricultural courses; class two is to provide manual training (including domestic science) or agriculture or commercial courses.

State aid is given as follows: Group I, \$600 for principal and \$300 to each of first three high-school assistants, \$400 for each of two special teachers, and \$100 for each additional regular grade teacher, provided the total amount does not exceed \$2,500; Group II, \$600 for principal, \$400 for one assistant teacher for regular high-school work, and \$400 for an instructor of the special subject.

According to chapter 10, 1910, colored industrial schools may be established by the county school commissioner, where instruction shall be given daily in domestic science and such other industrial arts as may be outlined by the county school board. The State will allow \$1,500 to each county so organizing, one-half for the industrial school and one-half for the supervision of colored schools, so as to make industrial instruction a daily part of every colored school in the county.

Massachusetts.—By the law of 1904 every city and town containing 20,000 inhabitants or more shall maintain the teaching of manual training as part of its elementary and high school system.

"Manual training, agriculture, sewing, cooking, civil government, ethics, thrift," etc., may be taught in the public schools. (Rev. law, ch. 42.)

"Instruction may be given in the public schools in the application of surgical remedies in cases of emergency and the principles of first aid for the injured." (Ch. 247, 1911.)

The Massachusetts system of vocational schools, established in 1906, as outlined in the amended law of 1911, treats of household-arts education so far as it is a division of vocational education, "the controlling purpose of which is to fit for profitable employment." Household-arts education is defined as "that form of vocational education which fits for occupations connected with the household." The legislation concerns only the "independent, industrial, agricultural, or household arts school," the "evening class," and "part-time continuation class" of such a school. The independent school "shall mean an organization of courses, pupils, and teachers under a distinctive management, approved by the board of education, designed to give either industrial, agricultural, or household arts education as herein defined." The "distinctive management" required is relaxed only in case of the independent agricultural school which is specially defined so as to include "a separate agricultural department offering in a high school as elective work, training in the principles and practice of agriculture to an extent and of a character approved by the board of education as vocational." "The Commonwealth, in order to aid in the maintenance of approved local or district independent industrial or household arts schools and of independent agricultural schools consisting of other than agricultural departments in high schools, shall, as provided in this act, pay annually from the treasury to cities and towns maintaining such schools an amount equal to one-half the sum, to be known as the net maintenance sum." "Cities and towns maintaining approved local or district independent agricultural schools, consisting only of agricultural departments in high schools, shall be reimbursed by the Commonwealth, as provided in this act, only to the extent of two-thirds of the salary paid to the instructors in such agricultural departments."

Chapter 106, 1912, provides that "any city or town may, through its school committee or other board of trustees for vocational education, establish and maintain separate evening classes in household and other practical arts. Such classes shall be known as practical-art classes, shall be open to all women over 17 years of age who are employed in any capacity during the day, and may be established and maintained as approved State-aided practical-art classes," under the provision of the 1911 act for adding vocational schools. A special State supervisor of such classes was appointed in 1912. These evening classes for women are open to home women or to those employed during the day outside the home.

By chapter 174, 1914, any city, town, or district composed of cities and towns may, with the approval of the State board of education, "establish classes for the training of teachers for continuation and vocational schools"; and chapter 319 authorizes the State board of education to establish such classes.

Michigan.—A law of 1901 provides that township rural high schools may provide a course of study, approved by the superintendent of public education and by the president of the State agriculture college, of not more than four years in length, which may include annual training, domestic science, nature study, and elements of agriculture.

Act 35, 1907, provided for the establishment of county schools of agriculture, manual training, and domestic economy to teach agriculture, including soil, plant life, and animal life of the farm, etc. "Instruction shall also be given in manual training and domestic economy and such other related subjects as may be prescribed." In 1909 the act of 1907 was amended by providing State aid equal to two-thirds the amount expended for maintenance, with a maximum to

each school of \$4,000; the superintendent of such schools is to be a graduate of the State agricultural college; the State superintendent shall establish requirements and, with the advice of the president of the agricultural college, shall determine the qualification of teachers; he shall also have general supervision, shall inspect, and make recommendations as to management. Act 29, 1911, amends the law regarding county schools of agriculture by authorizing the superintendent to approve two such schools in a year instead of only one. Act 12, 1913, provides that any county which will expend \$20,000 in buildings and equipment and which has title to 80 acres of land for the purpose may establish a county school and receive State aid on a two-thirds basis up to \$4,000. Act 361, 1913, requires boards of supervisors to submit to electors the question of establishing a county school of agriculture, manual training, and domestic economy, upon petition of at least 10 per cent of the electors. Act 22, 1911, empowers school districts to establish and maintain trade, vocational, industrial, marine, and manual training schools, school gymnasiums and scholarships, and to accept gifts, legacies, and devises.

Minnesota.—County schools of agriculture and domestic science are authorized to be established by the county commissioners on vote of the electors, with State aid to not more than two schools, but no schools have been organized under the law. (Ch. 314, 1905.)

The Putnam Act of 1909, amended in 1911 and 1913, provides State aid not exceeding \$2,500 for departments of agriculture, manual training, and domestic economy in approved high schools, graded schools, and consolidated rural schools; and authorizes rural schools to become associated with such schools for such teaching; aid of \$50 is given to each rural school, and \$150 to the high, graded, or consolidated school so associated; the 1913 amendment adds \$150 for such rural schools in the same district with the high, graded, or consolidated school as the State high-school board shall designate, with a maximum to any high, graded, or rural consolidated school of two-thirds the sum expended for the agricultural and industrial department. Rural schools may also become associated with a high or graded school in which is maintained such a department, whether or not the high or graded school has been designated to receive aid. The principal of the high or graded school, to be known as the central school, is to prepare a suitable course of study for the rural schools, embodying instruction in agriculture and industrial training.

In 1911, amended in 1913, Minnesota adopted another plan (Benson-Lee Act) for giving aid for high-school and graded-school industrial courses as an alternative to the Putnam plan, as follows:

"Any high school or graded school maintaining such a course as the high-school board of this State shall prescribe in agriculture and either in home economics or in manual training shall receive annually, in addition to other aid, the sum of \$1,800 for maintaining such industrial courses, to be paid from the appropriation made for State aid to high and graded schools."

The two acts are mutually exclusive; aid is given to a school under one or the other.

The consolidated school law of 1911 is intended to encourage, among other improvements, "industrial training, including the elements of agriculture, manual training, and home economics." Class A schools, of four or more rooms, receive \$1,500 in State aid; B schools, of three departments, \$1,000; C schools, of two departments, receive \$750; 25 per cent of building cost up to \$1,500 is allowed. At least one teacher in a consolidated school must be qualified to teach sewing and cookery, and the building must provide for manual training and home economics.

Mississippi.—Chapter 125, 1910, authorizes school districts to introduce music, drawing, and manual training into the grades upon the vote of the trustees.

Chapter 122, 1910, provides for the establishment of county agricultural high schools. "The county school board in each county may establish not more than two agricultural high schools, one for white youths exclusively and the other for colored youths exclusively, in which instruction may be given in high-school branches, theoretical and practical agriculture, domestic science, and in such other branches as the board may hereafter provide . . . subject to review and correction by the State board of education." The board of supervisors is to levy a proper tax; if two schools, a separate tax for each shall be levied and not over 2 mills for each; if, after the tax is levied, 20 per cent of the taxpayers petition that either or both taxes be not levied, then a vote shall be taken. At least 20 acres of land is to be provided for each school, and a dormitory for 40 students. Two adjacent counties may unite in establishing a school. After inspection by the State superintendent and approval by the State board of education, aid may be given of a maximum of \$1,500 to one county, or \$3,000 to the joint schools of the two counties.

Chapter 150, 1912, authorizes county supervisors to bond for agricultural high schools; and chapter 35, 1912, appropriates \$60,000 for State aid to these county high schools.

Chapter 254, 1912, provides that when the number of boarding pupils exceeds 30 the State grant shall be \$2,000, and when it exceeds 40 the grant shall be \$2,500.

Montana.—Chapter 76, 1913, the new educational code, provides in section 1700 for industrial education as follows: "Elementary manual and industrial training, which shall include industrial art, may form a part of the required course of study in all grades of the public schools. The superintendent of public instruction shall formulate a course of study or he may approve courses of study formulated by local school officials which meet the requirements of this section. School districts having a population of over 5,000 shall, and districts of less population may, maintain at least one manual training school . . . to furnish manual and industrial instruction to pupils who are above the fifth grade. Such schools shall furnish instruction in elementary wood, metal, and textile work; in mechanical and industrial drawing; and, in communities where applicable, in agriculture, mineralogy, and technical mining; and for girls above the first grade instruction in household management, decoration, and economics, and in needlework." In school districts of over 10,000 (permitted in smaller districts) there shall be maintained "schools of special courses in connection with manual training or city or county high schools, designed to furnish a direct vocational training, including training in agricultural pursuits or mining for which there shall be a local demand." Classes are to be formed when not less than 20 applicants desire instruction in any vocation. The local general school fund is to be charged for manual and industrial schools and courses, and the State is to grant \$10 to each district for each person attending such manual and industrial courses for a period of six months or more; and a similar grant is provided for courses in county high schools. The manual training teacher's certificate and a special vocational teacher's certificate, respectively, must be held by teachers in the manual training and the vocational courses.

The act of March 11, 1913, provides that the county commissioners of any county may, upon petition of 51 per cent of qualified voters engaged in agricultural pursuits, appropriate \$100 per month for part salary and expenses of a county agricultural instructor, to be named and directed by the Montana Agri-

cultural Experiment Station. The remainder shall be paid from funds appropriated by the State or United States or from any other source.

Nebraska.—By the law of 1907, in county high schools there shall be taught and practiced in the ninth and tenth grades, manual training, domestic science, and the elements of agriculture; and in the eleventh and twelfth grades, normal training and the theory and practice of agriculture for the purpose of practice and teaching.

The agricultural high-school law of 1913 provides State aid, not exceeding \$1,250 and not exceeding one-half the total expense, for an agricultural and industrial department with courses in agriculture, manual training, and home economics in approved accredited high schools, rural high schools, consolidated rural high schools, or county high schools. Rural district schools giving instruction in agriculture, manual training, and home economics, in association with one of these high schools, may receive State aid of \$50. Thirty schools may receive aid during 1913-14. An inspector of agricultural training is to be appointed by the State superintendent.

Nevada.—The introduction of industrial training into the schools was authorized in 1909. By act of March 20, 1911, the State board of education is directed and empowered (ch. 1, sec. 4, par. 1) "to prescribe and cause to be enforced the courses of study for the public schools, such courses to contain in the seventh and eighth grades, among other things, business forms and elementary bookkeeping or some features of industrial work; and in the high-school grades, provision for full commercial work and industrial work suitable for boys and girls: *Provided*, That schools of the first class may have modified courses of study, subject to the approval of the State board of education."

New Hampshire.—There is no special legislation, but instruction in household arts is well developed; the State superintendent has issued a special report and noteworthy institute lessons.

New Jersey.—Article 22 of the school law of 1911 (codified) relating to manual training provides that "whenever a school district shall raise by tax or subscription or both not less than \$250 for the establishment of a school or schools for industrial education or manual training, or for the purpose of adding industrial education or manual training to the course of study then pursued in the school or schools," the State will pay an equal amount; also for each year's maintenance a sum equal to that raised by the district, with a maximum of \$5,000 to any district, provided the course of study is approved by the State board.

By the New Jersey laws regarding industrial schools (1906, 1907, 1909), any community raising at least \$3,000 for the establishment of industrial schools will receive an equal contribution from the State, and the State will annually contribute a sum equal to that raised locally for maintenance, with a maximum of \$7,000 per year. "A local board of trustees of schools for industrial education" is appointed by the governor. When such board acquires the sum of \$100,000, the maximum State contribution becomes \$10,000 a year. In cities of the second class the cost of such a school is limited to \$50,000.

In the reorganization of the educational system, 1911, there was provided an assistant to the commissioner of education "to act as supervisor of industrial education, including agriculture."

Chapter 294, 1913, defines vocational education and its various divisions and directs the commissioner of education to aid in the establishment of vocational schools. Boards of education are authorized to establish industrial, agricultural, and household art schools, and two or more districts may join. State aid equal to that raised locally, exclusive of the cost of lands and build-

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ings, will be given up to a maximum of \$10,000 for any one school. "County vocational schools" may be established under a special board of education; support is to be given by tax levied by the county, with State aid equal to the local contribution, exclusive of costs of land and buildings; State aid is limited to \$10,000 to any one school, and to \$80,000 for the total State expenditure.

A law of 1908 established summer normal courses in agriculture, manual training, and domestic science, and these schools are continued by chapter 310, 1913.

New Mexico.—By the act of 1912 the State board of education is empowered to prescribe and adopt a course of study in industrial education, including domestic science, manual training, and agriculture, and may require its teaching in the public schools. In the preparation of institute manuals the State board of education may include a course of study in industrial education and may require all teachers attending county institutes and summer normal schools to pass an examination in one or more of the branches of industrial education. The State superintendent of public instruction is empowered to appoint a State director of industrial education, who will have in charge the introduction and teaching of industrial education.

The establishment of county high schools is also authorized (1912) in each county of the State having a population of 5,000 or more. The course of study provided for such schools is to include the additional branches of manual training, domestic science, elements of agriculture, and commercial science. This law was amended, 1913, so that any county, regardless of population, may now have one or more county high schools. Under this law 11 county high schools are in operation and others are soon to be voted upon.

New York.—New York State, in 1913, amended its industrial-education law (1908) providing for State-aided vocational instruction so as to include evening vocational schools and part-time or continuation schools as types of vocational instruction which might be State aided, increased the amount of State aid, and made the law more practicable for smaller communities.

State aid is provided for industrial schools, trade schools, schools of agriculture, mechanic arts, and homemaking, evening vocational schools, and part-time or continuation schools. When these schools have an enrollment of at least 15 pupils and maintain an organization, course of study, and are conducted in a manner approved by the commissioner of education, a sum equal to two-thirds of the salary of the first teacher is granted by the State. Additional apportionment is made to each school for each additional teacher employed exclusively in the schools mentioned to the amount of one-third of the salary paid to each additional teacher, but in no case does the State apportionment for each teacher exceed \$1,000.

In the general industrial schools, courses in homemaking may be established as a part of the vocational work elected by the girls. Trade schools for girls may give most of their time to intensified trade training and comparatively little to homemaking and academic subjects. On the other hand, there may be established trade schools for girls which fit for the occupations concerned with the household.

The schools of agriculture located in the open country are expected to have homemaking departments with courses in cooking and sewing, millinery and home decorations.

The part-time or continuation schools provide for instruction in the trades and in industrial, agricultural, and homemaking subjects and are open to pupils who are over 14 years of age who are regularly and lawfully employed during a portion of the day in any useful employment or service, and these

subjects shall be supplementary to the practical work carried on in such employment or service. In other words, it is possible to establish continuation schools for housekeepers and those engaged in household service, provided the subjects taught in the school are supplementary to the practical work carried on in the employment or service. In the case of evening vocational schools, instructions may be given in homemaking subjects, and the law distinctly provides that instruction in homemaking for evening schools shall be open to all women over 16 years of age who are employed in any capacity during the day. This statement in the law makes it plain that evening vocational work for women is not necessarily limited to instruction in only those subjects which are related to the practical work carried on in the daily employment.

The word "school" as used in the law is intended to include any department or course of instruction established and maintained in the public school for any of the purposes specified in the law.

Academic credit toward the State high-school diploma is allowed in all homemaking subjects when taught by a special teacher of homemaking, when there are double laboratory periods, and when the work is satisfactorily done as judged by inspection from the State education department. Credit toward academic diploma may also be given in household arts or household chemistry when taught by a special teacher of homemaking subjects and when a definite syllabus relating to these subjects is approved by the division of vocational schools, State education department.

Suggestive courses in homemaking of high-school grade are issued by the education department, and they are based upon the following principle, that five-twelfths of the time of the student is to be given to vocational work and seven-twelfths to so-called liberal studies. Any girl successfully completing this course is then granted a standard high-school diploma.

The State schools of agriculture at St. Lawrence University, Canton; Alfred University, Alfred; and State School of Agriculture, Morrisville, are allowed by law to give courses for training teachers of agriculture, mechanic arts, and homemaking and receive the same State aid as is given to "schools of agriculture, mechanic arts, and homemaking."

North Carolina.—By the "county farm-life school law" of 1911 it is provided that "there shall be established and maintained in every county . . . a school to be known as a county farm-life school, for training and preparing the boys and girls of the county for farm life and homemaking." The establishment of the school is to be determined by an election, and if the county vote is negative a township or contiguous townships may establish. Bonds up to \$25,000 are to be issued for buildings and equipment, which are to include a school building, a dormitory for 25 boys and 25 girls, a farm of 25 acres, a barn, etc. At least \$2,500 is to be provided locally each year for maintenance, and State aid of \$2,500 is given. As regards its girl students, the aim is to prepare "for homemaking and housekeeping on the farm." The course of study, which is subject to approval by the State superintendent and the advisory board on farm-life schools, is to include "practical work in all subjects related to housekeeping and homemaking by girls." The schools are to conduct extension work, including "township and district meetings in various parts of the county for farmers' wives," short courses for adult farmers, men and women, at the school, and one or more county meetings for farmers' wives with instruction and demonstration at the school; and also cooperation with the schools and short courses for teachers which would doubtless include home interests. The State superintendent has recently recommended the establishment of similar courses in all rural high schools.

North Dakota.—There were adopted, in 1911, three laws bearing upon education for the home:

Chapter 35, 1911, "An act to encourage elementary education," is intended "to aid, encourage, stimulate, and standardize the rural and smaller graded schools of this State." It gives State aid based on a classification as follows: State graded schools of the first class are those with four departments meeting certain conditions, including a regular and orderly course of study, "including two years of high school, as well as courses in domestic science, manual training, and elementary agriculture," and they receive \$200; graded schools of the second class have two teachers and give courses in "domestic science, manual training, and agriculture," and receive \$150; rural schools giving agriculture and meeting other conditions receive \$150 or \$100; if schools are consolidated, further aid is given.

Chapter 40, 1911, like the Minnesota central and associated school plan, "provides for the establishment and maintenance of a department of agriculture, manual training, and domestic economy in State high, graded, and consolidated schools." Five schools were to be aided the first year, each school receiving aid of \$2,500, beginning 1912-13, and no more than five schools added every two years thereafter. Such a school shall employ trained instructors in agriculture, manual training, and domestic science (including cooking and sewing), and have a 10-acre demonstration tract. A plan is also provided "for extending manual training and domestic economy to rural schools," whereby one or more rural schools may become associated with any State high or graded school maintaining a department of agriculture (whether or not such school receives State aid). The proceeding is by vote of the district, as in consolidation, and then the central school and the associated schools shall be known as "the associated school of _____ for the teaching of agriculture and manual training." A special tax, to be not less than 1 mill nor more than 4 mills, is levied in various rural school districts. Each rural district school board designates one of its members to act with the school board of the central school in carrying out the provisions of this act.

The principal or superintendent of the central school shall have authority over associated rural schools and shall prepare for them "a suitable course of study, embodying training and instruction in agriculture and such subjects as are related to farm life and can be successfully taught in rural schools."

Chapter 265, 1911, provides for "the establishment of county agricultural and training schools and their joint maintenance by the State and county wherein located." The establishment is to be by petition, followed by a vote; there must be provided for the establishment not less than \$10,000, nor more than \$20,000; for yearly maintenance the county is to pay one-half and the State one-half, the total not to exceed \$6,000 per year, and the State's share to be raised by a tax not exceeding one-fifth of 1 mill. A "State agricultural and training school board" is provided, composed of the president of the State agricultural college, State superintendent of instruction, and "three practical farmers appointed by the governor"; it shall prescribe the course of study for county agricultural and training schools, "to include, first, elements of agriculture, * * * manual training, and domestic economy; and, second, instruction in the common branches and such other branches as are necessary for the training of teachers in rural schools." Graduates are to receive certificates equivalent to second-grade teachers' certificates.

Ohio.—The school law provides that "any board of education may establish and maintain manual training, domestic science, and commercial departments; agricultural, industrial, vocational, and trade schools, also kindergartens, in connection with the public-school system, and pay the expenses of establishing

and maintaining such schools from the public-school funds, as other school expenses are paid."

Section 7655—4 of the school law of 1914 defines a consolidated elementary school of the first grade and includes in the definition the following among the requirements: "(j) A course in domestic science. (k) Two teachers to be employed for 10 months each, one teaching agriculture, the other to teach domestic science during the school term and to supervise domestic science instruction during part of the vacation. (l) Agriculture and domestic science apparatus to the value of \$100." Special State aid to the amount of \$100 is paid each year to each such school.

Oklahoma.—Article 13, section 7, of the constitution, adopted September, 1907, declares that "the legislature shall provide for the teaching of the elements of agriculture, horticulture, stock feeding, and domestic science in the common schools of the State." By a legislative act of 1909, the "State commission of agriculture and industrial education" is established to carry out this provision of the constitution; county superintendents are to report annually on these branches; after 1909, no person is to teach in State-aided public schools who has not passed an examination in these branches, and teachers are to report in detail on progress in these subjects to county commissioners; normal schools are to give instruction "in agricultural and allied subjects" and to cooperate in establishing a State system of agricultural and industrial education in schools, and there is to be established in each school a "department of agricultural and industrial education"; the agricultural and mechanical college is to be "technical head of the agricultural, industrial, and allied science system of education," and, through a "professor of agriculture for schools," is to direct and advise. There is to be established in each supreme-court district a district agricultural school of secondary grade for instruction in agriculture, mechanics, and allied branches, domestic science, and economics. The courses are to lead to the agricultural and mechanical college and to the State normals. These schools are to be under the administration of the State commission of agriculture and industrial education; each agricultural school is to hold short courses of at least one week each year including a course in domestic economy, canning, preserving, and cooking.

Oregon.—It is provided (1907) that any union high school may establish a department of industrial training in connection with the school under its management; the expense is to be met the same as for other schools; the State board is to give information and assistance as far as possible.

The school law provides (sec. 274, 1911) that the high-school course of study must have two years of required work, uniform throughout the State, to be prescribed by the State superintendent, and that the optional work to be prescribed by the county high-school board or district-school board, after consultation with the State superintendent, may be all or in part industrial, and in this case the optional work may be extended through the four years' course.

Pennsylvania.—The school law of 1911 in article 4 authorizes any board of school directors to establish the following additional schools or departments for the education and recreation of persons in the district which shall be an integral part of the public-school district and shall be so administered; namely, high schools, manual training schools, vocational schools, domestic science schools, kindergartens, libraries, museums, * * * public lectures, together with such other schools or educational departments as they may see proper to establish.

Article 9 provides that the State board of education shall encourage agricultural education, manual training, domestic science, and such other vocational and practical education as the needs of the Commonwealth may require.

Article 10 directs the State superintendent to appoint one expert assistant in agricultural education, one in industrial education, and one in drawing.

Article 16 prescribes, for the elementary course of study, the common English branches together with such other branches, including drawing, physical training, elementary manual training, elementary domestic science, and elementary agriculture, as the board of school directors in any district may prescribe.

The vocation education law of 1913 (No. 92, 1913) defines vocational education as that "the controlling purpose of which is to fit for profitable employment." "Industrial, agricultural, or household arts schools or department or vocational school or department shall mean a distinctive organization of courses, pupils, and teachers approved by the State board of education, designed to give either industrial, agricultural, or household arts education as herein defined." Household arts education is "that form of vocational education which fits for occupations connected with the household;" "household arts school or department shall mean a vocational school designed to develop, on a vocational basis, the capacity for household work, such as cooking, household service, and other occupations in the household;" "evening class in a household school or department shall mean a class giving training in homemaking to girls or women over 14 years of age, however they may be employed during the day." (Sec. 1.)

The State board of education is directed to investigate and to aid in the introduction of vocational education; to assist in establishing schools and departments and to inspect and approve them; the State superintendent is directed to appoint "expert assistants other than those already provided by law as may be necessary in industrial, household arts, or agricultural education." (Sec. 2.)

Any school district may through its board of school directors establish and maintain vocational schools and departments; two or more districts may join in so establishing and maintaining; "an advisory committee composed of members representing local trades, industries, and occupations" may be appointed. (Secs. 3, 4, 5, 6.) Nonresident pupils may be admitted, the district of residence to pay a tuition fee. (Sec. 7.)

For the support of approved vocational schools and departments the State shall pay annually an amount equal to two-thirds the sum which has been expended during the previous year "for instruction in practical subjects and in such related technical and academic subjects as may be necessary to complete well-rounded courses of training: *Provided*, No one school district shall receive more than \$5,000 in any one school year." School districts that have paid tuition in approved local or joint vocational schools or departments shall be reimbursed to the extent of one-half. (Sec. 9.)

Rhode Island.—Chapter 845, 1912, authorizing State aid in support of industrial education:

"Section 1. In case any town shall provide instruction in manual training and household arts in its public schools, with the approval of the State board of education, such town shall be entitled to receive as aid from the State a sum not exceeding one-half of the amount expended by said town for the purchase of apparatus necessary for such instruction.

"Sec. 2. Any town that shall establish and maintain day or evening courses for vocational industrial education, including instruction in the principles and practice of agriculture and training in the mechanic and other industrial arts, which courses are approved as to equipment, instruction, expenditure, supervision, and conditions of attendance by the State board of education, shall be entitled to receive aid from the State in support of instruction in such courses to an amount not exceeding one-half of the entire expenditure of the

same. The cost of equipment or of buildings or of land or of rent of rooms shall not be included in this reckoning. This section shall not be construed to entitle towns to receive State aid for manual training high schools or other secondary schools maintaining manual training departments, except in so far as such schools include courses properly classed as industrial courses."

The 1912 act carries an appropriation of \$5,000, available after July, 1, '13.

South Carolina.—The high-school act (1907) classifies all high schools as 4-year, 3-year, and 2-year high schools, and provides for aid of \$700, \$600, \$400, respectively, on certain conditions. "Any and all high schools established under this act shall include instruction in manual training, especially in agriculture and domestic science." Additional aid may be given for industrial and commercial subjects.

By rule of the State board of education, adopted April 4, 1913, "State aid in the sum of \$100 per annum shall be allowed to any school maintaining a successful and satisfactory class in sewing, cooking, or manual training."

Tennessee.—The education law of 1900 provides for the "General education fund" to include 25 per cent of the gross revenues. Eight per cent of this is to constitute a county high-school fund for aiding county high schools. It shall be the duty of the State board of education to grade all county high schools, "to prescribe their minimum courses of study, requiring the elements of agriculture and home economics to be taught in all schools." "And no county may receive more than one-fiftieth of the fund, and no school shall receive more than one-third the amount received from other sources and expended for maintenance."

The law of 1913 increases the "General education fund" from 25 to 33½ per cent of the revenues, and provides for an extra appropriation to each first-class high school in amount duplicating the county money used for agriculture, manual training, or home economics, the maximum from the State being \$1,500.

Texas.—By a law adopted in 1909 the high schools of the State are classified according as they give 4-year, 3-year, or 2-year courses and meet certain other conditions. State aid is given, duplicating money set apart locally, for establishing and maintaining one or more departments of agriculture, manual training, and domestic economy. First and second class schools may receive \$500 to \$1,500 for a department of agriculture and \$500 to \$1,000 each for a department of domestic economy, and a department of manual training, with a maximum total of \$2,000 to any one school; third-class schools may receive \$500 to \$1,000 for a department of agriculture. The grant may not be made more than twice to the same school. An appropriation of \$50,000 a year is made for this purpose. Similar departments were aided in three State normal schools. An act effective September 1, 1914, requires the teaching of cotton grading or classing in the State normal schools, industrial schools, summer normal schools, teachers' institutes, and in all public schools. While this requirement is primarily, of course, for industrial efficiency it will obviously spread knowledge valuable to the household.

Vermont.—The school law (sec. 1004) provides that in elementary schools "the board of school directors may provide for daily instruction in vocal music, physical culture, drawing, and the industrial arts and sciences by a regular teacher or teachers, and a town may instruct its directors to provide for such instruction"; and (sec. 1016) that in high schools "instruction may be given in political, social, moral, and industrial sciences, commercial subjects, ancient and modern languages, music and physical culture, and in fine and mechanical arts."

Act 40, 1908, provided a State grant of \$250 for an approved manual-training course in any high or grammar school, but this was repealed by Act 74, 1913,

which provides that a town maintaining a high school of the first class may provide courses or departments of manual training, domestic economy, or agriculture, with special instructors, and for approved courses for which not less than \$600 has been paid in salaries, the State will grant \$200 for each course or department so maintained. The school boards in the towns of a supervision union may unite in employing special instructors in manual training, domestic science, agriculture, singing, or drawing, and if not less than \$600 is paid an instructor in any of these subjects during a school year, the State will make a grant of \$200.

Act 62, 1910, established a State school of agriculture at Randolph, and Act 67, 1913, creates a similar school in Addison or Rutland County; in both schools domestic science is included in the program.

Act 77, 1912, appropriates \$1,500 for a loan collection of lantern slides, illustrating the "resources, manufactures, industries, physical features, agriculture, and home life of Vermont and the world."

Virginia.—By the law of 1907 county, city, or district school boards, and counties, cities, towns, and districts may appropriate to nonsectarian schools of manual, industrial, or technical training, and may also provide for the introduction of manual or industrial training and other special branches into any public schools.

By the law of 1908 the State board of education is authorized to select at least one high school in each of the 10 congressional districts in which "a thorough course in agriculture, the domestic arts and sciences, and manual training shall be given in addition to the academic course," and "at least one-fourth of the school time shall be devoted to these subjects." "All female students attending the high school provided for under this act shall be instructed in the domestic arts and sciences, and suitable equipment for such instruction, shall be provided." They "may also take the agricultural course if they so desire." "The agricultural high schools may be used as centers for directing the demonstration farm work and other extension work through the congressional districts, under regulations prescribed by the State board of education and the president of the Virginia College of Agriculture."

"Regulations of the State board of education, 1911," section 80: "In all the common schools the following subjects shall be taught: Orthography * * * ; and local school boards may provide for the introduction of music, nature study, manual training, and elementary agriculture into the schools."

Washington.—By a recent rule of the State board of education eighth grade pupils taking the examinations for the State eighth-grade certificate will be required after May, 1914, to take an examination in either agriculture, manual training, or domestic science,

West Virginia.—No special legislation, but household arts are taught in larger cities and towns and in several rural communities.

Wisconsin.—Chapter 508, 1907, provides that any board having charge of a free high school, or of a high school having a course of study equivalent to the course or courses prescribed by the State superintendent, may establish a manual-training department in the high school, or in the high school and upper three grades of the elementary school, and that State aid will be given up to one-half the expenditure, but not to exceed \$350 for high-school and grade work for each department and \$250 for the high school only for each department: *Provided*, That aid will not be given for more than three departments. Two or three high-school districts may unite to secure a teacher of manual training.

By the law of 1901, amended in 1903, 1907, 1909, and 1911, county schools of agriculture and domestic economy may be established by the county board, or

jointly by two or more counties. "Instruction shall be given in the elements of agriculture, including instruction concerning the soil, the plant life, and the animal life of the farm; a system of farm accounts shall also be taught; instruction shall also be given in manual training and domestic economy, and such other subjects as may be prescribed." Graduation from common schools is required for admission; special winter classes may be provided. State aid is given of \$6,000 if the average daily attendance is less than 112, \$7,000 if the attendance is 112 to 137, and \$8,000 if over 137.

Wisconsin, in 1909, authorized the establishment of trade schools by cities; the appointment of a local advisory "committee on trade schools"; the levying of a special tax of not over one-half mill for a trade-school fund; and action by the local school board, subject to a referendum in approval if petitioned by 20 per cent of the voters.

Chapter 616, 1911, provides a State system of industrial education with the following provisions: A State board of industrial education; an assistant for industrial education in the office of the State superintendent, with supervision of industrial, evening, continuation, and commercial schools (not agricultural schools); in towns and cities of over 5,000 there shall be, and in smaller towns there may be, a local board of industrial education, with general supervision of instruction; on petition from 25 persons qualified to attend, an industrial, evening, continuation, or commercial school shall be established; a special tax not to exceed one-half mill may be levied; the course of study shall be approved by the State superintendent of education and the State board of industrial education, and "shall include English, citizenship, sanitation, and hygiene, and the use of safety devices and such other branches as the State superintendent and State board shall approve"; State aid equal to one-half the amount expended during the preceding year is granted, with a maximum of \$3,000 to any one school and \$10,000 to any one city, and not more than 30 schools are to be aided; the schools are open to persons of 14 years of age or older. The law also directs the State board of industrial education to "constitute a body corporate under the name of the board of trustees of Stout Institute," to accept, hold, and maintain as a trustee for the State this institution at Menominee.

Chapters 505 and 600, 1911, require children 14 to 16 years of age, working under permit as provided by law, to attend evening, continuation, industrial, or commercial schools when established not less than five hours per week for six months or a year; the employer to allow reduction in hours of work.

Chapter 347, 1911, regulates apprenticeship, requiring, among other provisions, that the indenture include an agreement that the apprentice attend school not less than five hours a week.

An act of 1913 (bill No. 142 S.) provides for State aid of \$200 for "a short course of agriculture and domestic science in high schools." The course is to be 16 weeks in length and commence about November 1; it "shall not be approved unless the teaching force shall be adequate to properly administer all courses adopted and in force in such school"; and the special course must be "under the direct instruction of a teacher holding a special license from the State superintendent to teach the special subject." Tuition of all pupils attending is to be paid by the towns. The short-course law is limited in its benefits to 20 schools.

Wyoming.—The school law provides (ch. 88, 1905) that the "school board of any district shall have power to establish industrial and manual-training schools in connection with the public schools of said district."

Section 3. STATE CERTIFICATION OF SPECIAL TEACHERS OF HOUSEHOLD ARTS.

The classroom teacher as teacher of household arts.—The standards set as to who may teach household arts in the public schools will determine rather completely the character of instruction given. The subject might conceivably be taught by the regular teacher; it might be regarded as a special school subject to be taught by a specialist. As a matter of fact, both tendencies have been apparent in the teaching of the subject, while, as Dr. Jessup says,¹ "the prevailing means of securing and directing instruction in domestic science has been the employment of special teachers or supervisors, who have taken, in the main, the entire responsibility of this work," yet there have not been lacking examples of the organization of household-arts teaching in the hands of the classroom teacher; and it is evident that some of the most significant instruction in this field—for example, in one-room rural schools—turns on the training of the classroom teacher in domestic science. Some of our best experience and authority to-day points to the teaching of all arts subjects, in the first six grades at least, by the regular classroom teacher, in order to stress the educational rather than the vocational aim in the teaching.

Legal recognition of the need of home economics in the equipment of every trained grade teacher is already in evidence. This is exemplified in the Oklahoma requirement of an examination in domestic science for all first, second, and third-grade teachers' certificates; the new requirements of Iowa and Indiana for its general teaching and corresponding examinations of teachers; and the provision of North Dakota which places home economics among the list of required elective subjects from which a selection is to be made in the examination for the second and first grade elementary and professional certificates. The New Mexico law also permits the State board of education to require an examination in domestic science and other vocational subjects in the certification of teachers. A provision of similar import is that requiring an examination in elementary agriculture in the certification of teachers, as in Alabama, Idaho, Mississippi, Nebraska, Texas, and possibly other States, thus reinforcing the preparation of the rural teaching force at a most important point. There is also the similar requirement of an examination in manual training for the elementary certificate in New Jersey. Grade teachers, it would seem, should, as a matter of course, have preparation in home science, and in addition rural teachers should be certified as to preparation in agriculture and urban teachers

¹ Social Factors Affecting Special Supervision. W. A. Jessup, Teachers College, Columbia University. Contributions to Education. New York, 1911, p. 63.



A. INTERMEDIATE GRADES AT LUNCH, DELTA, COLO.

The luncheon schedule is: Primary, 11.15; Intermediate, 11.35; grammar, 12; high school, 12.20.



B. FIRST AND SECOND GRADES AT LUNCH, DELTA, COLO.

For 5 cents the children have: One hot vegetable; sandwiches; rolls or doughnuts; crackers and milk.

as to manual training; or, if we adopt ultimately the proposal to amalgamate all practical arts subjects, agriculture, manual training, household arts, fine arts, etc., into a single industrial and prevocational subject for the elementary grades, then the certification of all elementary teachers should include an examination in this field. A different approach to the same end (of providing some knowledge of domestic science to grade and rural teachers) is, of course, afforded by the laws regarding normal training classes in high schools and normal schools, elsewhere referred to (p. 125), which tend to include domestic science in the curricula. Domestic science in the preparation and certification requirement of every common-school teacher seems a desirable and possible standard. Only thus can large numbers of girls be reached with training for homemaking.

The special teacher and supervisor of household arts.—The related problem of certification of special teachers and supervisors of household science has received more attention. Thirty-three States issue some form of special State certificate to the special household-science teacher and supervisor (Table 1, p. 42), and in at least five other States the special normal-school diploma or other credential or examination by State, city, or county officials provides a *modus operandi*. Nine States report definitely that no provision has been made for State certification of special teachers of domestic science. Three-fourths of the States, therefore, have considered it desirable to standardize, by State certification, the qualifications of the special teacher of household science. A statement of the regulations as to certification in the different States is given elsewhere (p. 36); there follows herewith a statement of the general tendencies in the State regulations and certain recommendations as to standards.

In the State regulations as to certification of special teachers of domestic science there is a tendency to specify special training in an approved higher institution which requires high-school graduation for admission, and provides a two years' course as a minimum. The minimum is stated as one year by Indiana, but as two years by Idaho, Illinois, Minnesota, New York, and Ohio. Oklahoma specifies special training without defining the amount. Two years of special training is short enough, and with the movement for requiring college graduation for high-school teachers this requirement for the special teacher of domestic science will gradually advance. At present a minimum of two years' professional training beyond high school is a standard which the various States may well adopt as soon as possible.

The time must be at hand for revoking laws or regulations, which now permit persons who have had no formal training to qualify by examination as supervising teachers of domestic science. Eighteen

States at least thus grant special domestic-science certificates on examination without even specifying a minimum of training; this open door may be necessary in the initial stages of a new subject, but home economics is beyond such a stage. Now that there are available graduates of colleges, normal schools, and technical schools who have completed a two-year or longer technical course, it is educational suicide to encourage persons to prepare by self-study for examinations as special teachers of household science. If such examinations are continued as a possible alternative to certification on the basis of approved training, it is desirable to throw stringent safeguards about them.

Such a provision as that of Vermont authorizing, without examination, a special certificate to a successful teacher who has held a certificate is also open to objection. It may guarantee a person who knows how to teach, but it has no safeguard as to what is taught. It is a transition measure, of course, to be succeeded, as soon as possible, by certification of persons "of special training," as the same Vermont regulation provides.

One State at least requires the holder of the special certificate to hold also a regular teacher's certificate. This seems unnecessary if teaching ability is guaranteed by training in methods of teaching as part of a two-year technical training.

The Texas plan of permitting cities at the discretion of the city superintendent of schools to hire special teachers, without requiring an examination or a teacher's certificate, disregards the whole value of certification and is not to be recommended.

The granting of the certificate for a limited time, say, one year, to be renewed for two or three years without examination, and then made permanent, or, better, renewable, without examination, for periods of 5 or 10 years—as long as one teaches—is better than the granting unconditionally of a life certificate. The initial life grant is dubious in all cases, and the life grant after a preliminary period may be questionable in case of those who give up teaching and years later wish to resume it without reexamination.

The New York provision that the State commissioner may, in special cases, certificate for vocational schools persons with "intimate knowledge gained by field or shop experience, with evidence of a satisfactory general education," is likely to have occasional significance, especially if the teaching of household trades in industrial schools is organized with its necessity of trade-trained teachers. The requirement of the Pennsylvania vocational law that the practical household-arts teacher must have, in addition to a two-years' special training, "three years' experience in practical housekeeping," is commendable; so is the New Jersey method of having such experience tested by an examining committee of two housekeepers.

The use of the normal-school diploma as a standard for a special certificate, as in Colorado and Wisconsin, is intelligible, and may be recommended elsewhere as the normal schools strengthen their household-science departments. The Maine law giving aid for domestic science to all normal schools, so that every teacher may include this subject in her preparation and special additional aid to one normal school in order that it may train supervisors and special teachers of domestic science, is relevant here.

More desirable perhaps is the statement of standards for such certificates in terms of university or college study of home economics, as suggested in the Montana statute and as stated in detail in the noteworthy specifications for high-school certification in domestic science and art in Utah, where required collegiate courses are quantitatively enumerated thus: For domestic science, three State credits in organic chemistry, physics, economics, physiology, art (high-school art accepted); four State credits in dietetics (two may be in physiological chemistry or advanced physiology); house sanitation (two may be in bacteriology); and six State credits in food. For domestic art, the same, except that botany shall be included or may be substituted for physics, sewing for food, and textiles for dietetics. Such a requirement cuts the ground from under ill-prepared teachers who may hope to "squeeze through" teachers' examinations and secure certificates for teaching an attractive specialty. It suggests the serious standards set in State medical examinations. Truly these teachers of home making need to be competent "social physicians," and the Utah requirements rigidly enforced point one way to guaranteeing their proficiency.

New York City certificates.—The regulations regarding teachers of cooking and sewing and supervisors or "directors" of these subjects may be quoted:

Cooking teachers.—To be eligible for examination for license as special teacher of cooking the applicant must have one of the following qualifications: (a) Graduation from a satisfactory high school or institution of equal or higher rank, or an equivalent academic training, or the passing of an academic examination, and the completion of a satisfactory course of professional training of at least two years in cooking; (b) graduation from a college course recognized by the regents of the University of the State of New York, which includes satisfactory courses in the principles of education and in cooking; (c) graduation from a satisfactory high school or institution of equal or higher rank, or an equivalent academic training, or the passing of an academic examination; and the completion of a satisfactory course of professional training of at least one year, followed by two years' successful experience in teaching cooking.

Sewing teachers.—To be eligible for examination for license as a special teacher of sewing the applicant must have the following qualifications: (a) Graduation from a satisfactory high school or institution of equal or higher rank, or an equivalent academic training, or the passing of an academic examination; (b) the completion of a satisfactory course of professional training of

at least two years in the special branch she is to teach; (c) one year of experience in teaching sewing, or three years' experience as a class teacher teaching sewing a satisfactory portion of the time. These three years may be inclusive of the years devoted to professional training.

Director.—To be eligible as a director of a special branch, the applicant must have the following qualifications: (a) Graduation from a college or university recognized by the regents of the University of the State of New York; (b) graduation from a course of professional training of at least two years in the special branch that he is to supervise or teach; (c) at least three years' successful experience as teacher of such special branch.

Section 4. STATE REGULATIONS REGARDING CERTIFICATES FOR SPECIAL TEACHERS OF HOUSEHOLD ARTS, BY STATES.

Arizona.—Manual training, domestic science, or kindergarten teachers who are graduates of an approved manual training, domestic science, or kindergarten school may be licensed to teach such subjects by the State board of examiners. If such a teacher can not so qualify, then such teacher must pass such an examination as the State board of education may prescribe.

California.—County boards of education may grant special certificates on examination, or credentials, or both.

Colorado.—The normal school issues special diplomas for domestic science, manual training, and sewing.

Delaware.—The State issues certificates to graduates of approved schools or on examination.

District of Columbia.—Certificates are issued by the board of education of the District.

Florida.—A special certificate, valid for five years, may be issued by the State superintendent on satisfactory testimonials, as to peculiar fitness for teaching any one or more branches not included in the requirement for the second-grade certificate; the candidate shall make a grade of not less than 90 per cent on such branch or branches in such examinations as shall be prescribed by the State superintendent with such assistants as he may select.

Georgia.—Special certificates, entitling the holder to teach or supervise the special subject, and requiring graduation from high school or its equivalent in scholarship, and training in the specialty and in the science and art of teaching, may be granted by the State board of education in domestic science and art, manual training, and certain other subjects.

Idaho.—The State board of education may issue specialists' State certificates good only for special teachers of music, drawing, manual training, domestic science, and physical education to graduates of approved schools which offer courses of not less than two years' work, with high-school work prerequisite. Valid for special subject only for eight years. (See 91, b, law of 1911.)

Illinois.—Special certificate in domestic art, valid for two years in elementary or high schools of the county in which issued and renewable for three-year periods, is granted by the county superintendent. Requirements shall be graduation from a recognized high school, or equivalent preparation, and a certificate showing completion in a recognized higher institution of learning of at least two years of special training in the subject or subjects the candidate desires to teach; or in lieu of that, satisfactory evidence of four years' successful teaching of such subject and successful examination in English and the principles and methods of teaching.

Indiana.—The State superintendent issues "supervisors' licenses" in sewing and in cooking, respectively, valid to supervise and teach the subject in any of

the public schools; examination open to persons "meeting the eligibility requirements for a 12 months' common school" (graduates of a commissioned or certified high school who have had at least 12 weeks' normal training) and to those who have had a course of one year or more in some approved school of sewing or cooking. The licenses are issued for 12, 24, or 36 months. The county superintendent issues similar licenses, good, however, only in the county of issue.

The vocational-education law of 1913 provides that "after September 1, 1915, all teachers required to teach elementary agriculture, industrial work, or domestic science shall have passed an examination in such subjects prepared by the State board of education." (Sec. 6.)

Iowa.—The education board of examiners may issue a special certificate to any teacher of music, drawing, penmanship, or other special branches, or to any primary teacher of sufficient experience, who shall pass such examination as the board may require in the different branches. Valid for the branch specified for five years.

By an act approved 1913 elementary agriculture, domestic science, and manual training are required to be taught in public schools after July, 1915, after which date "elementary agriculture and domestic science shall be included among the subjects required in the examination of those applicants for teachers' certificates who are required by the provisions of this act to teach agriculture and domestic science."

Kansas.—Special certificates in manual training, domestic science, and domestic art are issued to holders of valid teachers' certificates who have had special preparation satisfactory to the State board.

Teachers of domestic science and art and agriculture in high schools approved by the State board of education and receiving State aid must be approved by the State superintendent.

Louisiana.—"The qualification of the teacher shall be the equivalent of a full course in home economics in an institution offering specific training to teach the subjects in this course."—"Rules and Regulations . . . to govern Departments of Agriculture and Domestic Science, 1913."

Maryland.—The credentials of special teachers of household subjects must be accepted by both county and State superintendents, or the teachers must be examined.

Massachusetts.—Chapter 375, 1911, provides that after July 1, 1912, no person shall teach in a State-aided high school unless he possesses a high-school teacher's certificate issued by the State board of education. A special certificate is granted in manual arts, domestic science, and other subjects.

Minnesota.—Each high school or grade instructor in sewing or cooking must be a graduate of an accredited technical school and must hold a special industrial certificate secured from the superintendent of public instruction and issued only on the recommendation of persons in position to know the qualifications of the candidate and upon the indorsement of the State inspector.

Missouri.—Special certificates in household arts, valid for five years and for life, are issued as follows: (1) Standard four-year high-school course or equivalent is the required basis for preparation; (2) thorough preparation shown by diploma from special professional school of high rank or by searching examination and other evidences of proficiency in the study and teaching of the subject is required; (3) all candidates for five-year special certificate will be given an examination in pedagogy and elementary psychology, and, in addition, for household arts, in literature, geography, chemistry, physiology, and hygiene, household arts (including drawing and designing). In each examination the

specialty will be waived on presentation of a diploma of graduation from a school of recognized standing.

Montana.—Act of 1913, section 905; "(e) Special Certificates. Upon the request of any board of school district trustees or its representatives, or any county superintendent of schools, a special certificate valid only in the district requesting the same may be granted by the State superintendent of public instruction, in music, drawing, elocution, physical culture, penmanship, manual training, domestic science, agriculture, commercial and kindred subjects, first three primary and kindergarten grades, to any teacher who presents satisfactory evidence of special proficiency for teaching any of the above subjects, as shown by any certificates and credentials held by such teacher: *Provided*, That such special certificate shall be valid only for one year and shall entitle the holder to teach only such special subjects as are stated in said certificate."

Act of 1913, section 1700, provides that teachers in manual-training schools must have the special manual-training teachers' certificate, granted on the basis of "a sufficient general education and the professional and technical training necessary for such manual and industrial training"; and that teachers in vocational-training courses shall have special certificates based on general educational qualifications and "special training and practical experience in the vocation which they are to teach."

Nebraska.—State and city certificates may be granted to a special supervisor of domestic science on examination or, in lieu thereof, on graduation from a recognized special training school.

Nevada.—The State board of education shall grant special certificates valid for music, manual training, penmanship, commercial subjects, kindergarten work, or any specified foreign languages, "provided it shall be satisfied that the applicant is competent to teach such special subject. The board shall determine as to the fitness of the applicant by whatever method shall appear to be most appropriate." Valid for two years.

New Jersey.—"Special certificates" are issued to teachers of industrial and technical subjects; among others, to teachers of cooking, requiring examination in the theory and practice of cooking, household chemistry, and physiology and hygiene; and to teachers of sewing, requiring the theory and practice of sewing, including dressmaking. These certificates are valid for one year, are renewable without examination for two years, and are made permanent after three years of successful teaching. "Vocational certificates" may be issued to applicants for positions in State-aided vocational schools in various subjects, including the "household arts vocational certificate." The limited certificate, granted for one year, requires at least a two-year course in general household arts in a recognized school or college (in lieu of this academic training and adequate experience in household arts may be accepted), and in addition a demonstration of ability to a committee of at least two housekeepers appointed by the State board of examiners. The candidate must further be 21 years of age. The certificate may be made permanent after three years of successful teaching. A "supervisor's vocational certificate in household arts" may be issued to an applicant for a position as supervisor or as principal in a State-aided vocational school, provided she holds a permanent "vocational certificate" and has had adequate experience in a vocational school. This may be made permanent after a year.

New Mexico.—The State board of education is empowered to require an examination in vocational subjects, including domestic science, in the certification of teachers. By recent resolution of the board two credits may be allowed for these subjects toward certification of teachers, but no more. Also these subjects are included in the optional list, but if one is used as an optional and a credit made, only this credit and one other are counted.

New York.—A special license is issued requiring high-school graduation and two years' special training in an approved institution. In vocational schools there are similar requirements of high-school training followed by a completed course in the special subject in an approved professional institution; but in special cases intimate knowledge gained by field or shop experience, with evidence of a satisfactory general education, is accepted in the case of such vocational teachers.

North Carolina.—The teacher in the department of county farm-life school for special training of girls for homemaking and housekeeping on the farm must hold high-school teacher's certificate on all required subjects except Latin, Greek, and the modern languages, including an additional certificate from the State board of examiners and the president of the State Normal and Industrial College, stating such person has furnished satisfactory evidence of qualifications by special training and practical experience for such position.

