

3-1-1919

Special Libraries, March 1919

Special Libraries Association

Follow this and additional works at: http://scholarworks.sjsu.edu/sla_sl_1919

 Part of the [Cataloging and Metadata Commons](#), [Collection Development and Management Commons](#), [Information Literacy Commons](#), and the [Scholarly Communication Commons](#)

Recommended Citation

Special Libraries Association, "Special Libraries, March 1919" (1919). *Special Libraries, 1919*. Book 2.
http://scholarworks.sjsu.edu/sla_sl_1919/2

This Book is brought to you for free and open access by the Special Libraries, 1910s at SJSU ScholarWorks. It has been accepted for inclusion in Special Libraries, 1919 by an authorized administrator of SJSU ScholarWorks. For more information, please contact scholarworks@sjsu.edu.

Special Libraries

Vol. 10

MARCH, 1919

No. 2

Agriculture

A FOREWORD, BY HON. CLARENCE OUSLEY

Assistant Secretary, U. S. Department of Agriculture

War experiences have reminded us of elemental things which many of the elders had forgotten and many of the middle-aged and the young never knew. Among them was the fact that wealth as represented in the commodities of industry and money as the measure of wages and income, derive their primary value to human kind from what they will purchase in food and raiment. The richest man in the warring nations discovered that his wealth was of no avail to purchase more than the limited ration which his government allowed in the equitable apportionment of a limited supply, for in times of food crisis Dives and Lazarus are of equal rank in the bread line. Such experiences threw agriculture into perspective of a new—or rather an old but forgotten—relation of vast significance. 'Not once but several times during the last four fateful years the cause of civilization and human freedom as it is conceived by democratic peoples trembled and staggered in the faintness of near famine. But the food crisis should not be reckoned only as a peril of war. It has been approaching for years before the war because the world in general and the United States in particular had begun to worship idols of wealth in the fashion of speculative commerce, industrial exploitation and easy living. Except for the efforts of a few scientists and economists who were almost as a voice crying in the wilderness, every enlightened nation except Germany had been guilty of more or less neglect of agriculture, and Germany had developed it as the instrument of a malign purpose of world war. It is to the everlasting credit of the United States that through the wisdom of a few statesmen who, in 1862 in a similar crisis, provided for

the establishment of the U. S. Department of Agriculture and the land-grant agricultural colleges, that we had an organization sufficient for the emergency, that the American farmers, in spite of reduced man-power and increasing difficulties, responded to that leadership with harder work and that the American people responded cheerfully to the appeals and the regulations of the Food Administration, and so on the whole contrived to save the world from unspeakable disaster. But our duty is not done, our task is not finished now that the war has been brought to a successful end. My concern for agriculture is deeper than a solicitude for the outcome of the crisis from which we are now emerging. I believe with my whole mind and heart that a prosperous, cultured and contented husbandry is the only sound basis of a wholesome and enduring society. Where cities prosper and rural places stagnate there is an industrial, political and social ill health, and sooner or later there will be deterioration and collapse in the body-politic and the body-social. The challenge to agriculture of these wonderful times in which we are living demands the best effort of the best intelligence in our country and above all a willingness to co-operate on every side with existing agencies for the advancement of human welfare and happiness. You librarians who are helping to bring to the scientists engaged in the solution of agricultural problems the knowledge of past and present experiments and to bring to the farmer not only the learning of the scientists but also the culture and pleasure which comes from the reading of good books, are doing a noble service, which is not merely one of class benefit but also one of general and far-reaching value to the whole of society.

The Librarian as an Aid to Agricultural Research

BY DR. E. W. ALLEN

*Chief, Office of Experiment Stations, States Relations Service,
U. S. Department of Agriculture*

Research in science is the process by which new facts, theories, and principles are added to the fund of human knowledge. All exact knowledge grows by accretions. It is developed by building upon or strengthening what is already known. For the most part it advances by slow steps rather than by leaps and bounds, because restricted by the limitations of man to see far into the unknown.

Because research is constructive in character and rests upon the work of others, thorough acquaintance with what has been done is highly essential and furnishes the real starting point for investigation. This involves a search of the literature to determine the real status of the subject, a weighing of the evidence and the soundness of views, and the development of new facts, concepts, or theories as a basis for further advances.

Research in agriculture deals with the various sciences in their application to agricultural problems. These problems are complex, often involving more than a single science. And in addition to centering what is known to science on these problems, their solution frequently requires investigation in the basic sciences themselves, so that the range involved in agricultural research is a quite broad one.

The fact that agricultural investigation has been largely a product of individual rather than co-ordinated or group effort, and has been conducted by a large number of workers each contributing his part, has made the literature bearing on it voluminous and scattered through a great variety of publications. The difficulty of tracing this is increased by the fact that in agricultural inquiry there has been relatively little monographing. Bibliographies of agricultural subjects are not numerous and are rarely sufficiently extensive or complete to meet the need. Hence extensive and widespread search is necessary to determine the status of knowledge on a particular subject and the steps by which it has progressed from stage to stage. The making of such a search naturally involves much time and patience, and if left to the investigator himself it detracts materially from the time he may give to his researches.

This emphasizes the importance of facilities and bibliographic aids to the busy worker, and makes clear the advantage to him of efficient assistance in bringing together all that is known. It opens up the opportunity for important service for the librarian who has general fitness for such a type of work, and points to the possibility of profitable development along that line. Such service may contribute to the direct success of research in two ways, namely, by making the investigator more effective because better prepared, and by conserving his time and enabling him to concentrate upon his problems.

The advantage of the librarian in such a line of activity lies in a training which has taught skill and patience in conducting such searches in a thorough and systematic manner, a knowledge of sources of material and of bibliographic helps, and a special faculty which experience develops in tracing information to its source. This type of assistance has not been as largely utilized in agricultural research as it might be, partly perhaps because the subjects are technical and often quite specialized, and the investigator is accustomed to employ only trained assistants in conducting the technical features of inquiry. On the other hand, the field has not been entered by librarians except in a limited extent, probably because of the reasons cited and because of the pressure of other library duties. While a knowledge of general science is unquestionably a great help, the librarian is in the habit of dealing with a wide range of subjects without special knowledge, and this has inculcated a quick perception, a readiness in determining what might be of value, and unusual breadth of adaptability. These things contribute to give a degree of intelligence in such work beyond what might at first be expected. With guidance on the part of the investigator and some attention to instructing the librarian in the elements which go to make up the subject under investigation, skill may be developed which should prove highly helpful.