North Dakota.—Special certificate for teaching agriculture, the commercial subjects, domestic science, manual and industrial training in the common schools, graded or high schools, may be issued to applicants who possess qualifications equivalent to those for second-grade professional certificate (20 years' of age, nine months' experience in teaching). Such certificates are valid for as many years as the State board of examiners may specify. Domestic science is included among the elective subjects in examinations for elementary certificates and professional certificates for teachers.

Ohio.—Special domestic science certificates are granted to graduates of any approved normal school, teachers' college, college, or university who have a minimum of two years' academic or professional training beyond the high school.

Oklahoma.—Special certificates to teach or supervise in special subjects shall be issued by the State board of education to applicants presenting proof of graduation from departments of special work for which certificate is requested, provided such school and department be approved by the State board of education: *Provided further*, That such teacher is holder of State certificate of at least the grammar-school grade.

First-grade, second-grade, and third-grade teachers' certificates all require an examination in domestic science.

Oregon.—Upon the application of any board of directors the State superintendent of public instruction may at his discretion issue a certificate, without examination, to teach in a number of special subjects, including domestic science and domestic art. Before issuing the certificate the superintendent must receive satisfactory evidence of the applicant's fitness to teach the subject.

Pennsylvania.—The superintendent of public instruction shall provide for special examinations and for temporary or permanent certificates for teachers of special branches. He may grant temporary or permanent certificates for teaching special subjects to graduates of approved special schools, under such conditions as he shall make.

The qualifications of special teachers of household arts in the household-arts schools and departments authorized by the act of 1913 are stated by the State department of public instruction, as follows: The director must "have a training equivalent to that received in a household-arts course of a recognized college or a school which gives at least a two years' course in household arts. She should have a certificate which enumerates the subjects she is required to teach." "The practical household-arts teacher will be approved as to qualifications when the following conditions are fulfilled: She should have a certificate which entitles her to teach household-arts subjects; a training equivalent to that received in a two years' course in general household arts in a rec-

ognized school; at least three years' experience in practical housekeeping." "The fact that a teacher holds a certificate enumerating household-arts subjects does not necessarily mean that her instruction will be approved."

Rhode Island.—Special certificates are granted by the State, for which evidence of training is accepted.

Tennessee.—High-school teachers are certificated according to departments. "Home economics" forms one department, and for it examinations are required in spelling, English grammar, cookery, sewing, and sanitation.

Texas.—Cities and towns with 500 or more school population have boards of examiners, and any one of such cities, "may, at the discretion of the superintendent of the city schools, employ a teacher of any special branch not included in the requirements for a State certificate without requiring an examination or a teacher's certificate."

Utah.—Requirements for high-school certificates in domestic science and art:

1. *Domestic science high-school diploma.*—An applicant for this diploma must fulfill all the requirements for a regular high-school diploma and must present college credit to the equivalent of three State credits for the following subjects which may be taken in the college course: Organic chemistry, physics, economics, physiology, art (this may be high-school art), and the college equivalent of at least four State credits in dietetics (two of these may be physiological chemistry or advanced physiology), house sanitation (two of these may be in bacteriology), and six State credits in food. This diploma entitles the holder to teach in any elementary or high school for life, provided the holder does not allow five consecutive years to elapse without following some educational pursuit.

1a. *Domestic art high-school diploma.*—Same as above, except that botany shall be included or may be substituted for physics, sewing for food, and textiles for dietetics.

2. *Temporary domestic science or art diploma.*—This diploma may be granted to a teacher who presents all the qualifications of 1 or 1a except the teaching requirements.

In the elementary school the regular certificate is required.

Vermont.—Special certificates may be issued by the superintendent of education, without examination, to a teacher of successful experience in teaching and previous certification in first or second grade or of special training for teaching. Such certificate shall be a license to teach special high-school subjects—e. g., industrial arts and sciences. Such certificates are valid for five or two years, according to the grade of certificate previously held; in the case of special training, the grade of such certificate is to be determined by the superintendent.

Virginia.—A special certificate may be granted to teachers engaged in department work or in special subjects, as manual training and domestic science; valid for five years. The candidate must pass first-grade examination, provided that the examiner may make exceptions for special certificates in music, drawing, and domestic science.

Washington.—Special certificates shall be issued by the county superintendent or the city superintendent in any city to applicants who show by examination or otherwise satisfactory evidence of fitness to teach special subjects, such as * * * manual training, domestic science, etc. The special certificate shall be valid so long as the holder continues to teach in the city or county where granted, unless revoked.

Wisconsin.—The holder of a diploma from a manual training school or school of domestic science, upon the completion of a training course for teachers equivalent to the Wisconsin normal-school course, may present these facts, with evi-

dence of moral character and two years' teaching, to the State board of examiners, and, if recommended by the board, shall be entitled to a certificate from the State superintendent.

Persons completing the training course for teaching manual training and domestic science in Wisconsin normal schools are to be given a license for teaching manual training and domestic science for one year; after one year an unlimited State certificate will be granted.

Any city superintendent may issue certificates to teachers of special branches after such examination as may be provided by the school board and approved by the State superintendent.

Wyoming.—The State superintendent, on the recommendation of the State board of examiners, shall issue a special technical certificate, valid for four years, to teach technical subjects. The candidate shall pass an examination in the special branches he expects to teach, but a certificate may be granted without examination to a graduate of the University of Wyoming to teach subjects covered by his course of study.

Section 5. SUMMARY OF STATE PROVISIONS FOR EDUCATION FOR HOME, BY STATES.

This table summarizes some of the important points in the legislative provision for education for the home stated in the preceding sections; but, especially, it presents the returns of a schedule of inquiry sent to the State superintendents of education.

TABLE 1.—State provision for education for the home, by States.

[Entries made in columns below indicate the following: (Columns 2, 3, 4, 5) Is there State legislation authorizing the teaching of household subjects in public elementary schools (column 2)? In public high schools (column 3)? In industrial and vocational schools (column 4)? In rural schools (column 5)? Is instruction in any household subject required by law (column 6)? Is there legislation giving special State grants for education related to the home—in elementary schools (column 7)? In high schools (column 8)? Is continuation education in household arts authorized in evening schools or elsewhere for home women and for working girls and others (column 9)? Does the State issue a special license or certificate to teachers of household arts (column 10)? Entry of + indicates yes; 0 indicates no.]

| States | Is there State legislation authorizing teaching of household subjects in— | | | | | Is instruction in any household subject required by law? | State grants for education related to the home in— | | | Is continuation education in evening schools? | Does State issue special license to teachers of household arts? | General remarks |
|----------------------|---|----------------------|------------------------------------|----------------|---------------------|--|--|---------------------|---------------|---|---|---|
| | Public elementary schools? | Public high schools? | Industrial and vocational schools? | Rural schools? | Elementary schools? | | High schools? | Elementary schools? | High schools? | | | |
| Alabama | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Domestic science required in 9 district agricultural high schools; State aid. State aid, one-half; maximum, \$2,500, to designated high schools; similarly to normal schools. Domestic science in 4 district agricultural schools; State aid. Domestic science required in normal schools; special home economics in normal schools. State aid, one-half; maximum, \$50 per pupil for schools or courses in "trades, useful occupations, and avocations." Domestic science required in district agricultural high schools; State aid. Domestic science required in rural high schools. Special certificate issued by county superintendent. Domestic science required in grades, and may be in high schools; two-thirds aid to vocational schools and departments. Domestic science required in State-aided normal training high schools; in aided consolidated schools; domestic science required in public schools in 1915. Domestic science in State-aided normal training high schools; local tax for industrial training. |
| Arizona | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Arkansas | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| California | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Colorado | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Connecticut | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Delaware | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| District of Columbia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Florida | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Georgia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Idaho | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Illinois | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Indiana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Iowa | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Kansas | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Section 6. STATE SUPERVISION OF HOUSEHOLD-ARTS TEACHING IN SCHOOLS.

Special State supervision of household-arts teaching has been instituted in Illinois, Massachusetts, Wisconsin, Louisiana, Maine, and New York. In the States mentioned a woman expert in such work is employed. In Illinois she is a high-school inspector of household science in connection with the University of Illinois; in Louisiana she is a "State supervisor of home economics" in public schools, in connection with the department of agricultural extension at the State university; in Massachusetts a supervisor of the vocational classes in household arts, under the State board of education; in Wisconsin a State supervisor attached to the office of superintendent of public instruction; in Maine the director of home economics in the Farmington State Normal School is also State supervisor of home economics; and in New York a supervisor of home making was added to the staff of the vocation education division of the State education department in October, 1914. State supervision in a number of other States—New Jersey, Pennsylvania, Indiana, and New Mexico—is provided to some extent for household arts by the special State supervisor of industrial education, in connection with the new industrial education laws; and in at least two States, Minnesota and Tennessee, such supervision by the State high-school inspector is directed to the introduction of home economics. The provision of State supervision of household-arts teaching in the schools seems one essential point in its rapid and successful introduction; whether the necessity of such inspection will continue permanently is another question.¹

The Louisiana supervisor of home economics gives the following facts as to her work with the 60 public-school departments and the 4 normal-school departments:

The State gives \$500 aid to each school teaching home economics and requires two rooms well equipped. The same credit is given for the work in home economics as for any other line of work, and it may be substituted for Latin or geometry.

Every teacher of home economics is supposed to do some extension work either in the town or in the nearby country. This extension work is in the form of clubs for the study of cooking or sewing, home nursing or sanitation, or anything connected with the home. Besides the mothers' organizations, the girls are organized into clubs for work in gardening and the preserving of garden products, and these are under the direction of the home economics teachers. Many of the schools are working out a plan for noon luncheons.

There are several interesting experiments under way. One is to have a model home for the principal and his wife, and have this used as a "show" house for the people of the community. Another is the making of a home economics

¹ Those interested in State inspection might well secure information as to the methods employed by the provincial inspector of household science, education department of Ontario, Toronto, and should also consult the reports of the "women inspectors" of the English board of education.

center department along the lines of a regular home, having a bedroom, dining room, kitchen, and bathroom, to be used as a laboratory for the classes. We have 10 baby outfits that we are using for a traveling exhibit. We send one of these outfits to a rural school where there is no department of home economics and leave it there long enough for the teacher to use it as a model for an outfit to be made by the girls for that school. Then we try to induce them to buy a doll, regular baby size, and keep it in the school, letting it be brought home as a reward for home work well done. We hope to be able to do much with this exhibit. We have a number of the little one-room rural schoolhouses around the State that have been abandoned and the district consolidated. In some cases these have been made into charming little domestic-science departments or centers.

Miss Emma A. Conley, State inspector of domestic science for Wisconsin, writing of her work, says:

We have 150 high schools where this work is given, and so this past year an inspector of domestic science was appointed whose duty it is to inspect rooms, equipment, work, pass on the course of study, the teaching ability of the teacher, the standard of work required and maintained in schools, to consult with school boards when they desire to add domestic science to the course, to give talks on the subject whenever her services are required, and to organize the work and put it on a fairly uniform basis. In addition, to the high-school work, State aid is now given for cooking and sewing work in the two or three room graded country school, if the work is up to standard.

Certain definite requirements are fulfilled for State aid and for credit as a high-school subject so that it may count toward graduation, and be equivalent to other high-school work. These requirements are: Equipment adequate; rooms adequate for needs; course of study planned in detail and approved by the State superintendent; legally qualified teacher; inspection by State inspector of domestic science; and work of teacher must be satisfactory.

The aim is to have the work so well planned in every high school that the girl taking the work will be prepared to take complete charge of a home. This means improving the course of study by providing less actual cooking, and more study of the place of foods in the diet, and by strengthening the work in household management, hygiene, sanitation, and care of infants.

Mrs. Eva W. White, formerly agent of the Massachusetts State Board of Education in supervising vocational classes in household arts, writes as follows:

I believe strongly in State supervision for the purpose of standardizing work in a State and of bringing to the various communities the accumulated knowledge which it is possible for agents of a State board of education to gain.

I do not believe, however, in any form of State supervision which drives communities to the working out of particular methods or adopting particular courses of study. I believe in State supervision which stimulates and which throws on the local communities the full responsibility for initiative and for the development of their schools.

I believe that State money should be expended in the line of experiment or in order to help communities carry on types of schools where the need is clearly evident, but where the expense of maintenance, as gauged by the tax rate, is too great for a community to assume. Such State subsidy and State supervision, in order to justify this subsidy, is allowable because of the general good in the life of the State.

I believe that a State supervisor should continually keep in touch with the communities through personal visits, through correspondence, through meetings organized in the various localities, and through teachers' meetings. The State requirements, however, should be worked out on the basis of mutual cooperation. The State supervisor should not be a censor.

Section 7. SUMMARY: A STATE PROGRAM OF EDUCATION FOR THE HOME.

There is presented herewith, in summary, a brief statement of points comprising a State program of education for the home as they may, with advantage, be expressed in its school legislation.

1. A requirement that household arts be taught in every elementary school, city and rural.

2. State supervision of household-arts education by an expert inspector, preferably an assistant attached to the office of the State superintendent of schools, who can give direction to the development of a progressive program.

3. Home economics included as a part of the normal-school preparation of every grade teacher and as a part of the course in all training classes for teachers, city and rural, so that household-arts teaching may be included in the grade work of the regular teacher.

4. A certificate for special teachers of household arts requiring not less than two years of professional training beyond the high school, and for supervisory teachers a three-year or, preferably, a full four-year course.

5. A State grant toward the salary of special teachers of household arts and supervisors of household arts—that is, of teachers with the specified preparation who devote full time to household teaching.

6. A system of supervision of household-arts teaching in rural schools, through a visiting teacher who gives special instruction and who aids the regular teacher in this special field (see Baltimore County plan, p. 48); by a system of consolidation of rural schools; or by the Minnesota system of associating rural schools with a central school.

7. In secondary education encouragement of household science teaching in all public high schools; first by State grants toward teacher's salary, and ultimately by a requirement that the subject be offered at least as an elective.

8. The recognition of household arts and homemaking in the new program of vocational education by giving these subjects a place coordinate with training for industry, commerce, and agriculture.

9. Prevocational classes of the seventh and eighth grades in household arts and in other fields to hold pupils who now leave school—but not to encroach on fundamental education of a general character.

10. On the secondary level, distinct vocational training in household arts and in other fields—by day schools, by part-time continu-

ation schools at daytime hours, or by evening classes to be done away with as soon as the part-time continuation school at daytime hours can be introduced. This vocational training will be given in special schools such as are illustrated by the county schools of agriculture and domestic economy in Wisconsin and elsewhere (p. 55), the Garland School of Home Making in Boston (p. 148), and the distinctly vocational courses in household arts in public high schools (p. 93); but especially will practical vocational training be given in continuation classes in household arts and home making, in connection with the public schools, to reach three definite groups: (a) the housewife, home maker, and young woman living at home; (b) the wage-earning houseworker or "servant"; and (c) the wage-earning young woman in other employments who desire to improve her skill in home making; these classes will treat unit subjects, will meet at daytime hours, and for the wage earner will provide opportunity for such study on the employer's time (see p. 113).

11. Higher institutions, normal schools, technical institutes, and colleges will provide vocational instruction upon a higher level.

12. The program of extension education to reach the homemakers of the present generation to be carried out both in city and country. In the city this involves lectures, day and evening classes under the public schools, and instruction by settlements, philanthropic societies, churches, and other agencies through classes, visiting housekeepers, home schools, or model flats, and other means. In the country the prime need is for movable schools of homemaking, and visiting advisory teachers of housekeeping, whose work as consultants may be developed in connection with the farm demonstration work in agriculture. Meanwhile women's institutes, homemaking clubs, correspondence courses, housewives' bulletins, and similar agencies are utilized increasingly by agricultural colleges and local schools to reach the rural home.

II. THE RURAL SCHOOL AND EDUCATION FOR THE HOME.

The problem of rural home betterment has been approached through many popular educational agencies, such as the grange, institutes for farm women, and the visiting household teachers whose work will be organized with that of county agricultural experts (see p. 159); through systems of extension education for the home radiating from the State colleges and universities; and, most hopefully of all, through the enlistment of rural schools in the home education movement.¹

Section 1. THE RURAL DISTRICT SCHOOL.

At first thought the rural district school seems impregnable against any such reform as the teaching of household arts. There is but one teacher; she must teach all the grades, which means 20 or 30 classes a day. Not only is there no money for equipment, but no room for it if it were purchased; and the patrons "know how to cook." Yet, in the face of graver difficulties than those cited, wide-awake rural teachers are experimenting and securing the cooperation of patrons in adding to general education a vocational interest in agriculture for boys and rural homemaking for girls.

It is particularly important to recognize that the rural district school, especially the consolidated school, is becoming a community center in much the same way that the urban school is. Teachers in rural schools are organizing women's clubs, mothers' organizations, country-life associations of men and women, and these in turn are furnishing leadership in the better-living movement of the country.

There will be cited here certain pieces of pioneer work.

Rural schools of Baltimore County.—Miss Letitia E. Weer, supervisor of home economics in Baltimore County, Md., public schools, furnishes the following statement regarding the teaching of home economics under her direction:

Rural school work in home economics was begun in 1912-13, and while there is the usual difficulty in not having trained teachers responsible for the work, much progress has been made. The policy is to furnish rural teachers with

¹ Those interested in the rural-school problem should note also discussions elsewhere of (a) the State aid now generously given in many States for the introduction of education for agriculture and home arts into rural schools (p. 9); (b) the training of teachers who go into rural schools so that they will be competent to teach elementary home economics (p. 125); see also the rural extension work of colleges in Part III of this report.



J. ABANDONED DISTRICT SCHOOLHOUSE USED AS A DOMESTIC SCIENCE CENTER IN LOUISIANA.



R. MODEL HOUSEKEEPING FLAT, ASSOCIATION OF HOUSEKEEPING CENTERS, NEW YORK, N. Y.

outline lessons on various subjects, such as fire, water, various food materials and cooking processes, dish washing, house cleaning, and other problems in the household.

The instruction extends from the sixth grade through the fourth year of high school, and is a recognized part of the course of study. This includes cooking and sewing in the elementary schools and advanced work in the secondary schools. Baltimore County surrounds Baltimore City, and has three distinct types of schools—those with city conditions, the suburban, and the rural schools. The first and second groups are reached by special teachers who visit the schools, remaining varying lengths of time, according to the number of classes to be taught. The rural-school group has been and still is the most difficult one, for so much depends upon the school-teacher. We are trying to solve the problem in Baltimore County in two ways; first, schools situated within reasonable distance of a school having an equipped room send their pupils to that center by trolley, railroad, or team. Classes are planned so that several visiting schools may come at noon and remain through the afternoon, thus having cooking one and one-half hours and sewing one hour, under the instruction of the special teacher.

The situation in isolated rural schools makes this plan impossible, so we are using another method. A home economics club is formed in the school. A very simple, portable equipment is installed for the use of the club members, and the work is carried on under close supervision. In one case the teacher of the school gives the lessons to the girls; in another, women of the neighborhood. The latter development came about in this way:

At an afternoon meeting of the patrons' club, in which there had been thorough discussion of the problems of the home economics club, it was suggested by the chairman that different women assume certain lessons, each selecting her specialty. The suggestion met with a ready response, and the list of lessons and method of procedure were worked out.

It is understood that whether the class is taught by the teacher or by the patrons the outline for the work will be carefully followed. Definite instruction material is furnished by the supervisor of home economics to the principal of the school. This includes recipes, methods, explanation, and emphasis of important points of the lesson, together with a set of questions which review the lesson in detail. Each student has her special home economics blank book, in which all work must be written in ink. This book must always be ready for the inspection of the supervisor. The teacher is responsible for all of this part of the work. The Elements of the Theory and Practice of Cookery and Farmers' Bulletins of the United States Department of Agriculture are used as references.

The recipe to be used is followed by the instructor, whether teacher or patron. Interesting results that have followed are the closer cooperation of patrons and school and the introduction of daily hot lunches prepared by the girls of the club (most of the material donated by the patrons).

The sewing in the rural schools is a regular part of the grade work under the supervisor of home economics. Group meetings are held regularly and classes frequently visited.

Toward the end of the year an exhibit from all the schools furnishes an opportunity for competition and has proved an efficient way to arouse interest and cooperation.

An experimental rural school—Winthrop College.—Experimental work in developing a curriculum in household arts for rural schools has been under way at the rural school of Winthrop College, South

Carolina, in the last few years in the experimental rural school located on the campus. The children have prepared one hot dish each day for their noon recess and have either contributed 2 cents a day for the expense or have brought materials from home, as suggested by the teacher, the majority bringing food. A systematic study of food principles and food composition was begun last year with two or three lessons a week, one hour in length. The school garden contributes to the school table. Cooperation with the home is sought, and the parents are asked to allow the children to repeat the cooking lessons at home. The cooking lessons furnish subject matter for number work, spelling, and written work. The boys participate in the lessons. Seasonal lessons, as for Halloween, Thanksgiving, etc., are introduced.

Model rural school—Hays Kansas Normal.—The model rural district school of the Western State Normal School of Kansas follows the regular State course of study, but emphasizes things usually neglected in rural schools—music, drawing and color work, woodwork with knife, sewing, elementary agriculture, and other occupations. The work in household arts is described by the teacher, Miss Julia M. Stone, as follows:

Our attempts are modest; we aim to include about such work as might be given in the ordinary first sewing course in any standard school. This is hand sewing entirely. It includes instruction in implements and materials used; the different basting and sewing stitches, and their uses; different kinds of seams, hems, etc., and their application; overcasting, overhanding, patching, darning, buttonholing; sewing on buttons and hooks and eyes; matching and joining of lace and embroidery; gathering, tucking, putting on bands, plackets, etc. This is done first in the form of small models and later applied in the making of garments. Our school has a doll for which the lower grades make articles of clothing, because these can be finished before the task becomes irksome, and yet they may include every exercise that would be found in a large garment. The older pupils also make simple garments or fancy articles for themselves. Some attempt is made also to teach good taste in color combinations and decoration. All grades from the third up take the work, but as it can be given only once or twice a week, progress is not very rapid. All enjoy it very much, however. Cookery is given from the fifth grade up to both boys and girls, once a week.

Field work in rural schools.—Certain normal schools and colleges which fit for teaching, particularly rural teaching, have made special efforts to acquaint the intending teacher with rural conditions. The State Normal School at Harrisonburg, Va., has successfully used rural schools for observation and practice teaching under supervision by the normal school faculty, and the work in household arts has been especially successful (p. 122).

The department of domestic science of the University of West Virginia has been experimenting with practice work in rural centers by college students. Last year a sewing class was held in schools

and this year the department is planning a course of 30 lessons to show what can be done by a teacher in a rural school who has limited training in home economics.

The department of home economics at Cornell University is beginning to give assistance to rural schools in the vicinity of the university through its extension class. This class is composed of young women, mostly seniors, who are preparing to teach. The school constitutes a laboratory for the class. A lesson in cocoa making, egg cooking, making white sauce, bread making, or table setting and serving, is given at each visit to a rural school. Members of the class, cooperating with the rural school-teacher, drive to the school, carrying with them an oil or alcohol stove, necessary utensils, and supplies for a simple lesson. One student demonstrates the making and baking of bread, another develops the geography lesson from the growing and marketing of wheat, another develops the arithmetic lesson from the recipe for making the bread. The nutritive value of the food is explained in simple terms. This work has led to prize bread-making contests in rural schools.

State courses of study.—The Missouri State Course for Rural Graded Schools, 1911, recommends that sewing, while not required, be made part of the elementary curriculum. The general direction given is: "Do not try too many articles; excellence of work and some technical skill are more to be desired." It is suggested that children bring materials from home and receive instruction in the various stitches and in applications, such as: Sewing bags, tea towels, and even children's clothing. Mending, darning, pressing, brushing, and storing clothing; use of gasoline, chalk, and acids in removing stains; and laundering are also suggested as topics. For cooking one period of 75 to 90 minutes a week may be secured by closing school at 3.15 or 3.30 on cooking days.

The South Dakota course of study for elementary schools recommends dividing the girls in rural schools into two groups, those under 12 and those over 12, for work in household arts; and that clubs of girls be organized to work at home Saturdays.

The Illinois course of study, 1912, recommends that household arts be taught under "General exercises" in fifth, sixth, seventh, and eighth years. A course in sewing is outlined for the fifth and sixth years, and a course in cooking for the seventh and eighth years. It is recommended that two periods of 75 minutes each be given to this work each month, using time after recess in the afternoon of the first and third Fridays of each month.

Supplementary farm industries should form an element in courses of home economics for rural schools. Thus the Ohio "Course of Study for Agriculture in Elementary Schools" suggests such matters

as "garden, poultry, lawn, dairy, apiary, and birds," as well as, under domestic science—

homemaking and housekeeping, cooking, bread making, and all baking, sewing, house decorating, butter making, the health of the home, and the farm premises, buying, selling, home economics, home sociology, nursing, accounts, care of house, and prevention of sickness, laundering, recipes.

The possibility of simple beginnings in household arts in rural schools is well put in the Teachers' Manual for the Elementary Schools of South Carolina (1911), as follows:

One of the most important services a teacher can render is to stimulate the natural impulses of the girls in her school toward the improvement of the home. Perhaps not many schools at present can introduce a course in cooking. It can be more easily done than the teacher will imagine. If the teacher has the workroom, a cook stove and a few necessary utensils can be gathered at the schoolhouse. This, however, is not necessary. Excellent work has been done by teachers who have simply organized "homemakers' clubs" among the larger girls and have encouraged them to meet at their own homes and follow out the suggestions of the teacher or the directions which have come from the supervisor of the State.

County courses of study.—Some county superintendents of schools are carrying on an active program for the introduction of household arts in rural and town schools. The county superintendent of Christian County, Ill., drew up in 1908 a 20-page outline of lessons in household arts for instruction in the seventh grade, which has since been enlarged and made the basis of valuable work. "The boys are expected to study the theory of foods and nutrition, while the girls will be expected to try the recipes at the school if possible; if not, then at home." Outlines have been printed by some progressive district schools; thus District 75, of Cook County, Ill., prints a 2-page circular outlining manual training for boys and domestic arts for girls.

Household arts in teachers' institutes.—It is noteworthy that in agricultural extension a definite effort is made to get farmers' institute speakers on better farming methods before teachers' institutes, and thus aid in introducing some informal teaching of agriculture into rural and village schools. Education for the home must follow the same clue by introducing household-arts teaching into the teachers' institutes, as has been done in the Tennessee institutes.

Section 2. THE WARM LUNCH AND FOOD TEACHING IN THE RURAL SCHOOL.

A practical way to introduce some simple cooking instruction into rural schools is for the teacher to arrange for a hot dish cooked by some one student or a committee supplemental to the cold lunches brought from home. This method, early urged by Ellen H. Richards

in a pamphlet on "Rural School Lunches," has been widely adopted.¹ The Cheney (Wash.) Normal School has taken a strategic step by providing special instruction for all prospective students desiring it in the preparation of the supplementary warm dish at school for children who bring a lunch basket.

For the demonstration of this problem a department has been installed in which students will be given an opportunity to observe and also to assist in the daily preparation and serving of one warm food to 50 children. The success of the work has aroused so much interest and enthusiasm that the department has been enlarged, and is now prepared to send out teachers well equipped for the economical and efficient introduction of the hot noon lunch.

The State department of public instruction of Nebraska, in a circular of August, 1913, on agricultural training, urges that for the rural schools a weekly 75-minute lesson in sewing be provided, and that the daily hot lunch be made a means of teaching some domestic science.

The cooking that can be done will be in the nature of some warm dish prepared for the noon meal. This dish may be potatoes, soup, or some kind of meat. A certain pupil may be given the work for the day, and this can be so alternated that all of the larger girls will have an opportunity at this work.

Equipment for rural school lunches.—The University of Idaho, in a recent bulletin on school lunches, recommends a list of equipment costing \$17.81, which includes a kerosene stove and oven costing \$11. and a kitchen table costing \$1.95. This table is ingeniously made into a kitchen cabinet by inclosing the space below the table and between the legs with a cracker box painted white. The other items recommended are: Kettle, 70 cents; saucepan, 20 cents; two muffin pans, 70 cents; bowl strainer, 25 cents; egg beater, 35 cents; pot scraper, 10 cents; iron basting spoon, 10 cents; tin measuring cup, 10 cents; two dredge boxes, 10 cents; No. 7 frying pan, 35 cents; rinsing pan, 25 cents; 10 by 15 drip pan, 25 cents; butcher knife, 60 cents; kitchen knife, 35 cents; iron-handle knife and fork, 15 cents; 3 teaspoons, 6 cents; quart measure, 15 cents; potato masher, 10 cents. In addition, each child is to have individual equipment of a soup bowl, cup, plate, spoon, knife, fork, and paper napkins. Similar publications on equipment for rural school lunches have been issued by the State College of Colorado, the State College of Iowa, and other institutions.

The problem of equipment for cooking in a 1-room school has been solved at Fruitville, Mo., by pitching a 12 by 14 tent across the platform in front of the schoolhouse and arranging it as a real kitchen, with stove, table, cupboard, and the equipment of the usual farm kitchen. Fire is laid before school and started at recess. At

¹ Whitcomb and Barrows, Boston, 15 cents. See, also, "The rural school warm lunch." Mary L. Bull. *Journal of Home Economics*, 4 (1912), p. 477.

11.40 the children responsible for that day's menu go to the kitchen, while the teacher discusses with the rest the cooking lesson for next day. At 12.20 lunch is served. In the early fall canning of fruits and vegetables, to be used for lunches later in the year, is undertaken; a little later nuts are studied, and in the butchering season meats form the material of instruction. Thus the lessons grow directly out of the things that are at hand.¹

Section 3. THE CONSOLIDATED SCHOOL AND HOUSEHOLD ARTS TEACHING.

The consolidation of rural district schools into a stronger centralized school means, among other items of progress, the possibility of teaching home science to girls and agriculture to boys, not as an incident in the work of the general teacher, but by the trained service of a specialist. The Minnesota law, for example, regarding consolidated schools sets the same standards for teachers as in villages and cities, and requires instruction in agriculture, manual training, sewing, and cooking in every consolidated school that receives State aid. State aid is given not alone for maintenance of instruction, but also for the provision of an adequate building and equipment which must meet standards set by the State. Minnesota adopted a more generous plan of aid to consolidations in 1911, and in the two following years over 600 consolidations took place. The progress toward consolidation in other States is also emphasizing household arts teaching.

In the home-economics course in the Minnesota consolidated schools, industrial education is to begin in the seventh grade, and is to be given for not over 200 minutes a week. Cooking is planned for five 40-minute periods a week for one year, one period for theoretical work and two double periods for practice; sewing is outlined for 160 minutes a week for two years; textiles for 40 minutes a week for one-half year; laundering for 40 minutes a week for a half year, with instruction and demonstration; personal and home hygiene, 40 minutes per week for a year.

Section 4. SPECIAL AGRICULTURAL SCHOOLS AND EDUCATION FOR THE HOME.

Many of the States have established special secondary schools of agriculture, and practically without exception home education for girls has been provided parallel to agriculture teaching for boys. The establishment of such schools may be by county action, as in Wisconsin or Mississippi, or by direct State action, as in New York, where several schools have been located in different parts of the State.

¹ Miss Helen Swift, Fruitville, Mo., in Missouri State Board of Agriculture Bulletin, March, 1913.

In Georgia, Alabama, and Oklahoma special schools have been established in the congressional districts; in Arkansas four district schools have been established; and in Virginia a special State grant has been made to one high school in each congressional district. This type of school makes possible a more thoroughgoing kind of vocational training in homemaking than high schools can usually provide. Another important consideration is that most of these special agricultural schools provide dormitory life for their students, and this is usually utilized as an element in the home-training course. Details of typical schools are given.

County schools of agriculture and domestic economy, Wisconsin.—Seven county schools of agriculture and domestic economy have been established in Wisconsin under the law of 1901. One of the recent establishments, the Milwaukee County School, at Wauwatosa, may be described to illustrate what these schools are doing in domestic economy. It gives instruction in farming, homemaking, and community welfare to boys and girls who have finished the common schools, offering three-year curricula in agriculture and in domestic economy. In addition, the school undertakes considerable extension work in both fields. The domestic-economy department offers 29 different courses in cookery, dietetics, homemaking, foods, home nursing, laundry, household management, design, sewing, dressmaking, millinery, textiles, household chemistry, and bacteriology, which are combined with academic work in English, mathematics, and rural welfare, and with courses in agriculture of interest to women. High-school graduates can complete the course in two years.

The school is located on a farm of 236 acres, a mile and a half from Wauwatosa, accessible to day students as well as to boarding students. A residence hall provides room and board. The plant includes buildings for horticulture, dairy farming, mechanics, poultry, etc. The second floor of the administration building is devoted to domestic economy, with a sewing laboratory, food laboratory, and a practice home consisting of a suite of rooms.

The school maintains an annual conference on rural and suburban life, and a summer session called the "Out-of-doors farm school for boys and girls." This summer session—six weeks in length—is intended for boys and girls between 14 and 17 years of age, "and offers exceptional opportunities to the boys and girls of the city to spend part of their vacation in recreation and study along lines of work which would not be available within the city." Opportunities for camp life are provided the boys, and the dormitory is used for the girls.

The domestic-economy department has undertaken extension work in the organization of women's domestic clubs; the organization of

the first club was prepared for by a house-to-house canvass of 75 homes.

What is done at Wauwatosa illustrates sufficiently the work of the six other county schools of agriculture and domestic economy of Wisconsin.¹

Virginia has provided that in at least one high school in each congressional district agriculture, domestic science and art, and manual training shall be taught, State aid being given for these courses. The Manassas (Va.) Agricultural High School is one of these schools. It offers a two-year course in domestic science, including in its food study the serving of dinners for the monthly farmers' institutes which meet at the school. This institute includes a woman's auxiliary for home-economics discussions. Other extension work includes club work, lectures, and demonstrations, expert advice, and aid to rural schools in agriculture and domestic science teaching. Besides the agricultural, domestic-science, and manual-training courses, the school maintains a college-preparatory course and a normal-training course. The latter includes domestic science.

County agricultural high schools of Mississippi.—Any county school board in Mississippi may establish an agricultural high school. This school must employ a skilled agriculturist as a teacher, and must also have a teacher of home science. Twenty-seven of these schools were recently recorded as in operation and eight more in construction, with 3,000 pupils in attendance, of whom 1,600 were boarding pupils. Over 900 of the pupils are reported as working part of their way through school, and 200 of these are entirely self-supporting. After the first year board is estimated to cost \$6 a month and dormitory expenses \$4 to \$5 a month per pupil.

The course of study drawn up for the schools includes 4 units of agriculture for boys and 4 units of home science for girls, 4 units of English, 2½ units of history, 2 units of mathematics—a total of 12½ units required. A minimum of 3½ units of elective work in addition is necessary for graduation.

The course of study in home science includes cooking, serving and etiquette, sewing, millinery, home care of the sick, feeding of invalids and infants, laundering, dietetics, house planning and decoration, gardening and floriculture, poultry raising and marketing, preserving and canning, sanitation and hygiene, study of texture, manufacture, cost, and durability of fabrics, household management, and keeping of accounts.

The schools are expected to undertake extension work for the improvement of agriculture and country life. The development of teacher training departments is contemplated.

¹ See, also, "County schools of agriculture and home economics in Wisconsin," A. A. Johnson, U. S. Department of Agriculture, Experiment Stations Bulletin 242.

Jamestown Farm-Life School, North Carolina.—Domestic science was introduced into the Jamestown State High School, Jamestown, N. C., in 1911. By special act of the general assembly of that year there was established a farm-life school, receiving State aid, with the object of giving the boys and girls of the country a new vision of the social and economic possibilities of rural life.

In choosing their course of study the girls are allowed to take either Latin or home economics; the boys take either Latin or agriculture. This arrangement applies to the four years of high school. Some pupils of exceptional ability and energy carry both subjects.

The work in home economics at present embraces the general subjects of cooking and sewing, with additional topics, such as invalid cookery, home nursing, house decorating, and first aid to the injured. The second-year class was required last year to make a miniature house on paper, showing the color scheme, arrangement of furniture, and the general plan and furnishings. The chief consideration is to give the girls things that will be of practical value to them at home or in their future work. The third-year class made their commencement dresses. The method pursued in the conduct of the classes is to have recitations based on the text two days in the week, experiments one day, and a double period for laboratory work one day. The teacher in domestic science is employed for her entire time, the idea being that some form of extension work shall be carried out during the year. The tomato-club work for girls has been the chief channel through which this side of the work has been developed so far, but a special effort has recently been put forth to interest the adult women of the community. Some mothers' meetings have been held, at which such everyday topics as arrangement of the kitchen, feeding the baby, making bread, etc., are discussed. The response to the call of these meetings has been encouraging. While this work is only in its infancy, results are already seen which promise greater usefulness in the future. The course seems to be meeting the need of instruction adapted to southern rural conditions.

The California Polytechnic School, San Luis Obispo, is a State vocational school of high-school rank for both boys and girls. It offers three principal lines of instruction—agriculture, mechanics, and household arts. The polytechnic school has recently extended its course to four years in length. In household arts the following courses are offered: General science, domestic science, dietetics and nutrition, home economics and sanitation, plain sewing, dressmaking and millinery, advanced dressmaking, home gardening, drawing and design (four courses). In the household arts curriculum, mathematics, physiology, English, chemistry, physics, botany, general history, and United States history are required in addition to the courses stated.

Section 5. BOYS' AND GIRLS' CLUBS AND HOME IMPROVEMENT THROUGH THE RURAL SCHOOLS.

Popular education for the rural home has found an important agency in the clubs of boys and of girls formed, usually in connection with the rural schools, to carry on some contest, such as in corn raising, bread baking, tomato canning, sewing, gardening, etc., one result of which has been the learning of some useful process and the acquiring of a skill that can be employed sometimes for remuneration, sometimes in producing products for immediate consumption in the family. The new earning power makes possible a better home; the new skill, if it is in the household arts, itself means better house-keeping. The club work has usually been initiated by the State college, State department of education, or the United States Department of Agriculture.

The first State-wide movement was in New York in 1898, beginning in nature-study lessons sent out to the schools by Cornell University; and since developing into corn growing and other agricultural interests and contests in sewing and bread making for girls. In 1910 the Cornell farm boys' and girls' clubs had a membership of 75,000. The Nebraska clubs were organized by the State department of education in 1905, and the department of domestic science of the State University cooperated with the girls' work. In Ohio the extension department of the State university organized clubs; in Illinois the county superintendents of schools and the farmers' institutes initiated the work. Certain Iowa counties and Southern States, notably Texas (1903) and Georgia, were early organizers of clubs, while the United States Department of Agriculture through its farm demonstration work has in the last few years extended corn clubs for boys and, since 1910, tomato-canning clubs for girls throughout most of the States. In 1910 partial figures showed 28 States, with 2,132 counties, reporting that 395 counties had organized for club work with 144,170 members in the clubs. Ten of the States then utilized household arts in club plans.

The clubs have often been connected with the rural schools, and such an organization promises best for wise direction and permanence. The contest feature in the clubs and the exhibiting of products at school, local, county, and State fairs have undoubtedly greatly stimulated the movement. The wise direction which the State departments of education, the State universities and normal schools are giving the movement, and similar help from county superintendents of schools, may be trusted to make of it an educational agency and not a mere means of income seeking. In Idaho, for example, the State superintendent of public instruction, with the cooperation of the State university in preparing home economics bulletins, and of county school superintendents in effecting local organi-

zation, has since 1912 secured the organization of over 500 clubs with a membership of over 5,500. In Nodaway County, Mo., the county agricultural and domestic science association, an organization in which teachers take an active part, established contests in 1908 and furnishes score cards and rules for school contests in bread, cakes, canned goods, shirt waists, aprons, dolls, etc.

The Kansas home economics clubs of the Kansas State Agricultural College were organized in 1911 as one method of reaching girls from 10 to 29 years of age throughout the State who do not have the opportunity for such training in schools. The clubs are organized in two grades, junior clubs for girls from 10 to 14, and regular clubs for girls 14 to 20 years of age. The organization is intended to reach any groups, in schools or out, in industry or at home, in town or country. The local club organizes with a housekeeper or teacher as leader; the teacher, it is suggested, may have the club meet at noon, or after school, or on Saturday, or some housekeeper may conduct a club at her own home. The basis of cooperation with the State college requires such a leader, a regular time and place of meeting for the club, and a weekly report to the extension department of the college. A constitution is adopted, which states the object of the club "to promote the interests of the home." The college furnishes printed lesson sheets, a copy for each lesson, to the individual club member. Two lines of work are offered, cooking and sewing; in sewing, two courses each of 20 lessons are offered—hand sewing, drafting, and making undergarments; in cookery, three courses are offered, the first two covering the general field of foods, both theory and practice, while the third course is devoted to special subjects.

In high schools, two lessons per week of each course may be taken if the work is conducted by a regular teacher; in clubs, one lesson a week in any one course is usual, though two lessons may be allowed; college admission credit is not allowed for club work, but it may be considered for work given in high school under a competent teacher. A fee of \$2, \$2.50, or \$3 for each course, varying according to the size of the club, or \$1 for an individual taking the course, is paid to the college; local expenses for supplies and other necessities are met by membership fees. Suggestions as to simple equipment are furnished to the clubs—the provision at the school building of a range, gasoline, or oil stove; a table made of boards, saw horses, and necessary utensils; the use of the kitchen of the woman acting as leader; or even the home kitchens of the club members. It is suggested that clubs arrange exhibits of their work in sewing, or serve some of their cooked products to parents and friends; and that funds for the expenses of the club be obtained by sales of articles made in cookery.

At present there are 65 active clubs in Kansas with a membership of 700, and 3,000 girls have been reached by the organization. A good many clubs continue through the several courses, and through them many rural and other schools have been helped and regular departments have been installed in many high schools. These clubs form one of four methods employed by the Kansas college to reach nonresident students, the others being the correspondence courses in cooking and sewing, movable schools in cooking and sewing, and special courses in home economics for women's clubs already organized. (See p. 97.)

Exhibits of club work.—It has become customary to arrange exhibits of the results of club work at local, county, and State fairs as a means of increasing interest. Often such exhibits are held first in each district school; then winning exhibits are sent to county contests, and county winners to State contests. In some instances instruction is provided in connection with the exhibits, and so a school of domestic economy may be maintained during the exhibition. A striking instance of this is the Illinois State fair with its model house for domestic science instruction, provided at a cost of \$20,000, in which domestic science instruction is given during the fair. (For exhibits, see further, p. 174.)

III. THE ELEMENTARY SCHOOL AND EDUCATION FOR THE HOME.

This chapter presents, in the earlier sections, selected typical curricula to indicate the character of instruction in household arts given in the elementary school, and in the later sections statistical discussions of certain aspects of the elementary school situation based on returns from a schedule of inquiry sent to city schools.

Section 1. HOUSEHOLD ARTS IN LOWER ELEMENTARY GRADES—SPEYER SCHOOL OF TEACHERS COLLEGE.

One solution of the household-arts problem in the lower elementary grades is that of the Speyer School of Teachers College, Columbia University, in which a single combined subject of "industrial and fine arts" (household arts, industrial arts, manual training, and fine arts combined) is introduced in the first six grades, with appropriate units from each of these aspects and with no differentiation of work for boys and girls. In its organization the material groups itself about man's needs in six particulars—foods; shelter; clothing; records; utensils; tools, machines, and weapons.

The work under each is divided into subject matter and projects. Projects are illustrative of processes of manufacture. Their design involves a careful study of the principles of design, an examination of designs used to-day, and a study of the designs used by historic peoples. Processes of construction involve not only hand production but a study of power machinery, factory production, and transportation. The social aspects of the subject include studies of sources of material, markets, the conditions of laborers, and the relation of employers and laborers and of these to consumers. Excursions form an essential part of the work.

The advantages of the plan are these: A solution for the crowded curriculum by reducing art work and all manual work to a single unified subject, industrial and fine arts; a further simplification by providing uniform work for boys and girls; social gains by grounding the boys in some knowledge of the household, its arts and problems, and similarly by acquainting the girls with industrial materials, processes, and conditions; a consideration of the arts that is thoroughly and fundamentally humanistic, not technical and not voca-

¹ The Speyer School Curriculum, Teachers College, Columbia University, 1918, 179 pp., 50 cents.

tional save in the sense of awakening and developing interests and capacities, and thus providing a basis for later vocational choice.

For the seventh and eighth grades the work is differentiated to meet vocational needs of students, whether professional, industrial, household, or commercial—i. e., whether going on to higher professional training or planning to turn shortly into household, industrial, and commercial work. As to the work of the first six grades, a definite beginning in industrial and fine arts is made in the kindergarten to the extent of interpreting ideas and feelings through materials. In the first grade the work in social and industrial life constitutes the larger part of the year's work. There is no attempt to differentiate the several aspects; the unified life experience of the children in the basis. Topics considered are: The family—members; pleasures; activities; material needs, including food, clothing, and shelter. For example, as to food, the subject matter may include: "What we eat; how our needs are supplied; how mother preserves some kinds of fruit for winter use." There is practice in projects: Preserving of fruit for the day nursery; modeling fruits and vegetables from clay; making a fruit and vegetable stand of wood to represent grocer's display; brush work and paper cuttings of fruits and vegetables. Certain community activities related to the house are also studied.

In the second grade social and civic aspects rather than the industrial are emphasized; the problems of primitive people are considered in so far as they lead into the present; nature study, hygiene, and constructive activities are related to the study of social and industrial life.

The topics include:

In present-day life—A. Individual needs of food, clothing, and shelter related to nature study; for example, as to shelter: (1) Uses—protection from the weather, abode of the family group, protection for family property. (2) Kinds of homes—the house for one family, for several families, for many families; houses at the seaside and on the farm. (3) Materials used—wood, stone, bricks, cement, steel. (4) How we can help in our home—sweep, dust, set table, make beds, wash dishes. B. Community needs of city government for fire, police, health protection, etc. In primitive life—food of tree dwellers, early cave men, and later cave men; shelter, clothing, education.

The projects of the second grade include—

food, shelter, clothing, utensils, tools, sand-table projects; in shelter, for example, (1) making a simple house form with a frame of wood covered with burlap, containing a door and window, using celluloid for the window panes; the top or roof is left open; the parts are in panels and are easily folded; the wall of the schoolroom may be used as one side of the house. (2) Furniture for the house—table, chairs, buffet, bed, bureau, and bookcase, made in simple style of wood by screw construction; each piece is made by two or more children working together. (3) Housewifery, using the house and furniture made; (4) care of dining room—sweeping, dusting, setting table, washing dishes, laun-

ing linen; (b) care of bedroom—sweeping, dusting, making bed, laundering linen.

In the third grade the correlation of the unified-arts work is sought in the history, which deals with hunting, fishing, pastoral, agricultural, and commercial stages; and in the geography and nature study. The industrial and fine-arts work includes foods, shelter, clothing, records, utensils, and tools, machines, and weapons. Foods as outlined include:

Subject matter: (1) Milk and milk products related to study of pastoral people: food value of milk as compared with other foods; care of milk—questions of sanitation; butter—food value, process of making, action of rennet; thickening of milk—with flour, egg, rennet, starch; whey and curds. (2) Indian foods in connection with history; dried foods—pumpkin, apples, and meat; uses of corn—mush, meal, hominy, parched corn; corn dance of the Indians. (3) Storage of fruits and vegetables for the winter; Indian methods compared with ours; marketing in New York. (4) Hebrew food in connection with history—unleavened bread, lentils; cleanliness relative to meat. (5) Food products of the eastern Mediterranean region. Olives—olive oil, food value, use in salads. Oranges, dates, figs.

Projects of third grade: (1) Butter, cottage cheese, custard, junket. (2) Dried pumpkin, dried apples, corn meal by mortar and pestle (made and used); corn-meal mush, hominy, parched corn. (3) Unleavened bread, lentil soup. (4) Salad, orange jelly, stuffed dates.

Grade 4 repeats in the arts work much the same correlation; with history, in which the children study the Greeks and Romans as types of civilized society; with geography, activities of peoples in other lands. The general arts subjects remain the same. The topic of foods includes the following:

Subject matter: (1) Eggs—food value as compared with milk, meat, vegetables, etc.; methods of preparing eggs; cold storage; candling, etc.; use in preparing other foods, as thickening milk, lightening batters, etc. (2) Starch—food value; test for starch, method of cooking starch, uses of rice as a food, preparation of vegetables, serving with white sauce. Macaroni—food value, manufacture, preparation for use. (3) Fish—food value; methods of preserving, canning, drying, etc.; preparation for food; oysters, cod, salmon, mackerel, etc. (4) Cocoa and chocolate—source, manufacture, food value, preparation for use. (5) Serving a luncheon—to give first idea of balancing a meal by proper selection of food values.

Projects of fourth grade: (1) Boiled eggs, deviled. (2) Rice cooked with cheese, vegetables served with white sauce, baked potato, macaroni and cheese. (3) Oyster soup, chowder. (4) Cocoa. (5) A luncheon.

Grades 5 and 6 repeat the general correlation suggested. The arts work is suggested by the food topics of grade 6:

Subject matter: (1) Doughs and batters, methods of preparing. (2) Methods of lightening doughs—by air in egg or folded pastry; by baking powder; by soda and sour milk; by yeast. (3) Dietaries—organizing the food values of various products studied so as to give basis for planning meals with approximate balance. (4) Fermentation—summary of previous studies; causes—yeast and bacteria; evidences; favorable conditions; methods of prevention—steriliza-

tion in canning, pasteurization of milk; uses of sour milk; useful fermentations—butter, cheese, bread, and vinegar. (5) Economics of food—substitutes for meats in food value; comparative cost of milk, eggs, meat, and vegetables; cooking left-overs; buying in season; buying in quantities. (6) Colonial cookery—brown bread, baked beans, Indian pudding, pickles, corn bread, etc. Dutch luncheon. (7) Tea, coffee, and cocoa—food value, hygienic questions. (8) By-products of foods—candle dipping, candle molds, soap making.

Projects of fifth and sixth grades: (1) and (2) Cake. (3) Menus. (4) Canning. (5) Left-over dishes. (6) Dutch luncheon of the Colonial period. (7) Soap, candles.

In grades 7 and 8 the curriculum is differentiated. The household arts, which up to this point has been of a general informational character, industrially and socially cultural, now becomes technical and vocational, and is taken by the girls alone, while the boys take similar specialized work in industrial arts.

Section 2. UPPER-GRADE INDUSTRIAL COURSE—CHICAGO PUBLIC SCHOOLS.

An industrial course in household arts has been outlined for grades 6, 7, and 8 of the Chicago public schools, the intent being to emphasize the vocational aspects of household arts. The principals are authorized to substitute the industrial course for the regular course in these grades where the conditions make it appear advisable. Pupils who complete either the general or industrial course are admitted to high schools without prejudice.

The schedule for the industrial course provides 25 hours of instruction per week, of which 8½ hours are devoted to English, history, civics, mathematics, geography, and penmanship; 5½ hours to physical education, music, study, general use, and recesses; and 11½ hours to art, nature study, and industrial arts.

The industrial course in household arts is outlined as follows:

SIXTH GRADE.

Household science three times a week (two hours); the kitchen; method in kitchen arrangement; in dishwashing; the range, its care and control; the ice box, its structure and care; vegetables, their structure and value; cereals, at least four, with and without fruit; eggs, in at least five ways; milk and eggs in combination; butter making and comparison of butter with substitutes; milk, at least five ways of using as the principal ingredient; flour mixtures, batter and doughs; meat, structure and methods in cooking; beverages, cocoa, chocolate, coffee, tea.

Infant diet; the responsibility of citizens, including children, for the cleanliness and beauty of home yards, of alleys, and streets; the school premises as a center of influence; the inspection of milk, meats, fish, fruits, and other supplies.

Food storage in plants; experiments with plant foods; animal foods; simple experiments in digestion; amount of water in foodstuffs.

¹ Chicago Public Schools' Course of Study for Elementary Schools, 1912, pp. 85-87.

Sewing two times a week: Hand towel, sewing apron, sewing bag, pillow slip, crocheting (lace), knitting (lace), corset cover, damask hem, hemstitched collars, cuffs, and dolly. All pieces to be carefully laundered.

Study (and culture, if possible) of flax, hemp, and cotton. Study of wool, washing, carding, spinning, and weaving. Comparison of various fibers; testing with chemicals and microscope.

SEVENTH GRADE.

Household science, two times a week: Preservation of fruit; flour mixtures, general principles controlling them; specific and general rules; study and general understanding of leavens; experimentation with yeast; deep-fat frying; meats, experiments for understanding various conditions of solubility and coagulability of muscle juice; methods of cooking reviewed and practiced; judgment of fish, methods of cooking; soup stocks; salads, salad dressings; combinations of fruits and greens; desserts, economical puddings, and frozen desserts.

Laundry work: Washing and ironing towels, table linen, and simple garments; study of various bluing; making of soap; starching simple articles.

Housewifery: Sweeping, dusting, cleaning; care of linen, furs, and woollens; disinfection, prevention of vermin; emergency nursing, prompt aid in accidents; sickroom arrangement; personal and household hygiene; some understanding of municipal housekeeping.

Experimental study of bacteria, yeasts, and molds in relation to man's food and health; preservation of food by drying, heating, sweetening, pickling, and freezing; vinegar from elder, sour milk from sweet milk.

Simple experimental study of the effects of heat; expansion of liquids, gases, and solids; explanation of common applications; of the freezing and thawing of a vessel full of water, noting effects. Change of state; liquids from solids, melting; gases from liquids, evaporation; liquids from gases, condensation; solids from liquids, freezing; the study and explanation of common applications; making and using simple distillation apparatus; chemical changes illustrated in charring wood, bone, or food.

Sewing, three times a week: Machine practice, dish towels, gingham apron (salable), kimono dress or Russian blouse (4-year-old child, salable), night-dress, petticoat, gymnasium suit (salable), weaving.

Sewing, beginning with seventh week and continuing remainder of the year, three times a week, except for the spring millinery: Thin dresses; waists of various kinds and any garment in vogue possible to skill of pupils.

Embroidery.

Millinery, three times a week for six weeks and three times a week beginning middle of March; eight weeks.

EIGHTH GRADE.

Household science, once a week for whole year: Work in large quantities and training in waitress work; simple experimental studies of liquids—the tendency of liquids to seek their level, illustrated by water in communicating vessels and in water gauges on steam boilers; water pressure due to height of column; application in standpipes and water-tank systems; pressure transmitted through liquids; application in force pump, pumping stations, circulation of the blood in man and animals; simple hot-water circulation apparatus.

Arithmetic problems related to household arts.—In the outline of mathematics for the sixth to eighth grades of the industrial course

for the Chicago public schools there is included a list of arithmetic problems "to be considered as the necessity arises in actual industrial work, rather than taught in whole or in part as a preparation for the future."¹ The list suggests the type of correlated instruction which can be undertaken by the regular classroom teacher without the aid of special teachers. It is as follows:

Denominate numbers in avoirdupois, liquid, dry, and linear measure. New tables made for the capacities of spoons (table and tea), cup, and weight of same. Interchange of dry and liquid standards with their corresponding weights. Reduction of recipes from standard to enough for two or for the whole room. Inventories of the room with probable cost and consequent value. Computation of lesson costs per class, per individual. Wholesale and retail prices of material. Cost on the farm and at the store. Budget and apportionment. Wages and percentage of value of purchased articles. Comparison of cost of gas, oil, electricity. Reading of meters, gas and electric. Significance of a kilowatt hour. Percentage discount for prompt payment. Solutions—Medical, laundry, cookery. Insurance—House, life, accident, industrial. Exchange on foreign money (especially where population is largely immigrant). Weighing all packages in kitchen and keeping written records. Comparison of costs of meats and their substitutes (cheese and chops, beans and steak, etc.). Capacity—Hot-water boiler, oil can, oil tanks, kettles, pails, baskets, coal bin, coal scuttle, ice box, size and consequent weight of ice. Jars, air capacity of room, window boxes (amount of earth), bushels, barrels, pounds, cubic inches, gallons, quarts, cups (all interchangeable in sensible relations). Expansion of gases (cooking). Simple plane geometry, drafting of garments, amount required for need, measurements, allowances, etc. Familiar and accurate use of linear measure. Correct and rapid visualization of measurements. Perimeter, diameters, areas. Floors—Wood, paint, covering. Walls—Paper or other covering. Tiling—Various appropriate places. Bills, receipts, bank account, interest. Bonds, their significance and operation. Cost of cleaning street and vicinity, and cost of lighting the vicinity. Ratios in every possible connection. Foreign wage and cost of living (especially immigrant communities, data obtained by pupils) compared with American wage and cost of living. Cost of bread, at baker's and cooked at home (fuel considered). Various standard widths of common textile materials considered in terms of cost of garment as width varies.

Section 3. UPPER GRADES—VOCATIONAL SCHOOL FOR GIRLS, ROCHESTER, N. Y.

The vocational classes and schools for girls in the Rochester (N. Y.) public schools aim to hold in school sixth, seventh, and eighth grade girls who would ordinarily drop out to go to work; to try them out in handwork, plain sewing, dressmaking, millinery, cooking, and design, leading toward a trade; and, in the vocational school, to give two-year vocational or trade courses in dressmaking, in millinery, and in lunch-room management, and a similar vocational course for homemaking called "the household arts course."

¹ Chicago Public Schools. Course of Study for the Elementary Schools, 1912, pp. 51-53.

There are two departments: .

I. An elementary department open to girls 14 years of age who have completed at least sixth grade A; and requiring two years for such girls and one year for seventh grade A girls. In this elementary industrial department, of 35 hours per week of teaching, 8 hours are given to sewing, 3½ to cooking, and 3½ to drawing—household arts and drawing being given therefore nearly one-half the time.

II. The advanced department. This is a two-year curriculum with the first year devoted to a general course. Of the 35 hours a week in the first year, 8 are given to sewing, 4 to cooking, and 4 to applied design. The second year is a period of four specialized courses: (1) Dressmaking; (2) millinery—each offering preparation for trade under trade teachers, but including in the curriculum three hours of cooking which has reference to the potential vocation of homemaking; (3) lunch-room management course, preparing for wage-earning work in school or other lunch rooms, or for more intensive food work for home use; (4) the household-arts course, aimed directly and solely at homemaking.

One must note: (1) The place given household arts in every one of these varied vocational curricula in recognition of woman's universal vocation of homemaking, even where the individual prepares also for an industrial vocation (millinery or dressmaking); (2) the "lunch-room course," as offering preparation for a process, that of food preparation, which may be used outside the home, but skill in which is a great asset in the home; (3) "the household-arts course" as giving preparation for homemaking itself for the girl not drawn off into outside industry.

The lunch-room course has as its practice work the preparation of daily lunches for the teachers and pupils; with responsibility for marketing, accounts, menus, cooking, and service, and three hours a day assigned to these duties. The full weekly schedules follow:

Lunch-room management course.—English, 4 hours; general science, 4; sewing, 3; applied design, 3; cooking, 15; foods, 2; physical training, 1; music, 1; study, 3.

The household-arts course.—English, 4 hours; general science, 4; cooking, 4; household decoration, 4; sewing or millinery, 8; textiles or foods, 2; physical training, 1; music, 1; household economics, 4; study, 4.

Thus, in this new type of education, the vocational training of girls, preparation for home responsibilities by school instruction is made an element in every course, and a special curriculum for homemaking is provided. The cost of running the school for 1912 was \$7,831.37, less \$240.74 received from sales, or a cost of \$76.67 per pupil.

Section 4. DATES OF INTRODUCTION OF HOUSEHOLD ARTS INTO PUBLIC SCHOOLS.

The date of the introduction of household arts into the schools was reported by 444 communities. Only 52 of these (11.7 per cent) had the subject before 1900; 56 introduced it between 1900 and 1904; 158 between 1905 and 1909; while in the three-year period, 1910-1912, the subject was introduced by 166 communities (39 per cent of those reporting). Another grouping of the same returns shows that almost exactly half the total number (213 communities) have added household arts to the school curriculum since 1909. Home education, therefore, as a country-wide movement, is a recent phenomenon; the number of introductions per year reached the maximum in 1911. Whether the fall to 48 in 1912 indicates that the crest of the wave has been reached can not be told. The report for 1913 is for part of the year only.

How has the movement for home economics in public schools progressed geographically? Up to and including 1895 the subject is reported as introduced into the following States only: Maine, Massachusetts, Connecticut, Rhode Island, New Jersey, Pennsylvania, Maryland, District of Columbia, Virginia, Ohio, and Wisconsin. By virtue of New York City, New York State might be added to this list. In subsequent years dates of introduction can be given for cities in all States except Arkansas, Nevada, New Mexico, Tennessee, and Wyoming, and home economics is taught in all these States for which exact dates of introduction are not reported. The development of the subject by successive years throughout the various States is indicated, approximately at least, in the annexed table.

There is printed in Part IV of this report (Bulletin, 1914, No. 39) a list, by States, of 3,082 cities and towns which were teaching home economics in 1914; and a list of 2,440 high schools teaching household arts. This list is not complete, and one may safely assume from it that household arts is taught in not less than 3,500 or more towns and cities, and in probably 3,000 high schools, in 1914.

TABLE 2.—Year of introduction of household arts into city public schools, by States.

[Figures refer to separate communities.]

| | 1885 or be- fore. | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 | 1910 | 1911 | 1912 | 1913 | Total |
|---------------------------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| Alabama..... | | | | | | | | | | | | | | | | | | | | 62 |
| Arizona..... | | | | | | | | | | | | | | | | | | | | 4 |
| Arkansas..... | | | | | | | | | | | | | | | | | | | | 11 |
| California..... | | | | | | | | | | | | | | | | | | | | 18 |
| Colorado..... | | | | | | | | | | | | | | | | | | | | 13 |
| Connecticut..... | | 2 | | | | | | | | | | | | | | | | | | 2 |
| Delaware..... | | | | | | | | | | | | | | | | | | | | 1 |
| District of Columbia..... | | | | | | | | | | | | | | | | | | | | 1 |
| Florida..... | | | | | | | | | | | | | | | | | | | | 3 |
| Georgia..... | | | | | | | | | | | | | | | | | | | | 34 |
| Idaho..... | | | | | | | | | | | | | | | | | | | | 23 |
| Illinois..... | | | | | | | | | | | | | | | | | | | | 19 |
| Indiana..... | | | | | | | | | | | | | | | | | | | | 11 |
| Iowa..... | | | | | | | | | | | | | | | | | | | | 8 |
| Kansas..... | | | | | | | | | | | | | | | | | | | | 2 |
| Kentucky..... | | | | | | | | | | | | | | | | | | | | 6 |
| Louisiana..... | | | | | | | | | | | | | | | | | | | | 2 |
| Maine..... | | | | | | | | | | | | | | | | | | | | 6 |
| Maryland..... | | | | | | | | | | | | | | | | | | | | 2 |
| Massachusetts..... | | | | | | | | | | | | | | | | | | | | 42 |
| Michigan..... | | | | | | | | | | | | | | | | | | | | 23 |
| Minnesota..... | | | | | | | | | | | | | | | | | | | | 14 |
| Mississippi..... | | | | | | | | | | | | | | | | | | | | 14 |
| Missouri..... | | | | | | | | | | | | | | | | | | | | 2 |
| Montana..... | | | | | | | | | | | | | | | | | | | | 3 |
| Nebraska..... | | | | | | | | | | | | | | | | | | | | 11 |
| Nevada..... | | | | | | | | | | | | | | | | | | | | 6 |
| New Hampshire..... | | | | | | | | | | | | | | | | | | | | 4 |
| New Jersey..... | | | | | | | | | | | | | | | | | | | | 27 |
| New Mexico..... | | | | | | | | | | | | | | | | | | | | 4 |
| New York..... | | | | | | | | | | | | | | | | | | | | 33 |
| North Carolina..... | | | | | | | | | | | | | | | | | | | | 2 |
| North Dakota..... | | | | | | | | | | | | | | | | | | | | 4 |
| Ohio..... | | | | | | | | | | | | | | | | | | | | 33 |
| Oklahoma..... | | | | | | | | | | | | | | | | | | | | 2 |
| Oregon..... | | | | | | | | | | | | | | | | | | | | 5 |
| Pennsylvania..... | | | | | | | | | | | | | | | | | | | | 19 |
| Rhode Island..... | | | | | | | | | | | | | | | | | | | | 7 |
| | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | | | | | | | 2 |

† Part only of year.
 † 1888.
 † 1894.
 † 1902.
 † 1906, 1880, 1883, 1885, 1890, 1903, 1904.
 † 1897, 1898, 1905.
 † 1892, 1895, 1897.
 † 1900.
 † 1901, 1902, 1903.



TABLE 2.—Year of introduction of household arts into city public schools, by States—Continued.

| | 1895 or be- fore. | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 | 1910 | 1911 | 1912 | 1913 | Total. |
|---------------------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| South Carolina..... | | | | | | | | | | | | | | | | | | | | 6 |
| South Dakota..... | | | | | | | | | | | | | | | | | | | | 3 |
| Tennessee..... | | | | | | | | | | | | | | | | | | | | 2 |
| Texas..... | | | | | | | | | | | | | | | | | | | | 12 |
| Utah..... | | | | | | | | | | | | | | | | | | | | 6 |
| Vermont..... | | | | | | | | | | | | | | | | | | | | 4 |
| Virginia..... | | | | | | | | | | | | | | | | | | | | 6 |
| Washington..... | | | | | | | | | | | | | | | | | | | | 4 |
| West Virginia..... | | | | | | | | | | | | | | | | | | | | 6 |
| Wisconsin..... | | | | | | | | | | | | | | | | | | | | 2 |
| Wyoming..... | | | | | | | | | | | | | | | | | | | | 17 |
| United States..... | 27 | 4 | 7 | 10 | 4 | 12 | 6 | 6 | 15 | 17 | 16 | 26 | 31 | 36 | 47 | 54 | 64 | 48 | 14 | 444 |

1892.

*21 previous to 1895.

Section 5. TOPICS TREATED IN ELEMENTARY HOUSEHOLD-ARTS CURRICULUM.

Returns from 388 schools as to the topics taught in the elementary grades under "household arts," "cooking," "sewing," "domestic science and art," and other titles applied to education for the home exhibit the following facts:

TABLE 3.—Topics taught in elementary curriculum.

| | Schools. | | Schools. |
|------------------------------|----------|--------------------------------|----------|
| Food principles | 271 | First aid | 72 |
| Planning menus | 253 | Home nursing | 42 |
| Serving meals | 250 | Care of children | 37 |
| Practical cooking | 270 | Plain sewing | 398 |
| Marketing | 161 | Dressmaking | 194 |
| Household management | 145 | Millinery | 32 |
| Household accounts | 107 | Judgment of textiles | 185 |
| Housework, housewifery | 169 | Art in relation to dress | 183 |
| Laundry | 61 | Household decoration | 90 |
| Sanitation | 163 | | |

In addition, the following topics are taught by one or more schools: Preparing lunches, serving lunches, food production and manufacture, kitchen and flower gardening, food physiology, cooking for the sick, cost of foods, knitting and crocheting, embroidery, raffia and reed work, weaving, braiding, cardboard winding, dyeing, pattern making, cutting and repairing of clothing, basket making.

It is noteworthy that in the case of foods the theoretical aspects, as "food principles," "planning of menus," appear as frequently in these elementary school programs as do "practical cooking" and "table service."

The comprehensive subjects of "household management" and "sanitation" and their practical aspect, "housewifery or housework," appear with approximately two-thirds the frequency of "cookery"; the topics "first aid," "home nursing," and "care of children" are not very generally taught.

In subjects relating to clothing, "plain sewing" appears most frequently. The next most common topic is "practical cookery." "Dressmaking" is just one-half as commonly taught as is "plain sewing," and "millinery" one-twelfth. The theoretical aspects of clothing, the training of judgment in regard to textile values, and the development of the artistic sense in regard to costume are stressed less than the theoretical aspects of foods, appearing in less than one-half the schools. Progress is needed here, for, after all, the woman of to-day needs training in buying clothing as well as in its making. Art in decoration and furnishing fares even less well than "art and costume," and appears in only one-half as many schools, i. e., in one-

fourth as many as teach plain sewing and one-third as many as teach plain cooking.

No attempt was made to canvass social teaching regarding the family, and there was no suggestion of this topic in the data furnished; yet here is a topic by means of which the elementary school must do its part in strengthening family life. Its teaching will doubtless be only incidental to the household-arts program, although it is an important part of the ethical teaching which the elementary school must undertake.

Section 6. ORDER OF INTRODUCTION OF HOUSEHOLD ARTS INTO SCHOOL SYSTEMS.

The elementary school welcomed household arts as a subject of instruction earlier than did the high school. (Table 4.) Of 403 communities reporting the date of introducing household arts into the school curriculum, in 145 household arts had been introduced in the elementary schools alone; in 92, introduction had been made into the elementary schools, followed by introduction into the high schools; in 24, introduction had been into high school alone; and in 29, into the high school, followed by introduction into elementary schools; in 113, the subject had been introduced simultaneously into elementary and high school. Therefore, in 237 cases, introduction was first into elementary schools, in 53 cases first into high school, and in 113 cases simultaneously throughout the lower and higher schools. This indicates that for a subject such as household arts there is a readier welcome in the elementary than in the high school; the initial introduction in the elementary school is approximately four times as frequent as in the high school; and approximately twice as frequent as the simultaneous introduction in elementary and high school. Such is the general order or sequence of introduction.

The same figures state another fact of importance, namely, the relative distribution of household arts at present in elementary and high school. In 36 per cent of the communities (145 reported) direct education for the home is restricted to the elementary grades; in 6 per cent of the communities (24 reported) it is restricted to the high school; while in 58 per cent of the communities (234 reported) it has a place in both elementary and high school. The tendency is doubtless for the subject, if given at all, to be given in both elementary and high school; and if started in elementary or high school alone to be added in the other, although there is a noticeable tendency to give it in the elementary school alone. These figures are probably acceptable as to the relative distribution of instruction, but they do not indicate at all the total distribution in elementary and high schools.

Of 390 communities furnishing data as to the elementary-school curriculum, 7 (2 per cent) offer cookery alone, and 165 (42 per cent)

offer sewing alone, while 218 (56 per cent) offer both cookery and sewing. There is thus indicated a tendency to offer both subjects in the elementary school, while, if but one is offered, sewing is the favorite subject 23 times as frequently as cookery. Sewing is doubtless chosen because of its ease and economy of introduction. Little equipment is required for sewing, and the regular teacher often gives the instruction. The tendency to include both subjects and to favor sewing rather than cookery in the elementary school is also shown in the sequence or order of introducing sewing and cookery. Of 390 cases, 134 introduced cookery and sewing simultaneously; in 7 cases cookery alone has been introduced; and in 24 cases cookery, first introduced, has been followed by sewing; in 165 cases sewing alone has been introduced; and in 60 cases sewing, first introduced, has been followed by cookery; i. e., if cookery was first introduced there has been a chance of 3.4 to 1 that sewing would be added, while if sewing was first introduced there has been a chance of only 0.36 to 1 that cookery would be added.

TABLE 4.—Order of precedence in introduction of household arts into public schools.

A. ORDER AS REGARDS GRADE OF SCHOOL.

(Reported from 403 communities for 379 elementary and 258 high schools.)

| Point introduced. | Schools so reporting. |
|--|-----------------------|
| 1. Introduced into elementary school; not yet into high school..... | 145 |
| 2. Introduced into high school; not yet into elementary school..... | 24 |
| 3. Introduced into high school first; subsequently into elementary school..... | 29 |
| 4. Introduced into elementary school first; subsequently into high school..... | 92 |
| 5. First introduced into elementary school (1 and 4 combined)..... | 237 |
| 6. First introduced into high school (2 and 3 combined)..... | 53 |
| 7. Introduced simultaneously into high and elementary schools..... | 113 |

B. ORDER AS REGARDS CHARACTER OF INSTRUCTION INTRODUCED INTO ELEMENTARY SCHOOLS.

(Reported from 225 elementary schools teaching cooking and 383 elementary schools teaching sewing.)

| Subject introduced. | Schools introducing. |
|---|----------------------|
| 1. Cooking alone introduced; sewing not yet taught..... | 7 |
| 2. Sewing alone introduced; cooking not yet taught..... | 165 |
| 3. Cooking introduced first; sewing subsequently..... | 24 |
| 4. Sewing introduced first; cooking subsequently..... | 60 |
| 5. Cooking first introduced (1 and 3 combined)..... | 31 |
| 6. Sewing first introduced (2 and 4 combined)..... | 225 |
| 7. Cooking and sewing introduced simultaneously..... | 134 |

Section 7. TIME ALLOTTED HOUSEHOLD ARTS IN ELEMENTARY SCHOOL.

It is now possible to state the general practice of American schools with regard to the time allotted to instruction in the two usual divisions of household arts, cooking and sewing, throughout the different grades of the elementary school. (Table 5, A, B.)

First of all, the placing of these subjects by grades is important. Sewing is reported as follows: First grade, 20 schools; second grade, 25 schools; third grade, 45 schools; fourth grade, 82 schools; fifth grade, 236 schools; sixth grade, 345 schools; seventh grade, 377 schools; eighth grade, 316 schools. In other words, while sewing has been taught in all eight grades, it has been most commonly placed in the four upper grades, and of these more often in the sixth and seventh grades than in the fifth and eighth grades. Cooking is reported by no schools as taught in the first grade; in the grades thereafter as follows: Second grade, 1 school; third grade, 2 schools; fourth grade, 6 schools; fifth grade, 15 schools; sixth grade, 48 schools; seventh grade, 174 schools; eighth grade, 242 schools. Cooking is therefore confined practically to grades fifth to eighth, inclusive, and has been placed especially in the seventh and eighth grades.

A searching question that every community should ask is, Are these essential arts of living so placed in the elementary grades that they will reach the largest possible number of girls? In view of the fact that so many girls leave school in the sixth, seventh, and eighth grades, it is poor policy to place cookery, which is obviously the most essential of any of the arts of living, so late in the grades that large numbers of girls never have a chance to learn it. Until it is possible to advance the school age or hold girls longer in school, a practical and comprehensive course in cooking should probably be placed in the sixth grade in most communities, with a return to such instruction in the eighth or last grade of the elementary school.

In considering the amount of time allotted for household-arts instruction in the grades, the school week may be considered as providing 1,500 minutes of instruction. Our data will present the minutes per week allowed for cooking and sewing in the various grades. While Table 5 gives the full statement of facts, some of the comparisons are noteworthy here. The instruction in cooking is generally allotted 90 minutes a week in all grades when taught. This period appears both as the median time allotment in each grade and as the most common mode in every grade. Fifty per cent of the schools in each grade, also, either give 90 minutes per week to this teaching or not less than 75 nor more than 120 minutes per week.

Ninety minutes per week for instruction in cooking in the grades may be taken therefore as the usual time allowance for the food arts in elementary schools in the United States.

Sewing in the grades tends to be given a slightly increasing period as children proceed to higher grades; expressed by the median time allotment, sewing is given 40 to 45 minutes in the first grade, 45 minutes in the second and third grades, 60 minutes in the fourth, fifth, and sixth grades, 75 minutes in the seventh grade, and 75 to 80 minutes in the eighth grade. This is in contrast with cooking, which, wherever given, tends to secure a level mean time allotment of 90 minutes a week throughout the different grades.

The modes in the distribution of sewing time allotments also indicate an increase in the amount of time given; as much as 30, 45, or even 60 minutes a week is common in the first four grades; 60 and 90 minutes in the fifth, sixth, and seventh grades; and 60, 90, and 120 minutes in the eighth grade. "Half the schools" change similarly from 30 to 60 minutes for lower grades to 60 to 90 minutes for upper grades. While the median time allotment increases from 40 to 80 minutes as one passes from the first to the eighth grade, the maximum allotment increases from 100 minutes in the first and second grades to 140 minutes in the third, 180 minutes in the fourth grade, 450 minutes in the fifth grade, 225 minutes in the sixth grade, and 600 minutes in the seventh and eighth grades. In terms of the various measures, therefore, sewing instruction tends to secure a lengthened time allotment in the higher grades.

The question of the entire time allotted to household arts in the grades is perhaps more important. (Table 6.) As a basis of comparison it is possible to take the unit suggested above of 1,500 minutes per week extended through eight grades, or 12,000 week-minutes for the total time involved in eight grades of teaching. Examining the time allotments of 468 schools, the mean total time allotment for household arts for eight grades is 230 to 240 week-minutes out of the total of 12,000 week-minutes of instruction, or 2 per cent. of the total time spent by the elementary school child upon all studies. The most common time allotments (modes) are 120, 180, 240, and 360 week-minutes of teaching; and 50 per cent of the schools allot between 150 and 360 week-minutes for the eight grades. The maximum time allotted to household arts in any elementary school is 1,200 week-minutes for sewing in all eight grades, and 1,350 week-minutes similarly for cooking, or 10 per cent and 11 per cent, respectively, of the total school time.

TABLE 5.—Time allotments in elementary schools, in minutes per week.

(A) FOR SEWING IN VARIOUS GRADES—GENERAL TENDENCIES.

| No. of grade. | Schools reporting instruction in grade. | Shortest time and longest time reported for grade. | Median number of minutes reported for grade. | Minutes taken as limits to include half the schools. | Modal, or most frequently reported times for grade. |
|---------------|---|--|--|--|---|
| | | <i>Minutes.</i> | <i>Minutes.</i> | <i>Minutes.</i> | <i>Minutes.</i> |
| 1..... | 20 | 20, 100 | 40-45 | 30-60 | 30, 60 |
| 2..... | 25 | 20, 100 | 45 | 30-60 | 30, 60 |
| 3..... | 45 | 20, 140 | 45 | 40-60 | 30, 40, 45, 60 |
| 4..... | 82 | 25, 180 | 60 | 45-60 | 30, 45, 60 |
| 5..... | 236 | 25, 450 | 60 | 45-60 | 40, 45, 60, 90 |
| 6..... | 345 | 25, 225 | 60 | 60-90 | 40, 45, 60, 75, 80, 90 |
| 7..... | 377 | 25, 600 | 75 | 60-90 | 60, 90 |
| 8..... | 316 | 30, 600 | 75-90 | 60-90 | 60, 75, 80, 90, 120 |

(B) FOR COOKING IN VARIOUS GRADES—GENERAL TENDENCIES.

| | | | | | |
|--------|-----|---------|----|--------|-----------------|
| 1..... | 0 | | | | |
| 2..... | 1 | 90 | 90 | 90 | 90 |
| 3..... | 2 | 90 | 90 | 90 | 90 |
| 4..... | 6 | 60, 225 | 90 | 90 | 90 |
| 5..... | 15 | 60, 450 | 90 | 90 | 90 |
| 6..... | 48 | 30, 450 | 90 | 75-120 | 60, 80, 90, 120 |
| 7..... | 174 | 30, 600 | 90 | 80-120 | 60, 80, 90 |
| 8..... | 242 | 30, 450 | 90 | 80-120 | 60, 80, 90, 120 |

* Includes 75 per cent.

* Includes 50 per cent.

* Includes 48 per cent.

TABLE 6.—Total minutes per week in all grades combined for sewing and cooking—General tendencies.

(Comparable with 12,000 total minutes per week for complete school program).¹

| Branch of household arts. | Number of cities reporting in elementary grades. | Smallest and largest total minutes reported by any city. | Mean total minutes reported for cities. | Total minutes taken as limits to include half the cities. | Modal, or most frequent, total minutes reported. |
|---------------------------|--|--|---|---|--|
| Sewing... | 468 | 30, 1200 | 230-240 | 150-300 | 120, 180, 240, 360 |
| Cooking.. | 266 | 45, 1350 | 180 | 120-210 | 90, 120, 160, 180, 240, 360 |

¹ This measure is computed on the basis of the minutes allotted per week in the various 8 grades, summed to give total minutes per week for all grades; the standard of comparison for a full program of all subjects is taken as 300 minutes per day or 1,800 minutes per week for each of the 8 grades, i. e., 12,000 total minutes per week for all school subjects through all grades.

SECTION 8. AIM OF HOUSEHOLD-ARTS TEACHING IN THE GRADES.

One hundred and eighty-three schools furnish a brief statement of their aims in teaching household arts in the elementary school. Some replies stated a single aim; others more than one aim. Three schools state the aim in terms of the school itself: "To broaden the curriculum"; "to prepare for high school"; and "to make the school of use in the home and make school work more practical."

Three other schools justify household-arts teaching from the point of view of the child, "to make the pupil able to serve her own needs"; "to give children what they need"; and "to interest children."

Some 32 phrase their aim in the view of education as a discipline, using such terms as the following (the numbers indicating the fre-

quency of use): "Neatness" (4), "accuracy" (3), "cleanness" (2), "culture" (2), "general training" (2), "intellectual training" (2), "character building" (2), "practical and educational" (2), "all-round development," "self-development," "educational," "broader view," "practical and disciplinary," "training," "get the means of acquiring knowledge," "lay foundation for future development," "develop initiative," "give ability and confidence," and, finally, "make action depend on thought." While these statements of disciplinary aims in household-arts teaching may not meet the approval of the latest educational thought, they are highly significant and hopeful in a broader way—they indicate that so new a subject as household arts quickly amalgamates with the general school curriculum and easily finds its place in the general organization of the school and its justification and support in the educational thought there current.¹

Household arts came into the schools originally in connection with manual training; one would expect, therefore, to find aims in household arts teaching stated in terms of manual training. Only 18 schools, however, directly suggest such an explanation: "Hand teaching" is given as the aim by 6 elementary schools, and "skill" by 5, while "technique" and "the development of mind through the hand" are each mentioned by 2 schools, and "training eye, hand, and judgment," "manual training," and "speed" are each mentioned by 1 school. Limiting manual training strictly to an intellectual betterment achieved by a manual method, one would even exclude from this list the aims of "skill" and "technique," which really belong to that latest educational purpose, the practical arts or vocational education which would fit youth for definite tasks.

Household-arts study in elementary schools, as of significance in the practical work of the home, is distinctly recognized in the statements of aim in teaching by two-thirds of the 183 schools furnishing data. In 61 cases reference is made to the practical nature of the subject matter, in 10 cases to the theory underlying the household arts, and in 53 cases to the application of these arts in homemaking and housekeeping. In 19 cases the aim emphasizes "practical" instruction, education, and knowledge ("utility"); in 37 cases a specific art is mentioned, "cooking," "sewing," "mending," "plain sewing," "drafting," "making garments," "home work and

¹ Or, viewed otherwise, the new subject is subperged in the school. For a discussion of the reaction of the general school situation on the avowed aims of domestic science, manual training, etc., see "Social Factors Affecting Special Supervision in the Public Schools of the United States," Walter L. Jessup, 1911, pp. 51-63.

housewifery," "do own sewing," "judging textiles," "practical arts," "sewing as an industry," and (delightful to contemplate) "to prepare and serve a good meal"; while two statements add to practical skill, "a knowledge of sufficient theory." Ten schools emphasize this theoretical basis of the household arts by specifying some division of it as "food principles," "balanced rations," "the how and why," or by a succinct reference to "the science underlying the proper performance of household labor."

Three schools speak of the "vocational" aspects, or preparation for a life work throughout household arts, and some 53 schools make distinct and interesting references to the relation of household-arts teaching to the home. Eleven refer to the preparation afforded for "homemaking" or "better homemakers," 11 others to household arts as "fitting for home," and 6, by the phrase education or training "for home life," suggest that a comprehensive view has been gained of the home as a social institution (perhaps the most important need in household-arts teaching today). "Home efficiency" (term used by three schools), "use in home" (two), "better homes" (two), "aid homes" (one), "home improvement" (one), are all aims indicating a most significant policy of home progress and improved housekeeping as a result of household-arts teaching in the public schools. i. e., the school is to become an agency for the betterment of the home. The aim stated in one case—"to meet the needs of the average home"—need not be interpreted as indicating satisfaction with the present level of housekeeping; it is just the average home whose greatest "need" is improvement, not a training of its daughters merely to repeat its mistakes for the next generation. Three schools state the aim as "economy" or "reduction of home expenses"—an echo perhaps of the high cost of living.

Another important aim in household-arts teaching is recognized by the seven schools which specify "the development of an interest in household arts," "the dignifying of housework," "the giving of a right attitude." It is always one of the immediate fruits of technical or professional training that it remakes our mental picture of the task in hand, arouses new interests, and taps unexpected reservoirs of purpose and energy—and this not only for the individuals who take the technical training, but for all other persons, those who observe its results as well as those who participate in it. While we have here a psychological change primarily in the young women who in elementary schools or high schools take training in household science and art, we have a great social change going on in the significance of the home for them and for all of us. We are at the

edge of the most searching problem in the aim of teaching household arts: What is its social meaning? The educational thought of to-day is emphasizing "practical arts" in education. Two-thirds of the schools, as we have just seen, recognize this in their statement of aim in household teachings, either by enumerating the useful arts and knowledge thereby imparted, or by urging that the theoretical background of these arts is worthy of study, or (in half the cases) by pointing out their application in the home. The social valuation of this teaching is, however, the final test—i. e., What is it worth to us all, as we live in families, in communities, in States, and in the human brotherhood, that the practical arts by which the household exists, and the ideals which hold it together, shall be made plain to the up-growing youth by regular instruction? The family and home, so far as we can see, are the sine qua non of humanity.

Rightly, then, the bearing of household arts on home making is emphasized by 53 schools. Twenty-eight schools recognize the social values in household-arts teaching from still other and significant viewpoints. Eight schools refer to it as furnishing preparation for life or adjustment to life, five note its economic significance in getting girls into a sympathetic understanding of the world of work, and two note its "economic utility," which may be interpreted as broadly as may be desired; and three the fact that it helps in "making pupils useful"; two see its wide bearing on "health," "hygiene," and "right living," which are coming more and more to be considered as social matters, while the practical nature of the social aim is here and there brought out—how it means "better and more reliable women," or, in quaint phrase, "getting the child headed right," so that, as another school says, "they may be fit for service—not become stuffed owls."

It would be easy to find fault with these several hundred informal statements of purpose in teaching household arts jotted down on a Government schedule by busy superintendents and supervisory teachers. Some are archaic, some contradictory, some whimsical—all inadequate. Thrown together, however, they supplement each other and present in a remarkable way the controlling ideas behind the teaching of household arts in our elementary schools. There is the development of mental abilities, the acquiring of manual skill, the learning of useful arts and their explanations, the application of these arts in the home, the relation of school and home to the progress of humanity. Household arts seem to be finding a rational place, therefore, in the program of the schools.

Aim in lower grades.—The question was asked whether the aim of household-arts teaching in the lower grades varies from that of

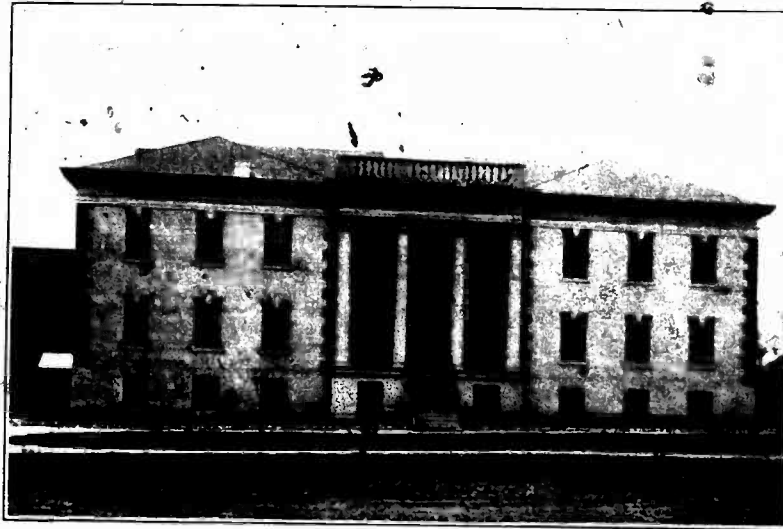
the upper grades. From 12 schools (14 per cent) the reply was that it did vary; from 71 schools (86 per cent) that it did not. Differences in the teaching are said to be: In higher grades, attention to cost and food values; more involved technique; theoretical basis emphasized; fundamental aim the same, but approach varies. In lower grades, technical skill; manipulation. Several schools replied that there was not much difference.

Vocational aim in elementary school.—By 123 schools (85 per cent) it was stated that no vocational aim was taken into account in the elementary school teaching of household arts, while 22 schools (15 per cent) stated that such aim is operative. The replies are not without ambiguity, however, as "vocational" was interpreted in some instances as preparation for home making, in some as indicating wage earning only. In one city the vocational aim is stressed in colored schools. The Chicago and Rochester outlines of industrial work in the grades are given above (pp. 64, 66). Cambridge, Mass., has done prevocational work in household arts in the grades in dress-making and millinery.

Special classes in the higher grades, with longer household-arts periods, might often be organized and valuable results secured to be applied later in the home or in certain industries. In general, however, home making and housework have been the only vocational aims in the elementary school.

Section 9. SPECIAL TEACHERS OF SEWING AND COOKERY IN ELEMENTARY SCHOOLS.

Of 402 elementary schools, 151 (37.5 per cent) report that the regular grade teacher gives the instruction in sewing, and 251 (62.5 per cent) report that special sewing teachers are employed. Of 287 elementary schools, 10 (3.4 per cent) report that the regular grade teachers give lessons in cookery, and 277 (96.6 per cent) report that special cooking teachers are employed. Stated otherwise, sewing is taught by the regular classroom teachers in over one-third of the schools, or ten times as frequently as cookery is taught by the regular class teacher. This is doubtless a leading influence in the earlier introduction of sewing. The distribution by States is shown in Table 7.



A. A SPECIAL BUILDING FOR HOUSEHOLD ARTS, HOLLYWOOD HIGH SCHOOL, LOS ANGELES, CAL.



B. LAUNDRY LABORATORY, WASHINGTON IRVING HIGH SCHOOL, NEW YORK, N. Y.

TABLE 7.—Elementary school instruction in household arts.

| States. | In cooking, by— | | In sewing, by— | |
|---------------------------|-------------------------|-------------------|-------------------------|-------------------|
| | Regular class teachers. | Special teachers. | Regular class teachers. | Special teachers. |
| Alabama..... | | 3 | 2 | 1 |
| Arizona..... | | 3 | | 4 |
| California..... | 1 | 12 | 7 | 6 |
| Colorado..... | | 6 | | 8 |
| Connecticut..... | | 8 | 2 | 9 |
| District of Columbia..... | | 1 | | 1 |
| Florida..... | | 1 | | 1 |
| Georgia..... | | 3 | | 3 |
| Idaho..... | | 1 | | 1 |
| Illinois..... | 1 | 23 | 14 | 17 |
| Indiana..... | 2 | 11 | 15 | 9 |
| Iowa..... | | 11 | 2 | 10 |
| Kansas..... | | 4 | 3 | 6 |
| Kentucky..... | | 1 | | 1 |
| Louisiana..... | | 2 | | 2 |
| Maine..... | | 6 | 2 | 5 |
| Maryland..... | | 1 | | 1 |
| Massachusetts..... | 1 | 24 | 18 | 31 |
| Michigan..... | 2 | 22 | 10 | 18 |
| Minnesota..... | | 10 | 10 | 4 |
| Missouri..... | 1 | 5 | 4 | 5 |
| Montana..... | | 2 | 3 | 2 |
| Nebraska..... | | 2 | 2 | 2 |
| New Hampshire..... | 1 | 2 | 1 | 2 |
| New Jersey..... | | 17 | 10 | 13 |
| New York..... | | 24 | 11 | 20 |
| North Carolina..... | | 2 | | 2 |
| North Dakota..... | | 4 | 5 | 11 |
| Ohio..... | | 13 | 5 | 4 |
| Oklahoma..... | | 4 | 2 | 3 |
| Oregon..... | | 3 | 2 | 3 |
| Pennsylvania..... | | 12 | 3 | 18 |
| Rhode Island..... | | 1 | 1 | 1 |
| South Carolina..... | | 2 | | 2 |
| South Dakota..... | | 1 | 2 | 1 |
| Texas..... | | 6 | 1 | 5 |
| Utah..... | | | 2 | |
| Vermont..... | | 1 | 1 | 2 |
| Virginia..... | | 2 | 1 | 2 |
| Washington..... | | 5 | 3 | 1 |
| West Virginia..... | | 1 | | 1 |
| Wisconsin..... | | 15 | 8 | 10 |
| United States..... | 10 | 277 | 151 | 251 |

Section 10. SALARIES OF SPECIAL TEACHERS OF HOUSEHOLD ARTS IN ELEMENTARY SCHOOLS.

In 273 elementary schools the salaries of special teachers of household arts varied from \$150 (doubtless for part-time service) to \$1,500. The median salary is \$800, and 50 per cent of the schools pay between \$650 and \$1,000. The distribution of salaries, by amounts and States, is given in Table 8.¹

¹ Where a salary schedule is given as lying between a minimum and maximum, the maximum figure was used in the table. Amounts are grouped by fifties, i. e., \$500-540 as \$500, except in the first column and last two columns.

TABLE 8.—Salaries of special teachers of household arts in elementary schools, by amounts and by States.

| | Below \$400 | \$400 | \$450 | \$500 | \$550 | \$600 | \$650 | \$700 | \$750 | \$800 | \$850 | \$900 | \$950 | \$1,000 | \$1,050 | \$1,100 | \$1,150 | \$1,200 | \$1,250 | \$1,300 | \$1,350 | \$1,400 | \$1,500 | |
|---------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| Alabama..... | 11 | | | | | | | | | | | | | | | | | | | | | | | |
| Arizona..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Arkansas..... | | | | | | | | | | | | | | | | | | | | | | | | |
| California..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Colorado..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Connecticut..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Delaware..... | | | | | | | | | | | | | | | | | | | | | | | | |
| District of Columbia..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Florida..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Georgia..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Idaho..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Illinois..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Indiana..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Iowa..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Kansas..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Kentucky..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Louisiana..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Maine..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Massachusetts..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Michigan..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Minnesota..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Mississippi..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Missouri..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Montana..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Nebraska..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Nevada..... | | | | | | | | | | | | | | | | | | | | | | | | |
| New Hampshire..... | | | | | | | | | | | | | | | | | | | | | | | | |
| New Jersey..... | | | | | | | | | | | | | | | | | | | | | | | | |
| New Mexico..... | | | | | | | | | | | | | | | | | | | | | | | | |
| New York..... | | | | | | | | | | | | | | | | | | | | | | | | |
| North Carolina..... | | | | | | | | | | | | | | | | | | | | | | | | |
| North Dakota..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Ohio..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Oklahoma..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Pennsylvania..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Rhode Island..... | | | | | | | | | | | | | | | | | | | | | | | | |
| South Carolina..... | | | | | | | | | | | | | | | | | | | | | | | | |
| South Dakota..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Tennessee..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Texas..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Utah..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Vermont..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Virginia..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Washington..... | | | | | | | | | | | | | | | | | | | | | | | | |

Section 11. COST OF HOUSEHOLD-ARTS SUPPLIES IN ELEMENTARY SCHOOLS.

Cost of sewing supplies.—The cost to the school per pupil per year for sewing lessons is reported by 163 schools as from two-tenths of 1 cent to \$4. The median cost is 25 cents, and for 50 per cent of the schools the cost falls between 10 and 50 cents per pupil per year. This cost varies of course not only with the amount of instruction, but also with the amount of sewing materials supplied to the pupil by the school authorities. The most frequently reported costs are, in cents, 2, 5, 9, 10, 15, 20, 25, 30, 35, 50, and 100. The full distribution of costs as reported follows:

TABLE 9.—Yearly cost for sewing in elementary schools.

| Cost. | Schools reporting. | Cost. | Schools reporting. | Cost. | Schools reporting. |
|--------|--------------------|-------|--------------------|-------|--------------------|
| \$.002 | 1 | \$.14 | 2 | \$.53 | 1 |
| .003 | 2 | .15 | 6 | .60 | 3 |
| .005 | 2 | .16 | 2 | .70 | 1 |
| .01 | 4 | .17 | 1 | .75 | 4 |
| .015 | 2 | .175 | 1 | .80 | 3 |
| .02 | 6 | .18 | 1 | .81 | 1 |
| .025 | 1 | .19 | 1 | .90 | 1 |
| .03 | 2 | .20 | 8 | 1.00 | 10 |
| .04 | 2 | .25 | 10 | 1.15 | 1 |
| .05 | 5 | .26 | 1 | 1.25 | 1 |
| .06 | 2 | .285 | 1 | 1.50 | 3 |
| .07 | 1 | .30 | 8 | 1.60 | 1 |
| .08 | 3 | .32 | 1 | 2.00 | 4 |
| .09 | 5 | .35 | 5 | 2.25 | 1 |
| .10 | 11 | .36 | 1 | 2.50 | 1 |
| .105 | 1 | .40 | 4 | 3.00 | 1 |
| .11 | 1 | .43 | 1 | 4.00 | 1 |
| .125 | 1 | .50 | 19 | | |

Cost of food per lesson in elementary cooking instruction.—The cost of food per pupil per lesson in the elementary school was reported by 182 schools and varied from one-half to 15 cents. The median cost is 2½ cents, and 50 per cent of the schools pay from 2 to 3 cents per pupil per lesson for food materials. The distribution of costs follows:

TABLE 10.—Cost of food per lesson in schools reporting such cost.

| Cents. | Schools. | Cents. | Schools. | Cents. | Schools. |
|--------|----------|--------|----------|--------|----------|
| 0.5 | 1 | 2.2 | 3 | 4.2 | 1 |
| .7 | 1 | 2.3 | 3 | 5.0 | 6 |
| .8 | 1 | 2.4 | 1 | 6.0 | 5 |
| 1.0 | 4 | 2.5 | 21 | 7.0 | 2 |
| 1.1 | 1 | 2.7 | 1 | 8.0 | 2 |
| 1.3 | 1 | 2.9 | 1 | 10.0 | 4 |
| 1.4 | 1 | 3.0 | 30 | 11.0 | 1 |
| 1.5 | 20 | 3.25 | 1 | 12.0 | 1 |
| 1.7 | 7 | 3.4 | 1 | 14.0 | 1 |
| 1.8 | 1 | 3.5 | 8 | 14.2 | 1 |
| 1.9 | 1 | 3.8 | 1 | 15.0 | 1 |
| 2.0 | 35 | 4.0 | 12 | | |

In comparing relative costs to the school board of food-material (mean cost of 2½ cents per pupil per lesson) and textile materials (mean cost of 25 cents per pupil per year) the difference in time period considered is obvious. Assuming a school year of 35 weeks, more or less, the cost to the school board would be approximately \$1 for each weekly cooking lesson given throughout the year, as compared with 25 cents a year for sewing supplies. In the latter case the cost of materials is often borne by the pupil or parents and may vary widely. The garments made, however, enter into the child's wardrobe and become of practical use.

IV. THE HIGH SCHOOL AND EDUCATION FOR THE HOME.

The American high school is both a college preparatory school and a finishing school. The pull of the college upon it has determined its curriculum in the past, and those students whose education was not to extend beyond the high school were formerly sent through a curriculum whose end point was the college. This is all changing, however, and the recognition that the high school must be the people's great vocational school, fitting for all lines of activity in the community—industrial, commercial, agricultural, household—has become the most fruitful principle in high-school organization. Not that our secondary education should be transformed into trade schools exclusively, but that alongside the college preparatory curriculum should be placed vocational curricula, each with its systematic cultural training as well as its definitely organized technical subjects leading to vocational efficiency in its appropriate field. Granted that nine-tenths of our young people who go into high schools are to go no further than the high school, what manner of course shall they pursue? The last word in education is to conserve all that there is of good in academic cultural training, but to add to it for every individual specialized preparation for some one useful vocation. This means, for our high schools, curricula that are combinations of academic and technical subjects, organized for definite end points of service, in the home and in outside employment.

The vocational dilemma of young women has been noted by many. On the one hand is the growing demand that they equip themselves as wage earners in some outside employment, and, on the other, their own interest in the vocation of homemaking and the social pressure that modern knowledge be applied in housekeeping. The average young woman must command two vocations, actual wage-earning and potential housekeeping. Shall she learn two vocations in high school?

At present the vocational adjustment for girls in high schools seems to be developing about as follows: Some young women choose outright an industrial or commercial course; in such cases there should be time allowed within it for a year or more of work in

household science supplementary to vocational and academic subjects. Some will wish to choose as their vocation the industrial applications of household science and art in cookery, baking, catering, sewing, millinery, costume design, etc. While the full possibilities here are not yet developed, it is obvious that as far as wage-earning vocations can be based on the household arts, the young woman who chooses from this field will get a double educational value, for she will not only have a revenue-producing vocation which can be practiced in the market, but in the event of marriage she has a skill which is directly applicable in the household. A third group of high-school girls will not choose a wage-earning vocation, either commercial, industrial, or the vocations recently derived from the household, but will stand firmly by woman's traditional vocation of home-making. For these evidently a vocational course is needed in which home-making is as adequately prepared for as commercial work in the commercial curriculum of the high school. Finally, there is the group of girls whose education is not to be completed in the high school, and who choose the college preparatory course. For these there is a double solution as regards training in the home arts—either to postpone all training in this field to the college level, or to provide one or more years of household science in the high school as part of the college preparatory course. Because of the uncertainty of human plans, even as to so compelling an ideal as the desire for a college education, it would be the part of wisdom to include a year or more of household science in the college preparatory high-school course, quite as in the vocational curricula other than that of home-making.