From the standpoint of the librarian there would seem to be a special field worth cul-

tivating, and of considerable interest. Hundreds of men and women in this country are now engaged in research in agriculture. In addition to the large force of investigators in the U. S. Department of Agriculture, every State has an agricultural experiment station which is the research department of the agricultural college, and several State departments of agriculture and an increasing number of industrial concerns are engaged in investigation which deals with

agricultural questions. For the librarian who has this field in view the general science courses of college afford good foundation and enable facility in special technical lines to be more readily acquired. Surely men engaged in research would be quick to recognize ability in such a field and would welcome assistance. The present scope of the field, which is steadily broadening, would seem to offer encouragement to make some special preparation for it.

The Human Interest in Old Agricultural Books

BY PROF. L. H. BAILEY

Books are records of human achievement. Whether in art, or history or astronomy, they express the state of knowledge at any epoch and when collected through the centuries they mark the way of progress. So true is it that books are records of their periods that whenever a book appears that seems to be quite independent of its epoch we fail to understand it or else we hail it as an exception and the work of genius. These facts being beyond dispute, then it follows that no field of human interest can be understood without its literature.

Even in the manual arts and the industries, in which the work of the hand holds the attention, the literature is still indispensable: the literature records the reaction of the mind to the subjects. The thinking always precedes the doing. So it transpires that special and technical libraries are growing apace. They are measures of the skill and accomplishment of mankind.

We need no defense of the libraries that cover the literary, artistic and racial interests. Yet these interests are not to be understood independently of the affairs and labors of men. The great literature of the Hebrew Scriptures is founded on the day's work of the actors, and these actors are mostly farmers and herders and naturists. The great fundamental interests have made the race. The bottom interest is the care and tillage of the earth.

It is interesting to note the gradual widening of the search for books. The "Americana" first included history and politics and biography; then it gathered the writing of science, the professions, and industry. Now it begins to gather the literature of agriculture.

It is a full third of a century since I began to search the antiquaries for books on certain farming subjects. I found the old cellars and under-the-stairs heavy with these books, cobwebby, unknown, secure in their

dust. I purchased them for ten cents, twenty-five cents, fifty cents. Now I visit the antiquaries to find none of these treasures; or if I find them, they are on actual shelves and dignified by the price-mark. And this is as it should be.

Through these old books, of homely titles and plain discussion, I run with the same interest in men and situations that my neighbor gathers from his witchcrafts or his theologies or his poetries. They are all written by men or women, mostly by folks. They are honest books, because unambitious. They express the time-of-day of the epoch. I think I cannot understand history unless I see the agriculture of the period.

There are remarkable books in this great fundamental range, which we appreciate when we come to understand them. There are elevations in them as in other literature. There is also the technical librarian interest in them, of editions, successions, authorships, relationships to other books; there is the antiquarian interest in them, and the collector's interest; and there is the student's interest, the effort to determine what these books mean in the great drama of human life. My own interest in them is intensified by the fact that they have been relatively overlooked, as I am interested in a country that has not been explored. It has been a passion of my life that I might really study them and appraise the accomplishments; this may not be, but I know that those now young will linger long in these forgotten treasures. The librarians must make ready. These are the books of the vast commoners.

There are personalities in these old books as real to me as those of my school histories. I visit with them in my quiet hours. Great souls are there, looking out from the past, lovers of their fellow men, benefactors every one. The past is not dead and the future is not hopeless when we treasure all the books that men have written.

Two Important Agricultural Review Journals

BY E. LUCY OGDEN

Librarian, States Relations Service, U. S. Department of Agriculture

While many periodicals published in the interest of agriculture or of its contributory sciences review more or less restricted aspects of its literature, there are two journals that cover the whole range of this literature in a comprehensive way and with whose use every agricultural librarian must be familiar. These are the Experiment Station Record published by the States Relations Service (formerly the Office of Experiment Stations) of the U. S. Department of Agriculture and the International Review of the Science and Practice of Agriculture published by the International Institute of Agriculture at Rome. So important are these journals that even to those who are accustomed to their use a comparison of their respective fields and a description of their distinguishing characteristics may be of interest.

By both of these journals the term agriculture is interpreted broadly to include its scientific, technical, commercial and sociological phases, both aim at a world-wide field without restriction as to country or language, and to both prompt publication is an objective. Their differences lie not so much in range of literature abstracted as in point of view and arise chiefly from the character and functions of their publishing institutions.

As a consequence of the passage of the Hatch Act of 1887 under which the present system of state agricultural experiment stations was established, there was created in the U. S. Department of Agriculture in October, 1888, an Office of Experiment Stations to act as a central agency in charge of the special interests of these institutions. Even before this office was established agricultural workers had felt the need of an abstract journal that would make available to them in convenient form the results obtained by other investigators. The publication of digests or reviews of the work of the stations was soon agreed upon as one of the most useful undertakings in which the office could engage and in September, 1889, the first number of the Experiment Station Record appeared. Its outlook, which has enlarged since that time but has not materially changed, is that of investigation and research.

¹ Sources: Experiment Station Record (especially the introduction to General Index to Volume 1-12 and various editorials.); L'oeuvre de l'Institut International d'Agriculture, les problèmes agricoles et leur solution, [par] Louis Dop. 128 p. Rome, 1918.

The International Institute of Agriculture was established in accordance with plans elaborated at a conference held in Rome in May, 1905, in which representatives of forty countries participated. In 1918 its membership included fifty-six nations representing practically all of the countries of the world having considerable agricultural interests. It is designed to serve as a great intelligence bureau of the countries interested for the dissemination of information, statistical, economic and technical, relating to agricultural production throughout the world. It serves also as a means of suggesting and bringing about concerted action on the part of the various governments for the protection of the common interests of farmers and for the improvement of agriculture. Its functions are economic and sociological. The organization of the International Institute comprises four bureaus. Two of these, the Bureau of Social and Economic Intelligence and the Bureau of Agricultural Intelligence and Plant Diseases, issue monthly publications that review the literature of agriculture. The first of these specializes in the field of co-operation, credit, and insurance. The announced purpose of the second is to review without delay the scientific and technical, and in part the legislative, literature of agriculture and the allied industries and to furnish a periodical summary of the agricultural literature of the world. The first number was issued in November, 1910.