There is evidently needed on the high-school level two types of home-arts training: First, an efficient vocational preparation in homemaking, which will equip a young woman to assume the management of her mother's home or later her own home; second, a training for wage-earning vocations, based originally on the household arts—cooking, catering, baking, sewing, millinery, dressmaking, laundering, nursing (preparatory to nurses' schools), costume-design, etc. In these and in all vocational curricula in high schools, there is no thought of mere trade courses, but of combined academic-technical courses that broaden life while preparing for service in a limited field. In the vocational curricula that have no reference to the home, and in the college preparatory course, there should be provision among these broadening courses for one or more years of household science to give some preparation for women's potential profession of homemaker. These types of household courses for high schools are illustrated in some of the following sections. One observation may be made, namely, that the division of instruction into the sub-

jects of "domestic science," (cookery) and "domestic art" (sewing) tends to obscure the vocational unit, which is either the general field, housework, or some division—as cooking or dressmaking.

The preliminary recommendations of the committee on household arts of the National Education Association commission on the reorganization of secondary education are: The teaching of cooking and sewing are to be required in the grades; but until so provided, noncredit make-up courses are to be given in the first year of high school for those who have not had work in the elementary school.

In the high school the emphasis should be on the reasons for doing things, and the food work should be given largely from the point of view of applied science; and, in order that the girls may have some science to apply, it is desirable that a course in general science should precede the work in foods or be taken parallel with it. For this reason it seems better to put this course (foods) in the second year of the high school.

The committee recommends one unit of work in the grades and four in the high school; the latter to include a unit of clothing and of food each, a half unit of dressmaking and millinery, a half unit of house planning, decoration, furnishing, and sanitation, a half unit of textile study, and a half unit of dietetics. Three units (two in high school) are recommended as required work and two as elective. "Those who go no further than the high school, those who wish to specialize in household arts, and those who are planning to take up quite a different subject afterwards, are recommended to take the five units."¹

High-school credit for elementary household arts.—So long as some students begin household science in high school without preliminary instruction in elementary school, such beginning work in high school should have high-school credit. This seems only fair, especially in a vocational subject. The suggestion of offering make-up courses in high school, to be taken without credit, similar to make-up noncredit courses in the colleges, seems questionable for high schools at least. An interesting precedent is that of the New York State high schools, which give credit for one-half the seventh and eighth grade cooking, sewing, and manual training, and ultimately may give full credit for this grade work.

Section I. A DOMESTIC-SCIENCE COURSE IN A GENERAL HIGH SCHOOL—BROOKLINE, MASS.

The Brookline, Mass., four-year course in "domestic science" is given in a general high school which offers five types of courses: Classical, subclassical, general, technical, and business. There is also a domestic-arts course parallel to the domestic-science course. The domestic-science course, outlined below, had last year a registration of 75 out of 270 girls in the school. Girls may elect one or more

¹ U. S. Bureau of Education, Bulletin, 1918, No. 41, p. 58.

years, but are encouraged to take the four years. The aim of the course is homemaking; a few girls in the course have gone to college, but the difficulty of securing recognition for home economics is a barrier. A little postgraduate work has been given, and the school has experimented with continuation teaching by a three-lecture course for housewives which was well attended. A practical arts high school has recently been established in Brookline with more pronounced vocational aim in home economics.

Domestic science is defined as including "food and house sanitation and personal hygiene, studied with scientific methods for the purpose of developing efficient homemakers and useful citizens." Domestic science work extends through the four years in the high school, occupying four periods a week throughout the course. The topics, by years, are as follows:

First year.—Chemistry and the physics of heat—two periods a week: 1. Study of flames. 2. Thermometers. 3. Boiling point. 4. Freezing point. 5. Heat: production, sources, nature, effects, transference, measure. 6. Water: distillation, solvent power, hard and soft water. 7. Hydrogen; synthesis of water. 8. Study of air and its principal gases. 9. Carbon dioxide. 10. The common chemical elements present in food compounds. 11. Synthesis, typical acid and base. 12. Acids, bases, and salts in connection with food work. 13. Some organic compounds. Definition, sources, formation, and uses. 14. Five food essentials.

Food and its preparation—two periods per week: 1. Study of kitchen equipment. 2. Carbohydrates. Sugar cookery. Starchy vegetables. Cooking of sauces, soups, and purées. Batters and doughs. 3. Protein. Albumenoids, albumen of egg. Preparation of egg dishes; methods based on results of experiments. Myosin. Study of muscle. Cuts of meat. Principles of meat cookery. Preparation of meat dishes. Gelatinoids. Connective tissue, bones, etc. Gelatine dishes. Nitrogenous extractives. 4. Fats and oils. Salad dressings. Beef dripping. Frying. Sautéing. Desserts and cream. 5. Mineral matters. Physiological value and sources of mineral matters in food.

Second year.—A. Chemistry of cooking and cleaning. 1. Removal of dust and dirt. 3. Solvents for grease. 3. Soap and soap making. 4. Cleaning metallic surfaces. 5. Removal of spots and stains from wood. 6. Removal of spots and stains from fabrics. 7. Testing food for starch, sugar, fat, mineral matter, and protein. 8. Composition of the body, food essentials, sources of mineral matter, starch, sugar, and protein, comparative cost, foodstuffs. 9. Balancing menus. 10. Simple experiments in digestion.

B. Food and dietaries: 1. Chemical composition, food value, and cost of various foodstuffs. 2. Metric system. 3. Heat and measurements; heat and work; calorimeter. 4. Daily requirements as regards muscle-building and energy-furnishing material. Balancing. 5. Menus planned to meet requirements worked out. 6. Occupation, climate, age, etc., considered.

C. Marketing and food preparation. 1. Practical marketing lessons. 2. Preparation of reasonable menus. 3. The best meals for the least expenditure of time, strength, and material. 4. Food for children. 5. School lunches. 6. Table setting, decoration, and serving.

Third year.—A. House sanitation: 1. Situation and surrounding of the house. 2. Study of soil and building sites. 3. Location from practical and sanitary

standpoints. 4. Plumbing materials, construction with plans, care, simple tests. 5. Ventilation, chemical air tests. 6. Heat. Various methods, charts, and heating appliances. 7. Lighting; coal and water gas, acetylene, kerosene, candle, electricity. 8. Study of the plumbing, heating, lighting, and ventilating systems in the high school and at home.

B. Convenient house plans: 1. Principles of mechanical and architectural drawing. 2. House plans and elevations. 3. Plans of the plumbing system.

C. History of home and art in the home: 1. Historical development of the house. 2. Modern American houses. Excursions. 3. Situation and surroundings. 4. Practical and artistic requirements. 5. Finishing, furnishing, and decorating, based on experiments with color.

Fourth year.—*A.* Bacteriology and household biology: I—1. The microscope and the history of bacteriology. 2. Yeast molds and bacteria. 3. Household applications of bacteriology. 4. Dust and its dangers. 5. The housefly and mosquito. 6. Analysis of air, water, and milk. 7. Fermentation from biological standpoint. 8. The modern theory of disease. 9. Antiseptics. Food preservatives and their effect upon human organism. II. The care of little children and food for little children. III. Home nursing, including the preparation of food for the sick; general diseases and disinfection. IV. Home treatment of simple accidents, cuts, sprains, scalds.

B. Economics: 1. Economic problems of the home. 2. Household expenditures. 3. Division of income. 4. Household accounts. 5. Relation of food to labor power. 6. Saving time, strength, and material in conducting household operations (scientific management). 7. Household industries from the ethical and from the economic standpoint.

C. Chemistry of food and cleaning: 1. Analysis of some compounds used in the household: Milk, olive oil, baking powder, washing powder, silver polish, bluing. 2. Bleaching and dyeing. 3. Test for adulterations and preservatives in milk, butter, cheese, salt fish, dried meats, coffee, spices, salad oil, etc. 4. Preparation of some chemicals in common use in the household.

The Brookline domestic science syllabus also includes a list of study topics suggested for the economics class, and for English themes. For economics: The consumption of wealth. Food and its relation to labor power. The housing of the poor and its relation to good citizenship. Municipal sanitary regulations. Expenditure versus saving. Division of income. Domestic service (as part of the general labor problem). The work of superintending a home compared with other economic operations. Child labor. Pure food. For English themes: How we furnish the house. The system of plumbing in the Brookline high school. The system of ventilation in the high school. The Brookline water supply. The milk supply. Care of milk on the farm and in the home. Yeast and its relation to bread making. Cost of food in relation to its nutritive value. Problems of sanitation on a country place. An electrically equipped house. Our heating plant. Choosing a location.

Section 2. DOMESTIC-ART COURSES—DOMESTIC CHEMISTRY: LOS ANGELES HIGH SCHOOLS.

A home-economics course is offered in each of the high schools of Los Angeles, the curriculum varying with the purpose of the particular school, whether general, manual training, or technical. The Hollywood High School has a special household-arts building, which provides unusual facilities for such instruction. The following courses are given in high schools, the precise offering varying in

different schools: In domestic art—sewing, dressmaking, millinery, costume design, home furnishing and decoration; in domestic science—cooking, domestic nursing and a “special course on the home,” including the house, its construction, sanitation and decoration, home economics, management, laundry. Details are furnished of the high-school courses in domestic art and of a course in domestic chemistry, the latter given in the chemistry department.

The outline of high-school work in domestic art (sewing) is here presented:¹

The aim of this work is to develop appreciation for the artistic and appropriate in dress and in the furnishing and decoration of the home, good judgment in the purchasing of materials, and technical skill in the planning and construction of garments. Emphasis is placed on simplicity, economy, and artistic line and color combination. The work comprises a study of the textile fibers with relation to their growth and processes of manufacture into cloth, of the adulteration of fabrics, of the uses of different fabrics, of the planning and construction of garments, of the hygiene of clothing, of the care and repair of clothing; also a consideration of the interior decoration of the home from the standpoint of art and economy. The work is intended to meet three needs—home use; preparation for advanced study; the earning of a livelihood.

Each of the following courses requires five double periods a week—one for textile study and four for practical work:

Preliminary course.—Intended for all students who enter the high school lacking previous training in sewing and related subjects, and including mending, darning, patching, planning, and construction of undergarments from free-hand draft and bought patterns; also elementary study of the textile fibers.

Course I. Sewing. In grades B9 and A9.

In B9: Practical work—including review of principles involved in the making of undergarments; pattern-drafting; making of princess slip; child's dress or gingham dress, thin white dress; study of designs and materials suitable for same; with supplementary work, simple articles for home decoration done in color from student's own design made in the art department. Textile study—Growth and processes of manufacturing cotton and linen; collection of samples of materials suitable for use in articles made during the term; discussion of the economic and hygienic value of different cotton and linen materials.

In A9: Practical work—including designing and making of patterns in paper; making thin white waist or dress; making dress or suit of heavy material (not tailored coat); embroidering on linen, i. e., napkin, dolly, etc.; principles of fitting emphasized; discussion of care and economic value of table linen; with supplementary work, any article in cotton or linen. Textile study—Growth and processes of manufacture of silk and wool; economic and hygienic values of same; collection of samples of standard materials suitable for various purposes.

Course II. Dressmaking. In grades B11 and A11.

In B11: Practical work—including continued study of pattern drafting and designing from plain foundation; crinoline modeling; making of wool dress

¹ Course of study for High and Intermediate Schools, Los Angeles, 1913-14, pp. 93 E.

or skirt; emphasis on method of sponging and pressing; tailored shirtwaist; with supplementary work, silk waist and option of five weeks of millinery. Textile study—Methods of identification of the various textile fibers; textile adulteration; cleansing of fabrics; careful study of the economics of dress and the right apportionment of the income.

In A11: Practical work—simple afternoon or evening dress, illustrating the draping of soft materials; study of color combinations most effective in artificial light; methods of finishing linings; draping of heavy materials as illustrated in the making of simple evening wrap; with option of five weeks of millinery. Textile study—Continuation of B (see above).

Course III. Millinery: B. Practical work—designing and making of frames in buckram and willow; making of hats from foundation to trimming; making and placing of all kinds of trimming, i. e., bindings, facings, bows and rosettes, bandeaux, etc. This course includes also a study of design and color and of materials used in the making of both hand-made and factory-made hats; renovating and the use of old materials; use and care of ostrich and other feathers. A. Practical work—designing and making of wire frames; trimming of straw hats; making of sbrred hats and children's hats; dyeing and pressing of old hats and renovating of trimmings. It is desirable for the student to make as many hats for others as possible and to study the adaptation of line and color in a hat to various types of faces. Use of old materials is encouraged.

Course IV. Costume sketching and design—the aim of this course is to develop creative power in the art of costume design. Practice is given in the application of the principles of harmony as expressed in line, in dark and light, and in color. The course includes sketching of costumes in pencil, charcoal, pen and ink, and in color; quick sketching; the making of designs for dress embroidery and for costumes which may be reproduced in materials in the domestic art department; a study of designs as found in lace, textiles, and embroidery; a short survey of the history of costume, including comparisons with present-day fashions. Individuality in dress is considered; cost and quality of materials estimated.

Course V. Home furnishing and decoration—this course takes up the problem of the decoration and furnishing of the entire house. It deals with color schemes, cost of materials, kinds of materials used, economic and artistic values, and estimates for specific problems; visits to decorating shops will be included.

The domestic chemistry course offered in the Los Angeles high schools is part of the home economics curricula. This one-year course is "designed especially for girls, and its purpose is to train them to be intelligent and efficient homemakers. To this end an effort is made to develop a scientific attitude which will enable them to judge intelligently of the merits of household articles and supplies independently of the claims of the manufacturers." It includes a semester's work in the third year, as follows: "A brief study of the principles of general inorganic chemistry with special reference to physical and chemical changes, the atmosphere, water, fuels, and illuminants. Emphasis is placed on those parts of the subject having direct application in the home." A second semester's work is given in the senior year as follows: "Simple chemistry, food constituents, food values, and relative costs; food adulterants; common poisons and their antidotes; soaps and cleaning compounds; examination and care of textiles; dyes and mordants."

Section 3. A CURRICULUM FOR GIRLS—DOMESTIC-SCIENCE SUBJECTS—
VOCATIONAL TRAINING: EAST TECHNICAL HIGH SCHOOL, CLEVELAND.

The Cleveland East Technical High School prepares boys and girls for definite vocations; also for entrance to technical schools of college rank; and maintains continuation education for wage earners. In most classes, differing vocational purposes require separate classes for boys and girls, so that a boys' school and a girls' school are organized within one building. A daily schedule of nine 45-minute periods with technical work in double periods is provided, and the usual program is of three academic and two technical subjects.

The curriculum for girls includes the following subjects, arranged in 45-minute periods as follows:

First year.—English, 5 periods; mathematics, 5; botany and physiology, 5; cooking, 6; sewing, 4; applied arts, 6; physical training, 4 or 3; study, 10 or 11.

Second year.—English, 5; mathematics, 5; chemistry, 6; cooking, 4; sewing, 6; applied arts, 4; physical training, 4 or 3; study, 11 or 12.

Third year.—English, 5; history, 5; physics of German or French, 6 or 5; elective technical, 15; study, 14 or 15.

Fourth year.—Art history and civics, 5; science or German or French, 5; elective academic, 5; or elective technical, 10; elective technical, 15; study, 10 or 15. Physical training and sex hygiene are electives.

The domestic-science course has a threefold purpose—to prepare for practical housekeeping; to teach related theory as applied science; to teach institution cookery and kitchen management as trade subjects, so that students may be prepared for catering as a vocation. The technical subjects involving homemaking are taken as the basis of the course, and around these, other subjects are grouped. As girls meet separately in academic work, the academic subjects are correlated directly with the technical; training in domestic science is thus greatly strengthened by these other departments; and the academic training is by no means weakened by practical applications, but is made interesting and of practical benefit. Graduates of the course have in many cases gone to college.

The work as outlined in the syllabus follows:

First year.—General subject selection, preparation, and physiological uses of foods. Method—Laboratory work in cookery and food experimentation. The following outline is observed in presenting the work: Energy-giving or fuel foods—carbohydrates and fats. Energy-giving and body-building foods—protein. Body-regulating food—water. Body-regulating and body-building food—mineral matter. Body-stimulating materials—food adjuncts.

Since the required academic sciences for the first year are physiology and botany, the physiological uses of foods are emphasized in the experimental and theoretical work of the beginning domestic science. For work in cookery, foods are also grouped as to their functions in the body.

Included in this part of the course are food experiments from which a direct, definite application can be drawn as to the selection, preparation, and digestion of foods to be cooked. Recording in a notebook the purpose, method, result, and application of each food experiment is required, so that the accuracy attained in observing and recording results lays the foundation for the laboratory method of study and especially prepares for the study of applied chemistry, a second-year subject. To do the maximum of actual cooking, thereby making the subject interesting and practicable to freshmen students, and at the same time to develop the reasoning power through factors interesting and helpful to a housekeeper, directions for cooking foods are arranged somewhat as instructions for laboratory work of an established scientific subject. To directions or suggestions for preparing foods are added questions, answers to which (recorded in a notebook) require careful observation as to cause and effect, of the given method, difference in results obtained by substituting one food material for another, comparison of different methods of cookery, economy of material and time, proportions of ingredients in recipes. In short, by using a recipe book as a laboratory manual, students acquire skill in practical cookery and at the same time mental development in reasoning and logical thinking.

The "meal method" of teaching, somewhat modified, is used at least once a month. A group of foods, the combination of which would be suitable for a simple meal or part of a meal, is prepared. Each pupil prepares the entire group of foods in individual quantity. Only such foods are selected as have been previously prepared, so that this method affords a means of reviewing. Also, most satisfactory results are obtained by this method in training pupils to gain speed and skill in the preparation of several foods at one time.

In other subjects of the curriculum, topics relating to domestic science are included as follows: In machine sewing—hemming of dishcloths and towels; making of holders, aprons, and cases for silver. In applied art—making and decorating articles for the household, such as tiles, fern dishes, vases, and desk furnishings.

In botany—cell structure; storage of food materials in seeds and underground stems; food materials in leaves and stalks; growth of molds and yeast plants. In physiology—digestion of each foodstuff; uses of foods in the body; personal hygiene. In English—subjects pertaining to domestic science used as themes; spelling and pronunciation of culinary terms. In arithmetic—problems involving costs of foods; relation of nutritive value, to cost of food and method of preparation; comparison of one method of cookery with another as to economy of time and fuel; division of quantities used in the ordinary recipe that the student may appreciate the relation of the individual to the practical recipe.

Data for these problems are obtained from observations made in the kitchen laboratory; while skill is acquired in preparing a food material in the school kitchen, valuable information concerning the same food is received from propositions and solutions of mathematical problems.

Second year.—General subject: Composition, combination and serving of foods; dietaries. Method—laboratory work in food experimentation, cooking and serving of foods; making menus; calculation of fuel value of menus. The following subjects are treated: Batter and doughs; food combinations; planning, cooking, and serving meals; calculating of the fuel value of meals. Food composition and combination are selected for second-year work, because applied chemistry is a required science. Dietaries are included, so that the mathematical computations of food values can be solved in arithmetic, which is also in part a second-year study. The same methods are used as in the first year for the theory and practice of cookery for the first part of the second year.

During the latter part of the year entire meals are planned, cooked, and served. The food value of the meal is computed.

Related work in the second year is given in domestic art, applied art, applied chemistry, and mathematics.

Third year.—General subject: Applied biology, food preservation, and laundering. Method—laboratory work in school kitchen, laundry, and biological laboratory; recitations. The following subjects are treated: Food preservation, household bacteriology, laundering, home nursing, emergencies and invalid cookery.

Food preservation includes canning, preserving, jelly making, and pickling. Household bacteriology, embracing processes of sterilization, use of disinfectants and antiseptics, examination of air, water, ice, and milk, does much to elucidate work in food preservation, home nursing, and in invalid cookery.

Laundering furnishes practical application of scientific principles learned in applied chemistry with regard to soap making, removal of stains, and use of bluing and washing reagents. Methods of washing and ironing all garments and fabrics usually found in the family laundry are practiced.

No attempt is made to train pupils for professional nursing, but simply to give such theoretical and practical instructions as will enable them to care for the sick in the home—e. g., changing of bed linens; methods of bathing a patient; administering medicines; ventilating, heating, and furnishing a sick room; treatment of burps, cuts, poisoning, and fainting; bandaging of wounds. Home nursing also includes a study of pathogenic conditions which are dependent for the most part upon dietetic treatment. Special diets for sick patients are prepared. Much stress is laid upon children's diseases and the care and feeding of infants.

Related work in the third year, is given in applied art and physics.

Fourth year.—General subject: Household management, food preparation; Method—laboratory work in school kitchen and furnished apartment; visits to markets; recitations.

The following subjects are treated: Advanced cookery, household sanitation, household economics, housekeeping, household architecture, and decoration.

Food preparation consists of advanced cookery, in which the fundamental principles given in the first and second years are reviewed and enlarged upon. Household sanitation considers the location of a house; construction, convenience, cost, and efficiency of heating, lighting, and ventilating methods and systems; water supply, removal of waste, care and cleaning of all materials and furnishings found in a home.

Household economics considers organizing, dividing, and systematizing work of the household and various economic problems of the home.

Situation and site of a home, materials for building, practical and artistic requirements for a home, house planning, finishing, furnishing, and decorating are discussed in the study of household architecture. Drawing plans for various rooms, indicating furniture and drawing complete plans for a home, are requirements for this subject.

To those students desiring to specialize in applied art, practical problems are given in designing and executing decorations for walls and hangings of various rooms of the school building and apartment for housekeeping.

The course ends with work in housekeeping in a furnished apartment. Related work in art history is given this year.

Vocational training.—Aside from the regular four-year course in domestic science, which has for its aim the training of homekeepers,

there is offered, after the second year, an elective course in vocational cookery, requiring three or more consecutive hours preparing foods in large quantities. The school offers also vocational courses in sewing and millinery.

In the vocational cookery, the first problem is that of marketing. The pupils are given cash to pay for materials selected at the large markets. Purchases are carried back to school and registered in an account book. Then the foods are prepared. After obtaining the finished product, the cost of the materials and time of preparation are calculated. The product is then ready for sale; each girl in turn acts as cashier.

A public sale is held once in two weeks, a legitimate profit being made on all articles sold. Two or three times a week the foods are sold to the school lunch room at a very small profit.

The aim of this work is not only to gain skill in cooking, but to acquire knowledge in the purchasing of food, and to gain experience in business management.

Demands for graduates able to undertake cooking and catering are coming to the school, although the cookery course has just been established.

Section 4: A HOME-CRAFT COURSE—WADLEIGH HIGH SCHOOL, NEW YORK CITY.

The Wadleigh High School, New York City, has recently organized a home-craft course which is not only intended to provide home training, but also to furnish a new kind of secondary curriculum for the type of girl not attracted by the usual classical, scientific, or literary curricula. Nor is the course a usual manual-training course made over for girls. It includes the home-making subjects, but it makes novel provision for vocational study and puts a distinctly present-use valuation on all subjects. There are new subjects dealing not only with woman's home work, but with her social relations—historical, legal, cultural, economic. The purely disciplinary view of education is rejected; Latin and Greek are not heard of; the modern languages are elective; in mathematics a year of "household arithmetic" is required, and also another year of mathematics, unless equivalent work has been elected in the general course of the school. The other required general subjects are a year of English, devoted to inspirational literary study with composition and oral expression, a year of biology, two years of drawing, two years of music, four years of physical training. The required subjects of household concern are: Domestic science and domestic art, two years of each; hygiene and sanitation, household management, "social efficiency," and "essentials of conduct." Election to the



A. GROUP WORK, PUBLIC SCHOOLS, WASHINGTON, D. C.

One group as family practicing table service with salad course; another group taking notes; another, washing dishes.



B. CANNING SWEET POTATOES, SECOND YEAR HIGH SCHOOL, JAMESTOWN, N. C.

following amount may be had from all subjects taught in the general course of the school and from the special subjects each year:

First year (6 periods).—Household arithmetic, vocation study, study of vocation fitness, current history, epochs of English history, clothing—its care and remodeling—German, French.

Second year (6 periods).—Millinery, household chemistry, epochs of European history, epochs of American history, epochs of ancient history, history of women's work, history of arts and crafts, current history, German, French.

Third year (14 periods).—Domestic science, domestic art, applied design, German, French, applied physics, current history, music (appreciation).

Fourth year (14 periods).—Domestic science, domestic art, economics, fundamentals of legal procedure, German, French, current history, physiology, bacteriology and sanitation, household design and decoration, music (appreciation).

Section 5. INSTRUCTION RELATED TO THE HOME OFFERED IN ACADEMIC DEPARTMENTS OF HIGH SCHOOLS.

High schools that have no distinctive household science departments may provide instruction related to the home by applied topics and possibly applied courses in the departments of chemistry, biology, physics, economics, art, and other school subjects that bear directly on the household. The course in "domestic chemistry" given in the Los Angeles high schools (p. 92) well illustrates this possibility; and the experience of Mr. Rexford in teaching food values in applied biology, and the outlines of household physics and applied economics for high schools, given below, make the same point in other fields. Those interested in this "related instruction" should compare the statistical findings as to this situation in high schools (p. 109), and also see the parallel offerings in normal schools (p. 123) and colleges (Part III, Bulletin, 1914, No. 38).

Food instruction in biology.—Mr. Frank A. Rexford, teacher of biology in the Erasmus Hall High School, Brooklyn, N. Y., has emphasized the teaching of food values in high-school biology, and in particular has developed a successful method of securing the cooperation of the home with this instruction. He has drawn up a "one-portion food table," in which the food values are expressed in terms of "Food as we eat it, weight of the ordinary helping in ounces," and this is distributed as ounces of proteid, fat, and carbohydrate. He has also drawn up for students' use a dietary record blank for a three-day record which his students are asked to fill out at home and bring to the laboratory. Another blank form is provided for the weekly food account of the family, and the students bring in a report of the family cost of food, and the kinds purchased for the week. He has found a great interest on the part of the students and the parents in this type of study. It suggests a type of applied science instruction that can be undertaken in high schools that have no distinctly household science courses.

*Applied physics or household mechanics course.*¹—The New Hampshire program of secondary school studies outlines a course in applied physics under the title of "Household Mechanical Appliances."

This is a field little worked, yet of great importance. It gives a ready opportunity to instruct girls in the principles of physics from the applied standpoint. It can be made an informational course of the greatest value. The concrete side of instruction will probably be better left for the most part to lecture-table demonstrations than to laboratory exercises of the ordinary type.

In condensed form the topics follow:

Heating appliances.—The nature of combustion. Fuels: Their essential chemical nature, source, relative cost. Heat: Study of the elementary principles of heat. Forms of heat generators. The cooking range: Construction, drafts, economy of heat, loss of heat. Gas and oil stoves: Compared with coal and wood ranges; waste of heat as compared with other ranges. Electric heat possibilities. Heating and ventilating the house. The hot-air furnace. Steam heat. Hot water: Construction of boiler and piping system; principle of convection current employed compared with hot-air and range hot-water heater; regulating devices; compared with steam and hot-air heat.

Plumbing.—Detailed scheme of typical residence plumbing system. The elementary principles of hydraulics. The water piping of a residence. The sewerage system.

Electricity.—Elementary principles; static and voltaic current; the electric current and wiring; electromagnetism apparatus depending on the principle of the electromagnet—door and other cell bells, annunciators, the telegraph and telephone, devices for thermostatic control of heat; the dynamo—construction of simple dynamo, wiring for current, the city system—power house, street mains, transformer, current compared with that from cell, storage battery, the electric motor.

Electric lighting: Transformation of current into heat and light; different forms of lamps; candle power, watts and watt hours, amperes, volts; wiring the house—danger from fire and why, precautions used, laws and ordinances and insurance regulations governing wiring.

Electric heating: Compared with lighting, appliances for heating, cost and possible economics in use as compared with other forms of heat. Electric meter and reading same.

Gas lighting.—Different forms of gas used in lighting; gas meter. Oil and other forms of lighting; source, compared with gas and electricity, appliances, economy.

Power in the household.—Elementary mechanics: The pulley, screw, wheel and axle, inclined plane, belts and shafting. The water motor. Other sources of power, such as steam engine, hot-air engine, and gasoline engine. Labor-saving machinery which can be used for household purposes.

Exercises: 1. Heating appliances; description of different chemical elements; experiments showing illustrations of chemical combination; description of different oxidizing processes with what takes place; study of stove under draft and with draft closed, describe what takes place. Complete and incomplete combustion; study of smoky fire and correction; compute cost of heating with wood, coal, gas, gasoline, and oil at current rates, from data secured at school or in the household. Study, sketching and description of Bunsen flame. Ex-

¹Two texts in "household physics" have recently appeared: Lynde, C. J., "Physics of the Household," Macmillan, 1914, pp. 313; and Butler, A. M., "Household Physics," Boston, Whitcomb and Barrows, 1914.

periment to show thermometer readings at freezing and boiling point. Experiment to show measurement of heat quantity. Experiment to show (c) conductivity of different metals, (b) convection currents. Melting and boiling points of a few substances other than water. Study of ice-cream freezing as illustration of freezing mixtures and of latent heat; study of the refrigerator as illustration of latent heat. (Most people think the cream freezes and the temperature is lowered in the refrigerator because the ice is cold.) Study and sketch essential features of different forms of ranges; make schema showing essential principles of heating and ventilating apparatus; make schema showing essential principles of hot-air furnace and ducts, steam boiler, and piping, hot-water-boiler, piping, and expansion tank. 2. Plumbing; make schema showing system; experiment to show mercury balanced against air; show by notebook description what is happening; sketch different forms of pumps; make schema showing drainage piping in household. Set up voltaic cell; connect up cells and magnets and call bells under different conditions and for different purposes. Make schema showing house wiring for light. Connect up small electric motor to cells; belt motor to pulleys; apparatus, none except what can be obtained from the physics or chemical laboratory, the kitchen, or the home.

Instruction in applied economics in the high school.—In connection with household-science courses for girls and general courses in economics for both boys and girls in high schools, a type of instruction might be developed which would be of interest to both boys and girls, the general nature of which is suggested by the topics mentioned below. This topic or subcourse in "applied economics" should emphasize those economic matters having to do with the daily life of the household and the daily work of the wage earner, in part as follows:

The earning of money.—Choice of a vocation; emphasis upon local industries and vocations; each one studied as regards wages; preparation needed; constant or irregular employment; hygienic conditions; child labor; labor of girls and women; industrial conditions, wage-earning class especially; organizations of wage earners; factory welfare work; employers' liability; women's work.

The spending of money.—The family budget and the intelligent handling of money by the individual and within the family; each division of the family budget should be taken up in turn and detailed studies made, looking to the acquiring of practical control of family expenditures. A consideration of shelter, for example, should include standards of housing in the city and the country; the relation of law and municipal regulation to improved housing; responsibility of the landlord, janitor, and the householder; sanitary considerations with regard to the house and their cost; the improvement of shelter as regards roof areas; municipal measures which affect housing; the control of expenditures, systems of personal and household accounts, with enough practice to give skill.

The saving and investment of money.—Institutional methods of saving money, banks, etc.; insurance and its various forms; investments; loans; all of these topics taken up from the point of

view of the wage earner and the middle-class person and carried out to a practical issue.

Section 6. RECOGNITION OF HOUSEHOLD SCIENCE FOR COLLEGE ADMISSION.

The need of securing college recognition in admission credit for courses taken in high school has influenced the high school in two ways. It operates to retard the introduction of new subjects, no matter how meritorious, into the high-school curriculum; it protects subjects already in even if they lack merit; it is, in short, an influence against progress as regards changes in the high-school curriculum. On the other hand, with regard to subjects already in the curriculum, the pressure from the colleges has been toward better standards of work. Home economics is now passing from the first of these positions to the second, as colleges have come to accept quite generally for entrance credit a limited amount of technical work in high school; this amount is placed, in a recent committee report (see below), at about one-fourth of the high-school curriculum. This solution can not be final, for the new vocational courses in high school will require at least one-half time for technical work, and public opinion will ultimately require the open ladder from these vocational courses into college quite as much as from the classical high-school courses.

High-school teachers in home economics must be on guard against the maldevelopment of what should be vocational work in home-making into academic pseudo-scientific instruction in order to curry favor for college entrance recognition. Let vocational work stand on its own feet and recognition will come duly. As well seek to organize academic, cultural, "scientific" courses in medicine or law as in household management and its subsidiary techniques; the final point of view in schools which teach the practitioner is always practice, skill, the vocation, the profession.

Three statements follow: Status of home economics as to college admission, four college admission units of North Central Association, and a suggested standard high-school course.

*Status of home economics for college admission.*¹—In 1912 of 203 colleges giving the A. B. degree no one of them prescribed that household science *must* be offered for admission; but 79 of these colleges will accept household science if offered for admission, and 10 other colleges will consider its acceptance. In other words, 89 of 203 colleges recognize this subject as now taught in high schools as of sufficient educational worth to give it recognition alongside the older academic studies, as authorizing entrance upon a collegiate course of study leading to the A. B. degree. Of the 114 colleges not recognizing household science for entrance, 46 accept only men students, so that only 68 of 158 academic

¹ College Entrance Requirements. C. D. Kingsley. U. S. Bureau of Education. Bulletin, 1911, No. 7. See also College Entrance Requirements; report of teaching section committee. Lake Placid Conference on Home Economics, 1908, p. 69.

institutions maintain a negative attitude; i. e., 56 per cent recognize household science of admission. Similarly, of 85 engineering schools, 44 accept household science for admission; and of 31 colleges of agriculture, all but 3 accept household science for admission; i. e., 51 per cent of engineering schools and 90 per cent of agricultural colleges recognize household science for admission.

The amount of weight given to household science in the usual requirements of 15 units of high-school study is also significant. Of the 79 A. B. colleges accepting household economics for admission, 31 recognize not more than 1 unit, 18 accept 1½ or 2 units, and 9 accept 3, and 21 accept 3½ or 4 units or more. Only 65 of the 203 A. B. colleges do not recognize some one or more specified vocational subjects for entrance, and certain of these 65 colleges will consider such subjects.

Of 39 engineering schools, or schools of technology, 17 accept 1 unit or less, 11 accept 2 units, 2 accept 3 units, and 9 accept 4 or more units. Of the 28 agricultural colleges accepting home economics for admission, 10 accept 1 unit or less, 5 accept 2 units, 8 accept 3 units, and 10 accept 4 or more units.

Four college admission units of North Central Association.—The North Central Association of Colleges and Secondary Schools adopted in 1910 definitions of four units of work in household arts for college admission as follows:¹

Plain sewing (1 unit).

Every exercise in sewing should illustrate an important principle or process, or a simple combination of such principles and processes. Hand sewing and sewing-machine work must be equally insisted upon:

- (a) The various stitches and their special uses.
- (b) Hand sewing, fundamental processes.
- (c) The use and care of sewing machines and their attachments.
- (d) The nature and special uses of cotton, linen, and woolen goods.
- (e) The use of patterns; cutting out.
- (f) Taking measurements; making of simple garments.

Sewing and millinery (1 unit):

- (a) Making of shirt waists, wash dresses, and similar garments.
- (b) Millinery: Study of materials for hats; making, altering, and covering hat frames. The planning, making, and trimming of seasonable hats of appropriate materials.

Throughout the course economy and good taste in dress.

Cooking (2 units):

1. Food classified and tested for food principles. A study of the effect of heat upon foods alone and in combination; with and without water and other liquids; experiments with leavening agents, and their uses shown in actual cooking. Bread making. The theory and practice of canning and preserving fruits, vegetables, and meats. Planning, cooking, and serving meals. Waiting on table.
2. The cost of food; market prices; the cost of meals. Household accounts. The family dietary: The planning, weighing, and cooking of apportioned meals. Diets for infants, invalids, and convalescents.

Sanitation: Selection of site, house planning; heating, lighting, and ventilating; water supply; disposal of waste; furnishing and decorating; cleaning processes, including laundry work.

Suggested standard high-school course.—The committee on articulation of high school and college, of the National Education Asso-

¹ Proceedings of the North Central Association of Colleges and Secondary Schools, 1910, Chicago, pp. 144.

ciation, defines a high-school course as composed of 15 units, each constituting approximately a quarter of a year's work; it should include at least 3 units of English, 1 of social science (including history), and 1 unit of natural science; it should include two majors of 3 units each and one minor of 2 units, and one of the majors should be English; the requirement in mathematics and in foreign languages should not exceed 2 units of mathematics and 2 units of one language other than English; of the total of 15 units, not less than 11 should consist of English, foreign language, mathematics, social science (including history), natural science, or other work conducted by recitations and home study. The other 4 units should be left as a margin to be used for additional academic work or for mechanic arts, household science, commercial work, or any other kind of work that the best interests of the student appear to require. This means practically that the 15 units shall be divided as follows: English, 3; foreign language, 2; mathematics, 2; social science, 1; natural science, 1; and 2 additional academic units which must be so chosen as to increase the units in some one field to at least 3; and 4 units left as a margin for individual choice. A supplementary report from the committee permitted the substitution, in place of either 2 units of mathematics or 2 units of foreign language, of a second unit of social science and a second unit of natural science.

This committee mentions the following among other considerations determining such a curriculum:

The high-school curriculum must not be overloaded by requiring the pupil interested in the new subjects to take all the old; a social civic education must be provided; tentative, vocational preparation must be given; individual efficiency must be increased; and, finally, mechanic arts, agriculture, or household science should be recognized as rational elements in the education of all boys and girls, and especially of those who have not as yet chosen their vocation. By means of exclusively bookish curricula false ideas of culture are developed.¹ A chasm is created between the producers of material wealth and the distributors and consumers thereof. * * * Our traditional ideals of preparation for higher institutions are particularly incongruous with the actual needs and future responsibilities of girls. It would seem that such high-school work as is carefully designed to develop capacity for and interest in the proper management and conduct of a home should be regarded as of importance at least equal to that of any other work. We do not understand how society can properly continue to sanction for girls high-school curricula that disregard this fundamental need, even though such curricula are planned in response to the demand made by some of the colleges for women.²

It may be suggested that while the course recommended by this committee makes very adequate allowance for industrial work as supplementary studies in a general high-school curriculum, it does not provide sufficient room for studies that would be primarily vocational. A home-making agricultural or commercial course in a high school which allows only one-fourth time for "vocational" studies

¹ College Entrance Requirements. C. D. Kingsley, U. S. Bureau of Education, Bulletin, 1918, No. 7, pp. 97-98.

seems to the writer an anomaly. It is the development of vocational high-school courses that are about one-half vocational, and the recognition of such courses for college admission, that would seem to be the next important steps in this field.

Section 7. HIGH SCHOOLS GIVING COURSES IN HOME ECONOMICS, BY STATES.

There were in 1913 some 1,345 high schools in the United States which reported registration in courses in home economics. There was in these courses a total registration of 66,914 students, of whom 57 different high schools. In 1914, 2,440 high schools were reported as teaching home economics (see Part IV of this report).

The high schools which teach home economics were distributed among the various States as indicated below:

TABLE 11.—High schools reporting registration in home-economics courses in 1913 and in 1914, by States.

| States. | High schools in State in 1911-12. | High schools reporting home economics in 1913. | High schools reporting home economics in 1914. |
|----------------------|-----------------------------------|--|--|
| Alabama | 165 | 15 | 76 |
| Arizona | 14 | 3 | 18 |
| Arkansas | 126 | 11 | 13 |
| California | 226 | 65 | 159 |
| Colorado | 113 | 15 | 66 |
| Connecticut | 65 | 1 | 12 |
| Delaware | 23 | 2 | 3 |
| District of Columbia | 7 | 1 | 1 |
| Florida | 88 | 8 | 22 |
| Georgia | 259 | 23 | 22 |
| Idaho | 63 | 16 | 9 |
| Illinois | 671 | 74 | 166 |
| Indiana | 634 | 88 | 123 |
| Iowa | 586 | 70 | 173 |
| Kansas | 395 | 98 | 126 |
| Kentucky | 166 | 16 | 17 |
| Louisiana | 118 | 22 | 6 |
| Maine | 181 | 8 | 8 |
| Maryland | 86 | 37 | 28 |
| Massachusetts | 240 | 28 | 46 |
| Michigan | 896 | 34 | 60 |
| Minnesota | 248 | 99 | 65 |
| Mississippi | 163 | 29 | 80 |
| Missouri | 423 | 33 | 45 |
| Montana | 49 | 11 | 43 |
| Nebraska | 367 | 31 | 16 |
| Nevada | 16 | 2 | 57 |
| New Hampshire | 65 | 9 | 3 |
| New Jersey | 154 | 6 | 48 |
| New Mexico | 26 | 1 | 36 |
| New York | 648 | 26 | 8 |
| North Carolina | 242 | 12 | 67 |
| North Dakota | 142 | 23 | 26 |
| Ohio | 834 | 33 | 18 |
| Oklahoma | 194 | 26 | 32 |
| Oregon | 117 | 26 | 33 |
| Pennsylvania | 875 | 30 | 34 |
| Rhode Island | 23 | 1 | 78 |
| South Carolina | 170 | 12 | 7 |
| South Dakota | 142 | 13 | 30 |
| Tennessee | 167 | 20 | 18 |
| Texas | 677 | 61 | 66 |
| Utah | 34 | 18 | 70 |
| Vermont | 68 | 1 | 41 |
| Virginia | 297 | 21 | 10 |
| Washington | 196 | 66 | 26 |
| West Virginia | 90 | 12 | 167 |
| Wisconsin | 308 | 86 | 19 |
| Wyoming | | | 133 |

Section 8. TIME ALLOTMENTS IN HIGH-SCHOOL CURRICULA IN HOUSEHOLD ARTS.

(A.) *Time allotments by subjects or topics.*—Statements were given by 288 high schools as to the instruction given in some 19 different subjects and topics in household science. Of these subjects, 5 relate to foods, cookery, and nutrition; 5 to sewing, dressmaking, textiles, and costume design; and 9 to the house, its furnishings, household management, housewifery, laundry, sanitation, and nursing. These three groups of courses may be designated foods, clothing, and shelter and management. There is presented in Table 12 a series of facts about each of the 19 subjects or topics, viz: (1) The number of high schools reporting that the course or topic is taught; (2) the minimum number of hours and the maximum hours given to the topic in any school; (3) the median hours so given, i. e., when the hours are arranged in the order of size, the hours given by the school midway between the schools giving the smallest and the largest number of hours; (4) the two limiting numbers which, when the hours of instruction are arranged thus, will include between themselves the middle half of the schools, i. e., one-half of the numbers just above and just below the median value; (5) the modes or certain numbers of hours for which instruction is more commonly given than for other numbers.

Referring now to Table 12, it is evident from column 1 that cookery courses are at present taught in more high schools than are sewing courses. There are 428 elementary or advanced cookery courses reported, as compared with 356 sewing and dressmaking courses; and 592 courses in foods, including cookery, food chemistry, and dietetics, as compared with 435 in all "clothing" subjects, including sewing, dressmaking, millinery, textiles, and costume design. It seems certain, therefore, that cookery with its related theoretical instruction is a third more frequent in high-school curricula than sewing and its related theoretical courses in textiles and costume design. In the elementary school, sewing courses are more numerous than cookery. The changed relation in the high school is in part doubtless a direct result of this situation in the elementary school; in part, cookery will be favored in the high school because of what seem its greater resources in subject matter. The third group of courses, "shelter and management," includes the following subjects taught in the number of schools indicated: Household management, 31; sanitation, 26; accounts, 20; decoration and furnishings, 23; housewifery, 23; home nursing, 24; care of children, 6; and laundry, 27. Instruction in these topics, amounting to 206 courses in all, have developed more recently in home education and could scarcely yet expect to secure more recognition than it has, viz, one-half that given sewing and one-third that granted cookery instruction. Some of the impor-

tant developments in high-school teaching will probably come in this field.

The importance of instruction in any of these subjects is only suggested by the number of courses given; it is better measured by the number of hours of teaching actually devoted to the individual subject. In columns 2-5 of Table 12 are given the minimum and maximum hours of instruction, the means, limits which include 50 per cent of the courses, and the modes, each in terms of the hours of instruction devoted to the subject, for these 19 subjects taught in high schools. The most important single number as a measure of the amount of time usually given to any subject or topic is the mean number of hours (column 3, Table 12), and we shall compare the mean hours for the various subjects.

Elementary sewing and dressmaking are the subjects which command the largest number of hours of instruction—108 hours as expressed by the mean. The typical elementary cookery course in high school as measured by the mean is given 96 hours of teaching, and the advanced cookery course 80 hours, while food chemistry is given 60 hours and dietetics 40 hours (and in nearly one-half the cases both these courses are given in the same schools); finally, cookery for the sick has a mean time allotment of 26 hours. The five food courses, if given together in their typical form, would require 302 hours of teaching (the sum of the mean hours of instruction given to each of these courses), while the five clothing courses (sewing, dressmaking, millinery, textiles, costume design) would similarly require 408 hours, a third more than the food courses, and the nine other courses and subjects (house, household management, decoration, accounts, housewifery, nursing, care of children, laundry, sanitation) would require for typical instruction 253½ hours. For typical courses in all 19 divisions of home economics as now given in American high schools there would therefore be required 963½ hours of instruction (the sum of the mean hours allotted these subjects). Assuming that a student spent 12 to 15 hours a week under instruction in classroom exercises, it is evident that two years of 36 to 40 weeks of study devoted exclusively to home economics courses would no more than exhaust the possibilities of this new subject. No one would propose organizing such a plan of continuous, exclusive study of home science for the high-school girl, but the facts adduced show that there is a wealth of material in this practical arts field which can be combined in proper order with English, social and natural science, and other high-school subjects to give a desirable four-year high-school curriculum with a center of home science which will be rich in general values, but specialized toward the home as a vocational field.

TABLE 12.—High-school courses and topics in home economics—Hours of instruction—General tendencies.

| High-school courses. | Number of courses reported. | Minimum and maximum hours of instruction reported. | Median hours of instruction. | Limits which include half the courses, hours of instruction. | Modal hours of instruction. |
|---------------------------|-----------------------------|--|------------------------------|--|-----------------------------------|
| Elementary cookery..... | 263 | 24-450 | 95 | 57-103 | 54, 57, 72, 80, 108. |
| Advanced cookery..... | 175 | 5-409 | 80 | 54-152 | 40, 48, 54, 57, 72, 80, 108, 120. |
| Cookery for sick..... | 58 | 1-360 | 26½ | 12-76 | |
| Food chemistry..... | 57 | 14-265 | 60 | 34-120 | 40, 72, 120, 200. |
| Nutrition, dietetics..... | 49 | 1-120 | 40 | 24-71½ | |
| Elementary sewing..... | 239 | 12-600 | 108 | 54-108 | 72, 80, 108, 180. |
| Dressmaking..... | 126 | 14-450 | 101-108 | 54-160 | 72, 160, 180. |
| Millinery..... | 34 | 18-200 | 76-80 | 40-120 | |
| Textiles..... | 31 | 6-320 | 53½ | 18-20 | |
| House..... | 26 | 4-180 | 20-24 | 15-72 | |
| Household management..... | 31 | 5½-133½ | 36 | 18-72 | |
| Household accounts..... | 20 | 4-126 | 24 | 12-76 | |
| Housewifery..... | 23 | 1-270 | 36 | 13-45 | |
| Home nursing..... | 24 | 3-360 | 15-18 | 12-40 | 15. |
| Care of children..... | 6 | 3-45 | 9-25 | | |
| Laundry..... | 27 | 4-120 | 36 | 12-47½ | |
| Household sanitation..... | 26 | 4-120 | 32-33½ | 24-54 | |
| Household design..... | 23 | 4-180 | 33 | 15-60 | |
| Costume design..... | 14 | 1½-240 | 63½-67½ | 45-76 | |

½ 55 per cent courses.

½ 52 per cent courses.

(B) *Time allotments by groups—Foods, clothing, and shelter and management.*—By combining the hours of instruction of the different household economics subjects into the three groups—food, clothing, shelter and management—the following facts are secured (Table 13): Of 288 high schools, 257 (89 per cent) give courses in foods, 232 (80.5 per cent) give courses in clothing, and 72 (25 per cent) have courses in shelter and management. The total amount of instruction given in foods varies for the 257 schools from 24 to 1,200 hours; the median amount is 189 hours. The total number of hours of instruction in clothing varies for the 232 schools from 14 to 1,240 hours; the mean value is 175-180 hours. The total number of hours of instruction in shelter and management for 72 schools varies from 3 to 680 hours; the median value is 54-62 hours. It is evident that food appears as a subject of instruction in high schools in about 10 per cent more schools than clothing, the former being found in about 9 out of 10 schools that teach household arts, and the latter in 8 out of 10. The subject of shelter and household management appears in about one-fourth the schools that teach household arts. Were typical high-school instruction in these three main divisions of subject matter to be given, it would require approximately 180 hours in foods, 180 hours in clothing, and 60 hours in shelter and management.

TABLE 18.—Total hours instruction in foods, clothing, and shelter and management in 288 high schools—General tendencies.

| | Food courses. | Clothing. | Shelter and management. |
|---|--|-----------------------|-------------------------|
| Number of schools offering..... | 257 | 232 | 73 |
| Percentage of schools offering..... | 89 | 80.5 | 25 |
| Smallest and largest hours offered..... | 24; 1,200 | 14; 1,240 | 3; 680 |
| Median hours offered..... | 159 | 175-180 | 54-63 |
| Modes..... | 54; 80, 106; 183; 240; 288; 360. | 72; 180; 288; 360. | |

(C) *Time allotments—All subjects combined.*—From 288 high schools the data were secured for the total number of hours' instruction given in all subjects combined in household science and art. The instruction ranges from 25 to 2,560 hours in total amount in different schools. An abbreviated distribution follows:

TABLE 14.—Time allotments for all subjects combined, by total hours.

| Hours. | Schools. | Hours. | Schools. |
|--------------|----------|------------------|----------|
| 25-40..... | 12 | 850-899..... | 7 |
| 50-99..... | 31 | 900-949..... | 4 |
| 100-149..... | 32 | 950-999..... | 4 |
| 150-199..... | 33 | 1,000-1,049..... | 2 |
| 200-249..... | 24 | 1,050-1,099..... | 1 |
| 250-299..... | 11 | 1,100-1,149..... | 1 |
| 300-349..... | 8 | 1,150-1,199..... | 5 |
| 350-399..... | 17 | 1,200-1,249..... | 1 |
| 400-449..... | 14 | 1,250-1,299..... | 2 |
| 450-499..... | 14 | 1,300-1,349..... | 2 |
| 500-549..... | 9 | 1,350-1,399..... | 2 |
| 550-599..... | 8 | 1,400-1,449..... | 2 |
| 600-649..... | 13 | 1,450-1,499..... | 1 |
| 650-699..... | 4 | 1,500-1,549..... | 1 |
| 700-749..... | 11 | 1,550-1,599..... | 1 |
| 750-799..... | 7 | 1,600-1,649..... | 1 |
| 800-849..... | 2 | 1,650-1,699..... | 1 |
| | | 1,700-1,749..... | 1 |
| | | 1,750-1,799..... | 1 |
| | | 1,800-1,849..... | 1 |
| | | 1,850-1,899..... | 1 |
| | | 1,900-1,949..... | 1 |
| | | 1,950-1,999..... | 1 |
| | | 2,000-2,049..... | 1 |
| | | 2,050-2,099..... | 1 |
| | | 2,100-2,149..... | 1 |
| | | 2,150-2,199..... | 1 |
| | | 2,200-2,249..... | 1 |
| | | 2,250-2,299..... | 1 |
| | | 2,300-2,349..... | 1 |
| | | 2,350-2,399..... | 1 |
| | | 2,400-2,449..... | 1 |
| | | 2,450-2,499..... | 1 |
| | | 2,500-2,549..... | 1 |
| | | 2,550..... | 1 |

From the detailed distribution the mean was found to be 304-315 hours of instruction, and this may be taken as the typical number of hours of home-economics teaching actually given in the average American high school at present. Half the schools give between 144 and 576 hours.

Section 9. DATA ON HIGH-SCHOOL CURRICULA.

(A) *Required versus elective high-school courses.*—Of 279 schools answering, 39 (13.9 per cent) require some one or more courses in household arts of all girls; 240 offer all household-arts courses as elective. The question whether any household-arts courses should be required is a fundamental one on which two opinions are possible. If one holds to the elective system absolutely, of course one would have no place for a required home-science course. If one believes that certain courses should be required without individual choice, household science would seem to merit approval as a uniform requirement for high-school girls. When a requirement has been set,

it varies, of course, with local conditions; in one school all girls except those in the classical course take household science; in another only the girls in the English course must take this subject; the requirement is set as one year of food and one year of clothing instruction in certain schools; in others one year only is required, and the balance are elective. This last seems worthy of recommendation. If the household science is well taught, it will secure its own registration after the first year; if it can not so secure registration, the instruction given in that school probably does not merit further compulsory attendance.

In discussions of the elective system absolute freedom in election is likely to be favored by the sentimental argument for "freedom," "liberty of choice," etc. It is well to remember that some things are imperative, whether we like to do them and choose them or not; and among such unavoidable things of life are the needs of food, clothing, shelter, care in sickness, preventive hygiene, sanitation, and the experiences which center in the home.

(B) *Percentage of high-school students in elective courses in home economics.*—For 196 high schools reporting the percentages of students in elective home-economics courses the mean percentage was 33 to 35 per cent, and 50 per cent of the schools reported percentages between 20 per cent and 50 per cent. This indicates that in high schools offering courses in home economics at least a third of the girls are commonly taking the courses. In 41 per cent of the schools one-half or more of all girl students take elective home-economics courses. The distribution of percentages reported follows:

TABLE 15.—Percentage of students electing home economics in high schools.

| Percentage. | Schools reporting. | Percentage. | Schools reporting. |
|-------------|--------------------|-------------|--------------------|
| 1 | 1 | 35 | 2 |
| 3 | 1 | 36 | 1 |
| 6 | 1 | 37 | 2 |
| 8 | 2 | 40 | 2 |
| 10 | 0 | 42 | 0 |
| 12 | 5 | 47 | 1 |
| 14 | 2 | 48 | 1 |
| 15 | 3 | 50 | 42 |
| 16 | 4 | 51 | 1 |
| 17 | 1 | 60 | 8 |
| 20 | 24 | 65 | 1 |
| 22 | 2 | 66 | 4 |
| 23 | 1 | 70 | 2 |
| 25 | 10 | 75 | 13 |
| 29 | 1 | 80 | 1 |
| 30 | 5 | 90 | 7 |
| 33 | 17 | 95 | 2 |

(C) *The four-year high-school course in home economics.*—Of 214 high schools furnishing data, 60 report that they offer a four-year course in home economics, and 154 report that they do not offer such a course. Approximately, therefore, one-fifth (19.6 per cent) report such a course; doubtless a fourth or more actually offer it. Of the 60 schools reporting the four-year course, 43 state the percentage of

girls in the high school who take the four-year home-economics course; it varies from 5 to 100 per cent. The mean percentage is 25, and one-half of the schools have from 20 to 33 per cent of their girl students in the four-year home-economics course.

(D) *Vocational high-school curricula in household arts.*—The inquiry as to vocational high-school curricula presented a general negative result. There were the following affirmative answers, but the lack of agreement as to the meaning of "vocational" (used here as meaning preparation for earning a livelihood, but including home-makers' courses) probably makes some of these returns dubious: Dressmaking courses, 11 schools; millinery, 6; costume design, 3; household management, 5; nurses' preparatory, 2; child's nurse, 2; cook's course, 5. Chicago, Boston, and other cities report dressmaking and millinery courses; Mount Vernon, Ind., Columbus, Ga., Cadillac, Mich., Newton, Mass., and other schools report courses in cooking; Newton, the preparatory course for nurses, and other courses; and Passaic, N. J., and Syracuse, N. Y., courses for the child nurse. These vocational curricula, it is very evident, are just beginning to be explored as to possibilities in high-school teaching.

Section 10. HIGH-SCHOOL TEACHING—SEPARATE DEPARTMENTS, DEPARTMENTAL COOPERATION, HOME COOPERATION.

(A) *Departmental teaching of home economics in high schools.*—Of 230 high schools furnishing data, in 160 (69.6 per cent) there are no departmental divisions in the teaching of home economics—i. e., the same teacher gives instruction in both food and clothing courses. In 70 schools (30.4 per cent) there is a departmental organization—i. e., one instructor teaches the food courses exclusively, and so for other divisions. In 4 schools there are both types of teaching, the specialist in the single field and the teacher who works in several fields. Specialization can only take place in the larger high schools; given the possibility of specialized teaching, and its desirability will not be questioned. The figures quoted probably express the fact that specialized teaching is possible in about 3 out of 10 high schools reporting, rather than suggest the adoption of it as desirable by so small a proportion and its rejection by the large majority of schools.

(B) *Cooperation with other departments in high-school teaching of home economics.*—Economy requires wherever possible coordination between academic, scientific, and other teaching departments in high schools and the practical arts departments, whether of industry, agriculture, home economics, or what not. The two most important department interrelations for home economics teaching are (a) those between chemistry and home science, especially in foods and cookery; and (b) those between fine arts and clothing and house decora-

tion. Of 199 high schools replying, 117 (59 per cent) state that more or less of cooperation has been developed between chemistry instruction and different divisions of home economics, while 82 schools (41 per cent) report no such cooperation. This cooperation has taken the form—e. g., in the technical high school, Cleveland, the high school at Houghton, Mich., and many other schools—of a household chemistry or food chemistry course for girls instead of a standard chemistry course alike for both boys and girls. Similarly, of 198 high schools replying, 100 (51.7 per cent) report that the art department cooperates more or less in a direct way with home-economics teaching, while 93 schools (48 per cent) report negatively.

(C) *Home cooperation in high-school teaching.*—Of 232 replying, 55 high schools (23.7 per cent) report that some form of cooperation between home and school has been effected in the teaching of home economics, as in the completion of sewing projects at home and the repeating of cooking exercises at home. In the absence of equipment a start has sometimes been made in household-arts teaching by presenting problems at school to be entirely worked out at home and later reported upon with results at school. Such a method, however, makes it impossible to handle the actual process educationally by having expert criticism and discussion at the moment of action. The proposal to give credit for home practice in a technique taught at school belongs here and has value in developing interest for pupil and the home adults alike, but it may introduce objectionable features if it emphasizes for young children deadening routine rather than the progressive solving of new problems.¹ Here, too, belongs the Crete plan of teaching household arts through the organized voluntary services of home women, who teach groups in their own kitchens. The fact that 76 per cent of the schools reporting have not utilized in teaching household arts the homes from which their children come, indicates that much progress is possible here.

Section 11. SALARIES OF HIGH-SCHOOL TEACHERS OF HOME ECONOMICS.

In 244 high schools furnishing data the salaries varied from \$315 to \$2,600;² the median salary is between \$800 and \$849, and 50 per cent of the salaries are between \$700 to \$749 and \$1,000 to \$1,049.

The distribution of salaries by States and amounts is given in Table 16.

¹ See Part I of this report, Bulletin, 1914, No. 26, p. 83.

² The salaries are entered by groups of fifties—i. e., all between \$500 and \$549 are entered as \$500; the first and last columns are exceptions. Where a school reported a minimum and maximum salary, the maximum was entered.

TABLE 16.—Salaries of high-school teachers of home economics, by amounts and by States.

| State | \$300. | \$400. | \$450. | \$500. | \$550. | \$600. | \$650. | \$700. | \$750. | \$800. | \$850. | \$900. | \$950. | \$1,000. | \$1,050. | \$1,100. | \$1,150. | \$1,200. | \$1,250. | \$1,300. | \$1,350. | \$1,400. | \$1,450. | \$1,500. | \$1,550. | \$1,600. | \$1,700. | |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| Alabama | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arizona | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arkansas | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| California | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Colorado | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connecticut | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Delaware | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| District of Columbia | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Florida | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Georgia | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Wyoming | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

1915.

\$ 22,400.

\$ 22,400.

TABLE 16.—Salaries of high-school teachers of home economics, by amounts and by States—Continued.

| | \$300 | \$400 | \$450 | \$500 | \$600 | \$650 | \$700 | \$750 | \$800 | \$850 | \$900 | \$950 | \$1,000 | \$1,050 | \$1,100 | \$1,150 | \$1,200 | \$1,250 | \$1,300 | \$1,350 | \$1,400 | \$1,450 | \$1,500 | \$1,550 | \$1,600 | \$1,800 | Over \$1,800 | |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------------|--|
| Arkansas..... | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| California..... | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Wisconsin..... | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wyoming..... | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| United States..... | 1 | 2 | 4 | 4 | 8 | 14 | 23 | 20 | 23 | 26 | 15 | 7 | 26 | 3 | 7 | 1 | 11 | 4 | 3 | 3 | 1 | 6 | 1 | 1 | 1 | 4 | 2 | |

Section 12. CONTINUATION EDUCATION IN HOUSEHOLD ARTS.

In addition to the regular program of elementary and high school courses, it is evident that instruction in household arts must be provided for the much larger group of girls, young women, and home women who are out of school if the purpose of an education for better homemaking is to be adequately achieved. School instruction in household arts primarily reaches the next generation of homes; it may not affect the home women of to-day. Some of the agencies for aiding home women are described in other sections of this report—the extension education of colleges and universities in the home-economics field, agencies for the betterment of rural homes—but the agency of greatest promise in this field is continuation instruction of an organized sort which the public schools are beginning to provide for women outside the regular school enrollment.

Thus the association for the study and prevention of infant mortality in its campaign is urging the great importance of continuation schools of homemaking; that is, schools to pick up again and continue the training of girls when they have become young women, and are either meeting the responsibility of establishing the new home or, a little later, are facing the problems of child care. The 1911 resolutions of the infant mortality association request each State to appoint a commission on continuation schools of homemaking, and urge that such schools be conducted, if possible, in model houses or flats; that practice in the care of infants, children, and the sick be provided whenever possible; and that special efforts be made to create day continuation schools as well as, or in preference to, evening schools, and also to secure cooperation of employers in part-time schools.¹

Massachusetts as a State is probably most awake to this problem in its provision for practical arts classes in homemaking open both to wage-earning and home women. State aid is given for this as for other industrial education. Boston has daytime continuation classes meeting in a house-keeping flat; at several school centers there are afternoon lectures and conferences for mothers and homemakers. Courses in cooking and sewing are also offered in various elementary school buildings, and evening household arts classes in dressmaking, cooking, millinery, and embroidery are offered in 17 centers for both actual and prospective homemakers.

In these Boston evening classes the instruction is organized on a unit-course plan—i. e., registration is taken for a single subject, instruction in which will take a definite number of hours sufficient to give practical skill in the limited field, and teachers are sought who are practically skillful in the special subject chosen. This point is evidently one worth observing in the organization of such

¹ See transactions of the association, 1911-12-13.

instruction. Practical persons, housewives, and wage-earning women, for example, are more ready to enter a class for a definitely limited practical purpose, such as learning to make bread, cook vegetables, trim hats, make shirtwaists, etc., than they would be to study "domestic science" or some other "subject." It is the superiority of the vocational appeal in the vocational field. Pressure can thus be put upon the students for efficiency in work and a workmanlike product.

The director of continuation schools in Boston makes the following statement regarding the daytime continuation classes in household arts:

The school committee has rented an apartment located conveniently for the employees of several candy factories (52 Tileston Street) and has equipped the apartment in such a manner as could be provided by a young couple of small income. A very competent homemaker of practical experience has been placed in charge of this apartment, and she receives from the candy factories groups of approximately 10 girls who are permitted to attend during working hours without loss of pay. Sessions are of two hours each, conducted twice a week. The teacher in charge is now handling five such groups. During the time in which classes are not in session the teacher in charge visits the factories and homes of her pupils. Instruction is intended to cover all of the ordinary duties of a simple, but well-managed home. These classes have been in operation for about two years and have been received with hearty support by both employers and the community.

The director of the classes reports that her method is to proceed in a conversational way and maintain an atmosphere like that of a home where a mother is teaching her daughters and a group of friends.

The "Home School," Providence, R. I.,¹ is primarily a continuation school for working girls, which attempts to give them training in housecraft under home conditions. The school is conducted in a five-room flat and is part of the public-school system. One of the suggestions arising from its experience is that women living at home might find a supplementary source of income in home industries, such as baking, jelly making, home market gardens, needlework, art work, etc. The Providence home school sells its own products of bread and cake, finding a ready demand for them, and it is believed that the training here given young women wage earners will enable them to undertake similar productive work later in their own homes. Such a method of economic earning by the married woman is certainly preferable to her going out into outside employment to the detriment of the home, if the danger of sweated employment can be avoided.

The home woman can best be reached, probably, by daytime lectures and continuation classes. A promising experiment is that inaugurated in January, 1914, by the Rochester (N. Y.) Board of

¹ The Home School. A. W. Trowbridge. Houghton Mifflin Co. 1913.

Education. An afternoon course (4 o'clock) in "health lessons for women" was established in response to a taxpayers' petition—

Requesting that classes in the branches of physiology, hygiene, dietetics, disease symptoms, preventive medicine, nursing, and first aid be established at such hours as women could most conveniently attend, i. e., from 4 until 5 o'clock in the afternoon; and that there be morning and evening classes for such as can not attend in the afternoon, so that every woman in this city shall have the opportunity of gaining this most necessary knowledge.

Twenty-four lessons were given, the first 12 by a woman physician, the second by a nurse. The subjects are as follows: By the physician—1. Physiology; 2. Care of the child, birth to 2 years; 3. Care of the child, 2 years to 12 years; 4. Physiology, hygiene, and psychology of adolescence; 5. First aids; 6. Emergencies; 7. Emergencies; 8. Causes of disease; 9. Prevention and recognition of disease; 10. Rational principles for the cure of disease; 11. Household and civic hygiene; 12. Motherhood. By the nurse—1. General nursing; 2. Care of child, baby to 2 years of age; 3. Care of child, 2 years to 12 years of age; 4. Making beds; 5. Bandaging demonstration; 6. Care of sick room; 7. Care of room; 8. Dietetics—milk, use of foods; 9. Dietetics—fruits and vegetables; 10. Dietetics—foods and preparations; 11. Nursing the invalid child; 12. Obstetrical care.

Experiments with daytime classes for home women, to provide practical work and laboratory instruction in unit subjects of the household, were carried out by the public schools of several cities last year, notably with great success at Montclair, N. J., where about 200 women received instruction, and where this year the plan has been continued and extended to include a class for housemaids, which they attended at daytime hours and on their employers' time. Another example is the Sewickley, Pa., schools, which last year organized three cooking classes under the auspices of the local women's club, one for white maids and one for colored and white maids (serving girls), and one for housewives. A fee of \$2.50 for the maids' classes and \$4.50 for the housekeepers' class was charged. In many schools, particularly public high schools, either the regular classes in home-making subjects have been opened to young women and housekeepers of the community, or more frequently special classes have been organized to give practical instruction in home-making subjects to women not members of the school.

New York City maintains an evening public-lecture service in connection with the public schools, in which in a single year 696 lecturers have spoken on 1,746 different topics before 5,573 audiences with a total attendance of 1,000,190 persons. Some of the lectures have reference to the home. In 1911-12 a course of eight lectures on "Pure foods and their preparation" was given by Prof. John C. Olsen and a score of individual lectures upon foods, marketing, milk supply, and other hygienic questions of home concern.

V. STATE NORMAL SCHOOLS AND EDUCATION FOR THE HOME.

Practically all of the State normal schools now include in their curricula courses related to the home. Probably half of these normal schools are requiring some instruction in household arts as an element in the general curriculum for grade teachers, while a number of State normal schools now give courses for training supervisory teachers of household arts, the standards for which are properly in advance of courses for regular grade teachers. This advanced instruction in household science in preparation for supervisory teaching is sometimes limited to one normal school in a State, with less advanced departments of home economics in the other normal schools. One State (California) has a special normal school devoted to manual training and home economics exclusively. Many normal schools give homemaking courses in addition to teachers' courses, and thus broaden their courses from merely teacher-training to include curricula in household management and other technical fields. Fully accepted, this theory would develop the "normal schools" into vocational colleges, something foreshadowed possibly in the Wisconsin plan (p. 118). The normal school is aiding in the movement for rehabilitating country life, with a spirit like that of the State colleges, in some cases with a special department devoted to rural problems, in which the rural home has prominent consideration (p. 121). In several normal schools, extension work through neighboring rural schools is organized, as at the Harrisonburg (Va.) Normal School, and in such cases home betterment is one objective (p. 122). Enterprising science teachers in normal schools, as in colleges where there are no departments of household science, are exploring the possibilities of instruction related to home problems. The State normal school at Westfield, Mass., offers an illustration of this. In short, American normal schools are already making a great contribution to the movement for better homemaking, by furnishing all their graduates with some of the special knowledge on which the art of right-living is based, and increasingly by training both special teachers of home economics, and also graduates of special vocational courses who are ready to apply trained skill in homemaking and in some of the industrial applications of household science. This last point suggests

a wider future for the public normal school than the field it now occupies. May it not be used as an instrument of the State in the vocational-education movement which is upon us, its curriculum broadened to include the vocations of industry, agriculture, commerce, and the household, as well as the teaching of these vocations, and the State thus find ready to its hand efficient vocational colleges wherever there is now a State normal school?

Here we are concerned, however, with the work of the public normal schools, as they now exist, in relation to the provision of an education for the home.

Those interested in the entire problem of training teachers of home economics should consult, in addition to this division on normal schools, the next division, on technical institutes, and parts of the division on colleges, which deal with college courses for teachers. (For matters of equipment in normal school, see p. 50 in Part I of this report. Bulletin, 1914, No. 36.)

Section 1. FOUR-YEAR COURSE IN HOME ECONOMICS; A VOCATIONAL COURSE: STATE NORMAL COLLEGE, ALBANY, N. Y.

This institution, which has for its chief function the training of secondary school teachers, offers to high-school graduates a four-year special course for teachers of domestic science and domestic art leading to the degree of bachelor of science in household economics. While the Normal College offers work more advanced than that of normal schools generally, it is believed that its courses in household economics will be suggestive of possibilities to other normal schools. There are required in household economics subjects 7, 9, 10, and 4 points, respectively, in the successive four years, a total of 30 points in 63½ points required for four years, so that approximately one-half of the curriculum is devoted to household-science subjects. The household-science course in the Normal College totals 1,884 hours of instruction, which is far above the mean total of 600 hours of household-arts teaching in normal schools generally (p. 135). There is proper emphasis on natural science; but economics and social science are, unfortunately, lacking except for the industrial-history course.

The details follow:

First year.—English, 2 points; chemistry, 4; industrial history, 1; elementary sewing, 2; plain sewing, 2; household decoration, 1; textiles, 1; laundering, 1; electives, 2; total, 16.

Second year.—English, 2 points; psychology, 3; chemistry of foods and nutrition, 3; elementary cookery, 1½; intermediate cookery, 1½; millinery, 1; costume design, 1; household physics, 1; electives, 2; total, 16.

Third year.—Applied design, 1 point; advanced applied design, 1; dressmaking, 3; household management, 1½; dietetics, 1½; advanced millinery, 1; method of teaching domestic art, 1; history and principles of education, 4; electives, 2; total, 16.

Fourth year.—Advanced cookery, 2 points; home sanitation and bacteriology, 1; method of teaching domestic science, 1; psychology, 1½; general methods of teaching, 2; principles of industrial education, 1; method of teaching, 1; observation and practice teaching, 2; electives, 4; total, 15½.

A four-year vocational course for women.—To those who do not wish to fit themselves as teachers of home economics a "special four-year course for women," leading to the B. S. degree, is provided in the Albany Normal College. This permits, after the first year, the election of advanced work "in millinery, textiles, and dressmaking for those in domestic art, and in cooking, chemistry, and sanitation for those in domestic science," and may be described doubtless as a homemakers' course; according to the standard urged elsewhere for such courses, liberal studies might well occupy half time in such a course.

Section 2. A STATE PLAN FOR HOME ECONOMICS IN NORMAL SCHOOLS—WISCONSIN.

The eight normal schools of Wisconsin have a well-considered plan whereby some household-arts work is offered in each normal school, while a special department of domestic science and domestic art, affording comprehensive training, is maintained at one school—the Stevens Point Normal School. Moreover, by recent arrangement the State normal schools have been correlated with the State university, so that a student may take the first two years of a college course in one of the State normal schools and then pass to the university for the last two years, either for a general or professional course. This arrangement makes it possible for young women to secure a four-year training in home economics, the first two years in the State normal school and the last two in the home-economics department of the State university. In effect, it establishes a system of tax-supported State junior colleges located at various points throughout the State in affiliation with the university.

A special department of domestic science and domestic art at the Stevens Point Normal School was opened in 1903 and has had a constantly increasing enrollment, numbering 68 in 1912-13, with courses intended to train teachers for the grades and high schools, and also to furnish a training in homemaking for young women who do not intend to teach. For teachers a three-year domestic science and domestic art course is provided with specialization in either line, and also a two-year course in domestic science and domestic art without specialization. Vocational courses not in preparation for teaching are offered for one year and for two years, the former including enough science to give a basis for the immediately practical, and the latter including more advanced work in both domestic science and domestic art. All of the foregoing courses require high-school grad-

uation for admission. There is also offered a five-year domestic science and domestic art course which requires graduation from the eighth grade for admission. Individual courses are offered by the domestic science and domestic art department at the Stevens Point Normal in the following subjects: Chemistry, four courses; physics, general biology, bacteriology, physiology, cookery, advanced cookery, dietetics, home nursing and emergencies, laundering, sanitation, household management, drawing, interior decoration, sewing, costume designing, millinery, advanced millinery, home and social economics. Educational courses in observation psychology, theory of education, history of education, school management, organization and practice teaching, are also included. The department is equipped with laboratories, kitchen, sewing rooms, laundry, dining room, bedroom, and emergency room.

Additional to this it is planned to construct a moderately priced cottage, containing living room, two bedrooms, dining room, kitchen, cellar, all neatly and adequately furnished in good taste, in which the young women of the senior class may live in turn, in groups of four for short periods of from three to five weeks each, * * * taking charge of the house, running it themselves, and being held responsible for results.

The dormitory will also be used for some practice work. Stevens Point Normal School offers also a rural school course in domestic science and domestic art, including two periods a week of cooking and the same amount of sewing.

The general plan of the Wisconsin normal schools of providing some instruction in household arts in every normal school and a complete department for the training of special teachers in a single school is to be commended. One might suggest as a minimum of instruction in household arts for all normal students in every normal school the instruction in cookery and sewing of the rural school course at Stevens Point. It represents the minimum amount of teaching in household arts which every grade teacher should be ready to impart.

Section 3. CURRICULA IN OTHER NORMAL SCHOOLS.

Framingham, Mass.—At the Framingham (Mass.) State Normal School is the Mary Hemenway Department of Household Arts, so called in memory of Mrs. Mary Hemenway, who established the Boston Normal School of Cookery in Boston in 1887, which was transferred by the trustees of her estate to the Framingham Normal School in 1893. The department offers a three-year course, as follows: First year—Cookery (principles and methods), chemistry (general and qualitative analysis), physics, biology, sewing, drawing, French, and English. Second year—Cookery (advanced and invalid), chemistry (qualitative and organic), physiology, sewing, drawing, French, English, psychology, laundry, teaching of cooking

and sewing. Third year—Cookery, food and dietetics, dressmaking and millinery, drawing (house decoration and mechanical drawing), sanitation, emergencies, pedagogy, teaching of cooking and sewing.

One of the strong features of the department is its provision for practice teaching.

It combines classes in sewing and cookery, coming from elementary and secondary schools. A part of the practice school is carried on in the main school building. Upon almost all school days three classes in cookery may be seen at work, each class under the direction of a senior, assisted by a member of the middle junior class. On other days the seniors instruct classes in sewing—juniors from the regular course and pupils from the schools of the practice department. All of this work is done under careful supervision. In addition to this teaching, each senior carries on independent classes in sewing and cookery in Framingham and in many of the neighboring cities and towns. These classes are made up from elementary and secondary schools. Under this plan the members of the senior class have a full year's experience in teaching one or more classes; and the members of the middle junior class have a year of observation and assisting which prepares them in a measure for their teaching in the senior year.

Farmington (Me.) Normal School.—Under the Maine law providing aid for household-arts education the teaching of some household arts is required in every normal school, and the department which had been established at the Farmington Normal School in 1911-12 was extended to a third year in 1913 for the training of supervisors of household-arts teaching. The two-year course adds to the regular normal-school curriculum one year of cooking, with marketing, household accounts, management, and housewifery; and one year of elementary sewing, garment making, and dressmaking. The third year as outlined provides a full-time curriculum of advanced cookery and sewing, food production and manufacture, dietetics, laundry work, millinery, theory and practice of domestic science, practice teaching, and academic work.

The experience of the Farmington Normal School in the matter of equipment will be suggestive. There was no room for household-arts laboratories in the normal building, so a near-by cottage was secured. While the cooking and sewing classes have been crowded, there has been a remarkable interest shown by the students. The house does not provide dining room and bedrooms for housewifery practice, so the use of private rooms has been secured for the purpose. The director of the work writes:

Though we have been and are laboring under disadvantages, we are looking for something better. The girls are very much attached to our cottage, for they say it seems so "homey." Our work is growing so rapidly that we plan to ask the next legislature for money for a new building. Besides laboratories for sewing and cooking, I wish to have a suite of rooms to use as living quarters for the teachers of the household-arts department. These we shall use for practical demonstrations of the running of the home. We give instruction in sewing and cooking from the fourth grade through the ninth in the model

schools, and are using some of the outside schools for practice classes. I hope by another year to introduce some work into the rural schools around us.

Macomb (Ill.) Normal School.—The possibilities of household arts in the curricula of a normal school are well illustrated in the requirements for various diplomas at the Western Illinois State Normal School at Macomb. The school offers: (I) A normal diploma with varied requirements which include three credits in "the school arts"; of these one may be chosen in household arts, which appears as an elective in the second and third term of the junior year of this standard normal course. (II) A country school training certificate for teachers of rural schools, requiring 18 credits, of which household arts to the amount of 1 credit is required in the first term of a two-year course. (III) An academic diploma for which 32 credits are required, of which 10½ are prescribed and 21½ elective; in the elective credits household courses may be chosen for from two-thirds to 2 credits.

The individual courses offered at Macomb are as follows: In the normal department a course in "domestic science and art in the grades"; in the country-school course, six weeks' instruction in cooking and six weeks in sewing; in the academic department, separate courses in cooking and in sewing; and in the postgraduate courses (which are offered in household arts, library economy, manual training, and physical education, only), there are provided the following in household arts: Application of heat to food materials (two courses), textiles, and the house, and in addition eight courses open to household-arts students, but listed, respectively, as drawing, design, chemistry, agriculture, home nursing, and education.

California State Normal School of Manual Arts and Home Economics.—The State of California has recently taken over as a State school the Anna Blake City Normal School of Manual Arts and Home Economics at Santa Barbara, which is the single instance of a State normal school exclusively devoted to industrial and domestic teaching. Instruction is offered in both domestic science and domestic art. The entrance requirement is two or more years' training in a college, normal or special school, or successful teaching experience. The diploma of the school entitles the holder to the special certificate, both to teach and supervise.

Section 4. THE NORMAL SCHOOL AND THE RURAL PROBLEM.

The rural school department in the normal school.—The normal schools of the country are beginning to recognize that the rural-school problem is concerned largely with the teaching of agriculture and home economics. A special department to deal with the rural-school problem, giving due attention to the rural home, has been established in several normal schools—first in the Illinois State

Normal at Macomb a few years ago and since copied in the organization of other schools. Miss Mabel Carney, who was connected with the pioneer work at Macomb as the training teacher in the district practice school and later director of the country school department at the Illinois State University, in writing of this matter, says:

There should be in the first place a special department of the normal school devoted to country-school interests. * * * The course offered for this department had best be two years in length, the standard for entrance being as high as possible. * * * Contiguous with this course should be offered another, also of two years' duration, for graduates of the tenth grade. As the standard of the department rises, it should be possible to discard the more elementary course and supplant it by the advanced one, as has been done at Kalamazoo, Mich. Eventually there should be introduced also a special advanced course of regular normal-school rank for the preparation of teachers for high-salaried country schools, consolidated schools, normal departments in high-schools, and other special phases of rural education.¹

Rural extension work, Harrisonburg (Va.) State Normal School.—The Harrisonburg (Va.) State Normal School, established in 1909, is conducting notable extension work, especially in household arts and manual arts in rural schools, by sending its senior students for practice work into these schools under the direction of Miss Rhea C. Scott, special supervisor of the normal-school faculty in charge of rural education.

Miss S. Frances Sale, of the department of household arts in the normal school, furnishes the following details:

The members of the senior class, who are working for diplomas in the household arts and industrial arts courses, go to the rural schools once a week for practice teaching. Seven of the largest schools in the county and two small schools have invited us to teach sewing, cooking, and manual arts for them, and over 600 children in the county are doing this work. The young women, after making lesson plans, drive out with the rural supervisor and usually spend the day; if the school is near, they get back in half a day. Two, three, or even four young women go to the same school on the same day. It depends on the number of classes wanting the industrial work. Some of the classes contain 20 children. The practice teachers are excused from the work they miss while they are in the country, but are held responsible for its preparation. The greatest problem we have is the arrangement of the schedule so that the girls will lose as little time as possible from their normal classes. The teachers teach two, three, or even four classes a day, organize "bread clubs" among the girls, help in patrons' leagues, in getting up entertainments for raising money for the improvement of the school equipment, etc. They visit in the homes where an opportunity offers itself, study the community, and are encouraged to take as active a part in the improvement of the school surroundings as possible. A number of the schools have bought their own equipment. They gave entertainments in order to make the money. Some schools had "kitchen showers." The normal school bought one small equipment when the work was begun three

¹ Carney, Mabel. *Country Life and the Country School*. Chicago, Row, Peterson & Co. 1912, pp. 408.

years ago. This equipment is used in one school. The materials are all furnished by the children in both cooking and sewing. We have had no difficulty in getting the things we want. In sewing, the completed article is the property of the child making it. We try to select such things as will be of interest and use to the child. For cooking, a list is given to the regular teacher, and she gives it to the children the day before the class comes. They take turns furnishing the materials.

In manual arts we encourage the use of native materials when it is possible—honeysuckle, willow, and white-oak splits for baskets and mats; dry-goods boxes for problems in woodwork; natural dyes for coloring rags for rugs and staining wood. The normal school owns a chest of tools costing \$8.31, which is taken from school to school. It has been in use three years, and is still in good condition.

Near the normal school is a one-room rural school in a very poor community. This has been made into a community school. The people in the neighborhood have worked hard to help in every way to raise the money to add a room for industrial work. This room will be used for classes in sewing, cooking, woodwork, basket making, weaving, etc. In the afternoons and evenings the women will go for lessons in subjects related to the home. A night school, meeting two nights every week, has been in progress since early fall. The regular teacher, an enthusiastic little woman, teaches the night classes.

The people of the county are very much interested in the different phases of the industrial work and are begging for it.

Section 5. APPLIED SCIENCE, RELATED TO HOUSEHOLD, IN NORMAL SCHOOL.

The possibilities of applying science instruction to practical problems, many of which are of home concern, in schools where no household science as such is taught, is illustrated by the chemistry instruction given in the Westfield (Mass.) Normal School by Lewis B. Allyn. The students are taught—

to appreciate properly their own bodies and to guard themselves against the quick nostrums and questionable remedies of daily life. Foods, beverages, drugs, and medicines are analyzed and helpful as well as harmful properties determined. A knowledge of the dangerous effects of acetanilid preparations has well-nigh driven out the use of gripe and headache powders among the students of this school; while the fact that the local board of health depends in some measure upon analyses made by students in this course gives importance to the tasks undertaken, fosters care in the working habits of students, and inspires them with the sense of responsibility which every good citizen should have. The analysis of water and milk; the determination of the amount of alcohol in patent medicines, "soft drinks," and other beverages; the search

¹ For further information as to the work of the Harrisonburg Normal School, see the following: Normal Bulletin, January, 1912, "Suggestions for rural schools"; Supplement to Normal Bulletin, November, 1912, "Suggestions for rural schools—household and manual arts"; Normal Bulletin, January, 1913, "Leisure for farm women"; Rockingham County school bulletin, Harrisonburg, January, 1913, "Things that all country children should know and do, by the children of the schools"; "Lessons in cooking and sewing for Virginia school girls," issued by the State department of education, 1912, prepared and edited by S. Frances Sale, of the Harrisonburg Normal School.

² See List of Recommended Foods, published by the Westfield (Mass.) Board of Health; 10 cents.

for coal-tar products, etc.—these are other applications of the efforts made to provide for the physical well-being of students through a knowledge of chemical laws; while the removal of stains, the preparation of essences, perfumes, etc., and correlation with the department of manual arts, whereby materials to be used in that department are dyed or otherwise prepared, are illustrations of the "practical" turn given this science, whereby a considerable saving of money to the student is made possible. It is believed that the knowledge thus gained through the missionary work of students who become teachers will reach thousands of pupils to their permanent advantage. In a word, the aim of this course is to create, if necessary, and to foster a real interest in the great science of chemistry; to give a broader outlook on life, and to create a belief that every teacher is a real factor in the busy, living world; and to furnish the thoughtful, painstaking student with information by which she can keep both body and mind in an alert, healthy condition.¹

Section 6. TRAINING OF TEACHERS IN HOME ECONOMICS IN INSTITUTIONS OTHER THAN NORMAL SCHOOLS.

The city training school for teachers.—The city training school for teachers, the special function of which is to prepare grade teachers for the local schools, must in time give space for home-economics instruction in its curriculum. The problems of the city are in large part living problems, which center in the home—adequate nutrition, a clean and well-kept house, and intelligent child care—these the city grade teacher must help solve. The household-arts subjects are sure to enter the training-school curriculum. Some of the best opinion to-day favors the teaching of all household and other arts subjects in the first six grades by the regular class teacher, and sewing has usually been so taught. The Paterson (N. J.) Normal Training School requires a 10-hour sewing course, and the Elizabeth (N. J.) Normal and Training School an 86-hour course. Courses in food, management, and economy should find a place, too, in city training schools as valuable general equipment for the grade teacher. The Chicago Normal College, the teachers' training school of the city of Chicago, offers a two-year training course for special teachers in its department of household arts, which graduated 16 teachers in 1913 and 24 in 1914. Persons who enter must have had two years of food work and textile work in high school. College graduates are admitted for a one-year course, and 10 such students are in attendance this year. In addition, 50 special students are taking courses. A staff of two teachers in the college and six in the practice school are employed. So far the household-arts courses have not been opened to persons preparing for grade teaching. The college is just completing an arts building, one floor of which is devoted to household arts with the following laboratories: Laundry, two cooking laboratories, dining room, chemical laboratory, millinery room, dye

¹ Announcement, State Normal School, Westfield, 1912-13, p. 25. See, also, Allyn, "Elementary Applied Chemistry," Glan.

room, textiles, garment making, dressmaking, demonstration apartment, and classrooms. The provision for household arts in the Chicago Normal College may serve as an example to other cities. The Washington (D. C.) Normal School No. 2 (colored) is another example of progressive work in household arts. A two-year course is offered, six periods a week for 50 weeks, followed by 18 weeks of practice work. A science laboratory and a four-room apartment comprise the special equipment. Last year 117 students took instruction, and 14 special teachers of household arts were graduated (8 the year before). Graduates of the school have been in demand elsewhere. Household arts is prescribed for all intending grade teachers.

County training school for teachers.—Wisconsin has a system of secondary county training schools which prepare rural teachers. Home economics is offered in varying amount in different schools—sewing alone in 3 schools from which reports were received, with 50 to 100 hours of instruction; 2 schools reported both cooking and sewing, 1 about 37 hours of each, the other, the Green Lake County Training School, at Berlin, giving 200 hours to elementary cooking and elementary sewing, respectively, and 50 hours to advanced cooking and advanced sewing, respectively, a total of 500 hours in household arts. This amount, which is about one-sixth less than the mean hours of instruction in household arts given in State normal schools, seems a reasonable standard for these secondary normal schools.

High-school normal training courses.—Training classes in high schools afford an additional method of preparing teachers for public-school work. The school-teacher went originally from her own schooling directly into the teaching position, and the normal schools, teachers' colleges, and similar institutions are modern devices to increase the efficiency in teaching. The normal training class in high schools is the first step toward organized professional preparation. Numerically, however, it is still one of the most important recruiting grounds for the teaching staff of the schools, especially for grade teachers in smaller places and for rural teachers. In equipping teachers to give instruction in home economics it is therefore important that the training classes in high schools should include the household arts in their curriculum. Iowa and certain other States have made this provision. In Iowa 80 per cent of the rural teachers come from high schools, and half of these have had less than a four-year high-school course. Their average term of service is only three or four years, so that in that State alone 3,000 rural teachers are recruited every year from the high-school training classes. This State sees the importance of including agriculture and home economics in the course of training for these teachers, to the end that "agriculture and domestic economy will, in a degree at least, be taught in all rural schools." A half year of home

economics is required in the third year of the high-school course. Five periods a week are given, including two 45-minute recitation periods, two 90-minute laboratory periods, and one 45-minute sewing lesson. The subjects of sewing, personal hygiene, home and school sanitation, as well as food, are included in the course of study. The syllabus is an excellent one, remarkably comprehensive, notwithstanding the short period allotted for instruction. Detailed outlines of lessons are given, with suggestions as to equipment, the teacher's preparation for class work, housekeeping duties in the school, methods of teaching, etc.¹

Boys taking the training course are permitted to substitute additional agriculture for the domestic science. One might question this provision, in view of the fact that it is desirable for domestic science to be taught in all rural schools, and the man teacher as well as the woman will find it possible to introduce simple instruction at least.

Summer schools.—Summer schools for the training of teachers, providing opportunities for household arts as well as in other subjects, have been held for the State of Pennsylvania, at Mount Gretna, and by the State of New Jersey, at Cape May. Among the newer opportunities for summer study relating to the home should be mentioned the summer sessions of the secondary schools of agriculture and domestic economy, as illustrated by the summer camp school at the Milwaukee County School of Agriculture and Domestic Economy, at Wauwatosa, Wis. (For college summer schools see p. 83, of Part III of this report, Bulletin, 1914, No. 38.)

Instruction in teachers' institutes.—Instruction in teachers' institutes or temporary schools of instruction for teachers, lasting from one day to a week or longer, is one strategic method of securing the introduction of a new subject like household arts into schools.

New Hampshire, which has as yet adopted no special legislation regarding vocational or industrial education, has used this among other methods of encouraging the teaching of household arts and other applied sciences and arts. The New Hampshire "Institute Circular, No. 1, Series 1912-13, Suggestions to Domestic-Arts Teachers—Canning, Preserving, Pickling, etc.," and "Institute Circular 5, Series 1913-14, Cooking as Means and End in Education," are noteworthy, the latter for an excellent discussion of educational values in cooking instruction, which lays emphasis on the dining-room table and the whole meal as a unit problem in teaching, and on the economic aspects of food.

Tennessee published, in 1913, "A Brief Course in Domestic Science for State Institutes," arranged under the direction of Prof. Catherine A. Mulligan, of the University of Tennessee, outlining 20 lessons in

¹State of Iowa, Department of Public Instruction, Normal Training Course for Four-Year High Schools, 1913, pp. 60-176.

cooking, with recipes and references to Government bulletins and other easily available sources, together with other lessons in sewing, laundering, sanitation, etc., including the rural-school lunch. This course, extending through three weeks, was taught in 1913 by five graduates of the university to several hundred teachers at each summer institute. The lessons are intended to be repeated in village and rural schools.

The institute manuals of other States are emphasizing the same kind of instruction, and the provision of the New Mexico law of 1912 authorizing "a course of study in industrial education" to be outlined in the institute manual, and an examination in one or more branches of industrial education to be required of all teachers attending county institutes and summer normal schools, is undoubtedly a wise standard.

Other institutions for training teachers.—Reference should also be had to the chapter following for description of private technical institutes which give preparation for teaching (p. 139) and to parts of the chapter on colleges which deal with the training of teachers of home economics in colleges (p. 83 in Part III of this report, Bulletin, 1914, No. 38.)

Section 7. STATE NORMAL SCHOOLS TEACHING HOME ECONOMICS.

Home-economics courses are now offered in practically all of the 170 or thereabouts public State normal schools. At any rate, such instruction was in 1914-15 reported by the following 154 State normal schools. Of this number, 92 furnished in 1912-13 a detailed statement as to their curricula in household arts, and these statements are the basis of the deductions as to normal-school instruction offered (pp. 131-138).

There is a tendency for the State normal schools to develop their curricula which are usually two years in length into four-year collegiate and professional curricula, and thus for "normal schools" to become "normal colleges" or colleges for teachers. The following institutions have thus been organized upon a level above the typical normal school; State Teachers' College of Colorado, Greeley, Colo.; Iowa State Teachers' College, Cedar Falls, Iowa; New York State Normal College, Albany, N. Y.; and the normal colleges of Ohio located, respectively, at Ohio University, Athens, Ohio, and at Miami University, Oxford, Ohio. These institutions should be included in a complete tabulation of the State normal institutions for training teachers.

Alabama:

Daphne State Normal School, Daphne.
 State Normal School, Florence.
 Jacksonville State Normal School, Jacksonville.
 State Normal School, Livingston.
 State Normal School, Montgomery.

Alabama—Continued.

State Normal School, Moundsville.
State Agricultural and Mechanical College for Negroes, Normal.
Troy State Normal School, Troy.
Tuskegee Normal and Industrial Institute, Tuskegee.

Arizona :

Tempe Normal School of Arizona, Tempe.

Arkansas :

Arkansas State Normal School, Conway.
Branch Normal College, Pine Bluff.

California :

California State Normal School, Chico.
Fresno State Normal School, Fresno.
Los Angeles State Normal School, Los Angeles.
San Diego State Normal School, San Diego.
San Jose State Normal School, San Jose.
State Normal School of Manual Training and Home Economics, Santa Barbara.
San Francisco State Normal School, San Francisco.

Colorado :

State Teachers College of Colorado, Greeley.
Colorado State Normal School, Gunnison.

Connecticut :

State Normal Training School, Willimantic.

District of Columbia :

Washington Normal School No. 2, Washington.

Georgia :

State Normal School, Athens.
Georgia Normal and Industrial College, Milledgeville.
South Georgia State Normal College, Valdosta.

Idaho :

State Normal School, Albion.
State Normal School, Lewiston.

Illinois :

Southern Illinois State Normal University, Carbondale.
Eastern Illinois State Normal School, Charleston.
Northern Illinois State Normal School, De Kalb.
Western Illinois State Normal School, Macomb.
Illinois State Normal University, Normal.

Indiana :

Normal Training School, Indianapolis.
Indiana State Normal School, Terre Haute.

Iowa :

Iowa State Teachers College, Cedar Falls.
Western Normal College, Shenandoah.

Kansas :

Kansas State Normal College, Emporia.
Fort Hays Kansas Normal School, Hays.
Kansas State Manual Training School, Pittsburg.

Kentucky :

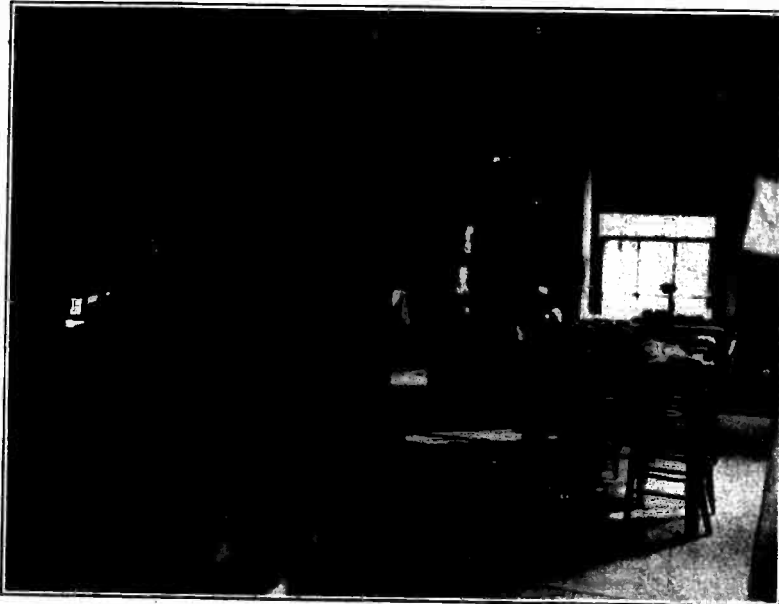
Western Kentucky State Normal School, Bowling Green.
Eastern Kentucky State Normal School, Richmond.

Louisiana :

Louisiana State Normal School, Natchitoches.



A. PRACTICE COTTAGE, STATE NORMAL SCHOOL, FARMINGTON, ME.



B. INTERIOR VIEW, PRACTICE COTTAGE, STATE NORMAL SCHOOL, FARMINGTON, ME.

Maine:

Eastern State Normal School, Castine.
 Normal School, Farmington.
 Western State Normal School, Gorham.
 Madawaska Training School, Fort Kent.
 Washington State Normal School, Machias.
 Aroostook State Normal School, Presque Isle.

Massachusetts:

State Normal School, Framingham.
 Hyannis Normal School, Hyannis.
 State Normal School, North Adams.
 State Normal School, Salem.

Michigan:

Western State Normal School, Kalamazoo.
 Northern State Normal School, Marquette.
 Central State Normal School, Mount Pleasant.
 Michigan State Normal College, Ypsilanti.

Minnesota:

State Normal School, Duluth.
 State Normal School, Mankato.
 Moorhead State Normal School, Moorhead.
 State Normal School, St. Cloud.
 Winona State Normal School, Winona.

Mississippi:

Mississippi Normal College, Hattiesburg.

Missouri:

State Normal School, Cape Girardeau.
 Lincoln Institute, Jefferson City.
 State Normal School, Kirksville.
 Northwest Normal School, Maryville.
 Missouri State Normal School, Springfield.
 Missouri State Normal School, Warrensburg.

Montana:

Montana State Normal School, Dillon.

Nebraska:

State Normal School, Chadron.
 State Normal School, Kearney.
 State Normal School, Peru.
 State Normal School, Wayne.

New Hampshire:

State Normal School, Keene.
 Plymouth Normal School, Plymouth.

New Jersey:

New Jersey State Normal School, Trenton.

New Mexico:

New Mexico Normal University, Las Vegas.
 New Mexico Normal School, Silver City.

New York:

New York State College for Teachers, Albany.
 State Normal and Training School, Brockport.
 State Normal School, Buffalo.
 State Normal School, Cortland.
 State Normal School, Geneseo.

New York—Continued.

State Normal School, New Paltz.
Oneonta Normal School, Oneonta.
State Normal School, Plattsburgh.
State Normal and Training School, Potsdam.

North Carolina:

Cullowhee Normal and Industrial School, Cullowhee.
State Colored Normal School, Elizabeth City.
State Colored Normal School, Fayetteville.
State Normal and Industrial College, Greensboro.
East Carolina Teachers' Training School, Greenville.

North Dakota:

State Normal-Industrial School, Ellendale.
State Normal School, Mayville.
State Normal School, Valley City.

Ohio:

State Normal College, Athens.
State Normal School, Bowling Green.
State Normal School, Kent.
State Normal College, Oxford.

Oklahoma:

East Central State Normal School, Ada.
Northwestern State Normal School, Alva.
Southeastern State Normal School, Durant.
Central State Normal School, Edmond.
Northeastern State Normal School, Tahlequah.

Oregon:

State Normal School, Monmouth.

Pennsylvania:

State Normal School, Bloomsburg.
Southwestern State Normal School, California.
State Normal School, Clarion.
State Normal School, East Stroudsburg.
Northwestern State Normal School, Edinboro.
State Normal School, Indiana.
Keystone State Normal School, Kutztown.
Central State Normal School, Lock Haven.
State Normal School, Mansfield.
State Normal School, Millersville.
Cumberland Valley State Normal School, Shippensburg.
Slippery Rock State Normal School, Slippery Rock.
State Normal School, West Chester.

Rhode Island:

Rhode Island State Normal School, Providence.

South Carolina:

Colored Normal Agricultural and Mechanical College of South Carolina,
Orangeburg.
Winthrop Normal and Industrial College, Rock Hill.

South Dakota:

Northern Normal and Industrial School, Aberdeen.
State Normal School, Madison.
Spearfish State Normal School, Spearfish.
State Normal School, Springfield.

Tennessee:

East Tennessee State Normal School, Johnson City.
 West Tennessee State Normal School, Memphis.
 Middle Tennessee State Normal School, Murfreesboro.
 State Agricultural and Industrial Normal School for Negroes, Nashville.

Texas:

West Texas State Normal College, Canyon.
 North Texas State Normal College, Denton.
 Sam Houston State Normal Institute, Huntsville.
 Prairie View State Normal and Industrial College, Prairie View.
 Southwest Texas State Normal School, San Marcos.

Vermont:

Castleton State Normal School, Castleton.
 State Normal School, Johnson.

Virginia:

State Female Normal School, Farmville.
 Fredericksburg State Normal and Industrial School, Fredericksburg.
 Hampton Normal and Industrial Institute, Hampton.
 State Normal and Industrial School for Women, Harrisonburg.
 Virginia Normal and Industrial Institute, Petersburg.