While this review has not disregarded the more scientific phases, in the selection of material for review preference is given to articles of a popular nature and of immediate practical interest and there is a tendency to give considerable space to the economic significance of the data presented, while the Experiment Station Record aims rather to present the new scientific truths which have been discovered with reference to their bearing upon fundamental principles of the agricultural industry. Whereas the Record is designed for use by the agricultural investigator and teacher rather than directly by the farmer, the treatment in the International Review is such as to afford assistance to both classes of readers. The abstracts in the International Review are less condensed but are fewer in number.

The Experiment Station was issued at first in bi-monthly, then in monthly numbers forming one volume a year but was subsequently enlarged to two volumes a year each consisting of nine numbers of one hundred pages each and an index. At the beginning

of 1919 it enters upon its fortieth volume. Two collective subject indexes have been published, the first covering the period up to September, 1901, and including volumes 1-12 of the Experiment Station Record and Experiment Station Bulletin 2 of the Office of Experiment Stations, the second covering volumes 13-25 of the Record from September, 1901, to December, 1911. These volumes can be purchased of the U. S. Superintendent of Documents who receives also subscriptions to the current volumes at the rate of \$1.00 a volume.

The first volume was confined to abstracts of publications of the United States Department of Agriculture and bulletins of the state agricultural experiment stations. A digest of reports of the last named institutions for 1888 was separately published by the Office of Experiment Stations as Experiment Station Bulletin 2. The second volume of the Record includes abstracts of the reports as well as the bulletins of the state experiment stations and a beginning was made with abstracts of foreign literature. While the number and variety of the sources from which literature for abstracting has been selected have steadily increased the Experiment Station Record has never lost sight of its original purpose of presenting a current record in brief outline of the results of experiment station and kindred work in the United States. It contains abstracts of all publications of the U. S. Department of Agriculture and of the state agricultural experiment stations with few and insignificant exceptions² from 1899 to the present time and as few of the stations had issued publications before that date, it constitutes a nearly complete record of their published work. Not only are these publications abstracted more fully than other literature but in order to facilitate reference to them a list of those abstracted is appended to the table of contents of each number and of each volume while entries in the subject index referring to abstracts of these publications are indicated by the name of the state or the letters U. S. D. A. In the general index to volumes 1-12 a combined list of these appears in the table of contents but no distinguishing mark characterizes their subject entries. In the index for volumes 13 to 25 the reverse is the case.

Though the above named publications are invariably abstracted, in the case of literature from other sources only such material is selected as is judged to be of value to the investigator or teacher. Books of a popular (that is, not scientific nor technical) character are frequently included but as a

rule bulletins and periodical literature of this nature are disregarded.

In the first three volumes of the Record and in the Digest the abstracts are grouped by stations and countries without regard to topic, in the fourth and fifth volumes the station publications are arranged topically, reviews of the Department and foreign publications being grouped by themselves; beginning with the sixth volume all of the abstracts are brought together without regard to source and are grouped by subjects. The groups represented at present are agricultural chemistry and agrotechny, meteorology, soils and fertilizers, agricultural botany, field crops, horticulture, forestry, diseases of plants, economic zoology and entomology, foods and human nutrition, animal production, dairy farming and dairying, veterinary medicine, rural engineering, rural economics, agricultural education and miscellaneous. The last named section is confined practically to noting the administrative portion of annual reports of the stations and similar material. In the earlier volumes original articles were published from time to time. Editorials still continue to appear monthly and contain much valuable material, while monthly notes give information concerning the activities of the stations and of the U. S. Department of Agriculture, changes in their staff and items of scientific news of interest in their work.

Fairly complete bibliographical data is given with a high degree of accuracy. The title of the abstract represents the exact title of the book or article if this is in English, a translation of the title if this is in a foreign language, or merely the topic chosen for abstracting if a selection has been made of certain passages in a publication only a part of which is pertinent to the purpose of the abstractor. In the latter case the title is enclosed in brackets. Titles of foreign publications are given in the original language only in case of books. For these the original title is placed after the title of the abstract and enclosed in curves. Authors' names are given with initials, and date of publication, inclusive pagination and number of illustrations specified. Place of publication and publisher's name are also given for books. In references to serials, number as well as volume is specified and the year of publication, though not the day or month is included. A list of abbreviations employed in titles of serials referred to in the Experiment Station Record was published in 1905 as Office of Experiment Stations Circular 62. Copies of this are not now obtainable but it is probably accessible in the libraries of most of the agricultural colleges and experiment stations.

The Experiment Station Record is very fully indexed. In fact, so detailed are its entries that one unaccustomed to its use

²Only the press bulletins of the stations and the News Letter of the Department of Agriculture and other material intended for the use of the press, administrative announcements, orders, etc., have not been abstracted.

may easily stop his quest too soon and overlook important material in consequence. The general method used in indexing is briefly explained in the introduction to the General Index to Volumes 1-12, and a little study of this statement and of the indexes themselves will be found profitable by any one who has frequent occasion to use them. Mention has already been made of the special features that render these indexes a useful guide to the publications of the State agricultural experiment stations and of the U. S. Department of Agriculture. Librarians will find it useful to remember also that the presence of bibliographies in the material abstracted is carefully noted and beginning with volume 13 these are indexed both under the subject and under the term "Bibliography on," etc., where all such material is brought together. Beginning with volume 17 books are similarly treated under the term "Book on."

Thus, where reference resources are limited, the Experiment Station Record can be made to serve the librarian not only as a guide to the literature of progress in agricultural science which is its primary purpose, but also as a check list of the publications of the U. S. Department of Agriculture and of the State agricultural experiment stations since 1889 and in some measure as an index to their contents and a means of identifying their titles and dates of publication. It can also be used as a guide to bibliographies and books on agricultural subjects published within a definite period.

With the close of 1918 the International Review of the Science and Practice of Agriculture completed its ninth volume. The first volume consisted of only two numbers, November and December, 1910. At first this review appeared only in French and English editions, but an Italian edition was added in 1912 and German and Spanish editions in 1913. The titles of these various editions in different languages are so obvious as to need no special identification, although for some reason the "Internationale Agrartechnische Rundschau" has been known to escape recognition as the German title of this familiar friend. The expense of these editions other than the French is borne by special contributions from the countries interested or by subscriptions which are received by the International Institute of Agriculture at Rome at the rate of 18 francs a volume. By virtue of contributions made to the support of the Institute by the United States government a limited number of its publications is sent to this country to be distributed to institutions officially entitled to receive them. These copies are delivered to the U. S. Superintendent of Documents and are distributed by him under the direction of Dr. A. C. True of the U. S. Department of Agriculture, who

is chairman of the committee representing the United States. No agency in this country is officially designated to receive subscriptions.

Beginning with November, 1912, most of the numbers of this review have contained one or more original articles. These are written by specialists at the request of the Institute and usually take the form of a review of the present state of some agricultural practice or industry in a given region, a survey of the agricultural resources of some particular country or an examination into the state of knowledge on some agricultural subject. The range of subjects in material selected for review has already been mentioned. Periodicals, official reports, bulletins and other serial literature represent the sources of this material. Books are not included but abstracts of pamphlets are occasionally found. A list of the periodicals regularly received by the Institute which was published in 1913 as a pamphlet of 86 pages gives an approximate idea of the literature available for review both as regards geographic source and range of subjects. For the period of the war the International Institute has had exceptional facilities for obtaining literature from all European countries, and has been able to furnish in its abstracts information not available to most of its readers in any other form. Its abstracts are in general quite full and illustrations are occasionally reproduced.

The portion of the Review devoted to abstracts is divided into two main sections, agricultural intelligence and plant diseases. Each of these is divided into six groups which are further subdivided. The classification can be readily followed in the text by means of marginal headings and in the table of contents is clearly shown by typographical arrangement. The main divisions of the first sections are general information (including development of agriculture in different countries, rural hygiene, etc.), crops and cultivation (including meteorology, soils, fertilizers, agricultural botany and special crops), livestock and breeding, farm engineering, rural economics and agricultural industries. Groups of the second section include general information, plant diseases of non-parasitic or of unknown origin, diseases due to fungi, bacteria, etc., weeds and parasitic plants, injurious insects and lower animals. Beginning with volume 2 the abstracts in each volume are serially numbered and these numbers are used for reference both in the annual index and in the table of contents of each number. Abstracts pertinent to more than one group are printed at length only once but their titles are repeated under related groups and reference is made in each case to the serial number under which the full abstract appears. This feature together with the clear

typographical arrangement of the table of contents render its use both rapid and effective.

Bibliographical data is similar to that given in the Experiment Station Record but is somewhat fuller in that titles of serials are given without abbreviation and the place, day and month of publication are specified. Titles of Russian serials are given in Russian type accompanied by a translation. Titles of articles in other languages than English are given in translation only. Designation of his official position or of the institution with which he is connected frequently accompanies the author's name.

Each annual index³ is divided into three

³A combined index was issued for volumes one and two; since then indexes have been annual through 1916 which is the last published.

parts, original articles, agricultural intelligence and plant diseases. The first of these is an alphabetical author and title list but each of the other parts is divided into separate author and subject lists. In the latter entries are made for titles or for abstracts as a whole rather than for individual items in the body of the abstract. Where more than one reference occurs under the same entry word these are arranged in order of the serial numbers of the abstracts referred to. This practice may be contrasted with that of the Experiment Station Record in which every item mentioned in the abstract is given a separate subject entry. By the former method, the location of the abstract of a given publication is much simpler but by the latter a more complete guide is given to the detailed subjects of which the abstract treats.

The Agricultural Index

BY MRS. NELTJE T. SHIMER

Editor, Agricultural Index, H. W. Wilson Co.

The literature of agriculture is voluminous, covering as it does, a wide field, the ramifications of which extend into almost all other fields of endeavor. Agricultural colleges include in their curriculum the subjects of forestry, home economics, dairying, farm engineering, etc. Agricultural training requires a working knowledge of the sciences—botany, entomology, genetics, bacteriology, chemistry.

Scientists are engaging in agricultural research, and are publishing the results of their experiments and their conclusions in many different places, in experiment station publications, in pamphlet form, in various journals, not necessarily agricultural.

In taking care of these different classes of literature, the agricultural college library has been hampered by the lack of an index to the periodicals and other material on their shelves. The Readers' Guide to Periodical Literature, and the Industrial Arts Index has each been serving its respective field. It was an index on the plan of these that was needed for agricultural literature.

In 1916, Mr. H. W. Wilson, publisher of other bibliographies and indexes was persuaded by the Agricultural Libraries Section of the American Library Association to start an Agricultural Index to supply this need. The Index was started in a small way, only fifty periodicals and the publications of the experiment stations being indexed in the beginning. However, the list of periodicals was soon increased. The questionnaire sent out in 1917 resulted in the addition of twenty-six magazines.

In 1918, besides seventy-six of the leading

farm papers and scientific journals, chosen by the co-operators, the index includes references to the Experiment Station bulletins, the pamphlets and other literature issued by state boards of agriculture, the publications of the United States Department of Agriculture of the Canadian Board of Agriculture and of other foreign countries, including Australia, India, Ireland, England, etc. The reports of agricultural and horticultural societies, dairy and live stock associations, and other like organizations are also indexed regularly.

A selection of the valuable extension publications of the college extension departments is made, keeping in mind the needs of the county agent and the practical farmer, the rural school and county library.

It has been found that the Index as originally planned must broaden its scope to serve the needs, not only of the agricultural college library, but also of many other activities. Upon entering into a survey of the subject of agricultural literature it is quite apparent that just as the subject of agriculture is so broad as to include almost every other activity in its scope, equally broad will be the scope of those interested in its literature.

The list of co-operators or subscribers to the Agricultural Index includes agricultural schools, banks, business libraries, college libraries, county agents, editors, experiment stations, government libraries, high schools, public, state and technical libraries. The Index goes to fourteen foreign countries, including China and Russia.

To give some measure of service to these

varying needs, it has been found necessary to depart from the plan used successfully in the case of other periodical indexes, and to add a different class of material.

In the first place, many articles of value to agriculturists are found in general magazines, such as those indexed in the Readers' Guide and Supplement. For the use of those who do not see the other indexes, it was decided to check over these publications and duplicate references in the Agricultural Index. This was also true of the Industrial Arts Index.