Washington:

Bellingham State Normal School, Bellingham.
 State Normal School, Cheyney.
 State Normal School, Ellensburg.

West Virginia:

Concord State Normal School, Athens.
 Fairmont State Normal School, Fairmont.
 Glenville Normal School, Glenville.
 Marshall College, Huntington.
 West Liberty State Normal School, West Liberty.
 West Virginia Colored Institute, Institute.

Wisconsin:

State Normal School, La Crosse.
 State Normal School, Milwaukee (summer course only).
 State Normal School, Oshkosh.
 River Falls State Normal School, River Falls.
 Stevens Point Normal School, Stevens Point.
 Superior State Normal School, Superior.
 State Normal School, Whitewater.

Wyoming:

State Normal School, Laramie.

Section 8. DATES OF INTRODUCING HOME ECONOMICS INTO STATE NORMAL SCHOOLS.

By combining data secured by Miss Susannah Usher in 1909-10 and that secured for this study in 1912 the year of introducing home economies into some 86 public normal schools was obtained. Prior to 1900, of 12 normal schools which had introduced this teaching, 5 were for colored students only, 3 for whites only, and 4 for both races. All but four of these institutions were in the South. These normal schools, which merit note for early recognition of this subject, are as follows: Jacksonville (Ala.) Normal (for whites), 1883;

Agricultural and Mechanical College for Negroes, Normal, Ala., 1883; Kentucky Normal and Industrial Institute for Colored Persons, Frankfort, 1890; State Normal and Industrial College (for white women), Milledgeville, Ga., 1891; State Normal and Industrial College (for white women), Greensboro, N. C., 1892; Winthrop Normal and Industrial College (for white women), Rock Hill, S. C., 1895; State Teachers' College, Greeley, Colo., 1895; Branch Normal School (for negroes), Pine Bluff, Ark., 1897; Lincoln Institute (for negroes), Jefferson City, Mo., 1897; State Normal School, Providence, R. I., 1898; State Normal School, Framingham, Mass., 1898; State Normal School, Reno, Nev., 1899.

The number of normal schools introducing home-economics courses in successive years has been as follows: 1883, two schools; 1890, one school; 1891, one; 1892, one; 1895, two; 1897, two; 1898, two; 1899, one; 1901, four; 1902, four; 1903, two; 1904, three; 1905, three; 1906, three; 1907, five; 1908, six; 1909, eighteen; 1910, eight; 1911, thirteen; 1912-13 (in part), five.

The subject is now taught in all but perhaps 10 of the public normal schools. Miss Usher found that household science in some form was taught in 1909-10 in 96 of 150 normal schools from which data were secured (the total number of normal schools being then placed at 168). Miss Spethman, of the United States Department of Agriculture, compiled in 1911 a list of normal schools teaching home economics, 102 schools in all, which included 82 State normal schools.¹

Miss Usher's detailed facts for 1909-10 were as follows:

TABLE 17.—*Household science in State normal schools, 1909-10.*

| Normal schools. | Teach household science. | Do not teach household science. | Not reported on. |
|---|--------------------------|---------------------------------|------------------|
| Normal schools..... | 62 | 47 | 4 |
| Normal schools for whites only..... | 20 | 6 | 12 |
| Normal schools for negroes and Indians..... | 14 | 1 | 2 |
| Total schools (168)..... | 96 | 51 | 18 |

The leadership of the South in introducing home economics into higher institutions has never before been made evident. The introduction into negro schools was doubtless with a primarily industrial aim, but the similar introduction into the institutions for white women at Jacksonville, Ala.; Milledgeville, Ga.; Rock Hill, S. C.; and Greensboro, N. C., antedated by several years recognition in similar institutions elsewhere, and was for purposes of general higher education as well as for preparation for teaching. In allotting credit

¹ Journal of the Home Economics, Baltimore, 1911, p. 274.

for early normal training, one must not overlook the normal class at the Boston Cooking School, taught by Miss Maria Parloa in 1880-81, apparently the first American school to train teachers of cooking, and continued for several years under other teachers; and the Boston Normal School of Cookery, established in Boston by Mrs. Mary Hemenway in 1887, and transferred in 1898 to the Framingham (Mass.) State Normal School; nor, similarly, private foundations like Pratt Institute, Brooklyn (1887), and Teachers College, New York (1888).

The date of establishing the special diploma in household-arts teaching is stated by 37 normal schools. The earliest date stated is Kalamazoo, in 1904. The dates and the number of schools established each year are as follows: 1904, two schools; 1907, one; 1908, four; 1909, three; 1910, seven; 1911, ten; 1912, seven; 1913 (part of year), three.

Section 9. TIME ALLOTMENTS IN NORMAL-SCHOOL CURRICULA IN HOME ECONOMICS.

(A) *Time allotments by subjects or topics.*—Of 92 public normal schools furnishing data as to hours of instruction in home-economics courses, 83 report (column 2, Table 18) courses in elementary cooking, 64 in advanced cooking, 26 in cookery for the sick, 50 in food chemistry, and 44 in nutrition and dietaries; a total of 267 food courses. Similarly, there were reported 82 courses in sewing, 50 in dressmaking, 24 in millinery, 28 in textiles, and 12 in costume design; a total of 196 clothing courses, which is about one-fourth less than the number of food courses. In other divisions of home economics, instruction was reported as follows: Household management in 31 normal schools: accounts in 13; housewifery, 11; home nursing, 22; care of children, 4; laundering, 15; household sanitation (bacteriology), 31; house decoration, 27; preparatory courses for nurses, 7; household mechanics, 1—a total of 182 courses or parts of courses, which (as was the case in high-school curricula, p. 106) compares favorably for this recent group with the 196 courses in clothing and 267 in food. In addition to these technical courses in household arts many schools offer instruction in the "special methods" of teaching household arts (see p. 137).

The relative importance of these technical courses in home economics is suggested by the number of institutions giving instruction as just cited; it is better measured by the number of hours of instruction actually given in these subjects (columns 3, 4, 5, 6 of Table 18). The accompanying table states (1) the minimum and maximum hours of instruction given in any institution for each of these subjects; (2) the median or mean hours of instruction given in each subject as the most typical single figure representative of the actual practice

of the various schools; (3) the two limiting numbers which, when the hours of instruction for a given subject in various schools are arranged in order of size, will include between themselves the middle half of the schools, i. e., one-half of the numbers just above and just below the median value; and (4) the modes, or those numbers of hours for which instruction is more commonly given than for other numbers of hours.

Of these representative numbers the medians may be noted here as indicating the relative time allotted different subjects. These typical hours for the food courses (mean hours) are as follows: Elementary cooking, 120 hours; advanced cooking, 144 hours; cooking for invalids, 45 to 60; food chemistry, 72 to 80; nutrition and dietaries, 60 hours. In other words, were a normal school to give typical courses in all of these subjects, which are offered in any normal school, it would need to provide, on such an ideal basis, 424 hours of instruction in food courses. Similarly, these typical median hours of instruction in clothing courses are as follows: Sewing, 100 hours; dress-making, 144; millinery, 72 to 76; textiles, 45 to 48; and costume design, 60. A normal school giving typical courses in all these clothing subjects would have to provide 452 hours of instruction in clothing. Similarly, typical normal-school courses in the third division of home economics are indicated by the following mean hours of instruction: Course on the house, 50 hours of instruction; household management, 40 hours; accounts, 45; housewifery, 30; home nursing, 45 to 48; care of children, 24 to 36; laundry, 45; household sanitation (bacteriology), 60; house decoration, 60; preparatory courses for nurses, 60; household mechanics, 24 hours; a total of 490 hours of instruction required if a normal school were to give typical courses in all of these subjects. In the normal schools, therefore, this third division of home economics represents subject matter slightly more extensive than the food courses (424 hours) and the clothing courses (452 hours). Were all of these normal-school courses to be presented in typical form (as expressed by the mean hours of instruction actually given in these subjects), there would be required a total of 1,766 hours of instruction. It is noteworthy that this is 83 per cent more than the sum of the mean hours of instruction given in typical high-school courses in home economics (963 hours, see p. 105), an indication that the normal-school instruction is, as it should be, upon a distinctly higher level than high-school instruction. This ideal total of 1,766 hours of instruction in household arts, secured by combining in a single normal school all the household courses given in any normal school, should be compared with the actual total hours of instruction given, stated in the paragraph below as a mean of 600 to 608 hours.

TABLE 18.—Public normal schools—Hours of instruction in home-economics subjects—General tendencies.

| Subjects. | Number of courses reported. | Minimum and maximum hours reported. | Median hours of instruction. | Limits, in hours, which include half the courses. | Mode—hours of instruction. |
|------------------------------|-----------------------------|-------------------------------------|------------------------------|---|----------------------------|
| Cooking, elementary..... | 83 | 18-560 | 120 | 72-180 | 120,144,180 |
| Cooking, advanced..... | 64 | 36-900 | 144 | 90-120 | 144,180 |
| Cooking for invalids..... | 26 | 10-140 | 45-60 | 30-72 | 60 |
| Food chemistry..... | 50 | 4-360 | 72-80 | 38-120 | 60,120 |
| Nutrition and dietaries..... | 44 | 9-216 | 60 | 40-80 | 60,72 |
| Sewing..... | 82 | 4-972 | 100 | 45-180 | 60,80,144,180 |
| Dressmaking..... | 50 | 7-972 | 144 | 64-216 | 60,144,180 |
| Millinery..... | 24 | 20-216 | 72-76 | 60-144 | 60 |
| Textiles..... | 28 | 6-100 | 45-48 | 36-60 | 36,60 |
| House..... | 27 | 20-280 | 50 | 36-60 | 60 |
| Household management..... | 31 | 5-280 | 40 | 25-72 | 24,36,40,90 |
| Household accounts..... | 13 | 12-280 | 45 | 25-78 | |
| Housewifery..... | 11 | 5-280 | 30 | 18-40 | 30 |
| Home nursing..... | 22 | 20-96 | 45-98 | 38-60 | 45,60 |
| Care of children..... | 4 | 20-60 | 24-36 | 24-36 | |
| Laundrying..... | 15 | 18-1,744 | 45 | 24-68 | |
| Sanitation..... | 21 | 4-448 | 60 | 40-90 | 60 |
| House decoration..... | 27 | 18-180 | 60 | 40-90 | 60 |
| Costume design..... | 12 | 10-140 | 60 | 48-100 | |
| Nurses, preparatory..... | 7 | 22-864 | 60 | 36-280 | 60 |
| Household mechanics..... | 1 | 24 | 24 | | 24 |

(B) Total hours of instruction allotted home economics.—Data from 92 public normal schools show that the total hours of instruction in home economics offered vary from a minimum of 4 or 5 hours in one school to a maximum of 5,458 hours in another school. (Total hours are secured by multiplying for each course the number of hours per week by the number of weeks that instruction is given, and summing the totals for all courses in a school.) The medium number of hours is 600-608, and half of the schools give between 20 and 1,020 hours of instruction in household subjects. The three institutions giving the unusual time allowances of 2,889 hours, 5,180 hours, and 5,458 hours are, respectively, the West Virginia Colored Institute, at Institute; the Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina, at Orangeburg; and the Tuskegee Normal and Industrial Institute, at Tuskegee, Ala. The distribution of the total hours of instruction is given in abbreviated form.

TABLE 19.—Total hours of home economics in public normal schools.

| Total hours of instruction offered. | Normal schools so offering. | Total hours of instruction offered. | Normal schools so offering. |
|-------------------------------------|-----------------------------|-------------------------------------|-----------------------------|
| 1-40..... | 5 | 600-640..... | 6 |
| 50-90..... | 4 | 650-690..... | 1 |
| 100-140..... | 3 | 700-740..... | 1 |
| 150-190..... | 0 | 750-790..... | 2 |
| 200-240..... | 0 | 800-840..... | 2 |
| 250-290..... | 2 | 850-890..... | 0 |
| 300-340..... | 0 | 900-940..... | 2 |
| 350-390..... | 2 | 950-990..... | 3 |
| 400-440..... | 3 | 1,000-1,040..... | 2 |
| 450-490..... | 3 | 1,050-1,090..... | 3 |
| 500-540..... | 2 | 1,100-1,140..... | 0 |
| 550-590..... | 2 | 1,150-1,190..... | 3 |

| Total hours of instruction offered. | Normal schools so offering. | Total hours of instruction offered. | Normal schools so offering. |
|-------------------------------------|-----------------------------|-------------------------------------|-----------------------------|
| 1,200-1,249 | 2 | 1,600 | 1 |
| 1,250-1,299 | 0 | 1,640 | 1 |
| 1,300-1,349 | 1 | 1,908 | 1 |
| 1,350-1,399 | 0 | 2,035 | 1 |
| 1,400-1,449 | 5 | 2,889 | 1 |
| 1,500 | 1 | 5,180 | 1 |
| 1,550 | 1 | 5,458 | 1 |
| 1,584 | 1 | | |

Section 10. HOME ECONOMICS IN NORMAL SCHOOL CURRICULA—REQUIRED OF GENERAL STUDENTS; ELECTIVE; SPECIAL-DIPLOMA COURSE.

(A) Required home-economics subjects in general curriculum.—

Of 72 normal schools reporting, 44 (61 per cent) require all students preparing to teach to take some instruction in home economics, as part of their general preparation, while 28 schools (39 per cent) make no such requirement. In 29 cases a course in cooking is required, and in 27 cases, sewing; while other subjects are required, as follows: Dressmaking and house sanitation, each, by four schools; "domestic science," by three schools; hygiene, home nursing, nutrition, and household design, each required by two schools; and housewifery, uthenics, laundry, domestic art, the house, and household economics, each by one school. The requirement of the Springfield (Mo.) Normal School that each intending teacher shall take a course in home economics or in agriculture is worth citing. Such a requirement may be recommended to normal schools as opening the way for some instruction by the regular teacher in these important living arts in a community, without the necessity of waiting for a special teacher to be provided. The fact that probably one-half of the normal schools which teach home economics (nearly two-thirds of those replying to the question) require all intending teachers to take one or more courses in home economics agrees with the legal requirement in several States regarding the course of study in teachers' training classes, that it must include home economics, and the requirement in four States that household arts shall be taught in every public school. The subject may doubtless well be required in the general preparation of every elementary school-teacher in normal school or elsewhere.

*(B) Elective home-economics courses.—*The percentage of general students in public normal schools who elect one or more home-economics courses was stated by 34 schools and, approximately, by 8 more; for the 42 schools the median percentage of students electing household arts was 16 per cent, and for half the schools the percentage lies between 10 and 50 per cent. In three schools all the students elect home economics, and in two more nearly all so elect, while in six schools the percentage is very small. That one-sixth the general students tend to elect home economics shows their appraisal of its value to them, either for professional or for personal reasons.

(C) *Courses for special diploma in teaching home economics.*—Of 87 public normal schools reporting regarding the granting of a special diploma in home economics, 54 schools (62 per cent) grant such a special diploma, i. e., train special home-economics teachers, while 33 schools (38 per cent) do not.

As to the curriculum for this diploma the following reports were made: Of 54 schools, 49 include a course in the history of education, 4 do not require it, and with 1 school it is an elective subject; all of 51 schools reporting require courses in educational psychology and general methods of teaching for this diploma; all of 50 schools reporting require a course in special method of teaching home economics; of 53 schools reporting, 49 require practice teaching of household subjects for such special diploma and 4 do not.

A question as to the amount of practice teaching brought answers from 36 schools, but answers that have no common denominator. Twenty of the answers were expressed in weeks and varied from 2 to 57 weeks, and these with the answers of the 8 other schools which require one year's practice teaching will give a quantitative measure. Of these 28 replies the median value is probably 30 weeks, but 24 weeks and 40 weeks or a year are the most common values. Probably 30 weeks of practice teaching is a representative amount. Of 6 schools measuring their practice work in hours, 120 hours is the median value; this is about equivalent to 30 weeks. The statement of certain schools that general practice teaching in the grade is required and that this is then supplemented by practice teaching of household arts is noteworthy; one school requires 12 weeks of grade teaching, followed by 24 weeks of household-arts teaching; and another one term of each. Among other subjects included in the requirements for the diploma in teaching household arts in various normal schools are ethics, social ethics, social economics, sociology, economics, and history of household economics.

The question was asked as to whether candidates for the special diploma for teaching household arts are excused from any items in the regular normal school requirements. Fifteen schools report that students are not excused from any of the regular work—i. e., graduation from the regular course is required as prerequisite to the special household-arts diploma. Nineteen schools report exceptions phrased in various ways. Four schools substitute home economics for about one-half the regular work, and the others make exemptions greater or less than this in amount. Here, there, are two standards—one requiring the general normal diploma as a prerequisite to granting the household-arts diploma, the other granting the household-arts diploma upon requirements equivalent to the regular diploma. The former is to be approved as setting higher requirements for the teacher of a special subject than for a regular classroom teacher.

Granted, however, that a higher standard is desirable, it seems possible that the higher standard may in time be expressed in some more adequate way than by requiring the general normal diploma as a prerequisite.

A question as to whether graduates with special household-arts diplomas have readily secured positions, was answered in the affirmative by 32 normal schools and in the negative by 6 schools.

Section 11. HOME ECONOMICS STAFF.

Fifty-nine normal schools reported upon their teachers of home economics as follows: Sixteen schools have one special teacher; 18 have two special teachers; 9 have three special teachers; 12 have four special teachers; and 2 have seven special teachers; in one case the matron of the school dormitory gives instruction, and in another case the manual training teacher. There is distinct progress in the amount of instruction since 1909, when, according to Miss Usher's data, 51 schools had one special teacher; 10 had two; 4 had three; 5 had four; 2 had five; and 1 school had seven. Miss Usher suggests as a standard for normal schools, "two instructors of household science, if a two-year academic course in home economics is given, and if a teacher's course is offered with practice teaching, two more would be useful for each unit of 200 to 500, or fewer students."

VI. TECHNICAL INSTITUTES AND SPECIAL INSTITUTIONS.

There remains a group of technical institutes which give some of the most important instruction in the field of education for the home. In the preparation of teachers, as well as in the vocational applications of household science and art, these institutes have rendered a great service to American education. First among them is the foundation of Charles Pratt, which bears his name, established in Brooklyn, N. Y., in 1887, when technical education was just being discussed by forward-looking educators. Pratt Institute has been a model for many similar foundations—Drexel Institute, of Philadelphia; Mechanics Institute of Rochester; Lewis Institute, of Chicago; Carnegie Institute, of Pittsburgh; and many others. These technical institutes have aided in the movement for an education for the home by helping to win the day for all technical and vocational education, and specifically by training teachers of household arts who were thoroughly competent in the practical arts as well as in the teaching art; further, by developing at equal pace the nonteaching vocations related to the household, household management itself, cooking, laundering, sewing, dressmaking, millinery, and the rest. Whether these vocations were to be practiced in the home or were to contribute to the home from outside, the institutes have been giving a practical vocational training and the home has benefited. Whatever the vocational colleges may accomplish in the distinctive household fields goes back for beginnings to the practical efficiency of the instruction of these institutes. Similarly the training of teachers of home economics in normal schools and colleges has one of its important sources here.

No attempt has been made to describe the work of all the technical institutes and special institutions which might be included here; rather, typical work as given by institutions of various types is outlined. Some of the additional institutions which should be included in any complete list would be: Hampton Normal and Industrial Institute, Hampton, Va.; Winthrop Industrial and Normal College, Rock Hill, S. C.; State School of Science, Wahpeton, N. Dak.

Section 1. PRATT INSTITUTE, BROOKLYN, N. Y.

Pratt Institute was founded "to promote industrial education, to inculcate habits of industry and thrift, and to foster all that makes for right living." It offers to both men and women day and evening

courses in a wide range of artistic, scientific, mechanical, and domestic subjects, and conducts normal courses in three of its schools for the purpose of extending its ideals and increasing its influence.

It has a school of household science and arts which is one of the early higher institutions in this field (1887). While the institute does not offer the academic work of a college, its technical work is upon a collegiate level. The school of household science and arts offers training in the application of art and science to all the activities of the household. Its courses are planned to meet the needs of three classes of people—those who wish to become teachers of household science and household arts, those who wish to become workers in the trade or professional world as housekeepers, dietitians, matrons, seamstresses, dressmakers, milliners, or costume designers, and those who wish training in the varied subjects of household science and arts for use in the home.

The school occupies a large section of the main building of the institute, an adjoining three-story building, a three-story house used as a dressmaking establishment, and an additional three-story house near by used as a practice house.

The courses for teachers offered by the school are organized in a two-year curriculum in which the student may specialize either in "household science and elementary household arts" or in "household arts and elementary household science." The first year gives training in elementary household science and household arts. The second year is differentiated for the two groups of students into advanced household arts and advanced household science.

The school year is divided into three terms and the curriculum in preparation for teaching is organized as follows (the numbers indicating the terms of work for each subject):

First year, common to both courses.—Psychology, 3; chemistry, 3; physiology, 3; cookery, 3; design, 3; physics, 2; sewing, 3; household administration, 1; care of the house, 1; serving, 2; laundry work, 1; marketing, 1; physical training, 3.

Second year for those specializing in household science, with elementary household arts.—History of education, 2; theory of education, 2; methods, 3; practice teaching, 3; economics seminar, 3; chemistry, organic, 3; bacteriology, 2; fancy cookery, 1; house planning, 2; experimental cookery, 1; dietetics, 1; handwork, 3; school gardening, 1; hygiene, 1; physical training, 3.

Second year for those specializing in household arts, with elementary household science.—History of education, 2; theory of education, 2; methods, 3; practice teaching, 3; chemistry, organic, 3; costume design, 1; millinery, 2; dressmaking, 3; weaving, 1; house planning, 2; handwork, 3; physical training, 3.

In the first year the educational aspect of the work is emphasized, in the second the professional. The time allotted different subjects in the teachers' curriculum may be summarized as follows: Educa-

tion, 875 hours; science, 830 hours; science applied—615 hours for household science and 165 for household arts; design, 185 hours; art applied—300 hours for household science and 750 hours for household arts.

The requirements for admission to the course for teachers are as follows: The candidate must be 19 years of age, have satisfactorily completed a high-school course of four years, including a year of inorganic chemistry and a year of physics; preparation must also include elementary physiology, a practical knowledge of sewing, arithmetic, algebra, and geometry. Examinations are set in English literature, general history, and current events. Students may be entered with advanced standing, but such a rating is not given in cookery or dressmaking, and a two-year course at the institute is required of all students. The registration in the teachers' course in 1913 was 141.

The school offers also a one-year course for institutional housekeepers in preparation—

for the work of the matron, the institutional housekeeper, and the dietitian, where the work of the latter is the charge of a diet kitchen. It does not prepare for the teaching of dietetics. To trained nurses or prospective trained nurses it offers preparation in the subject of nutrition.

This is a course of practical training, primarily, and candidates should be—

mature women of fair general training, with executive ability, experience in life, skill in practical housework, physical strength and endurance. Only such women as seem to possess the qualifications enumerated, which are necessary elements of success in housekeeping, are admitted to this course. A good general education, including a working knowledge of percentage, of the metric system, and of elementary physiology is essential to success in this work.

There is opportunity for specialization of the practice work in dietetics and nutrition or the problems of household and institutional management, or in lunch-room work, as desired. Each student has one week of practical work in the practical house of the school, the students working in groups, and each student in turn acting as hostess, cook, kitchen-maid, waitress, laundress, and chambermaid. All students have practice in large-quantity cooking in the institute lunch room.

This course of study in housekeeping includes the following subjects: Principles of cookery, dietetics, serving, accounts, marketing, physiology, house furnishing, chemistry, diet for children, diet for invalids, care of the house, lunch-room work, laundry work, bacteriology, fancy cookery, dietaries for families, institutional problems, hygiene, sanitation, and physical training. Three months' probationary professional service in an institution is required at the end of the nine months' course before the granting of the certificate.

The school of household science and arts also offers a number of trade courses, including the following: Sewing for trade use, 5 days a week for 3 months; dressmaking for trade use, 12 months—9 of classroom work, 5 days a week, and 3 of workroom practice, 5½ days a week; millinery for trade use, 5 days a week for 3 months; dress design and pattern making for trade use, 5 days a week for 3 months.

The school also offers a large number of part-time courses for home use, including cookery, 3 terms of 3 months each, twice a week; serving, 12 lessons; marketing, 12 lessons; laundry work, 12 lessons; household administration, 12 lessons; sewing, 3 terms of 3 months each, with 2 lessons a week; dressmaking, 3 terms of 3 months each, 2 lessons a week; and similar courses in millinery and embroidery.

Saturday morning classes are offered for school girls in cookery, serving, sewing, and shirt-waist making. Evening classes in household arts are offered as follows: Cookery for housekeepers, two classes; cookery for professional cooks, one class; serving; sewing, two classes; shirt-waist making; dressmaking, two classes; drafting and draping, two classes; millinery, two classes; and costume drawing, two classes.

Section 2. DREXEL INSTITUTE, PHILADELPHIA, PA.

Drexel Institute of Art, Science, and Industry, Philadelphia, established in 1892, offers both technical training and preparation for teaching in the fields of domestic arts and domestic science.

In the department of domestic arts, technical courses in dressmaking are offered, including the following divisions of work, each complete in itself: Hand and machine sewing course, shirt-waist course, general course in dressmaking, technical course in dressmaking (additional order work), course in weaving, course in basketry. In millinery there is provided the general course, the special course, and the technical course (for trade). Technical evening courses are also offered. The normal course in domestic arts, two years in length, combines technical instruction in sewing, dressmaking, millinery, design, and related subjects, with instruction in English, economics, psychology, methods of teaching, and practice teaching.

In the department of domestic science there are similar independent technical courses in cooking, and a normal course in domestic science for the preparation of teachers.

Section 3. MECHANICS INSTITUTE, ROCHESTER, N. Y.

Mechanics Institute, Rochester, N. Y., established a department of household arts and science in 1893. The institute offers a three-year normal course in household arts and science in preparation for teaching, high-school graduation being required for entrance. A summer

session is also provided. Professional nonteaching courses are offered as follows: A one-year certificate course in household arts is offered to girls 16 years of age or older having at least grammar-school training; a trade dressmaking course and a dressmaking apprentice course open, respectively, to young women of 16 and 15 years of age; two professional courses related to food-administration are offered—the lunchroom management course (see below), and the dietetics course, the latter open to women 24 years of age who are high-school graduates and who wish to equip themselves for work in hospitals. Another professional course, in the care of infants, is offered to girls 16 years of age or over, in conjunction with the infant summer hospital.

Lunch-room management course.—A one-year course, five days a week, prepares women to take charge of lunch rooms, cafeterias, or lunch rooms in public schools, department stores, factories, and Christian associations. Applicants must be 24 years of age and have had good household experience. The class is divided into three groups, and the groups rotate between classroom and laboratory work. The cafeteria of the institute affords a practice field, all its cooking and serving being undertaken by young women in the lunch-room course. Each student in turn acts as manager, as well as serving in subordinate positions. The course of study includes work in bookkeeping, house construction, physiology, foods, practical cooking, household management, planning, and cost of menus, and laboratory work.

Section 4. HOMEMAKERS' SCHOOL, STOUT INSTITUTE.

The Stout Institute, of Menomonie, Wis., which opened the training school for teachers of domestic science and art in 1903, established a homemakers' school in 1907, maintained for the purpose of preparing young women, who do not wish to teach, for the responsibilities of the homemaker.

President Harvey,¹ of the institute, in speaking of the course of study, states that it was planned as follows:

The most important activities demanded of a woman because of her position as a homemaker were enumerated and classified, so far as their interrelation made such classification possible. An attempt was then made to answer the question, What does a woman need to know and to do for the proper performance of each of these activities? The answer to this question in each field of activity indicated the scope and character of the course of study for that field. This plan makes it possible to concentrate upon the essential things and to eliminate the nonessentials. It is probable that, if time permitted, the course of study in each particular field might be considerably elaborated with an addi-

¹ "A School for Homemakers," L. D. Harvey. Report of the U. S. Commissioner of Education, 1911, pp. 313-329.

tion of cultural value, although it is believed that there is high cultural value in every detail of the work regarded as necessary. In the main, effort has been concentrated on the essentials. The course in home and social economics is perhaps the only one in which there has been a development of work beyond the essentials into the field of what would be desirable because of its effect in broadening interests and giving a wider outlook on woman's relation to the home and society and a larger appreciation of her opportunities and responsibilities.

The subjects treated in the curriculum are as follows:

The house, with instruction in house sanitation, house decorating and furnishing, house management, business management in the home; food science, with training in food study and preparation, chemistry, biology, physiology, dietics, selection of food materials, care of food materials, preparation of food, and serving; clothing and household fabrics, including house decoration and furnishings; the care of children; home nursing and emergencies; home and social economics, which treats of woman's ethical, social, and industrial relations with the other members of the family and with the members of society outside her home.

Section 5. GIRLS' TECHNICAL INSTITUTE, MONTEVALLO, ALA.

This is a State institution for girls, the purpose of which is (1) to teach the principles of the liberal arts and sciences and their application to homemaking; (2) to enable young women who are its graduates to do effective work as teachers; (3) to train young women to be self-supporting through proficiency in the industrial or fine arts; (4) to inculcate in the young women of Alabama ideals of character and culture, so that they may carry forth into the State the blessings of strength, ability, and refinement.

The institute is open to white girls who are 15 years of age or older, and who have finished the seven grades of the public schools. It gives the equivalent of a high-school course and one or two years of college work. In home economics there are two departments—domestic science, which teaches the principles underlying housework, offering three majors and three minors in the regular course, and domestic art, which offers interrelated courses in sewing, art, textiles, home management, house planning and furnishing.

Other departments offer commercial work, fine arts, manual training, music, and education.

Section 6. BRADLEY INSTITUTE.

Bradley Polytechnic Institute, Peoria, Ill., receives graduates of the common school for a six-year course, which provides the equivalent of high-school training and two years beyond. There is specialized technical work in several branches, and college work is offered corresponding to the first two years in a college, university, or engineering school. In the teaching of domestic economy the institute offers a two-year course leading to the diploma and a four-year course



A. TRADE DRESSMAKING LABORATORY, PRATT INSTITUTE, BROOKLYN, N. Y.



B. SEWING LABORATORY, DREXEL INSTITUTE, PHILADELPHIA, PA.

leading to the degree of bachelor of science; 15 points of academic work are required for admission.

Section 7. SOUTHWESTERN LOUISIANA INDUSTRIAL INSTITUTE.

The Southwestern Louisiana Industrial Institute, at Lafayette, La., founded in 1898 by the State of Louisiana, was opened in 1901 to offer (a) practical courses one or two years in length in various vocational fields, (b) a four-year academic-industrial course, and (c) normal courses two years in length in home economics and in agriculture. The institute also conducts a summer school. Graduates of grammar schools are admitted to the institute, and graduates of the State high schools are admitted into the fourth year of its courses. The institute offers, in domestic science, courses in food preparation, home nursing, laundering, dietetics, advanced cooking, and food chemistry; and in domestic art, courses in elementary clothing, sewing, textiles, millinery, and the theory and practice of teaching domestic art in schools. Practice teaching in domestic science is also offered in the normal course in home economics.

Section 8. TUSKEGEE INSTITUTE (COLORED).

Tuskegee Normal and Industrial Institute, located at Tuskegee, Ala., was founded in 1881, and provides a combined academic and industrial training for young colored men and women. The idea and the inspiration of Tuskegee was derived from Hampton Institute, Virginia, founded in 1868. The general program at Tuskegee provides three days of academic work a week and three days of industrial work. The academic course embraces seven years' work—three years of preparatory instruction and four years of normal work. The closest possible relation is maintained between the academic and industrial departments.

The department of women's industries furnishes instruction in the following: Plain sewing, two years; dressmaking (requires plain sewing as prerequisite), three years; ladies' tailoring (for postgraduates and those who have completed dressmaking), one year; millinery (hand sewing required for admission), two four-month terms; cooking, four years; laundry (with soap making), one year; child nursing and nurture, including the care of the infant, small children, and larger children. Outside industries for girls, including vegetable gardening, ornamental gardening, and fruit raising, are also given as a two years' course. Mattress making, broom making, and basketry are also taught.

The girls' industrial building, Dorothy Hall, 120 by 144 feet, contains the various classrooms and workrooms, including rooms devoted to the laundry, for washing, drying, ironing, etc.; rooms used for

dressmaking, ladies' tailoring, plain sewing, and millinery departments; rooms for cooking and dining-room service; other rooms for nursing and child care; and a suite of kitchen, dining room, bedroom, and sitting room for instruction in home keeping. A five-room practice cottage is provided in which the senior girls keep house in groups of five, "living in the cottage and having entire charge of themselves and the house, doing all the work pertaining to housekeeping from Monday's washing to the Saturday's preparation for Sunday."

The provision made for cooking indicates the general method in the industrial division. In this department there are two kitchens, three dining rooms, a sitting room, a bedroom, and a bathroom, which are used for practice work. Special stress is laid upon cooking plain food. Cooking is obligatory for all girls; in a single year 500 girls receive instruction. A limited number of young women desiring to be cooking teachers, professional caterers, and workers in related fields receive special training.

The department of school extension of the institute has been an influence for home betterment as well as industrial betterment through its annual conferences, local conferences, farmers' institutes, mothers' meetings, settlement work, and extension work in the county rural schools, 55 of which are now under the general supervision of Tuskegee Institute. The institute also maintains a department of research and an experiment station, certain publications of which bear directly on home betterment (see Bibliography in Part IV of this report, Bulletin, 1914, No. 39).

Voorhees Industrial School (colored), Denmark, S. C.—The Voorhees Industrial School, for young colored men and women, was opened by a graduate of Tuskegee in 1897. The industries in which young women are instructed include: Plain sewing, two years' course; dressmaking, three years' course; laundering, mattress making, broom making, cooking, three years' course; canning, nurse training, three years' course. Academic instruction accompanies the industrial training.

Section 9: COOKING SCHOOLS—NEW YORK COOKING SCHOOL.

"Cooking schools" were established in various eastern cities beginning in the seventies (Part I of this report, Bulletin, 1914, No. 36, p. 15); such schools had been organized in Europe at least a generation before. The New York Cooking School, which has a long and useful history, is typical of these schools; as its name implies, it teaches practical cookery. Its aim is "the betterment of the food in all homes, especially in those of toilers and all dependent upon their own earnings for daily bread." The school offers ladies' morning classes once a week for 12 weeks; Saturday morning classes for boarding-school pupils; evening classes for teachers, business women,

and girls; afternoon mission classes (philanthropic classes with the expense borne by the patrons of the school—gifts of \$42 to \$60 providing a class); classes for nurses and attendants in hospitals; normal sewing classes, with a certificate for teachers; and private lessons. Three grades of work are given—simple, plain, and general; and printed outlines are furnished, which are available for use elsewhere.

Section 10. THE SCHOOL OF MOTHERCRAFT, NEW YORK.

The School of Mothercraft, New York City, opened in 1911, is intended to provide information and practical instruction in the home care and training of children, in eugenics, and in problems of the family.

The work is designed to meet the needs of young women, mothers, mothers' assistants, social workers, nurses, kindergarten—women who desire special training to understand the child and to meet, sympathetically and intelligently, the responsibilities of childhood.

The special subjects of study include the following:

The family, biology, eugenics, physical care of infants, child hygiene, dietetics, children's cooking, laundry and sewing, marketing, housewifery, management, home care of sick children, emergencies, hygiene for mothers, child psychology and mental hygiene, principles of child training and of the kindergarten, children's stories, games, songs, handwork, nature study.

A one-year curriculum is offered which includes study of the subjects listed and practical work in the nursery, household, and kindergarten. It is a vocational course for homemakers, mothers' assistants, social workers, teachers of mothercraft. A certificate is granted to students completing the course satisfactorily. Applicants for admission must be at least 18 years of age and have the equivalent of a secondary education. Students desiring to qualify as teachers must be at least 20 years of age and have a college or normal training. A limited number of students can be received in residence.

Special short courses are also arranged, adapted to the needs of different students, as on "The nursery," "Story telling," "The kindergarten in the home," and "Childhood and literature."

"The child garden" is maintained for children under 7, with morning sessions and a program of outdoor play, nature study, music, speech training, etc.; and a resident nursery is maintained where infants may have continuous care during emergencies.

The registration for 1912 was about 30 extension students; no students are reported as completing the full course, but two partially completed it; in 1913 four students entered for the full course and three others took part-time work, in addition to extension students.

The director of the school is Mary L. Read, and, besides three assistants devoting full or part time to the school, there were some dozen special lecturers in 1912-13. The school has attracted attention locally and nationally as an attempt to provide direct training in child care.

Section 11. PRIVATE SCHOOL WORK IN HOME ECONOMICS.

A number of private schools for girls have opened departments of home economics. The most striking experiment in this line is the Garland School of Homemaking, Boston, described below. The Barnard School of Household Arts, of New York City, is another interesting experiment in this field. Many other private schools are offering more or less extended instruction in the household arts and thus meeting the current demand. It is obvious that these private schools, as well as the public schools, must fit young women to meet the ordinary responsibilities of the home.

Some of the European schools have introduced not only household-arts instruction for young women, but also instruction in the arts of country life which especially concern women, such as the direction of the country estate and such special activities as dairying, poultry raising, kitchen gardening, horticulture, beekeeping, and the like. State colleges of agriculture and the secondary schools of agriculture are quite commonly combining such agricultural instruction with household arts for their young women students. It seems certain that the girls' private school of the future will provide instruction not only in homemaking, but in many instances, because of the rural responsibilities which come to women of wealth through the ownership of country estates, also training in landscape gardening, horticulture, and rural economy.

The Garland School of Homemaking.—The Garland School of Homemaking, of Boston, was established in 1902, as a course in homemaking in a kindergarten training school which should attempt to express an ideal of nonprofessional training in homemaking, which was taking form at that time. The homemaking course was an experiment in "arousing consciousness of this great educational need and in developing by experiment a curriculum to meet that need." It did not pretend to form popular courses in cooking and sewing, nor to train teachers and professional housekeepers, but simply aimed at equipping the young woman as a more efficient homemaker in her own home. In 1909 the kindergarten course was discontinued and the homemaking course became the sole work of the school. In 1913 the school, which was located at 19 Chestnut Street, opened a second house at 35 West Cedar Street, known as the Home House, which is utilized for practical instruction in house-keeping.

The Garland school offers a regular course to both resident and nonresident students with a curriculum requiring five mornings and one afternoon a week. A special abbreviated course is given three mornings a week, also a half-year course for graduates of the school requiring two mornings a week, and special study courses for housewives. The regular course includes instruction in the following subjects, all taught from the homemaking point of view: The family and the home, the house, household management, food and dietetics, clothing, eugenics, physics, chemistry, biology, economics, literature. The special course omits economics, literature, house building and furnishing, and millinery. The graduates' course includes child study, house furnishing, millinery, food buying, the planning of meals, and cooking. Field work is provided in the regular and special course by visits to markets, milk farms, factories, shops, schools, and the like. A striking feature of the school is the provision of practice work in housekeeping for resident students. The home house provides the resident girls with a home in which they try out their skill in various departments of household management. They go to market, plan meals, occasionally prepare the family dinner, direct the cleaning of rooms, and try time experiments in regard to various household duties. A competent adviser is always at hand to help when needed in making application of the principles studied in school to the home problems of buying and accounting, of meal planning, cooking, etc. All of the practice work is done solely from the standpoint of its educational, not of its industrial, value. Consequently the students do not carry the burden of the housework throughout the year, since this would often necessitate a sacrifice on the educational side. They are, however, the homemakers and the managing housekeepers; and their responsibilities, though varying, are genuine and must be fulfilled with faithfulness and intelligence.

Section 12. SCHOOLS OF PHILANTHROPY AND THE HOME.

One of the remarkable educational developments of the new century are the schools of organized philanthropy and professional charity work which have been established in New York, Boston, Chicago, and St. Louis. Their common purpose may be stated, as by the New York school, "to fit men and women for civic and social service either professional or volunteer." Such service inevitably concerns the home more than any other social institution; it is the home that often causes individual and social lapses; it is in the home that the effects of such lapses are most evident; and philanthropic effort must often be directed at home rehabilitation. So the New York School of Philanthropy has on its staff one specialist in "families" and another in "child welfare." "Family rehabilitation" is one of

the central topics of instruction in such a school of philanthropy; and the facts and procedures which these schools are developing in repairing broken family life will be found to have a wealth of suggestion for teachers of normal home life in schools of home economics. The special one-month courses, or "institutes," given by the New York School of Philanthropy in June, 1914, included courses on "family rehabilitation" and on "housing."

Section 13. INDIAN SCHOOLS.

Instruction in the household arts is a part of the curriculum of the schools for Indians. Miss Spethman in 1911 reported that such instruction was given in 138 Indian schools. The United States Office of Indian Affairs, Washington, has published certain outlines for such instruction which should be consulted by persons interested: "The outline lessons in housekeeping, including cooking, laundering, dairying; and nursing; for use of Indian schools," and "Some things that girls know how to do, and hence should learn how to do when in school."

Section 14. STATE INDUSTRIAL SCHOOLS FOR GIRLS.

Statements secured from 36 of the 50 State industrial schools for girls, or as they were formerly called, reform schools, show that the household arts have an important place in the general economy of these institutions. The most striking fact is that in three-fourths of these schools all of the housework is performed by the girls and young women who are members of the school; and in four others three-fourths of the work is so performed, while two schools report that only one-fourth of the housework is performed by the girls. This situation will be good or bad in the industrial school, of course, not in proportion to the amount of work done by the girls, but according as it is organized with an educational and social method and purpose.

An attempt was made to get at this problem of fundamental educational purpose in the schedule of questions sent to the schools, but probably not with complete success. Of the 36 industrial schools, 12 report that no formal lessons in housework or any of its branches are given; instruction is reported by the remaining 24 schools in different aspects of household arts as follows: Food materials, by 14 schools; cooking of foods, by 22 schools; service of foods, 20; care of rooms, 15; care of floors, 15; laundry, 17; plain sewing, 20; dressmaking, 15; millinery, 4; household accounts, 4; care of children, 5; costume, 1; art sewing, 7; care of sick, 1.

Another question asked was whether practice work in the household arts was required. Various forms of practical work were re-

ported as required of the girls by the number of schools respectively indicated: Cooking, 32; table service, 31; care of rooms, 35; care of floors and woodwork, 34; laundry, 33; plain sewing, 32; dressmaking, 28; millinery, 7; fancy cooking, 1; preserving food, 1; child care, 1; embroidery, 2; model sewing, 1; art sewing, 4; power sewing-machine work, 1; basketry, 3; knitting, 1; rug or carpet making, 5.

Another measure of the household-arts training of the industrial schools was sought in a statement of the vocations for which the training fitted the girls. Twenty-nine schools reported that the training equipped their students to earn their living as seamstresses, 28 as general houseworkers, 27 as waitresses, 19 as cooks, 19 as dressmakers, 6 as nurses, 5 as laundresses, and 3 as milliners. One school reports that it has provided training in a hospital in child care, so that several of its former students now earn \$11 a week as children's nurses.

The general conclusion from the inquiry is that in practically every case the girls who are sent to these so-called reform schools or industrial schools are given an extended practical experience in housework under direction. In two-thirds of the schools some formal instruction in household arts is given, though this "formal training" is not to be interpreted too literally. There are indications of better standards, and what was originally doubtless largely a method of getting the housework of the institution done is coming to be regarded as educational subject-matter with important possibilities. One school has recently instituted a graded series of three courses in sewing and dressmaking under a special supervisor. The general practice work in the same school provides one month's work in each of these departments: Cellar, girls' dishes, officers' dishes, wash room, ironing room, girls' cookroom, and officers' cookroom. Another school states the purpose of its training "to make a good homemaker" and knowledge of "some one art sufficiently well to be self-supporting." This school provides a commercial training for girls who are of high-school grade, but all girls take the household arts. The danger in the industrial school is a severe prescription of housework without instruction or inspiration. What is really called for is a curriculum in which the academic elements are given adequate recognition and in which the household arts are approached educationally. The organization of such schools on the cottage system, whereby small groups live in cottages and do the housekeeping much in the spirit of family life, is a related reform. The New York State Reformatory, at Bedford Hills, is typical of the progressive institutions of this latter type.

VII. THE AGENCIES AND ORGANIZATIONS CONCERNED WITH HOME BETTERMENT.

This division presents the various agencies, other than schools, that are working for popular education and betterment as regards the home; the activities of the Government, Federal and State, in this field; and the various organizations directly or indirectly concerned with home. These include certain agencies that have operated especially in the country, such as the farmers' institute for women, the grange, and rural household demonstrators, as well as other agencies which, originating in cities, are nearly all finding application in rural communities.

Among the chief topics in this section of the report are: The Young Women's Christian Association, settlement work, visiting housekeepers, housekeeping centers or model flats, visiting nurses, the day nurseries, home betterment in industrial communities, vacation training in household arts in summer camps and camp schools, training for the home by the Camp Fire Girls and Boy Scouts, correspondence schools of home economics, libraries and home betterment, journalism for the home, and exhibits and the home. Additional sections discuss the special activities of the Federal Government which concern home betterment—the Department of Agriculture, with its nutrition investigations and food-control work, and the Children's Bureau. The possibilities of scientific study of household problems are outlined in connection with the proposal to have the Government endow the study of household problems in the State agricultural experiment stations.

The last section deals with organizations which directly or indirectly are concerned with home betterment. These include the American Home Economics Association, the League for the Protection of the Family, the International Congress on Home Education, and the International Congress for Teaching Domestic Economy, the Mothers' Congress and Parent-Teachers' Associations, National Housewives' League, Associated Clubs of Domestic Science, the International Congress of Farm Women, the Society for the Promotion of Industrial Education, the Society for the Study and Prevention of Infant Mortality, the committee of American Medical Association on public health education among women, National Housing Association, National Consumers' League, National Child

Labor Committee, Child Helping Department of the Russell Sage Foundation, the recreation movement, and other organizations. Special mention is made of the Federated Women's Clubs, an organization which is rendering a nation-wide service for home betterment.

This list, it is believed, includes the main organizations and agencies, outside of the work of the schools, which are participating in the home-education movement. In consulting this division, one should bear in mind the fact that in getting a complete view of any field—as, for example, that of the rural home—one must add to the agencies here described the work of the schools, the normal schools, technical schools, and the colleges and the extension work of the latter. Similarly, for any other aspect of home education.

Section 1. WOMEN'S WORK IN FARMERS' INSTITUTES.

The farmers' institute is a one, two, or three day forum or informal local school for farmers, usually organized through some State agency—the agricultural college, experiment station, or State department of agriculture. Women have often attended the institutes, and naturally enough programs for women, either for part time or entirely paralleling the sessions for men, have come to be organized. In 1912-13, the 12 States listed below held separate institutes for women. Institute meetings for women were held in many other States.

TABLE 20.—Farmers' institutes for women.

| States. | Institutes | Sessions. | Attendance. |
|---------------------|------------|-----------|-------------|
| Arizona..... | 1 | 2 | 300 |
| California..... | 7 | 8 | 868 |
| Florida..... | 5 | 12 | 1,200 |
| Idaho..... | 5 | 5 | 220 |
| Kansas..... | 73 | 73 | 3,688 |
| Michigan..... | 54 | 54 | |
| Missouri..... | 19 | | |
| North Carolina..... | 230 | 400 | 30,218 |
| Oklahoma..... | 497 | 1,125 | 30,922 |
| South Dakota..... | 128 | 128 | 11,826 |
| Utah..... | 36 | 72 | 3,165 |
| Wisconsin..... | 43 | 87 | 11,482 |
| Total..... | 1,098 | 2,026 | 84,039 |

In all, in 1912-13, 1,098 separate women's institutes were held, with a total attendance of 84,039, which is a striking advance over the year 1910-11, with 418 institutes with 30,814 in attendance. In addition to these separate institutes for women, separate meetings for women within the farmers' institutes are definitely reported from the following States: Colorado, Illinois, Indiana, Iowa, Montana, New York, Ohio, Oregon, Texas, and West Virginia. In 22 States

at least, therefore, provision for women's meetings in farmers' institutes is made, 12 separately and 10 jointly.

In all, 7,926 farmers' institutes were held in 1913, with an aggregate attendance of 2,897,391; the women's separate institutes were therefore about 13 per cent of the total number, though the attendance comparison is less favorable. Related to the institute work are these other agencies: (1) The movable schools of agriculture and home economics, of which 187 were held in 1913 in 13 States, with an attendance of 85,637; (2) educational trains, of which 25 were run in 1913 in 15 different States, with an attendance of 501,523; (3) fairs, picnics, and conventions, 346 of which, with an attendance of 95,209, were addressed by institute lecturers; (4) institutes for young people from 14 to 18 years of age, which were held in 5 States, with an attendance of 22,100; and movable schools for young people, of which 14 were held, with an attendance of 1,344. These statistics are scarcely complete, since, for example, many institutes and movable schools are held under other auspices than the official institute movement; yet the outlines of this great popular effort to reach farm communities are very evident. In all these enterprises, instruction for the women and girls of the farm is included. Of the 187 movable schools, for example, 50 were for women, and these extended over 362 days, an average of about 7 days each, with an attendance of 11,502. The extension work of the State colleges and universities in their field is described elsewhere. (See Part III of this report, Bulletin, 1914, No. 38.)

The institute itself is generally regarded as a pioneer educational effort, which is to arouse an interest in better methods and in progress. The instructional train, the demonstration, and the movable school, on the other hand, are regarded as agencies for more intensive instruction; especially so the movable school, which provides a week's study of some specific subject, or, as in certain foreign countries, several months' study, then moves on to another community where the course of instruction is repeated. The school requires advance registration, regular attendance, and study; the institute is a mass meeting. The two serve different purposes; both will be needed in the effort to reach the women of the country for better housekeeping, the one to arouse interest, the other to give instruction more definite in character.

Facts as to a few States may be given. The women's institutes of Michigan were begun in 1895, under Mrs. Mary A. Mayo's direction. Her lecture topics will illustrate the scope of early work: Mother and daughter; Making farm work easier; The well-bred child; Home life on the farm; Poultry raising for the farmer's wife;

See "One Woman's Work for Farm Women," Buell, Whitcomb & Barrows, Boston.

How to keep the boys on the farm; Mother and the school; The house we live in; The unappreciated side of farm life; The mothers greatest need; Wifehood and motherhood; and Mother and children. The emphasis on the personal and ethical is obvious. Recent programs in institutes have put more emphasis on the technical side of housework and management—food, clothing, and shelter. There is a gain in this in imparting skill in the household arts and popularizing scientific facts as first aids to the housewife. There are evidences, too, of a new emphasis on the ethical, or, as we are likely to say to-day, the social, civic, and personal in home and community relations.

In Illinois there is a very effective "Department of household science" in the farmers' institutes, which has its own officers (Mrs. H. M. Dunlap, Savoy, Ill., president), conducts the institutes' sessions for women, and publishes a yearbook; the University of Illinois cooperates by supplying speakers for from 50 to 80 meetings. The "Yearbook" includes, besides reports, valuable articles, such as the following in 1912: Educating girls for the home; Household economics; Household appliances and conveniences; A balanced ration; The social efficiency of the home; How school work can be more closely related to home needs; and Training the girl to help in the home. A number of menu suggestions are presented, and a study of food values, published by the Illinois State Food Commission, is reprinted.

Related to the Illinois institutes is the Illinois Girls' State Fair School of Domestic Science, established in 1898, which is held as a temporary two weeks' school in the women's building at the State fair grounds, Springfield, erected and equipped at a cost of about \$30,000 in 1903. Each county sends one representative, or more if there are vacancies; a fee of \$10 is charged for board; the students live in the women's building and are divided into groups for its service—meals, dish wiping, dining-room work, baking. Mrs. S. T. Rorer was the first principal of the school, and Mrs. Nellie Kedzie Jones is the present principal. The building accommodates 102 students, and 101 students were in attendance in 1913. The program provides a lecture daily by a nurse and two food lessons with demonstrations by the principal. The three best students are given scholarships at the State university, and each student is expected to report at her county farmers' institute.

In Oklahoma separate women's institutes are organized under State direction. A course of study covering nine months is provided, and monthly meetings are expected; local leaders are developed; half a hundred circulating libraries of home economics are sent about.

In Florida institutes for women began in 1912-13. They are arranged in various localities by the superintendent of institutes at the State agricultural experiment station; joint sessions for men and

women are held mornings; separate meetings for each in the afternoons. There are speakers on agriculture from the State university and on home subjects from the State College for Women; exhibits, demonstrations, and stereoptican lectures are provided. The women's topics at a recent two-day institute at Greensboro were as follows:

Is a woman's time worth anything? The girl on the farm; Demonstration—Meat in the diet, and its preparation; Preparation of foods for infants and children; The home as a nation builder; Labor-saving conveniences; Demonstrations—Yeast bread, Quick bread; Home nursing; Simple desserts. The institute work is followed up by forming local home improvement clubs, which carry out study programs and report monthly to the college.

Facts regarding farmers' institutes are to be found in the annual report of the American Association of Farmers' Institute Workers, and the annual report on farmers' institutes and agricultural extension work, and other special publications issued by the Office of Experiment Stations, United States Department of Agriculture, which includes on its staff a "farmers' institute specialist" who acts as a clearing house for the institute movement. The association referred to has a standing committee on women's institutes. A canvass of women's institute workers made by this committee in 1911 showed (1) a sentiment favoring joint institutes, with separate sessions for women, but some joint home-making sessions for men and women rather than separate institutes for women; (2) an opinion that farm women are ready for more advanced instruction in dietetics; (3) that more capable instruction in institutes waits on the training of special workers (Cornell University has since established a course for training extension workers in home economics); and (4) varying opinions as to whether farm homes could be visited by teaching experts as farms are visited by agricultural experts.

Those interested in women's institute work in the United States will find the experience of the Province of Ontario illuminating. The women's institutes of Ontario embrace 750 organizations, numbering 25,000 members, with the following purpose:

The dissemination of knowledge relating to domestic science, including household architecture, with special attention to home sanitation; a better understanding of the economic and hygienic value of foods, clothing, and fuel, and a more scientific care and training of children with a view to raising the general standard of the health and morals of our people; or the carrying on of any work which has for its object the uplift of the home or the betterment of conditions surrounding community life.

The Ontario institutes for women began about 15 years ago and developed rapidly. At first domestic science absorbed the attention of the members. Recently the programs have widened. The

form of organization requires local initiative. Each organization is to hold at least four meetings a year, and many hold monthly meetings. Once or twice during the year a lecturer from the provincial department of agriculture visits each local organization. In addition the department grants \$3 each year to each branch institute and a direct grant to the district organization of \$10 and \$3 in addition for each branch, a total in 1912 of \$4,971. Recently systematic instruction by well-qualified teachers in cooking, sewing, and home nursing has been introduced wherever the individual institute forms a class of 25 persons, each person paying \$1 for the course. An annual convention of the institutes brings together 500 or more delegates from all sections of the Province. The institute idea has spread in British Columbia and Alberta, and a few organizations have been formed in other Provinces. An inter-provincial organization has been formed to advance the institutes.¹

Section 2. THE GRANGE AND HOME ECONOMICS.

The Patrons of Husbandry, popularly known as "the Grange," a farmers' organization extending into some 30 States, with a membership of over a million, has from its beginning in 1867 given women an equal place with men in its membership, and has recently undertaken work in home economics of a distinctive character.

Certain statements in the declaration of purpose of the Grange adopted in 1874 show its early and fundamental interest in what we called to-day the home-economics idea:

To develop a better and higher manhood and womanhood; to enhance the comforts and attractions of home, and strengthen our attachments to our pursuits. . . . We especially advocate for our agricultural and industrial colleges that practical agriculture, domestic science, and all the arts which adorn the home be taught in their courses of study . . . Last but not least, we proclaim it among our purposes to inculcate a proper appreciation of the abilities and sphere of woman, as is indicated by admitting her to membership and position in our order.

The unit of organization is the local grange, meeting weekly or once or twice a month, with programs looking to the advancement of country life; the local granges unite for quarterly meetings in county or Pomona granges; they also send the masters and their wives (or if the grange master is a woman, her husband is associated with her) as delegates to the State grange; and the masters of the State granges and their wives form the National Grange. The grange is unique in the equality given women in its membership, staff of officers, and business.

The "master" of the local grange is the presiding officer and is charged with business and financial duties; the "lecturer," who is

¹ See Annual Reports of the Women's Institutes of Ontario, Department of Agriculture, Toronto; also Journal of Home Economics, 5 (1918), p. 197.

often a woman, is responsible for the social and educational programs of the organization.

Some direct efforts for home betterment have from the first been made in connection with the regular programs of grange meetings which have included topics related to the home. Two women may be mentioned especially in this connection, first, Mrs. Mary A. Mayo,¹ who, as a prominent worker in the Michigan grange from the seventies until her death in 1903, secured a hearing for the problems of the home, of child care, of household management and related matters, and especially it would seem of the personal and social problems of the home. In 1895 Mrs. Mayo became a leader in the women's division of the farmers' institutes of Michigan and carried further her remarkable work for Michigan farm women.

The second woman who is especially responsible for home economics progress in and through the grange is Mrs. Elizabeth H. Patterson, of College Park, Md., elected Ceres in the National Grange in 1907 and now chairman of its national home-economics committee. Mrs. Patterson turned the Grange's interest in home problems to a study of the practical and technical aspects of housekeeping. As Ceres she conducted a home-economics department in the National Grange Monthly with articles and lessons, which were afterwards reprinted and circulated among the local granges, on such subjects as the house—its structure, decoration, care and sanitation; principles of cooking and dietetics.

In 1908 Mrs. Patterson reported to the National Grange that—

As far as I have observed, questions related to the home do not enter into grange programs in proportion to their importance. In many instances the women's part is chiefly devoted to art, music, literature, or often something in the comic or frivolous vein. This is not as it should be. Why are we home makers satisfied with the husks?

In 1909 she reported increased interest and quoted one State lecturer's statement that—

the home in general has been talked about in the grange perhaps quite as much as the farm in general—possibly more—but that the specific duties of the house and its work have by no means been taken up in the same technical way that the technical work of the farm has.

It was this technical study of home problems which Mrs. Patterson emphasized. A standing committee on home economics was appointed in the National Grange, and similar action recommended to local granges.

In 1911 reading courses and study circles in home economics were reported by some granges, with the comment by Ceres, "This is a

¹One Woman's Work for Farm Women. Jennie Buel. Whitcomb & Barrows, Boston. See also above, p. 154.

good plan, provided it does not take the place of having discussions of home subjects at regular grange meetings." State granges were urged to furnish speakers on home subjects to local granges, to cooperate with the home-economics work of State colleges, and the importance of legislation introducing home economics into rural schools was urged. The National Grange committee on home economics reported in 1912 that 18 of 29 State granges replied as to home-economics work; 3 reported as much attention to home economics as to other subjects; 12 reported active support of the Federal bill for aid to vocational education, including home economics; 8 States had State home-economics committees, and 2 others were about to be appointed; 10 States report cooperation between the State college and the State grange in home-economics work; the committee also reported on the status of home-economics work in State colleges, in the agricultural fairs, and other divisions of the field; and, finally, it presented a program of progressive work for State granges and the National Grange, including a recommendation that the latter prepare a leaflet of reference books on home economics and draw up a year's outline of study of home economics to be followed by local granges. In 1913 the national committee continued this program, and urged use of score cards for exhibits of home products at fairs.

It is evident that the effort to get attention for technical problems of the home within the grange has succeeded, illustrating the possibility of securing in a nontechnical organization an intelligent consideration of underlying principles and of technical problems on which improvement in home matters will turn.¹

Section 3. RURAL HOUSEHOLD DEMONSTRATORS.

The appointment of county agents and demonstrators to aid in advancing agriculture, which is well under way as an item in the country betterment movement, is taking such a form that it will include rural home betterment in its program. Several States, as New York, Vermont, Michigan, Massachusetts, Indiana, have already taken action in authorizing county or district agricultural advisers; and county industrial supervisors are also at work in certain Southern States, as Virginia, South Carolina, Georgia, Alabama, Mississippi, and Louisiana. Thus the Virginia State superintendent of public instruction reports supervisors of industrial work for white schools in 3 counties and for negro schools in 28 counties, with 23 of the latter working throughout the year.

They visit the homes of the negroes and instruct them in gardening, sewing, cooking, and other industrial arts. Our next step will be to organize a like system of supervision among the whites.

¹ The Grange and Home Economics. Elizabeth H. Patterson. *Journal of Home Economics*, 5 (1913), p. 208.

In North Dakota Miss Mildred Veitch was appointed field woman of the Better Farming Section of the Agricultural Experiment Station in 1913, with the plan of giving attention to home betterment by aiding individual homes in the organization of the kitchen and the installation of modern equipment. Her field is the State, and her work has begun with great promise.

The Indiana law of 1913, in providing for county agents, states that they shall—

under the supervision of Purdue University, cooperate with farmers' institutes, farmers' clubs, and other organizations, conduct practical farm demonstrations, boys' and girls' clubs, and contest work and other movements for the advancement of agriculture and country life, and give advice to farmers on practical farm problems and aid the county superintendent of schools and the teachers in giving practical education in agriculture and domestic science.

Thus, the Indiana plan for aiding the home through the county agent is restricted to school and club work in domestic science, but it is a hopeful beginning.

The Massachusetts Agricultural College has been consulted as to a county home economics worker, in cooperation with the Hampden County Improvement League, which supports the county agricultural demonstration work in the County of Hampden, Mass. Funds for the agricultural work were provided by the subscriptions of business men, and the addition of home economics work seems probable. The plan will be to appoint a worker who will have as headquarters "a small house centrally located * * * simply and artistically furnished to show what can be done with limited means, and immaculately kept." She will depend more, however, upon going about among the people, reaching them through the schools, the granges, farmers' institutes, the tomato and other clubs, and especially—

going into the individual homes of the county and becoming thoroughly acquainted with the women and girls of those homes who, it is expected, will welcome her in the same manner that the men welcome the county agents. * * * The woman worker needs to be possessed of much tact, having the most kindly feeling toward the inefficient home maker; one who can lead without offending; and one whose ideals are very high, so that no matter what conditions may be found in the neighborhood, she will not become discouraged.

Prof. Laura Comstock, of the Massachusetts College, has outlined the possible services of such a county home economic worker to include: The presentation to women and girls of the subject matter of home economics, including food, the house, home management, modern appliances, house sanitation, and first aid; educational work with boys' and girls' clubs, and efforts to secure the introduction of regular teaching into rural schools; meetings with women's



A. COOKING LABORATORY, STATE NORMAL COLLEGE, ALBANY, N. Y.



B. AT WORK IN THE THE SCHOOL KITCHEN, THE GARLAND SCHOOL OF HOME MAKING, BOSTON, MASS.

clubs and similar organizations; the supervision of volunteer workers for home betterment.

The possibility of visiting instruction in rural homes has been under consideration at Cornell University for some time, and the directors of the department of home economics did some experimental work two years ago.

While "county household demonstrators" are not yet actually at work in the campaign for rural betterment, they probably soon will be. The method of such work, it should be noted, has already developed in the case of the visiting housekeeper or domestic teacher, who has been operating for several years in various cities under social-betterment societies. To cite another parallel, the visiting nurse who makes calls on order for a small fee is already in many communities helping the family to meet the emergencies of sickness. Such a service may gradually be extended as regards all housekeeping problems, and a type of household consultant be provided who will aid the individual housekeeper in her individual problem. One principle discovered in agricultural demonstration is that the place for a demonstration is the farmer's own farm, not on some county demonstration farm. This principle, applied to the household, means that the county household expert must get into the individual home and show how to do better with what is there and then how in time to secure better. The "getting in" looks like the nub of the problem, but experience will point a way. Perhaps Ambassador Walter H. Page's phrase about the tomato club work in the South, that "the tomato was the key that unlocked the kitchen door to the trained worker," points a method of wide application.

Section 4. YOUNG WOMEN'S CHRISTIAN ASSOCIATION.

The Young Women's Christian Association maintains educational work in the local associations, supplementary to its central religious work, and this educational work commonly includes classes related to the home. In 1913, 151 associations reported an enrollment of 18,862 students in domestic-arts courses, and 117 associations an enrollment of 9,343 students in domestic science, a total of 28,205 students. In 1913, 80 domestic-science directors and 91 domestic-art directors were employed, giving full time to teaching. The registration figures quoted do not include work done with club girls who have some instruction in home economics, nor does it include the kitchen garden work, which is sometimes done with the junior girls. The range of courses offered in associations, according to a statement furnished by the education secretary, is about as follows, though not all of this would necessarily be given, especially in the smaller cities where a

teacher would be employed by the hour or where volunteer service might be used:

First, Domestic-science courses for those young women who are expecting to be married or for women in their homes.

Second, Cooking courses for business women similar to the above, but with less expensive materials. This is the type of course most often given and is patronized by wage earners and women of moderate circumstances in their homes.

Third, There are occasionally courses for maids, for which mistresses may pay the necessary fee.

Fourth, The courses for industrial girls. Sometimes these are supper classes for which the girls make partial preparation of the simple supper, or they may be menu classes in which the girls are instructed to prepare breakfasts, lunches, and dinners at a minimum cost per person.

In addition to the above domestic-science teachers sometimes give courses away from the building, such as demonstrations in factories, providing the girls with copies of the recipes used; courses with homemakers in their own kitchens or courses in the kitchen of a church, or some institution, adapted to the needs of any group of girls who can be collected.

The courses in domestic arts include courses in trade dressmaking, in a few instances in home dressmaking, in the making of undergarments, in making over and repairing and elementary work for members; millinery classes, which are among the most popular of all; basketry; crocheting; embroidering; and almost any sort of work which may interest a particular group.

The household-arts commission, composed of domestic science and art directors, in 1913 drew up certain standard courses for the associations, which will doubtless assist in improving the work given. Two courses in cookery, each providing 15 lessons of two or two and one-half hours, are recommended for classes of actual and prospective homemakers and for business women; and two courses in sewing, each of 15 two-hour lessons, which include the making of underwear and a shirt-waist.

Certain associations, notably Boston and St. Louis, undertake more ambitious educational work in this field. The women's training school of the St. Louis Young Women's Christian Association has two household-arts departments, domestic science and domestic art. The former (1) offers a two-year normal curriculum in preparation for teaching domestic science, with some work in domestic art, which requires in addition to household-arts subjects, educational courses, including practice teaching; (2) opportunity for registration in individual courses is given for "all classes of women, homemakers and business girls, mistresses and maids, for prospective teachers, and even children." The following domestic-science subjects are offered: Theory of domestic science (four courses); cookery, plain and advanced (four courses); homemakers' course; supper courses ("preparing, serving, and eating simple meals; each pupil in turn acting as hostess, as waitress, and as guest; efficient preparation of meals, with a jolly good time"); luncheon course; dietetics and

serving; invalid cookery; maids' and cooks' course; infants diets' course; household management and accounts; cooking demonstrations; laundry course; junior course (for girls 8 to 14 years); and cafeteria work (the association maintains three lunchrooms). The domestic-art department offers instruction in sewing, dressmaking, and millinery for home use, and separate courses in preparation for trade.

The school of domestic science of the Boston Young Women's Christian Association, established in 1888, aims to equip teachers of domestic science and domestic art, workers and teachers in settlements, Christian associations, charitable organizations, and institutions of various kinds. A striking feature of the school is that all students are in residence and are responsible for the household management, cooking, sanitation, and other essentials of the school home. In this respect the school sets an example of much significance in household-arts training.

One of the new developments of the Young Women's Christian Association is to push its organization into the rural district. This means a movement in part for the benefit of the rural home.

Section 5. HOUSEHOLD-ARTS INSTRUCTION IN SETTLEMENTS.

A settlement, as an institution which works for neighborhood betterment, must make home betterment one of its main points of attack. Accordingly, we find that settlements quite commonly include in their activities all manner of household-arts teaching. The "Handbook of settlements," published in 1911, prints detailed reports of 413 settlements, in various parts of the United States, urban and rural, under private and public auspices, secular and religious in their foundation. An analysis of the reports there made shows that 225 settlements, or somewhat over half, offer some form of teaching in household arts. Sewing classes are reported by 202 settlements and sewing schools by 40 schools, while cooking instruction is given by 162 settlements, domestic science by 29, and a public school cooking class by one. The numbers of settlements providing other classes are as follows: Homemaking classes, 51 settlements; home sanitation, 8; mothers' meetings, 52; kitchen garden, 38; home nursing, 14; child care, 3; domestic art, 5; dressmaking, 63; millinery, 53; needlework, 78; knitting, 9; textiles, 1; laundry, 6. Such a list can be criticized on the face of it, possibly, as unduly stressing the individual arts of housekeeping, and as not emphasizing the unified work of household management or homemaking. One notes, too, the predominance of the sewing arts, which are reported in 446 cases, as compared with 192 of cooking and food preparation, and 129 of homemaking, household management, nursing, and mothers'

meetings (or 167 for this group if the 38 kitchen garden classes are counted). Of 804 household arts classes and clubs reported in settlements, 55 per cent are in sewing and the needle arts, 24 per cent in foods, and 20 per cent in other household matters.

Settlements are just now concerned with improving the character of their instruction related to the home. An extensive survey of settlement activities as related to the problem of helping young women just entering industry to find themselves in industrial, social, and home relationships has just been made by the settlements and published under the title, "Young Working Girls."¹ It shows that there is often an ominous break in helpful relations between this young working girl of 14, 16, or 18 and her parents; the home of her parents does not furnish the steadying influence and the intimate knowledge of industry, amusements, and friendships which such a young woman needs; finally she comes into the experiences of her own home unprepared for them. The constructive suggestions give a large place to training for home life in the necessary "education in the realities."

It is believed that the attractive power in domestic matters can best be increased by changing the emphasis from cooking to homemaking. * * * Mastery over its technique should be shown as an asset toward a really successful match, and a sane view of marriage presented. Model apartments and cottages should be furnished in connection with every settlement, and ought to be developed as a part of the public system of education as quickly as possible. Instruction should be given in the sources, constituents, values, and qualities of food; in the sanitary care of the household; in the upbringing of children; in the various arts and crafts connected with furnishing. The model apartments should also be made the center of a scheme of hospitality, so that the work itself may become associated with interesting and stimulating social relations.²

Definite action is being taken to improve the teaching of household arts in connection with settlements. Teachers College, Pratt Institute, and Lewis Institute, Chicago, each provide opportunities for practice teaching in settlements. Particularly significant is the provision at Simmons College, Boston, of opportunities for student teaching in settlements arranged at the request of the settlements of Boston in the effort to improve the quality of their instruction in household arts. Thirteen settlements cooperate, and 25 seniors and 15 special students have this year secured field experience under a supervisor who resides in one of the settlements. A graded system of lessons extending through three years is provided. The children are mostly under 14 years of age, but it is hoped to carry them on

¹ Young Working Girls. A summary of evidence from 2,000 social workers, edited for the National Federation of Settlements by Robert A. Woods and Albert J. Kennedy, Boston. Houghton-Mifflin. 1918.

² Op. cit., pp. 135, 137, 144.

through "the baffling years from 14 to 18." Attempts are made to follow the instruction into the homes, and special problems such as Italian and Jewish dietaries have been attacked.¹

Section 6. VISITING HOUSEKEEPERS OR DOMESTIC EDUCATORS.

There was introduced a few years ago, by the Society for Improving the Condition of the Poor in New York,² a type of home teaching in needy families which consists of sending to the home a trained dietitian to give instruction on food values and practical cookery when failure in household management seems to be the source of the difficulty. The plan has now been adopted in many communities and undertaken by different organizations. The Young Women's Christian Association, of Cleveland, Ohio; the Associated Charities, of Detroit; the North American Civic League for Emigrants, Buffalo; and certain philanthropic societies in Chicago, and in Cambridge, Roxbury, and Boston, Mass., have undertaken similar work. From the original teaching of practical food management, the work has broadened out until it covers the whole field of household management, including child care, sanitation, making of clothing, household expenditures and accounts; in fact, remedial instruction in every field of the household. The advantages of such work are obvious. It reaches the present generation without waiting for the children to get instruction in the schools. It reaches the needy families. It is eminently practical. Measured by results in terms of cost, it seems to be more than justifying itself. There are valuable reports of this work in the *Journal of Home Economics*, December, 1913, and February, 1914. The work of the rural household demonstrator is a similar undertaking.

Section 7. HOUSEKEEPING CENTERS FOR THE TEACHING OF HOUSEHOLD ARTS.

The Association of Practical Housekeeping Centers, of New York, was organized by Miss Mabel Hyde Kittredge for the maintenance of model flats where children, young women, and mothers might secure training in homemaking. The flats are furnished with model equipment within a limited range of cost. A worker is sometimes in residence, and classes are organized for children in the afternoons and

¹ College extension in domestic science, Robert Woods. *Journal of Home Economics*, 6, 41. See also Hyama, Isabel F., The Louisa M. Alcott Club. In Lake Placid conference on home economics. Proceedings, 1900, pp. 18-23. The teaching of home economics in social settlements. In Lake Placid conference on home economics. Proceedings, 1905, pp. 54-62.

² The economic value of the visiting dietitian. Winifred Stuart Gibbs. *Journal of Home Economics*, 1 (1909), p. 71.

for older girls in the evenings. Miss Kittredge's "Housekeeping Notes" explains the method of instruction.

The housekeeping flat has been introduced in various cities as a method of teaching the household arts in connection with settlements, public schools, or continuation schools, and other educational enterprises. It is noteworthy that the idea of using a house or apartment fully furnished as the teaching equipment for household-arts instruction is apparently receiving widespread adoption throughout the whole country. Not only public schools, but also normal schools, colleges, and technical schools are providing practice houses or apartments; and rural schools and industrial companies are establishing home centers. In this, American schools are following the precedent set by English teaching of household arts.

One critic of the neighborhood flats as a method of home betterment has said that the model flat will never fulfill its mission until a model family is found to keep it, so that it may become a model home as well as a model house. The flats have ordinarily been occupied during the daytime by the teacher, although in some instances the teacher has been resident in the flat and in this way has made it a home.

The housekeeping-center idea is entirely applicable to rural districts. The rural-school teacher who makes her home a center of informal teaching and an opportunity for bringing better equipment and methods to the attention of others; the model cottage as a domestic science laboratory at the consolidated school; and the demonstration farm, which must have a demonstration farmhouse and housekeeper upon it, as well as a farmer expert, are some forms which the housekeeping center is bound to take in the rural districts.

Section 8. NURSES AND HOME BETTERMENT.

The work of the nurse was originally a household art, and it is altogether appropriate that this modern specialized profession of nursing should make its contribution to better homemaking. The visiting nurse, school nurse, rural nurse, and other types of visiting nurse teacher go directly into the private home and have an opportunity to render aid there which is only rivaled by the work of the visiting housekeeper, whose field embraces that of the whole household. The nurse indeed often has a special advantage, since her care of the sick opens the way most naturally for informal instruction on all matters concerning the home. The new plan whereby the services

"Housekeeping Notes," by Mabel H. Kittredge. Whitcomb & Barrows, Boston.

of the visiting nurse are being introduced into communities on a self-supporting basis on the plan of charging a small fee to the individual family has much promise of widening the field occupied, and it is not too much to hope that in the future the visiting nurse as helper and teacher will come to be a common assistant during illness in the humblest home in every community. The cooperation of the visiting nurse is well illustrated by the Visiting Nurses' Association, of Boston, which supplements the specialized service of the nurse by visits of the general housekeeping teacher in cases where the fundamental difficulty is ignorance and inefficiency in the household arts.

The nurse as a teacher of home nursing and in household problems of illness and child care is also performing a very useful service as, for example, in the continuation instruction for mothers instituted by the Rochester (N. Y.) public schools and the course in infant hygiene and feeding given by nurses of the New York City Board of Health to mothers weekly at recreation piers, public playgrounds, and social centers.¹

Section 9. THE DAY NURSERY AND TRAINING IN CHILD CARE.

The day nursery has been developed in urban communities to take care of the child of the working mother who must earn a supplemental income, because of the temporary or permanent disability of the main wage earner. Those concerned with many nurseries have made it a fundamental point in their creed not to accept the care of children in families where the man is at work. Sound policy demands that the man's earning capacity be increased rather than that the housewife go out from the home and earn supplemental wages. There are numberless cases, however, in every good-sized community, in which there is no man wage earner or in which the man is temporarily disabled and the woman must earn. It is in such cases that the nursery can help the home without injuring it. The nursery has also attempted a positive service to the home in providing instruction to mothers in child care. Similar instruction has been developed at milk stations, dispensaries, hospitals, and other institutions which come in touch with mothers. A few nurseries, as the Fitch Creche, at Buffalo (recently closed), and the Manhattanville Nursery, of New York City, have attempted to develop schools for girls and young women in the care of infants and small children, with the idea of preparing them for professional service as nursemaids.

¹ For the transfer of the nurse's art to the home, see the discussion of the teaching of home nursing in connection with home economics elsewhere, Part III of this report Bulletin, 1014, No. 38, p. 58.

Section 10. HOME-ECONOMICS EXTENSION IN INDUSTRIAL COMMUNITIES.

An effort to improve living conditions as a means to increased industrial efficiency is appealing to many far-sighted business men. Schoolmen see that education for better living must include among its objects reaching the working family here and now. The industrial department of the Young Men's Christian Association is experimenting with domestic-science teaching in mining and other industrial communities in West Virginia, Pennsylvania, and elsewhere. The United States Steel Co. has introduced the model housekeeping center into its welfare work at the Lambert mine in the Connellsville district of Pennsylvania and at Gary, W. Va.

A striking example of experiment in this field is the extension work of Winthrop Normal and Industrial College, Rock Hill, S. C., for "mill villages," which includes two special workers, Mr. James L. Carberry, the "special agent of mill village improvement in connection with the United States Department of Agriculture," introducing home gardening work, and Miss Mary E. Frayser, in charge of "home-economics extension work in rural, school, and mill communities." Miss Frayser has kindly furnished information regarding the home economics extension work in mill communities.

In some towns the work is begun without paid assistants, under local leadership, as at the Aragon and Manchester Mills at Rock Hill, S. C. In other towns some local organization furnishes leadership. The King's Daughters at Spartanburg have been the means of erecting a welfare building, with auditorium, classroom, and mother's clubroom. In other towns a paid teacher is supplied, who devotes part of her time to the direction of the community work centering in the school, and secures such local assistance in leadership as she can; such a situation is found at the Pacolet Mills, Pacolet, S. C., where the cottage is used regularly for domestic-science lessons by the schools. In some of the towns a trained worker is put in charge of all the activities which radiate from the welfare house, as at the Hamilton Carhartt Community at Rock Hill, or the Brogan Mills at Anderson, S. C. At the Hamilton Carhartt Mills, Rock Hill, a domestic science graduate is provided, who has charge of a community house, also given by the mills; there she conducts a morning class for children below school age, a woman's club one afternoon a week, a children's story-telling club one afternoon, a sewing club once a week, a night school for the three R's twice a week, a young peoples' social evening once a week, and in addition does friendly visiting in the homes.

¹ See also extension work of colleges, Part III of this report, Bulletin, 1914, No. 68.

In initiating such activities, the representative of Winthrop College goes to a mill community and interests the mill owners, ministers, teachers, and other leaders, that the movement may have local leadership. She arranges a mass meeting and places before it the plan of a community house and of home betterment and club work, outlining what is done in other towns. A second meeting of the women is called to form a woman's club—

for the discussion of ways of doing the work of the home, care of the children, etc., so that each may profit by the ideas of all, and have a good time as well, showing that such an organization can become a power for good.

At the first meeting of the women a cooking demonstration, or sewing lesson, with a program and refreshments, increases the interest; an organization is made, officers elected, and the matter of program decided—a cooking class, sewing circle, civic improvement, or relief work for the sick. The latter has proved especially effective as a first-step, with the making of bed linen, nightdresses, etc., to be lent by the club on application. The club meetings for sewing provide opportunity for informal discussion and definite instruction on fly eradication, window-screens, colds, infant feeding, selection of foods, and clothing—

possibilities of my garden, your method of securing obedience from the child and mine—a wide range of topics, but undertaken with the hope of broadening the outlook; while our specific endeavor is progressing we learn to know each other, grow to feel ourselves a unit ready to undertake some more difficult work.

With a start made, a volunteer leader for a class of girls at work, evening instruction in cooking or sewing may be the next step; by this time the mill authorities are usually interested, and as the program develops a mill cottage is gladly made available as a community center; the preparations for this, cleaning, furnishing, decorating, call out the greatest interest and cooperation. A community entertainment may provide funds for furnishings, books, magazines, cooking utensils, and games for the community house. The "mill" contributes, and soon the new center of inspiration and of home and community betterment is under way as a meeting place for clubs, classes, and social gatherings. Such an educational program, in charge of trained domestic-science workers, means sanitary living, better food, intelligent child care, a better home life, and not less community progress in efficiency, intelligence, and every good thing wrought out by the cooperative effort of the people themselves. Success very evidently turns on the devotion and wisdom of the trained leader. The women may take the responsibility for the "once-a-week open house" evenings. "It is splendid to watch the growth in self-reliance and community spirit."

Just now the extension worker is promoting an interest in better-baby contests, after the plan of the Better Baby Health Association. A score card and bulletin is sent by the college to the mother of every baby examined. The mothers of babies which are scored low are asked to consult a physician, to follow the directions given in the bulletin, and to return with their babies in three months for a reexamination.

Section 11. VACATION TRAINING—SUMMER CAMPS AND CAMP SCHOOLS.

The summer camp is becoming not only a means of recreation, but also provides educational opportunities for its members. Handicraft activities of various kinds have commonly been introduced, and in many girls' camps the instruction in household arts is a feature. Ellen Richards once suggested that, as industrial processes are more and more removed from the home, we will come to value our seasons of recreation in the country for the first-hand experiences which they offer children in the arts of living. It is this educational asset which the camps are now developing. Such camps are commonly organized by settlement houses, private schools, the Young Women's Christian Association, churches, and other social and philanthropic organizations. The public-school authorities in certain parts of the country have begun to experiment with the camp, and many proprietary camps have been established.

One of the most interesting school camps is the "Farm Camp and Camp of the Golden Maids," organized by the county superintendent of Page County, Iowa, established in 1909, and opened for girls in 1911. In 1913, 220 students attended, including 75 or 80 girls. There is a 10-day program of lessons in the forenoon, and the afternoon is given over to sports, social enterprises, and the lectures at the Chautauqua where the camp meets. The girls' work includes lessons in cooking and sewing from instructors of the State college; also personal hygiene, canning clubs' demonstrations, and social activities. Contest work is introduced with prizes for neatness, sewing, bread making, and athletics. The boys as well as the girls learn the mysteries of dish washing and sanitation at the camp.

The summer school of Milwaukee County School of Agriculture and Domestic Economy (p. 55) also has something of this character of a vacation school for boys and girls.

The Lanier Camp for Family Life, at Eliot, Me., may be instanced as one camp which has made a serious attempt to add to the usual camp program something of instruction regarding the home arts. The activities include not only camp life, with its accompanying fun and sports, but "the serious productive life of an old-fashioned home

and farm environment." The aim of the girls' camp is the development of the girl.

The camp is organized as a working home and has the atmosphere of old-time family life. It gives the right attitude toward the home and some experience in contributing to its permanence. Conditions are crude and simple, and life is planned so that all may cooperate in service. The domestic work is directed and shared by experts, is standardized, and shows the girls, by the way it is done, that the same educated intelligence is required as to organize and manage a business, along with a deal more subtle tact, in that its character must always be, in the largest sense, personal and charitable. * * * In a practice kitchen, independently equipped, is a trained teacher of cooking, with a group of girls helping. This teacher cooperates with the general housekeeper in preparing the meals, and all the work of the practice kitchen is made to supplement and relieve the general cook. In this way the girls work with one who "knows how" in serving an actual need. In the practice kitchen a large portion of the camp bread supply is made. * * * There is a regular hour weekly for mending under direction.

Section 12. TRAINING FOR THE HOME—CAMP FIRE GIRLS AND BOY SCOUTS.

These two voluntary organizations of girls and of boys, respectively, have certain by-products of training which are related to the home. The three stages in the Camp Fire Girls are the wood gatherers, fire makers, and torch bearers, and to pass from the first to second stage the girls must do these among other things: Help buy, prepare, and serve at least two meals for meetings of the camp fire, or two home meals; mend stockings or knitted undergarments, or hem a dish towel; keep a written classified account of all money received and spent for a month; sleep with open windows or outdoors for at least a month; know what to do in certain emergencies; know the chief causes of infant mortality and certain other required things; and, in addition, each girl must present 20 elective honors in health craft, home craft, nature lore, camp craft, hand craft, business, and patriotism. To become a torch bearer the girl must present 15 additional honors.

The activities in these seven groups represent all the phases of woman's work. They are to make for status in that work. After a certain kind of work has been dignified, it is done in a very different way from what it was before.

An organization of a local group of Camp Fire Girls affords an opportunity for teachers, church workers, and others to undertake a kind of work with adolescent girls which, among other things, will give rich returns as regards the home. (Address: Camp Fire Girls, New York City.)

The Boy Scouts have a somewhat similar discipline for boys.¹

¹Address, 200 Fifth Avenue, New York City.

Section 13. CORRESPONDENCE SCHOOLS OF HOME ECONOMICS.

The American School of Home Economics was chartered by the State of Illinois about 10 years ago to give instruction by correspondence. The school, up to 1914, has registered 15,000 persons who have taken either a reading course, a partial course, or the entire correspondence course. The school has issued 12 textbooks on various divisions of home economics, which have been widely used in libraries and schools, as well as by its own students. These books, which are published in several editions, may be secured either independently or in a reading course arranged by the school, or in its regular correspondence course with lessons by mail. The school maintains for its members a circulating library, a purchasing department, and house-building bureau; it lends lecture manuscripts and lantern slides; and offers services to women's clubs.

Other correspondence instruction in home economics has been projected by the proprietary institutions, which have developed the method of teaching technical subjects by mail.

Elsewhere a statement has been made of correspondence instruction undertaken by the colleges, and the home woman interested in studying household problems by correspondence will do well to make inquiry at the department of home economics of the State college or university of her State.

Section 14. LIBRARIES AND EDUCATION FOR THE HOME.

It is obvious that the library can aid greatly in the popular movement for home education. Public libraries accordingly have as a matter of course included books on housekeeping and housekeeping magazines in their collections. The library may render special service in this field by bringing together its housekeeping books in an open reference section where they may be readily consulted by the housekeeper.

Women's clubs have, in many communities, cooperated with the library in developing its collection of household books. The Ontario Library Association, to cite a Canadian example, has been at special pains to print in its annual list suggestions as to recommended books on the household. It has been suggested that the larger libraries might experiment with a consulting adviser or reference librarian, who would specialize in household subjects, and that the work for housekeepers in libraries might attain the importance which work for children has assumed in American libraries.

Several libraries have published lists of books on the home; the New York State Library at Albany, N. Y., a bibliography of domestic economy, in 1901; the Chicago Public Library, a pamphlet of recommended titles on domestic economy, in 1906; the Boston

Library; a complete catalogue of its books on domestic science, in 1911. The Chicago list sets a good example of a library publication in this field.

There are possibilities also in circulating libraries on home economics. Thus the Ohio State Library, at the request of the women's organizations, has recently added traveling libraries of home economics with 30 different books in a set, and nearly 500 volumes have been put in circulation. Traveling libraries have also been used in other States—in Kentucky, New York, and elsewhere.

Section 15. JOURNALISM AND THE HOME.

The influence of the periodical press has been important in the movement for home betterment. There are some 120 American magazines entirely devoted to this field, such as the well-known Ladies Home Journal, of Philadelphia; Good Housekeeping, New York; Woman's Home Companion, New York; and others. Most newspapers have a column, or sometimes a page, devoted to the interests of the home. Material for these newspaper departments is sometimes prepared by a special editor, and newspapers which are developing this department have it in their power to render a great service for better homemaking in their own communities. Daily papers have also secured much of their household material from syndicate services which send out either prepared copy or plate material which in turn is prepared by special writers under contract. Some of these departments are repeated in a hundred different newspapers in various parts of the country and reach hundreds of thousands of readers. The greater part of this writing so far has been done by persons who are writers rather than household experts. There is a growing interest, however, among the household technical colleges in household journalism as a profession, and the Iowa State College journalism courses outlined elsewhere are a hopeful beginning.¹

There are many special periodicals which include a home department, such as the religious press, the agricultural papers, and the organs of fraternal organizations. Mrs. Hutt's remarkable service in this direction in the Progressive Farmer, of Raleigh, N. C., should be mentioned, and the work of the Breeders Gazette in introducing concrete house construction to its readers is a good illustration of the possibilities of well-directed home departments in agricultural papers. The Country Gentleman, of Philadelphia, conducts a department in which authoritative articles on domestic science appear, and the work of the many other agricultural papers in this field deserves warm commendation. It seems important to

¹See Part III of this Report, Bulletin, 1914, No. 33, p. 33.

bring this field to the attention of persons taking training in household science, and also to emphasize its importance to the directors of such publications.

Section 16. EXHIBITS AND THE HOME.

The exhibit as an educational agency goes back, of course, to the Crystal Palace Exhibition in London, 1851. Its value is well illustrated by the Mary Lowell Stone exhibit of home economics organized by the Association of Collegiate Alumnae in Boston in 1902, exhibited at the Mechanics Fair in Boston in 1902, then successively at the convention of the collegiate alumnae in Washington, in various large cities, at the St. Louis Exposition of 1904; and at different colleges; it exhibited the results of researches into the cost of living, economics of laundering, hygiene of clothing, etc. Another exhibit, more popular in nature, was the Homemakers' Exhibit and Conference, organized by the School of Domestic Art and Science, of Chicago, in November, 1912, which attempted to show definite methods of improving homemaking, of promoting health, and reducing the cost of living, of adapting labor-saving devices and time-saving methods, of arousing interest in artistic and economic clothing. Accompanying the exhibit there were daily lectures by school and college teachers of home economics. Another type of exhibit of which there are many instances is the pure-food exhibition, usually organized with a commercial purpose and failing in its educational possibilities for this reason: It is noteworthy that the Federation of Women's Clubs has recently, through its home economics committee, urged that commercial food shows be discouraged, and that exhibits with an educational purpose be held.

Exhibits of home products and contests.—Interest in the home-making industries, as sewing, cooking, and food preserving, and in related household arts and management, is stimulated by means of public exhibitions of the products of such arts. Exhibits may display such products (a) from the work of instruction in the school, (b) from the home work of school children carried out under the stimulus of the school, or (c) from the work of adult homemakers themselves. Each has its particular value. Exhibits, accordingly, have been arranged by schools of various grades; by either local, county, or State fairs; by local, county, and State fair associations; by women's clubs and other organizations. The stimulus of competition has been commonly utilized by scoring the products and awarding prizes. Such exhibits will primarily improve the quality of home products for home use and thus improve living conditions. The educational value of such competitive exhibits has been urged as a reason for their use by schools and apparently with justifica-

tion. Several bulletins and papers have recently dealt with this subject: "Educational Contests in Agriculture and Home Economics for Use in Farmers' Institutes and Agricultural Extension Work," (Bulletin 255, Office of Experiment Stations, U. S. Department of Agriculture, 1913), which besides making general suggestions, outlines some 28 contests, of which the following especially concern the household: Butter making, bread making, canned fruit, sewing (separate contests for girls 10 to 14, 15 to 18, and for women), lunch boxes, house decoration and furnishing, cellar plans, kitchen plans, household-expense contests, home compositions (essays on home life), and flower gardens. Another study of much value for its suggestions regarding a particular division of the field, namely, horticultural products of household industry, is a paper on "Exhibiting, Classifying and Judging Homemade Horticultural Products," by Prof. J. B. S. Norton, of the Maryland Agricultural College, College Park, Md.¹ Its suggestions as to the preparations necessary for the exhibit, classification of products with appropriate definitions, rules for judging and scoring, and the educational features of exhibits are most excellent: some ten score cards are presented for different fruit products. Several other publications have appeared on this problem: A bulletin on "Judging Bread," by the University of Illinois; another on "Home Economics Exhibits," by the Iowa State College, Ames, Iowa; and a circular on "Scoring Exhibits," by the department of home economics, University of Missouri, Columbia; besides various discussions in the directions issued to boys' and girls' contest clubs in different States.

Child-welfare exhibits.—A public exhibition intended to emphasize the agencies making for child welfare, to point out untoward conditions and suggest remedial action, was held in New York in 1911, and similar exhibitions have since been held in Chicago, Kansas City, Northampton, Mass., St. Louis, Buffalo, Montreal, Rochester, Louisville, Providence, Peoria, and other cities. Starting with the New York exhibition, a national educational movement, for the promotion of such exhibits, has been organized as the National Child Welfare Exhibition Committee (address, 200 Fifth Avenue, New York City). The child-welfare exhibition presents its facts through wall exhibits, arranged as uniform screens; three-dimension exhibits and living exhibits. Its usual divisions are: Health, homes, schools, recreation, county life and rural education, moral and religious life, child and the law, industrial conditions, philanthropy, settlements, and educational movements. The committee has published a series of bulletins giving directions regarding the organization of exhibits (25 cents for

¹ May be secured through Journal of Home Economics, Roland Park, Baltimore, Md., 25 cents.

sample set); and it loans chart exhibit material to local organizations. The department of surveys and exhibits of the Russell Sage Foundation, New York, is also prepared to lend exhibits and to render special service in the preparation of exhibit material. The American Home Economics Association (Roland Park, Baltimore, Md.) has a special exhibit on school lunches for loan.

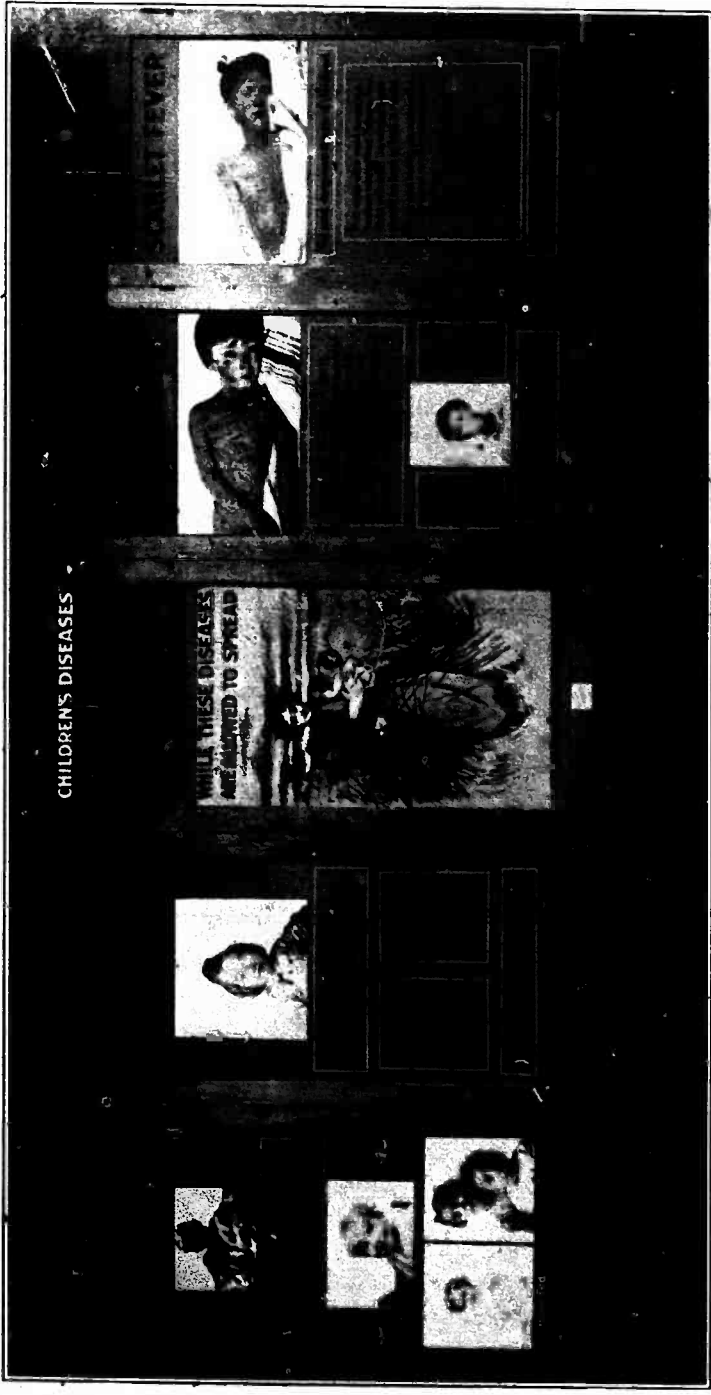
Section 17. UNITED STATES GOVERNMENT AND HOME BETTERMENT.

While the Federal Government has no "home bureau" or "domestic science bureau," the desirability of which has sometimes been urged, it does at many points in its administrative service undertake matters having very direct reference to home betterment. The Department of Agriculture with its Farmers' Bulletins on home problems, its "nutrition investigations," which deal directly with the food problem of the household, and its supervision of foods and drugs under the meat-inspection service and the "pure-food law"; the United States Bureau of Education, which gives attention to education for the home; the Public Health Service in the Treasury Department; and the new United States Children's Bureau—these are all to be mentioned as undertakings of the Federal Government which are of major importance to the home. A word of detail may be given as to certain of these, also as to the proposed Federal legislation which would provide further definite action for home betterment.¹

Section 18. THE DIVISION OF NUTRITION INVESTIGATIONS, OFFICE OF EXPERIMENT STATIONS, UNITED STATES DEPARTMENT OF AGRICULTURE.

This division carries on scientific studies of human nutrition, publishes in both scientific and popular form material related to nutrition, and is a national clearing house and center of information for teachers, homemakers, and others as regards problems of nutrition and related fields. This work in nutrition investigations, which was established in 1894 under the direction of the late Prof. W. O. Atwater, has had an important influence in the development of American scientific work in nutrition, and in furnishing subject matter for instruction, both technical and popular, in the field. The studies made have comprehended various branches of the subject, including food materials, their preparation for human use, the consumption of foods by individual families and institutions, the digestibility of foods, and the fundamental principles of nutrition. The publications include, first of all, "technical bulletins," scientific in character and intended for technical workers and investigators, of

¹ See the bibliography given in Bulletin, 1914, No. 39 (Part IV of this report) for a number of Government contributions to home betterment.



A TYPICAL EXHIBIT USED IN CHILD WELFARE WORK, NATIONAL CHILD WELFARE EXHIBITION COMMITTEE, NEW YORK.

which some 60 have been issued with a circulation of about 240,000 up to 1913. These technical bulletins present scientific data on experimental methods, results of nutrition experiments and investigations, and similar subjects. Of great significance are the popular pamphlets on nutrition issued in the "Farmers' Bulletins" series, of which some 25 had been issued up to June, 1913, with a total circulation of 12,193,000; in the single year 1912-13, this circulation, which is entirely in response to demand, was 2,225,000, including 315,000 copies of a single bulletin, that on "Economic Use of Meat in the Home." These Farmers' Bulletins on nutrition, listed elsewhere,¹ have been widely used by teachers in schools and colleges, in addition to their circulation directly into private homes; they have without doubt been the strongest single factor in popular education regarding home betterment in America. A third form of publication are the briefer "circulars" in connection with nutrition investigations, of which 30 have been issued up to 1913, with a total circulation of 127,600; a typical one of these and one which has had wide use is on "The Function and Use of Food." Two series of charts have also been issued: Four charts on food and diet and fifteen on the composition of food materials. A bibliographical work of great scientific importance which is also carried on is that of abstracting the current literature of nutrition. These abstracts are published by the Department of Agriculture in the Experiment Station Record and in a single year, 1909-10, comprised 642 subjects, extending over 123 pages.

The nutrition investigations are under the supervision of the Director of the Office of Experiment Stations, Dr. A. C. True, and in immediate control of Dr. C. F. Langworthy, chief of nutrition investigations, who is assisted by a staff of scientific workers. There is provided at Washington a considerable scientific equipment, including laboratories with appropriate facilities for research.

While the scope of the nutrition investigations has been restricted to the subject of nutrition there has been a constant and growing pressure upon the Department of Agriculture from teachers of home economics, and others interested in home betterment, for an extension of the investigations to cover other aspects of the rural home, such as textiles and household appliances, and in general the whole field of home management. The Secretary of Agriculture in 1914 recommended such an extension of the nutrition work, and Congress provided for it in the appropriation of the year. Much of the scientific equipment of the nutrition laboratories, for example the respiration calorimeter, can be applied in studies of textiles, energy studies of household appliances and labor, and related problems which con-

¹ See bibliography given in Bulletin, 1914, No. 39 (Part IV of this report).

cern the more efficient management of the home. It is believed that thus there would be supplied a basis of scientific facts greatly needed for developing instruction in textiles and household management, comparable to that already secured in nutrition. The importance of leadership in these newer fields of household science can not easily be overestimated.¹

Supervision of food materials.—The supervision of foods and drugs by the Federal Government in enforcement of the Food and Drugs Act of 1906, is carried on under the United States Department of Agriculture, Washington, D. C., which will furnish information on request. It is important to remember that the Federal act affects food and drug products only which go into inter-State commerce, that is, are sent from one State to another. In the individual States legislation has been generally adopted to establish standards regarding food produced and consumed within the State. The United States Department of Agriculture also has control of the inspection of abattoirs and meat-packing houses which ship their products in interstate commerce. Again in this field it has no concern with local abattoirs the products of which are consumed within the State where they are produced.