The Public Affairs Information Service Bulletin, Library of Congress cards and general bibliographies are all checked over for pamphlet material which will be of use and value to the agricultural worker.

This literature is termed "occasional material" and includes the publications bearing on agriculture issued by banks, railroads, statistical bureaus, corporations such as the fertilizer industries and farm machinery industries, colleges, boards of education, federal commissions, and other agencies.

Conferences and congresses held for almost any purpose whatever usually have a few papers on agricultural subjects. For instance, the Pan-American Scientific Congress devoted a whole volume of their proceedings to Conservation of Resources, most of which was of direct interest and much value to agricultural workers.

This "occasional material" is important not only because of the fact that it is usually valuable and authoritative, but also because it is more or less elusive, much of it being indexed in no other place. Research workers must have this sort of information on which to base their conclusions, since much of the material consists of facts upon which popular periodical articles are based. This material also serves to show the growth of interest in agriculture, and the growing need of research and organization of knowledge.

A check list of this literature is always given in the Index enabling co-operators to send for material. Most of these publications are gratis, and are welcomed by smaller libraries and others where appropriations and funds for books and periodicals are small.

Some most interesting, timely and authoritative statistics on the economics of agriculture that are of much value to agriculturists are issued by banks and railroads. Many of the larger banks and railroads have agricultural departments with a trained agricultural scientist in charge.

The International Institute of Agriculture has made a splendid record through the war, carrying on its work almost uninterrupted through the four years. And if direct contact between representatives of the different countries can be established, it will further the work of the International

Institute and will be a step toward the internationalism to which the peoples of the world are looking. At present two of the journals published by the International Institute are indexed in the Agricultural Index.

The Food Administration publications were many, and a selection of the best was made and the references entered. Much of it, of course, was ephemeral, but much also was worth keeping. In the Official Statements, statistical data will be found which are authoritative and valuable.

The Monthly Review, published by the U. S. Bureau of Labor Statistics, publishes valuable articles on the food situation and conditions in all countries. Statistics on prices of food and cost of living in all countries will also be found there.

The U. S. Commerce Reports contain many items of value. The articles are short, but necessary to research worker as first hand information.

These are only a few of the many sources from which agricultural literature is drawn, but these instances will serve to show the nature of the task with which the Agricultural Index is concerned, since its aim is to serve the needs of all of those interested in the subject.

The three-year cumulation (1916-1918) of the Index is just off the press. The indexing of the magazines has been carried back through the three years, and in some notable instances is carried back to the beginning of the magazines, as in the case of the Journal of Agricultural Research and the American Journal of Botany. These journals were begun in 1913, and it seemed desirable to make the index to them complete. The United States Department of Agriculture Department Bulletins are also indexed from the beginning. Since some of the journals were begun after the Index was started, these also will be completely indexed. The Journal of Dairy Science, Soil Science, the Journal of Bacteriology, System on the Farm, U. S. Food Surveys, U. S. Seed Reporter, have been started during the three-year period.

A third questionnaire asking for votes on a selected list of additional periodicals will be issued early in the year. It is planned to add at least twenty-five magazines to those now on the list, making a total of over 100 periodicals. Though the Index has been a financial loss to the publishers thus far, the support given the undertaking is gratifying, and would seem to indicate that the Index is in some measure serving the need, not only for agricultural college libraries, for which the Index was primarily intended, but also for the general library and the special library, which are having to meet more and more the demand for literature bearing on agriculture in its many aspects and phases.

Printed Cards for Agricultural Literature

BY EMMA B. HAWKS

Assistant Librarian, U. S. Department of Agriculture

Printed cards are a commonplace now in most libraries, and it is probably difficult for the younger members of the profession to form an idea of the life of a librarian in the time when they were merely being talked of as a possibility of the future. And yet to some of us, the time when the Library of Congress began its work in this direction seems very recent. Of course that was not the first undertaking of the kind. The Library Bureau and later the publishing section of the A. L. A. had been printing cards for new books, the *Conciliium Bibliographicum* was issuing cards for zoological publications and the Botanical Supply Company for North American botany, and doubtless there were other such undertakings. But we question whether agriculture was not one of the first subjects to be indexed by printed cards. The Office of Experiment Stations (now part of the States Relations Service of the Department of Agriculture), began as long ago as 1891 the issuing of cards for the publications of the state agricultural experiment stations, and the index is still in progress according to the original plan. The arrangement is classed, the scheme having been devised especially for this purpose, and the cards are the small size, 2 x 5 inches. They bear the classification number in the upper right hand corner, and the title which is often inverted to bring the significant word first, is at the top of the card, followed by the author if there is one, then by the citation of the publication in which the article occurs, also the reference to the review of it in the Experiment Station Record. Below is given a short abstract. A card is usually printed for each bulletin as a whole, but besides this there are numerous cards for special subjects treated; each important crop or fertilizer, for instance, would receive an entry. Subjects in the annual reports are also brought out, whether a distinct article is devoted to them or not, as many as 100 cards sometimes being printed for a single report. The index is thus a real index rather than a card catalogue. As might be expected the title under which the entry is made is in many cases one which is supplied by the indexer. It is well for the librarian who uses the index to bear in mind that it was not intended so much to furnish a ready reference tool for hasty consultation as to provide the agricultural worker with a summary of the work done at the various stations along any special line. The abstracts are the most important feature from

this point of view, and it is expected that the user will look through practically all the cards in the class in which he is interested and thus gain a general idea of previous work in his field. The author side is entirely subordinated. It is intended that cards with the same title be arranged not by the author but by the name of the issuing station. It is, therefore, not always easy to find the reference to a special bulletin which may be desired; nevertheless this index, which contains about 38,000 cards, is an invaluable guide to agricultural experiments from the subject side. It is published by the Office of Experiment Stations of the U. S. Department of Agriculture, and is sent free to the State agricultural colleges and experiment stations, for which it is primarily designed. Subscriptions are also received to the entire index, or to separate classes.

Wherever this set of cards may be classed chronologically in comparison with other printed cards, we are quite sure that it is the senior in the agricultural field. The next undertaking to be mentioned was also a very early one in the history of printed cards, namely, the beginning in 1899 of the printing of cards for publications of the U. S. Department of Agriculture by the Department Library, of which Mr. W. P. Cutter was then the head. Mr. Cutter says in his report for 1899-1900: "This I believe to be the first attempt to furnish to the outside world a complete printed card catalogue of the publications of any institution." So far as we know this claim has not been disputed. The constituency for these cards was considered to be principally the State agricultural colleges and experiment stations, as was the case with the cards for station publications, and this fact determined some of the features of the cards. For instance, since the cards for station publications were of index size, it was decided, perhaps unfortunately in the light of later experience, to supply the new ones in that size, as well as in the more generally used post card size, in order that the same cabinets might be used to accommodate both sets. They could not, however, be arranged together, since the new cards were designed for a dictionary catalogue arrangement. Because the state college and station libraries were in most cases unorganized and with few or no trained assistants, it was thought that the only way to insure the filing and use of the cards was to make their preparation as simple as possible, and that it

would be best to have the subject headings ready printed at the top of the card, for those who preferred them. (It may be added that even this precaution has not prevented sets from being stored away in their original wrappers for some years.) For six years this work was carried on by the Department of Agriculture library, according to the original plans. The cards were printed at the Government printing office and made up into sets and sent out by the Department Library, the work being done by the regular staff in addition to its other duties. Sets were distributed free to the libraries of the State agricultural colleges and experiment stations and to depository libraries of the Superintendent of Documents. During these years nearly all the separate publications, bulletins and circulars of the Department were covered by printed cards, as well as the articles in the Year Books. The Farmers' Bulletin and Year Book cards proved so popular that they were reprinted at least once. It was decided, whether wisely or not, to make the subject headings as simple as possible; for instance, using the popular rather than the scientific names of plants and animals. The headings differed more or less from those in use in the catalogue of the Department Library, but this was not thought to matter, since the manuscript card catalogue of the Department Library was not a matter of public concern, and the cards for Department publications were of course made to conform before being filed in it.

For more than three years after the printing of cards for its accessions was begun by the Library of Congress, the Department of Agriculture Library continued to have printed and to distribute independently the cards for Department publications. But Mr. Hastings, the energetic chief of the Card Division of the Library of Congress did not overlook this stray lamb which needed gathering into the fold, and we were only too glad to have him take over the task of printing, handling and distributing these cards, work for which the Department Library had no adequate facilities. Accordingly since 1906 these cards have been handled by the Library of Congress in the same way as the cards for our other accessions. Within a few years the cards already printed for the older publications had been revised and reprinted, so that they are now all available in the Library of Congress stock, the only exceptions being analytical cards for a few of the bulletins, which it was not deemed wise to reprint. Cards for articles in the old series of annual reports of the Department and for some other series not previously catalogued, have been printed. There are still at least two more serious which should receive attention, namely, the annual reports of the Bureau

of Animal Industry and the States Relations Service. But in general we believe that the Department publications have been covered as closely as is practicable in such a card catalogue, in which of course minute indexing cannot be afforded. Sets of these cards continue to be distributed to the libraries of the agricultural colleges and experiment stations at the expense of the Department of Agriculture library. Otherwise they are for sale by the Card Division like other printed cards.

The taking over of these cards was attended for the Card Section with some inconveniences which might have discouraged anyone but Mr. Hastings. For instance the supplying of cards in two sizes was a great nuisance, and for several years the Library of Congress worked to induce libraries which were using the small size to change to the larger, giving them special rates on sets thus exchanged. The number of small sets in use was thus diminished, and the Card Division has now ceased to supply them. The printing of the subject headings at the top of cards, for those who desired them, was another variation from the practice of the Library of Congress. This is still continued. Several other little peculiarities of ours were kindly tolerated—such as the inclusion of the name of the Department in the heading for various bureaus, (e. g. U. S. Dept. of Agriculture, Bureau of Entomology, instead of U. S. Bureau of Entomology, according to the Library of Congress custom) and the entering of anonymous publications in numbered series, under the title instead of under the Department or Bureau. Another idiosyncrasy has been our habit of sparing the feelings of authors in the Department by omitting the date of birth on the catalogue cards, except for those who were dead and would not protest. We have lately fallen "into line" however, on this point, because so far as we could find, the authors did not mind about the date, although they were sometimes quite firm about middle names.

About two years after the Department of Agriculture Library began the publication of cards for Department publications, the Library of Congress' printed card work, which had been confined to its own needs, was developed so that its cards were available for purchase by other libraries. These including, as they did, entries for all the new accessions to the Library of Congress, especially for copyrighted books, contained many cards for agricultural literature. But the Library of Congress does not specialize in this subject, and, large as its collections are, it is yet necessary sometimes to correct the impression of the person who "thought that it contained all the books that had ever been published." The Card Section therefore, after its work was well established be-

gan to look around for means to increase its stock in order that it might be able to supply a larger proportion of the titles called for. To this end it invited the Department of Agriculture Library to furnish copy for such of its accessions as were not contained in the Library of Congress. This was the first library to co-operate in this way. The first of these cards were printed in December, 1902. It was with much diffidence that we approached the task of preparing cards according to the Library of Congress cataloguing rules. These rules had not been long in use and were new to us and rather terrifying, especially since the cards were to be printed and our inevitable mistakes would thus become known throughout the land. The Library of Congress Catalogue and Card Sections were, however, very kind in giving us assistance and suggestions, and we have been able to produce about 30,000 cards, some of which at first glance can hardly be told from those originating in the Library of Congress. We hope that they have been intelligible and helpful to the users, even though the anticipated mistakes have not been absent. The cards for which copy is supplied by other libraries, as you know, are distinguished by an abbreviation before the serial number (in our case Agr.) as well as by the name of the Library at the bottom of the card. All the cards, of whatever sort, for which we are responsible are printed in this "Agr" series.

In 1904 the printing of cards for articles in three foreign periodicals was begun—these periodicals being *Die Landwirtschaftlichen Versuchsstationen*, *Landwirtschaftliche Jahrbücher* and *Annales de la science agronomique*. Later *Annales de l'Institut national agronomique* was added to the list. The cards for these differ somewhat from those mentioned previously, in form, in subject headings and in the fact that besides the subject heading they have a number in the lower right hand corner, assigning each article to a broad classification peculiar to these cards and designed to facilitate subscriptions to cards for articles on certain subjects. None of these cards have been published during the last few years; on account of the war the two German ones have not been received, and the French ones have either come irregularly or have been changed in character. We hope to resume the printing of the cards soon.