Section 19. UNITED STATES CHILDREN'S BUREAU.

The United States Children's Bureau, of the Department of Labor, Washington, D. C., was established in 1912. It is to—

investigate and report to said department upon all matters pertaining to the welfare of children and child life among all classes of our people, and shall especially investigate the questions of infant mortality, the birth rate, orphanage, juvenile courts, desertion, dangerous occupations, accidents and diseases of children, employment, legislation affecting children in the several States and Territories.

The Children's Bureau has published bulletins as follows: "The Children's Bureau"; monograph No. 1, on "Birth Registration"; Infant Mortality Series No. 1, "Baby-Saving Campaigns" (a preliminary report on what American cities are doing to prevent infant mortality); Care of Children Series No. 1, "Prenatal Care," by Mrs. Max West; Part I of "Handbook of Federal Statistics of Children"; "First Annual Report"; Care of Children Series No. 2, "Infant Care"; "Compilation of Child-Labor Laws of the Several States"; "Report of Infant Mortality Investigation."

¹ Origin and development of the nutrition investigations of the Office of Experiment Stations, Report of Office of Experiment Stations, 1900, pp. 449-460. For lists of nutrition publications, see Office of Experiment Stations Circular 102 (1910); Relation of nutrition investigations to questions of home management, Report of Office of Experiment Stations, 1907, p. 355; Department of Agriculture Yearbook, 1911, p. 144; Reports of Office of Experiment Stations, 1911, pp. 30, 36, and 1912, pp. 30, 31; Report of Secretary of Agriculture, 1912, pp. 109, 110, 221, 224; Journal of Home Economics, 5, 455.

The importance of the bureau's public work in promoting measures for safeguarding children and promoting their welfare can not be overestimated; home women will find its bulletins on the care of children very practical.

• **Section 20. FEDERAL GRANTS FOR EDUCATION FOR THE HOME.**

The United States Congress passed in 1914 the Smith-Lever bill providing for an appropriation of \$10,000 to each State in aid of extension teaching of agriculture and home economics, with additional grants proportioned upon rural population. The Federal administration of the law is lodged with the United States Department of Agriculture and in each State with the State college of agriculture. The law requires the States to make an appropriation in addition to the grant received from the Federal Government. The Federal aid is extended to make possible the adequate development of State systems of extension teaching to reach the farm and the farm home. This law makes possible important progress in home-betterment work for rural districts. Inquiry should be made by persons interested at the State college or university or directly from the United States Department of Agriculture.

The proposed Smith-Hughes bill, following the recommendations of the national commission on national aid to vocational education, which reported to Congress in June, 1914, provides that Federal aid shall be given the various States in establishing a system of training for agricultural, industrial, and household vocations. An appropriation of \$200,000 a year is to be given a proposed Federal board for vocational education, for administration, and for studies, investigations and reports, on subject matter and methods of teaching these vocations. An appropriation aggregating \$1,000,000 for vocational teachers is to be divided among the individual States, according to population. Next, a fund is provided for aiding State systems of agricultural teaching, beginning at \$500,000 and increasing to \$3,000,000 by 1924, which is to be divided among the States in proportion to their agricultural population; and a similar sum for education in the industries is to be divided on the basis of urban population. Each State must provide funds, either by State or local action equal in amount to that granted by the Federal Government. The grants are designed especially to aid the training of boys and girls of 14 years of age or older in all-day or part-time vocational schools and in day and evening continuation classes in agricultural, industrial, and household callings.

A third proposal is that of Senator Smoot to provide a grant of \$10,000 to each State agricultural experiment station for research work and publication in home economics. This bill is heartily

approved by those who recognize the great need in home economics of establishing its fundamental facts by scientific research and investigation.

Another bill is that introduced by Mr. Wilson, of Illinois, to provide for a Bureau of Domestic Science in the Department of Agriculture. Such action would provide the needed national leadership, especially in research and investigation. It is but fair to say, however, that the recent extension by Congress of the scope of the "nutrition investigations" in the United States Department of Agriculture to include problems in the utilization of textiles and in household management gives, in effect, this much-needed national bureau of research and information on foods, clothing, and shelter.

The United States Bureau of Education is now giving special attention to education for the home. The position of specialist in home economics has been created in the bureau, and home-education workers regard this as an important step.

Section 21. STATE GOVERNMENTS AND HOME BETTERMENT.

In addition to the general work of education for home betterment which is developing under State authority, and with which this whole report deals, the State government in its various administrative activities performs many services of direct significance to the home.

There is commonly State legislation for the control of food industries the product of which is made within the State for consumption within the State and which, therefore, is not subject to the Federal food law, and also for the supervision of food materials shipped into the State for local consumption, which thereby become subject to State law.

The State food work is organized in some States under the department of agriculture, in some as a part of the health department, and in some independently. An inquiry to the Secretary of State at the capitol will bring information. The food departments in all States are doing work of great interest to housewives; in some States the food publications will be found a source of practical information. To cite an example, the Special Bulletin, Food Department, of the Agricultural Experiment Station, North Dakota presents monthly not only new regulations and decisions, but discussions of food materials, sanitary laws, etc., in which the home is vitally interested. In the same connection reference should be made to the food work of local boards of health, as illustrated by that of Westfield, Mass., which has published lists of recommended food.

State boards of health.—Much of the work of boards of health, State and local, is directly related to the home, and health progress

requires a popular education which will reach the home. This is illustrated, for example, in the 1912 report of the commissioner of health of Virginia, which explains the work of his office for rural sanitation, especially in behalf of pure water supply and sanitary toilet facilities. It has conducted educational work through newspapers, popular publications, lectures, and exhibits. Plans for sewage-disposal plants for private homes were prepared. Other States are at work on similar plans attempting to reach the home as a central problem in the health situation.

State supervision of markets, at least as regards weights and measures, is common; the work of the New York State bureau, Albany, N. Y., under Mr. Reichman, has attracted wide attention. Action in this field may be municipal as in the effective mayor's bureau of weights and measures of New York City; one of its reforms was securing the container law requiring the net contents of food packages, cartons, etc., to be stated on the wrapper. The problem of market organization is just now attracting attention, and State action seems likely, as in the proposed Wisconsin "market commission," and the New York State superintendent of markets; municipal governments of course are intimately concerned with providing better market facilities, and the Federal Government, through the Department of Agriculture, is working on this problem.

Section 22. SCIENTIFIC STUDY OF HOUSEHOLD PROBLEMS PROPOSED EXPERIMENT STATIONS.

American scientific study of nutrition, beginning essentially with the late Prof. Atwater, of Wesleyan University, has enlisted scientific research of high rank at Yale University, Harvard University, Cornell Medical College, Columbia University, University of California, Johns Hopkins University, Northwestern University, University of Illinois, University of Wisconsin, to mention only some of the leading university laboratories; also in the division of nutrition investigations of the United States Department of Agriculture, and in some of the State agricultural experiment stations. The Carnegie Nutrition Laboratory at Cambridge, Mass., is also to be mentioned as an important scientific undertaking in this field.

Some scientific studies have also been made of textiles from the viewpoint of the user, as at Teachers College, Columbia University, the University of California, and elsewhere. The question of fibers and fabrics as adapted to various purposes, of reactions to light, heat, sunshine, rain, and bodily moisture; of endurance or wearing quality; of grading and standardizing; of the proposed labeling of fabrics for the benefit of the consumer are all worthy of careful study, not to mention the general economic aspects of clothing, the social problems of mode and fashion, and the æsthetic possibilities of dress.

Housing problems have also been approached in research, as in studies of ventilation and sewage, of the lighting and heating of dwellings, and kitchen equipment, at the Massachusetts Institute of Technology; engineering laboratory of the University of Missouri; the model house at the University of Illinois and elsewhere. There are numerous problems which merit critical study, as the materials of house building, house plans, with special attention to convenience in doing housework, and such matters as sleeping porches in cities, provision for children, for the sick, rural housing, institutional housing of all kinds—hospitals, dormitories, etc.; house fixtures and equipment; labor-saving machinery and devices. Painstaking and critical study of domestic architecture is worthy of scientific attention to the end that human health may be promoted, energy-waste in housework eliminated, costs of construction reduced, and in general proper standards for city, town, and rural housing established.

The economic and social problems of the home, as comprised in the field of household management and the community relations of the family group, have scarcely been approached by the scientific method. As regards management problems there are two notable American studies of household service, one undertaken by a university professor of history and economics ("Domestic Service," Lucy M. Salmon, 1896), and the other by a group of public-spirited women in Boston, with university affiliations (Report of the Household Aid Co., Boston, 1902-4¹)—an experiment in furnishing trained household "aids" by the hour on call. As regards wider social studies of the home, there are the investigations of household budgets of industrial families made by labor bureaus, settlements, and charity organizations, which one finds well summarized in Streightoff's "Standard of Living Among the Industrial People of America," and Nearing's "Financing the Workingman's Family."

Certainly in the problems of food, clothing, shelter, household management, and the economic and social relations of the family group, viewed from within and viewed from without, both for the domestic home and the institutional household, there are most promising fields demanding that kind of unbiased patient study that science gives. The college and university laboratory will do much more in this field than has thus far been indicated, and if Government experiment stations are also given funds for research in home economics, lasting foundations will be formed for the art of right living. The Smooth bill² proposing Government aid for research in this field has appealed to many as the most certain method in the proposed national legislation to aid education for the home. Home progress is most fundamental to welfare, and yet slowest to come, because of the isolated detached position of the individual home

¹ May be obtained through Journal of Home Economics, Roland Park, Baltimore, Md.

² See p. 170.

unit, which by its unique nature is not open to the competitive influences which vitalize practically every other human enterprise. *

Mention should be made in this connection of two or three private undertakings in this field of household experimentation. Mr. and Mrs. Charles Barnard established at Darien, Conn., a few years ago, a "Housekeeping Experiment Station," which published a number of useful bulletins on household equipment. Two years since the station was purchased by Mr. and Mrs. Alfred T. Child, who have continued it at Stamford, Conn., while Mr. and Mrs. Barnard have organized another "station" at Pasadena, Cal. Mr. and Mrs. Child, who are trained workers, have investigated kitchen and cooking problems which have been reported in a recently published book, "The Efficient Kitchen" (McBride, Nast & Co.), and are prepared to render service in lectures, consultations, kitchen planning, information, etc. "The Housekeeping Experiment Station of the New Jersey Federation of Women's Clubs" which was maintained for several years by Mrs. Mary Pattison at her home in Colonia, N. J., brought together selected types of labor-saving machinery. A book reporting the work of the Colonia station, "Domestic Engineering in the Servantless House," is soon to be published by Mrs. Pattison. Another recent enterprise is Mrs. Christine Frederick's "household efficiency kitchen" at her Greenlawn, Long Island home, which has aimed to apply to household problems, shop efficiency methods; her results have been reported in magazine articles, in a book, "The New Housekeeping" (Doubleday, Page & Co., 1913), and in a bulletin, "The New Womanhood Magazine."

Section 23. THE AMERICAN HOME ECONOMICS ASSOCIATION.

The American Home Economics Association is a professional society including in its membership teachers in schools and colleges, professional workers in hospitals, college dormitories, lunch rooms, and other institutional households, and many home women who take a scientific interest in household progress. The association is the direct outgrowth of the Lake Placid Conference on Home Economics, which was organized in 1899 by Mr. and Mrs. Melvil Dewey, of the Lake Placid Club of New York, and the late Ellen H. Richards, of the Massachusetts Institute of Technology. The Lake Placid conference held annual summer meetings for 10 years and a winter meeting for 3 years, with an educational section devoted to problems of home economics teaching. In 1908 the conference which had been a personally conducted meeting of leaders was merged in the American Home Economics Association which held its initial meeting in January, 1909, starting with a membership of upward of 1,000 and establishing the Journal of Home Economics, a professional paper devoted to this field.

The association holds annual national meetings and has many local branches in different cities and States, as well as a vigorous section devoted to institution management problems. The *Journal of Home Economics* is a publication of 10 issues a year, with about 600 pages of reading matter containing articles on scientific and practical topics for teachers, for persons concerned with institution management, and for those interested in the problems of the home. The journal began in February, 1914, a special housekeepers' section which will present the results of laboratory and other scientific studies in practical form for the housewives' use. The journal publishes the scientific papers presented at the various meetings of the association and includes a comprehensive bibliography of current literature in home economics. It is published at Roland Park, Baltimore, Md.

The association assisted in maintaining for several years the graduate school of home economics, intended particularly to present the latest progress in this field of applied science. It had its rise in a summer school organized by the late Prof. Atwater, at Wesleyan University. The successive meetings of the school were held at the University of Illinois, Cornell University, Iowa State College, and Michigan State College; but in view of the development of graduate work in the universities, the school has now been given up.

The basis of organization for the association provides for individual membership and also for the affiliation of local societies. Among the branch associations are the following: The Home Economics Associations of New England, Connecticut, Greater New York, New York State, Philadelphia, Washington (D. C.), Ohio, Detroit, Grand Rapids, Michigan, Chicago, Iowa, Missouri, Utah, Texas, Seattle, Nebraska, and the Pacific coast. The presidents of the association have been the late Ellen H. Richards, of the Massachusetts Institute of Technology; Prof. Isabel Bevier, of the University of Illinois; Dean Sarah Louise Arnold, of Simmons College, Boston; and Prof. Martha Van Rensselaer, of Cornell University. In addition to its annual and local meetings, the association carries on investigations, the results of which are published. Among the noteworthy pieces of work so accomplished are the reports on education, elementary and secondary and collegiate, of the Lake Placid conference; the "syllabus of home economics," compiled by a committee of the association; reports on institutional accounting, school lunch work, and on laundries; and the establishment of a fund for research and publication in memory of Mrs. Richards. The purpose of the association, as stated in the constitution, is "the bettering of conditions in the home, the school, the institution, and the community." The association publishes a number of pamphlets and bulletins.¹

¹ See bibliography, Part IV of this report, Bulletin, 1914, No. 89.

Section 24. THE NATIONAL LEAGUE FOR THE PROTECTION OF THE FAMILY.

The New England Divorce Reform League, organized in 1881, remained as the National Divorce Reform League in 1885, and later the National League for the Protection of the Family, has concerned itself with—

the improvement of public sentiment and legislation to protect the institution of the family, especially as affected by existing evils relating to marriage and divorce, and to secure its proper efficiency in individual and social life.

The annual reports of the league are a source of information regarding the progress in legislation and social efforts for the protection of the family institution. That it has done a work of publicity and education of great value, is recognized by students of the field. The corresponding secretary of the league from its beginning was the late Rev. Samuel W. Dyke, Amherst, Mass., who devoted himself to investigation and publicity work on the divorce problem in America, beginning about 1878. This organization has largely stimulated the modern public discussion of this matter and secured statistical investigations by the Government; it has aided in drafting laws and in forwarding the movement toward uniform legislation on marriage and divorce. It has contributed to the fundamental need in this field, the development of ideals to control home life. Its phrase "protection of the family" indicates one important end point in education for the home of which the present home-economics education movement is not yet adequately conscious.

The secretary of the league is Rev. John L. Seawell, 11 Foster Street, Worcester, Mass.

Section 25. INTERNATIONAL CONGRESS ON HOME EDUCATION.

The first congress was held in 1905 at Liege, the second congress in 1906 at Milan, and the third congress in 1910 at Brussels. The fourth congress was to be held in Philadelphia September 22 to 29, 1914, but had to be postponed because of the European war. The congress is composed of individuals and representatives of organizations interested in home training and the welfare of childhood and youth. The program comprises nine sections, as follows: Child study; family education; before school age; during school age; after school age; abnormal child; organizations relating to childhood; vocational relations between home and school.

National committees have in charge the arrangements in some 15 different countries. The president of the congress is Dr. M. G. Brumbaugh, superintendent of the Philadelphia schools, and the general secretary is Mrs. J. Scott Anderson, director of Torresdale House, Torresdale, Philadelphia.

International Congress for the Teaching of Household Economy:—

An international congress has been twice held in Europe on the teaching of household economy, the proceedings of which are available. The second congress was held during the International Exhibition at Ghent, Belgium, June, 1913. Representatives from America attended the congress and contributed to the program a valuable series of papers on the organization of home-economics teaching in the United States. Many of these papers have been reprinted in the *Journal of Home Economics*.

The international office of domestic economy, Fribourg, Switzerland, is an outgrowth of these congresses; this office has a membership of persons in various countries, publishes a bulletin, and is charged with organizing future meetings of the congress.

Section 26. MOTHERS' CONGRESS AND PARENT-TEACHERS' ASSOCIATIONS.

The National Congress of Mothers and Parent-Teachers' Association is devoted to "child welfare in home, school, church, and state." It aims to raise standards of home life and of training for parenthood, to bring home and school into closer relations, to secure legislation for juvenile courts and special officers, to provide probationary care of children in individual homes rather than in institutions, and, in general, to work for all measures for the betterment of homes and the standards of child care. The mothers' congress, which was formed in 1897 by Mrs. Theodore W. Birney and Mrs. Phoebe A. Hearst, is a national organization, with State organizations in about 30 States, and with several hundred local mothers' circles, parent-teachers' associations, and other affiliated organizations which altogether embrace nearly 100,000 members. National meetings are held each year, and an International Congress on Child Welfare is held every third year in Washington, D. C. The congress has departments of work as follows: Education, children's books, mothers' literature, home economics, juvenile court and probation, child hygiene and prevention of infant mortality, child labor, rural child welfare, legislation, playgrounds, loan papers on child nurture, marriage sanctity, children's literature, and book lists for mothers.

Especially notable is the form of local organization, the Parent-Teachers' Association, which has been a force in many communities in uniting home and school interests that educational leaders have spoken of highly. The congress has done a national work of great importance, too, in bringing together mothers in its local mothers' circles, "mothers' child study circles," "young mothers' league," "women's clubs," etc., which have provided a flexible form of organization for the study of home problems by home women. The national office of the congress in Washington sends out loan papers.

for club use for a small fee, and the Child Welfare Magazine, organ of the congress, is designed especially to help local organizations with programs and papers. A recent number of the magazine contains among other articles the following: Moral training in Sunday school; Recreation for country girl; Department of child hygiene; Parents and their problems; Child labor; Program of parent-teacher associations for the month.

Local organizations affiliate with the congress by paying a small fee. Active membership in the congress is restricted to delegates from State, local, and affiliated organizations; individual persons may join as associate members for a \$3 fee, which includes a subscription to the Child Welfare Magazine.

The officers of the mothers congress are: President, Mrs. Frederick Schoff, Philadelphia; corresponding secretary, Mrs. Arthur A. Birney, Loan and Trust Building, Washington, D. C. Clubs affiliated with the congress have been organized in Cuba, China, Japan, and England, and a similar national congress is projected for Argentina.¹ A large part of the educative work done by the organization has now been centered in the home education division of the United States Bureau of Education.

Section 27. NATIONAL HOUSEWIVES LEAGUE.

This "national movement for the federation of housewives" was organized a few years ago and is intended "to uphold the enforcement of laws which affect food supplies, the family health, the cost of living, and to secure further legislation, when necessary, toward that end." The organization is national; it has been extended by individual membership, and especially by the affiliation with the league of societies which organize a housewives league department. In January, 1914, the total affiliated membership is estimated by the national president of the league, Mrs. Julian Heath, of New York, as numbering upward of 700,000.

In the official statement—

members are requested to insist upon full weights and measures; to insist upon cleanliness in the handling of food; to protest against the exposure of all food to contamination; and to refuse to purchase such food; to read carefully all labels on canned and bottled goods, and to report any violation of the pure food and drugs act; to make personal investigation into the sanitary condition of markets; to, as far as possible, refuse to purchase cold-storage poultry, fish, butter, eggs, fruit, etc., which have been held to the detriment of condition or advancement of price.

In justice to tradesmen, members are also requested to so plan their orders that but one delivery a day is required; to pay cash or settle all credit accounts

¹ See also Parents-Teachers' Cooperative Association, U. S. Bureau of Education Report, 1912, vol. 1, pp. 359-373.

promptly; to refrain from handling articles of food that are exposed for sale; to patronize tradesmen who comply with the law; to give preference to food-distributing stores that close not later than 7 p. m.

The national and local leagues have furthered market investigations and in several instances joint action of housewives in "price strikes" refusing to purchase butter and eggs when prices were high. The official organ of the league is *The Housewives League Magazine*, New York.

Section 28. THE ASSOCIATED CLUBS OF DOMESTIC SCIENCE.

The associated clubs of domestic science is an affiliation of local organizations with national officers who conduct a department in the *National Food Magazine* (New York). The president is Mrs. Lily Haxworth Wallace, 1436 Pacific Street, Brooklyn, N. Y.

Section 29. INTERNATIONAL CONGRESS OF FARM WOMEN.

This is the title of an American-Canadian organization auxiliary to the International Dry-Farming Congress (of which it forms the rural home section) which brings together at its annual meetings women interested especially in the betterment of the rural home; it is also the title of an international organization meeting in Europe. At the recent eighth annual meeting of the Dry-Farming Congress in October, 1913, at Tulsa, Okla., the American Congress of Farm Women presented a program which—

included physical and mental betterment, social and religious life, the care of children, their food, clothing and education, home sanitation, cooperation between producer and consumer, and other similar subjects, together with vocational occupations for farm women, including dairying, poultry culture, etc. Demonstrations in all branches of the work were carried on each day, including the actual cooking and serving of meals in a model farm kitchen. One building was devoted to a complete exposition of farm-home products, which included canned fruits, vegetables, meats, pickles, butter, bread, etc. There were a number of individual and collective exhibits from counties and districts, from farm-women's clubs, schools, etc., and a special department for boys' and girls' classes. A valuable feature was an exhibit for the farm home of time and labor saving devices which were displayed in a model farm kitchen.

The officers in 1913 were: President, Mrs. Belle v. D. Harbert, Manzanola, Colo.; secretary, Mrs. Eleanor L. Burns, Lethbridge, Alberta, Canada.

The third International Congress of Farm Women (*Cercles de Fermières*) met at Ghent, Belgium, during the International Exposition of 1913, with an organization representing various countries of Europe and America, including the International Congress of

Farm Women (American) referred to above. The Ghent program included three sections: I. Farm women's associations; II. The professional rôle of the farm woman in dairy work, poultry, etc.; III. The farm woman as mother and manager; with topics—the education of the family; infant hygiene; advice relative to hygiene, the furnishing and ornamentation of the dwelling; practical advice on the rational feeding of the people on the farm; the utilization and preservation of vegetables and fruit; methods which women can use for supervising the professional education of their children and for keeping them in the country; how women can organize amusements on the farm, such as lectures, songs, etc. (Address of the congress: Miss Van Aarsehot, 38 Rue du Pépin, Brussels.) Associations of farm women exist in Austria, Hungary, France, Ireland, Poland, Belgium, and other European countries.

Section 30. THE NATIONAL SOCIETY FOR THE PROMOTION OF INDUSTRIAL EDUCATION.

While this organization has been especially interested in the training of young people for wage-earning occupations, in the promotion of which it has furnished a country-wide leadership, it has not overlooked the relations of housekeeping as a vocation to the program of industrial training and of the need of training in household arts as a necessary item in the curriculum for the industrial training of girls. The society in promoting legislation for industrial education has consistently included vocational education in household arts along with industrial, agricultural, and commercial training. For example, the revised legislation of New Jersey, Pennsylvania, and Indiana, drafted with the help of the society and adopted in 1913, all provide definitely for continuation education in household arts.¹ In practically all State systems of industrial education, training in housework can be provided on the same basis as for any other trade or profession, and provision is also possible for evening or day classes for the training of wage-earning women and home women in the arts of the household. This comprehensive view of housework and of providing training for it in connection with this new legislation, we owe in part to the leadership furnished by the national society. The society now has a special division of work concerned with industrial training of women. It has a bureau for the registration of teachers of the household arts. It is aiding in the drafting of new industrial education laws; it is promoting studies and investigations of industrial education; it publishes bulletins and other material. The society may be addressed at 140 West Forty-second Street, New York City.

¹ See Part I of this report, Bulletin, 1914, No. 36.

Section 31. THE AMERICAN ASSOCIATION FOR THE STUDY AND PREVENTION OF INFANT MORTALITY.

The American Association for the Study and Prevention of Infant Mortality, formed in 1909 at a meeting under the auspices of the American Academy of Medicine, is engaged in an aggressive campaign to reduce the great wastage of infant life. The association unites in its membership physicians, nurses, teachers, and other leaders; holds annual conventions of which published reports are available; and maintains a permanent office at Baltimore, Md. It has committees on vital statistics, eugenics, obstetrics, pediatrics, nursing, and social work, and on continuation schools of homemaking, of which latter Dr. Helen C. Putnam, of Providence, R. I., is chairman.

Dr. L. Emmett Holt, of New York, president of the association, 1912-13, summarizes the situation thus:

Among the most prominent causes which are being made the subjects of study are: improper feeding; impure milk supply; overcrowding and bad housing in cities; indifferent and irresponsible parenthood; ignorance and neglect of simple rules of the hygiene and care of infants; and unskilled obstetric care. Some of the means of prevention upon which the association has concentrated attention are the following: suitable care and protection of expectant mothers; intelligent obstetric service; education of young mothers in all matters relating to the care of infants, by visits of nurses, printed leaflets, familiar talks, etc.; encouragement of breast feeding; improved sanitation and housing; regulation of the employment in factories of expectant mothers or mothers with young infants; careful supervision of milk supply; distribution of properly modified milk or clean whole milk for those infants for whom breast feeding is impossible; dissemination of knowledge regarding the spread of infectious diseases; instruction of girls in the public schools and continuation classes in homemaking and the care of infants and young children.

The conference on educational prevention of infant mortality at the 1910 convention and the discussions of continuation schools of homemaking as an agency to this end at the three conventions 1911-13 are of especial concern in this study. The discussions have emphasized the fact that present teaching of homemaking in public schools reaches only part of those needing such instruction, that provision for hygiene and health teaching must be made in continuation schools for girls over 16 years of age and for women, that boys and men as well as girls and women need such instruction. The committee has petitioned the State educational authorities for the establishment of continuation schools, and it very evidently is influencing their development. The Transactions of the Association (\$3 each) and the reprints from them of the program on continuation schools (20 cents each) should be consulted by those concerned, respectively, with the whole infant-mortality problem and with the plan for continuation schools of homemaking.

Section 32. COMMITTEE ON PUBLIC-HEALTH EDUCATION AMONG WOMEN.

A committee of the American Medical Association called the "committee on public-health education among women" is promoting better standards of personal, domestic, and public hygiene, by a movement aiming to reach women. Obviously it has much to do with home problems. The committee is pushing an organization with local county representatives; has issued a valuable "List of books on the prevention of disease," and a list of lecture topics (very useful in planning lectures), and is promoting local meetings, lectures, and addresses. The national organization and local representatives aid especially in providing lectures and lecturers for women's clubs, mothers' clubs, farmers' institutes, labor organizations, schools, and wherever in fact this crusade of medical men against ignorance can assist in eradicating disease. In 1911, 300,000 persons were reached through 3,500 public meetings held in 48 States and about 250 counties. The central committee has in preparation a series of leaflets for girls and women "which will be readable and accurate, we hope, without being sensational." Information may be secured of the American Medical Association, Chicago, or from State or local medical societies.

Section 33. NATIONAL HOUSING ASSOCIATION.

The National Housing Association is an organization of persons interested in the improving of housing conditions. It maintains a national office for propaganda work and information service, holds an annual convention, the proceedings of which are the important source of information on housing improvement in America, and publishes various material. The office of the association is 105 East Twenty-second Street, New York.

Section 34. NATIONAL CONSUMERS' LEAGUE.

The National Consumers' League (106 East Nineteenth Street, New York City, and 1800 Prytania Street, New Orleans) is an organization making the influence of the ultimate purchaser or consumer effective in improving industrial conditions; incidentally its efforts tend also to improve the quality of products, so that the interest of home women in this organization is a source of material benefit to themselves, as well as of social benefit. The Consumers' League label on garments indicates that the goods were made in factories in which: (1) The State factory law is obeyed; (2) all the goods are made on premises approved by the league; (3) overtime is not worked; (4) girls under 16 are not employed. The league has State and local

organizations, the latter often in schools where they become an agency in emphasizing the consumer's responsibility and housewife's opportunity for social amelioration. The league is working for various industrial reforms—shorter working hours for women and girls, minimum wage laws, child-labor laws, early Christmas shopping, and other improvements in working conditions.

Section 35. NATIONAL CHILD-LABOR COMMITTEE. •

The home is fundamentally involved in the child-labor issue: the child thrust into labor to help support a family testifies to that family's economic failure, and probable spiritual failure: the child is taken out of the normal home environment as well as out of the school and his moral as well as intellectual development is turned awry and physical growth is checked; the race as well as the individual is handicapped when he comes to establish a home for the next generation. Adequate teaching for the home must include in its program knowledge of the child-labor menace, and such teaching will aid in the removal of that menace. The National Child-Labor Committee, 105 East Twenty-second Street, New York City, which is leading in the movement for legislative safeguards, furnishes information in its annual reports and in a wide variety of inexpensive pamphlet literature which treats of present conditions, needed legislation, and various special problems. A "Study course on child labor" is issued (25 cents) for individual and club study.

Section 36. CHILD HELPING.

The Child-Helping Department, Russell Sage Foundation, New York, endeavors to secure legislation for the protection of children, improved institutional care of children, reduction of infant mortality, and improved methods in social relief work for children. It publishes bulletins and circulars: Problems of infant mortality; The care of the baby; Children's cottage with outdoor sleeping porches; Receiving home for foundlings; The illegitimate child—a life saving problem; The extinction of the defective delinquent, and others.

Section 37. RECREATION FOR THE HOME.

A great movement of to-day is that of providing a wholesome place for recreation in the life of the individual, the family, and the community. Shortened hours of industry, playgrounds, and the recreational use of the school plant in cities, social centers in rural districts, are elements in the program. It is evident that the home is one of the important centers of adjustment, involving such problems as recreation within the home, outside recreation in which the family can share as a group, the cost of recreation in the family budget.

The Playground and Recreation Association of America (1 Madison Avenue, New York City), and the department of recreation of the Russell Sage Foundation (New York City) are national clearing houses for the recreation movement, providing information as to legislation and organization, as well as the more detailed matters of recreational activities themselves, in the form of reports of surveys made, popular bulletins, lantern slides for loan, etc. Thus, the Sage Foundation reports that in 1912-13 social center work was carried on by 71 city boards of education which had opened school buildings and organized evening social activities under paid workers, while 126 other cities had initiated similar activities, but without paid leaders; in 153 schools, "handicraft or domestic science classes not a part of evening school work" were provided. This aspect alone of the recreational movement will bring results for the home; as will its whole program. The Playground and Recreation Association publishes a monthly magazine, *The Playground*.

Section 38. OTHER ORGANIZATIONS.

Mention may be made of other organizations which are related to the home-betterment movement, the officers of which will furnish information: National Child Welfare Exhibition Committee, 200 Fifth Avenue, New York City; Eugenic Record Office, Cold Spring Harbor, N. Y.; Committee of One Hundred on National Health, 105 East Twenty-second Street, New York; National Association for the Study and Prevention of Tuberculosis, 105 East Twenty-second Street, New York City; American Federation for Sex Hygiene, 105 West Fortieth Street, New York; National Society for Public Health Nursing, 54 East Thirty-fourth Street, New York.

Section 39. THE GENERAL FEDERATION OF WOMEN'S CLUBS AND HOME ECONOMICS.

The General Federation of Women's Clubs is an organization uniting the various local women's clubs throughout the United States in a National federation and in State federations. Directly affiliated with the National federation are 1,176 local clubs, and 7,253 local clubs are affiliated with the State federations. The membership of the federated clubs is approximately 750,000. The federation was organized in 1889, and since 1903 one of its important divisions of work has been home economics. The constitution of the federation provides for departments of work in the National organization and in local clubs, as follows:

Art, civics, civil-service reform, conservation, education, household economics, industrial and social conditions, public health, legislative, literary and library extension, and other departments.

¹ See bibliography in Bulletin, 1914, No. 39 (Part IV of this report).

The home-economics work of the general federation goes back, however, to 1893, when the National Household Economic Association was formed at Chicago during the Columbian Exposition. Mrs. John Wilkinson, of Chicago, was its first president, and Mrs. Ellen M. Herrobin honorary president. This was a national society, the purpose of which was as follows:

1. To awaken the public mind to the importance of establishing bureaus of information where there can be an exchange of wants and needs between employer and employed in every department of home and social life.
2. To promote among members of the association a more scientific knowledge of the economic value of various foods and fuels, a more intelligent understanding of correct plumbing and drainage in our homes, as well as need for pure water and good light in a sanitariously built house.
3. To secure skilled labor in every department of our homes, and to organize schools of household science and service.

For 10 years after its organization, in 1893, the National Household Economic Association held meetings and worked with State and local branch associations. Its membership, however, was interested in the General Federation of Women's Clubs, and in 1903 it passed its work over to the general federation.

National federation programs in home economics.—The first report of the federation home-economics committee was made at St. Louis in 1904, when an appeal was made to the federated clubs to assist in securing the introduction of domestic science in the public schools of their communities. This has been one of the important pieces of work in which the federated clubs have interested themselves, although other important items have been added to the home-economics programs at the successive biennial conventions. It is sufficient in this connection, in addition to stating the present program, to cite the national program by Mrs. Olaf S. Guldlin, chairman of the home-economics committee in the general federation, 1910-1912, and taken up under her leadership by the State and local associations, which was as follows:

To have domestic science taught in the public schools, to have home-economics books put in the city libraries, to have at least one program each year on this subject in each local club, to have one session of the State conventions devoted to this subject, and to cooperate with State agricultural colleges and universities.

A report for 1910 indicated the following status: During the preceding two years 720 clubs held one or more sessions on home economics; 371 clubs had home-economics departments; 278 had regular lectures, demonstrations, or short courses; 257 helped materially in creating sentiment that established home economics in the public schools; and 104 did some kind of philanthropic or educational work in home economics in cities.¹

¹ Journal of Home Economics, 3 (1911), p. 334.

The present national home-economics committee, of which Miss Helen Louise Johnson, Watertown, N. Y., is chairman, in 1912 recommended the following program:

The extension of the scope of home-economics work to include not only household activities, but also the related economic and social studies; the use of the uniform term "home economics" instead of various other generic titles; cooperation in establishing social centers in urban, suburban, and rural communities; assistance for rural women and aid in forming rural clubs; the discouragement of lectures, associations, and exhibits that are commercial rather than educational; the establishment of ideals as to food, clothing, and shelter; cooperation in securing college-entrance credits in home economics.

The general federation committee during the current year has a four-fold aim: The adoption of the home-economics name, propaganda for a uniform food law, securing entrance credits in home economics, and the introduction of compulsory cooking and sewing in elementary schools.

State club programs of home economics.—The State federations of women's clubs in the various States have, in nearly every instance, a home economics committee concerned with encouraging the development of home-economics work in local clubs. Reference may be made to a few State undertakings in this field.

The home economics committee of the Missouri federation, of which Mrs. Charles W. Greene, of Columbia, Mo., is chairman, recently sent the following suggestions to local clubs in the State, with the request that each club undertake some one or more of the lines of work and provide at least one meeting devoted to their consideration:

Study of some special line of home economics, such as household chemistry, bacteriology, house decoration or sanitation, household management.

Study of menus that may be served to a definite number of persons for a definite sum.

Study of dress from an artistic, ethical, scientific, and historical standpoint.

Study of contagious diseases in the home and in the community.

Study of ways and means of improving the mental and physical training of our children.

Teaching of ethics, morals, and religion in the home; origin of life, and sex problems.

Amusement of boys and girls between the ages of 10 and 20 in the home and community—dancing, cards, chaperonage.

The place of music in the home and how to get it there.

Ways and means of saving time and energy in the home.

Study and prevention of infant mortality.

Inspection of groceries, meat markets, and milk depots.

Introduction of home economics into our public schools.

Introduction of home-economics books and journals into public schools and libraries.

Establishing homemakers' conferences.

The cooperation between the Kansas clubs and the State Agricultural College of Kansas, which, through its extension department,

furnishes programs of topics, references, etc., on home economics to local women's clubs in the State, is to be commended to other States.¹

The Kentucky Federation of Women's Clubs brought out in 1912 a bulletin of home economics which provides, in some 60 pages, a treatment of various helpful topics, including: Home economics, household efficiency, farm homes, setting table and serving meals, clearing the table and washing dishes, making beds and cleaning the kitchen, tables of weights, food values, bread making, recipes, self-raising recipes, laundry work, removing stains, systematic house-keeping, health, care of the sick, sewing, and care of babies. The Kentucky federation has also been successful in organizing local home-economics clubs in many communities, and has cooperated with the State department of agriculture to this end.

The household economics committee of the New Jersey women's clubs maintained for a couple of years an exhibit of household equipment and labor-saving machinery at Colonia, N. J.²

A club syllabus on household management and cost of living.—An outline for club study prepared in 1912 by Mrs. F. F. Faville, of Storm Lake, Iowa, chairman of household economics committee, Iowa State Federation of Women's Clubs, is here presented for its suggestions to clubs elsewhere.

The outline is based on "Household management," by B. M. Terrill, American School of Home Economics, and "Cost of living" and "Cost of shelter," by Ellen H. Richards.³

MEETING I.

Place of the Home in the Economic World. See "Household Management," chapter 1. The House and what it Signifies in Family Life. "Cost of Shelter," chapter 1.

Round-table discussion.—1. What evolution has taken place in the home in the last 50 years? 2. How far should family cooperation extend in all household affairs? 3. What are the essentials in the establishment of the home? 4. What is true economy? 5. Which is greater, the influence of the home upon the community or the community upon the home?

MEETING II.

Standards of living—"Cost of Living," chapter 1. The House Considered as a Measure of Social Standing—"Cost of Shelter," chapters 2, 3, 4.

Round-table discussion.—1. What influence should neighbors exert as to standards of living? 2. Shall the home maker be bound by the traditions of the past? 3. Should our daughters be educated as home makers? 4. How would you estimate the influence of home environment in character building? 5.

¹ For description of this plan, see Bulletin, 1914, No. 38 (Part III of this report), p. 97.

² See p. 183.

³ Since this outline was compiled, "The Modern Household," by Marjou Talbot and Sophonisba P. Breckenridge, has appeared (Whitcomb & Barrows, \$1), which would be especially suitable as an additional basic book for this course.—B. R. A.

What are some of the problems of the home maker in her efforts to make her home attractive, comfortable, happy, and healthful? 6. What is genuine hospitality?

MEETING III.

Household Expenditure—"Cost of Living," chapter 3. Budgets—See "Household Management," page 17.

Round-table discussion.—1. Is there need of more efficiency in spending the family income? 2. Should there be a division of the family income? 3. Allowance? 3. What advantage is there in using a check book? 4. What is meant by "balancing an account"? "Indorsing a check"? 5. Could the average American family live more simply without injury to the health?

MEETING IV.

The cost per person and per family of various grades of shelter—"Cost of Shelter," chapter 6. Operating expenses—fuel, light, wages, etc. "Cost of Living," chapter 5, and "Household Management," page 26.

Round-table discussion.—1. Is there need of simplicity in material surroundings? 2. Should we economize in heat at the expense of pure air? 3. Are there leaks in the "domestic treasury"? 4. In what way is it economy to read your own gas and electric meters? 5. How is the efficiency of any business estimated?

MEETING V.

Buying supplies—"Household management," page 97—Kitchen utensils, table and bed linen, carpets and rugs.

Round-table discussion.—1. What is the model kitchen for the twentieth century household? 2. What are some of the new labor-saving household appliances? 3. Does it pay to economize in labor-saving devices? 4. How do you test linen? Silk? 5. Which is the more sanitary, rugs or carpets? 6. Is it ever safe to buy household supplies from agents?

MEETING VI.

Clothing—"Cost of Living," Chapter VII. Clothing—"Household Management," page 26.

Round-table discussion.—1. How far should we follow "fads and fancies" in the matter of dress? 2. What is meant by suitability of materials? 3. What part does care of clothing—darning, mending, pressing, etc.—play in economy of dress? 4. What is your opinion of bargains, real and "fictitious"? 5. Is it always economy to buy the cheapest? What of ready-made clothing? 6. Is there any necessity for a "pure-fabric" law?

MEETING VII.

Food—"Cost of Living," chapter 6.

Round-table discussion.—1. What are some of the causes of the high cost of living? 2. In considering the increased cost of living, what advantage did the pioneer have in the free use of natural products? 3. How may we make the

¹ Leader should request each club member to prepare in advance of lesson, for presentation at this meeting, an ideal budget suited to necessities of locality, based on income of \$1,200.

² Arrange for an exhibit of modern kitchen utensils.

cheaper foods palatable? 4. How are we to know pure foods, and can we assist in any way in raising the standards of food? 5. Does knowing "food values" assist in food economy? 6. Does the use of the telephone in buying food effect the cost of living? 7. What is the relative value of the cash or credit system?

MEETING VIII.

Marketing—Meats—"Household Management," page 127.

Round-table discussion.—1. Has your community any need for a municipal market? (Dubuque, Iowa, has a successful municipal market. Printed matter may be obtained from commercial clubs.) 2. Are women directly or indirectly responsible for the sanitary condition of the local meat markets? 3. Do you know the "cuts of beef"? 4. How can you tell a young fowl? A fresh fish? 5. What are some "marketing don'ts"?

MEETING IX.

Marketing—Vegetables—"Household Management," page 156.

Round-table discussion.—1. Is there any advantage in buying in quantities, or do you prefer one day's "rations" at a time? 2. Is a "cold cellar" for vegetables a necessity? 3. Is canned goods ever cheap food? Name some brands recommended for purity. 4. What does the market offer as substitutes when fresh vegetables are not obtainable? 5. What constitutes a good potato? Name several good varieties.

MEETING X.

Marketing—Milk, butter, and eggs—"Household Management," page 159. Groceries, page 161.

Round-table discussion.—1. Can you assist the local grocers and bakers in keeping the food sanitary; if so, how? 2. Does the more cleanly conditions of the package goods justify the price, as compared with bulk? 3. Are all butter substitutes injurious, and what effect have they on the cost of living? 4. What is value of desiccated eggs and egg powders as substitutes for fresh eggs? 5. Is it any advantage to buy cream only, or milk in larger quantity and have use of skim milk in cooking?

MEETING XI.

Intellectual and emotional life—"Cost of Living," page 80. Higher life—"Household Management," page 37.

Round-table discussion.—1. Do the American people take enough recreation? 2. What forms of recreation are best adapted to the different modes of life? 3. What part should books, travel, music, art, etc., play in the higher life? 4. Is it real economy to neglect all but material wants? 5. Do "artistic surroundings" pay?

MEETING XII.

Experience meeting.—It is suggested that each club member present for comparison the menu for one day's meals for four people, taking into consideration the cost and nutritive value of food materials used.

Round-table discussion.—1. In buying supplies may one be "penny wise and pound foolish"? 2. What do you know of the use and abuse of preservatives? 3. Does it pay to patronize mail-order houses? 4. Could you save one-

teach of your household expense if you were a more careful buyer? 5. Is your housework drudgery; if so, why? 6. Is there such a thing as a "superlatively well-kept" house?

REFERENCE BOOKS FOR USE, IF DESIRED, IN SUPPLEMENTARY READING.

- Richards, E. H. *Art of Right Living*.
 ——— *Ethetics—the Science of Controllable Environment*.
 Hunt, C. L. *Home Problems from a New Standpoint*.
 Richardson, B. J. *The Woman Who Spends*.
 Hart, William. *The Woman of Tomorrow*.

Home economics programs in local clubs.—Programs of 58 clubs in 11 different States were recently examined critically by Ellen Rushmore McKeown to see what clubs are doing for home betterment. Mrs. McKeown concluded that the clubs fall into three general groups: Those with a large membership, 300 to 500 or more, situated in the largest cities; medium-sized clubs, from 50 to 100 membership; and small clubs, with a membership of 25 to 50, usually located in the smaller towns, although occasionally in cities. The programs of the smaller clubs are conspicuous for their study of cultural topics. Occasionally these clubs devote an entire night's program to some single subject. Occasionally the smaller clubs have a domestic-science section, although often a single meeting a year devoted to this topic comprises their activities. The medium-sized club attempts more definite work in home economics, usually devoting from one to four meetings a year and bringing in outside speakers from agricultural colleges and other centers of education. Club members also present papers and give demonstrations. The best work in home economics, as in other fields of club work, seems to be done by the largest clubs. A striking example is the Worcester, Mass., women's club, with a membership of over 600. This club has a department of home economics and a standing committee on pure food. In a single year it provided the following lectures: Housing, from tent to tenement; Shopping; Textiles; Clothing as purchased today; Hand versus machine-made garments; Wearing apparel; The women's day and how to meet it; The home problem and civilization. The lectures were given by visiting instructors from various educational institutions. The clubs in larger cities commonly have programs of civic and community betterment which cover the whole field of social problems.

The Present Day Club, of Princeton, N. J., a year ago carried out the following home-economics program. Six lectures on household economics given by Miss Helen Louise Johnson on the following topics: The house. The servants of the house. The buying for the house. The household budget. The man of the house, and The children.

Following the lectures, six practical lessons were given on the following problems: The cleaning of the house, including labor-saving devices. The laundry, including equipment and the question of public laundry versus home laundry. The marketing. A dietary for the children. Dietary for the adults. "How to live on twenty-four hours a day."

A course of reading was suggested with the program and a traveling library was secured.

An interesting club program which many clubs have followed is to consider the work and life of the home as it may be scheduled day by day throughout the week and make each day's schedule a matter of discussion in the club, so that on "Sunday's program" papers have been presented on the modern significance of the day, on the use of the fireless cooker and other plans to reduce labor, the place of the church and religion in the family life, the utilization of Sunday afternoon and its opportunities in connection with parents and children. So in turn the problems of "wash day," "baking day," and other days of the week have been presented.

Clubs which have not had home-economics departments have in many cases carried on civic and municipal work of real significance for the home. As one club reports—

home economics has not been taken up yet, due to the fact that we had other work which seemed to us more important, namely, civic and betterment affairs for the whole community. We first investigated the problem of a new water supply, and secured favorable community action. Next, the city gave us permission to establish a city house-cleaning day. Next, we were instrumental in organizing an associated charities. This year our work has included the organization of a night school, which provides among other things for instruction in domestic science and domestic art for working girls. We have secured a grand stand in our park for summer music, playgrounds for the children, and are constantly on the alert, and are always ready to do all in our power to make this city as much our home as the four walls we occupy.

Facts on club work in home economics.—A schedule of inquiry was sent to the local clubs belonging to the State and National federations of women's clubs asking information on their home-economics activities. Schedules were returned by 749 clubs, and of these, 616 clubs reported that they were actively interested in home economics.

Method of study in home economics.—Of 749 clubs replying and of 616 clubs actively interested in home economics, 171 report the use of textbooks in home-economics study; 274, the employment of outside lecturers; 425, papers on household subjects by club members; and 120 clubs report that they have held conferences on household problems. Of these methods, that of self-help in programs contributed by club members is by far the most common.

Home-economics subjects in club programs.—The following subjects were reported as considered on club programs by the number of clubs indicated. The numbers are to be compared with a total of 749 clubs replying and of 616 clubs actively interested in home economics: Food materials, 433; food preparation, 343; household management, 342; relation of home to community, 291; care of children, 282; care of sick, 211; housing, 164; service, 141; textiles, 135; sewing, 129; other subjects, 59.

Social welfare and improvement.—The question was asked whether the clubs had conducted "settlement or philanthropic work of any kind related to home betterment," and 328 clubs reported in the affirmative. There were 56 clubs which served free or inexpensive lunches to the children of local schools; 50 have established school lunchrooms or aided the board of education in so doing; 164 clubs have placed home-economics books in the local public libraries; 199 clubs report knowledge of some form of traveling libraries of home economics, with actual use by 73 clubs; and 220 clubs report additional lectures and conferences on home subjects in addition to their programs of study referred to above.

The economic and sanitary improvement of markets and the sanitary control of the food supply are matters with regard to which women's clubs are in a position to act intelligently and effectively. As a matter of fact, the federated clubs are acknowledged to have been instrumental in securing the enactment of the Federal pure food and drugs act of 1906. The local clubs were asked as to their activities in regard to this problem, and replied as follows: One hundred and seventeen clubs had studied the local market situation, 58 had sought the establishment of public markets, 270 had worked for clean markets or inspected markets, 308 had worked for the adoption or enforcement of pure food and drugs laws, and 102 had interested themselves in the problem of correct weights and measures.

Sanitary housing is fundamental to improved housekeeping, and women's clubs have sought to improve housing conditions in not less than 185 cases either by a survey or field study of housing conditions or by working for better official regulation of housing construction and use.

Clubs and the public schools.—Women's clubs have always shown great interest in the public schools, in no way more, perhaps than in securing the introduction of domestic science into the school curricula, and local clubs are still working with the schools to this end. Women's clubs have in some cases provided the equipment necessary for domestic-science teaching and the salary of the experimental teacher until the work is established. A striking instance

of club cooperation is that of the club women of Crete, Nebr., who have themselves taught domestic science for a number of years to public-school children, who come to their homes at stated times. Of 371 clubs reporting that such instruction had been introduced into the local public schools and of 261 clubs reporting courses in the local high schools the clubs themselves had helped to secure the introduction in 173 communities. Evening courses in household arts given by the schools are reported by 91 clubs.

Clubs and legislation.—The women's clubs have always interested themselves in supporting desirable social legislation, and committees on legislation are provided by local clubs and by the State and National federated organizations. The clubs have assisted materially in supporting pure-food legislation, both Federal and State. A question was asked as to whether local clubs had considered the proposed Federal legislation for "pure textiles" and for national grants for home economics and agricultural education; 87 of the local clubs had considered the textile bills and 36 clubs report that they have studied the proposed Federal legislation granting aid to home economics and agricultural education.

College extension teaching of home economics and women's clubs.—The extension work in home economics of the State colleges and universities has frequently sought the cooperation of local women's clubs. A report of this extension activity from the standpoint of the clubs throws some light on the success of the cooperation: One hundred and seventy-seven clubs report that aid of some kind in the field of home economics has been extended to them by the State institutions; 57 clubs report extension courses in home economics in their communities under the direction of the college; 103 report stops by railroad demonstration trains, with lectures and exhibits; 105 clubs report that one or more of their members have attended the household conferences or short schools at the college itself; 126 clubs report that they have received home-economics bulletins and publications from the State institutions; 66 clubs have received outlines for study; and 19 clubs report that they have had correspondence courses.

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