The question of subject headings is a rather embarrassing one which we would prefer to pass over in silence, if we could conscientiously do so. If the Department of Agriculture had waited for the library of Congress to develop its plans before organizing its own work the matter would have been much simpler. But, as has been explained, we began first, and when the card printing was transferred to the Library

of Congress, we could not ignore the 300 or more sets of cards which had already been distributed to libraries. The subject headings which we had chosen naturally did not always coincide with those selected by the Library of Congress. When the printing was taken over by the Library of Congress, it yet seemed necessary to keep the same scheme of subject headings, since the new cards must file with the old: As regards the cards for current accessions, it must be remembered that our card catalogue had been in progress for many years before the Library of Congress printed cards were begun. We had not the service available to change our catalogue at once to correspond with the Library of Congress headings, even had the list of these headings been printed at that time, which was not the case. It was thought that it would be more useful to have our own headings appear at the bottom of the card than to leave it with no headings at all, and ours were therefore added as a suggestion of what we considered the subject to be. As before explained these headings were not always the same as those used on the cards for Department publications, and no doubt the inconsistencies between various kinds of headings has been very confusing to users of the cards. In these two cases, we were chained, as we thought, to our past, but there is perhaps less justification for the use of still a third set of headings for the cards for foreign agricultural periodicals. This was used because it seemed called for by the nature of the articles indexed, which were very special and technical. For several years now the Library of Congress has tried to obviate these subject heading troubles. The Library of Congress heading is now always indicated, if ours differs, unless, as is sometimes the case, the Library of Congress has decided on no appropriate one. This plan is fully explained in the new edition of the Handbook of card distribution, issued by the Card Division. In assigning new subject headings an effort is always made to adopt those used by the Library of Congress, and we often change to their form, even when different headings have already been used. A few years ago a revision was made of the headings of the cards for Department publications, and a great many of them were reprinted in order to make them correspond as nearly as possible to the Library of Congress headings. The most extensive change was to the Library of Congress practice of dividing subjects such as agriculture, by country, instead of dividing the country by subject, as had been our practice, and still is in our own catalogue.

It will be seen from the foregoing account that cards for a large amount of agricultural literature are now available to libraries. The number of titles printed in the Agr. series

by the Library of Congress is, as has been said, over 30,000. These include, it is true, accessions to the Department Library, on whatever subject they may be, and while they are all technical publications bearing on the work of the Department, a large proportion of them could not be classed as agriculture. However, these are balanced to some extent by the cards printed by the Library of Congress for books in its own collection on the subject of agriculture, including nearly all the copyrighted books since 1898. The Library of Congress has also recatalogued its collection of older agricultural literature. Cards are not, however, available for all the older agricultural books in the Department of agriculture library. Several of the state agricultural college or university libraries have furnished the Library of Congress with copy for cards for the experiment station bulletins and circulars of their states. These are Illinois, Indiana, Massachusetts, Oregon and Virginia. It is hoped that, as more of the agricultural college libraries secure trained assistance,

they will undertake this work for their own states, and that perhaps the Department of Agriculture Library can undertake the remainder, if it is not large. This is one of the most important pieces of work to be done along this line. The cards for these experiment stations publications are badly needed in the general dictionary catalogue though they will not supersede the classed card index issued by the Office of Experiment Stations and previously described. The latter indexes articles in the annual reports, and also more minute portions of the other publications than the dictionary catalogue cards would probably cover. They also give the very useful abstract.

With all the cards which we have mentioned at his disposal, supplemented by the excellent indexes to periodical articles, notably the Experiment Station Record and the Agricultural Index, may not the agricultural librarian consider himself fortunate in the bibliographical assistance which he can command?

The Library of the United States Department of Agriculture

BY CLARIBEL R. BARNETT

Librarian, U. S. Department of Agriculture

Scientific progress is the process of bringing together and correlating facts already known and discovering new truths by deduction and experiment. It follows necessarily that the records of past experiments, the data not only on what has been accomplished but also on what has been attempted, must be available, otherwise avoidable mistakes will be made and much time and money will be wasted on the unnecessary repetition of experiments. It is not surprising, therefore, that an institution such as the U. S. Department of Agriculture, which was established for the advancement of agriculture, should have had a library connected with it from its very beginning in 1862. Unfortunately, however, from lack of the necessary support, the growth of the Library during the first thirty years of its existence was very gradual and its service limited. It is painful to think of the opportunities for collecting valuable material which were neglected in these early years and which it is feared can never be entirely made good, for old agricultural periodicals and reports which could so easily have been obtained when published are now seldom to be found.

In 1893 Honorable J. Sterling Morton,

who was then Secretary of Agriculture, appointed Mr. W. P. Cutter as Librarian and a little later Miss Josephine A. Clark was appointed Assistant Librarian. Together they reorganized the Library, introduced modern library methods, employed trained library assistants and laid the foundations of a library policy looking toward a great enlargement of its collections and service. Under their guidance the Library began to grow rapidly and to take on the character and functions of a national agricultural research library. Its collections now number approximately 145,000 books and pamphlets and constitute the largest library in the world devoted specifically to agriculture and the related sciences.

Scope

To give an adequate idea of the Library it would be necessary to go through the classification enumerating in detail the strength of the various collections and calling attention to the many treasures which the Library possesses. Lack of space forbids any such extended statement. It is only possible to indicate the scope of the Library and the subjects in which it is especially strong. First of all it should be

explained that it is a scientific and technical library. In a general way the scope of the Library corresponds with the work of the Department which can be broadly "divided into three groups of activity: (1) research or the scientific study of the fundamental problems of agriculture; (2) extension of educational work, or the dissemination of the information developed through the Department's experiments and discoveries; and (3) regulation or administration of various statutes with whose enforcement the Department is charged." In all these activities the Library is called upon to furnish data found in books, periodicals and pamphlets. Scarcely a year passes in which some new duties are not added by Congress to the Department. These are apt to result in demands upon the Library for material not previously considered within its special province. The scope of the Library, therefore, may be said to be relative, not fixed. However, since botany, zoology, chemistry and veterinary science are the basic sciences with which agriculture is most concerned, it naturally follows that the subjects in which the Library is especially strong are the following: Agriculture in all its branches, agricultural statistics, rural economics, veterinary medicine, forestry, chemistry, agricultural bacteriology, botany, plant pathology, economic entomology and economic zoology. Its collections in all these subjects are extensive and notable, if not unrivaled. There are other libraries in the country which specialize in some one of these subjects,—the Massachusetts Horticultural Society in horticulture; the Gray Herbarium, The Missouri Botanical Garden, and the Arnold Arboretum in botany; and the American Entomological Society in entomology. The figures on which to base an adequate opinion as to the strength of these various collections as compared with those in this Library are not available but by reason of the fundamental unity of science the Library of the Department has at least one distinct advantage in that it specializes in all the sciences relating to agriculture. This adds to the strength of the collection on each subject.

Another decided advantage which this Library enjoys is due to the prominence of the Department and the correspondingly large numbers of exchanges which are received from agricultural and scientific institutions. It can, it is believed, be safely said that no other collection is so strong in the local, state and national official publications of American and foreign institutions and organizations which have to do with agriculture and the related sciences. These embrace the publications of boards, societies, agricultural colleges and experiment stations, commissions, congresses, and government and state officials. Exchanges are re-

ceived from every civilized country and in every language in which scientific data are recorded. To mention only one foreign collection in particular—the collection of publications of the Japanese agricultural experiment stations is probably as complete as, if not more complete than, any other one collection even in Japan itself. Two other somewhat unusual features are the collection of horticultural trade catalogues (a close rival of the especially fine collection contained in the Massachusetts Horticultural Society Library) and the very complete collection of foreign and American herd, flock, and stud books.

In sets of scientific and technical periodicals, the Library is particularly rich. Many of the sets of foreign agricultural periodicals are probably not contained in any other library in the country. The Library receives currently 2400 periodicals. The number received from various countries, the subjects which they cover and the languages in which they are published are shown in the appendix to the annual report of the Library for 1918. A glance at the list will indicate the broad range of subjects on which the Library is expected to furnish material, for it is to periodicals that one must look for the most up-to-date information.

The emphasis of the Library is on the utilitarian side. It does not purchase books which are of interest because of their rarity, or because of their beautiful typography or beautiful bindings, or for any other bibliographical interest unless they also have a scientific or historical value connected with the work of the Department. Nevertheless it contains many rare books of great value. Among its treasures which are essential in the daily work of the Department are a set of *Biologia Central Americana*, a set published in parts, the total cost of which has amounted already to more than \$1000; Curtis, *British Entomology*; Oberthur, *Etudes de lépidoptérologie comparée*; Wytzman, *Genera insectorum*; Jablonsky, *Natursystem aller bekannten in und auslandischen insekten*; Saccardo, *Sylloge fungorum*. Pierre, *Flore forestière de la Cochinchine*; Karsten, *Flora Columbiana*, with colored plates and a very extensive collection of the works of Linnaeus. Mention should also be made of some of the rare old agricultural books contained in the Library, among which the following are of especial interest: *Scriptores rei rusticae, Florentiae*, 1521; *Geoponica*, 1538; *Columella, De re rustica, Parisiis*, 1543; *Crescentius, De agricultura, Basilene*, 1538; *Herrera, Libro de agricultura*, 1539; and *Estienne, Praedium rusticum*, 1554.

While the Library specializes in the subjects which have been noted, its purchases are not confined to these subjects. The lines of investigation conducted by the va-

rious laboratories and the so called "police duties", of the Department in connection with the administration of certain federal laws make it necessary to purchase many books and periodicals which seem to have no connection with agriculture. Probably its most extensive purchases outside of the field of agriculture and the related sciences are in the class of medicine. Such are the ramifications of science that medical books and periodicals are needed not only in the work of the Bureau of Animal Industry but also in the Bureau of Chemistry, the Bureau of Entomology and the Bureau of Plant Industry. The Library is occasionally called upon to purchase books on such subjects as dentistry and cosmetics needed in connection with work arising from the administration of the Food and Drug Act, books on bond issues and finance needed in the Office of Public Roads, and periodicals on aeronautics for the use of the Forest Service in investigating woods for aeroplanes. Even a periodical on the millinery trade has been needed to keep track of the sale of millinery goods which are affected by the Acts for the protection of birds. Needless to say books and periodicals of this character are only purchased in response to a definite demand and when it will not answer the purpose to borrow them from some other library. Such books are, so to speak, side issues.

In the purchase of books the resources of the Library of Congress and other government libraries are always taken into account for it has seemed wise to follow a broad policy looking toward the increase of the sum total of scientific literature in Washington rather than to consider only the Department collections. Old, rare and very expensive books, if known to be in the Library of Congress, are not duplicated in this Library even though on agricultural subjects unless they are needed for frequent use or are of special interest.

Branch Libraries

In some respects the Department is like a university, the various bureaus, divisions and offices corresponding to the departments and schools of a university. Just as there are in a university various departmental libraries, so there are in the Department of Agriculture various bureaus, divisions and office libraries. Previous to the reorganization of the Library in 1893 these collections were not catalogued and were more or less independent of the Main Library. Under the policy inaugurated by Mr. Cutter and Miss Clark they have all been knit together and are now administered as a single library system for the Department, consisting of the main library and its branches in the bureaus, divisions and offices, thus insuring co-operation and continuity in the library work of the Department. All books and pe-

riodicals for the use of the Bureaus and Offices in Washington are purchased and catalogued by the Main Library. Therefore the catalogue of the Main Library contains a record of all the library resources of the Department regardless of the location of the collections.

The librarians of the various bureaus and offices and their assistants are paid from the appropriations of the offices with which they are connected. There are some advantages in this plan as it enables the offices to employ library assistants to do work which the Main Library with its limited appropriations would be unable to do. Being in closer touch with the users of the books, the librarians of the bureaus and divisions lay greater emphasis on the reference and bibliographical side of the work while in the Main Library emphasis is placed more on the side of acquiring material and making it readily available for use.

About one-third of the library's collections are filed in the various bureau and office libraries for the greater convenience of the Department workers, since the offices are scattered in numerous buildings, often some distance from the Main Library. These various branch libraries differ considerably in extent and character, being governed largely by their distance from the Main Library and by the space available in the bureaus and offices for the collections. For example the Bureau of Crop Estimates, the Bureau of Entomology and the Forest Service contain the bulk of the collections on the subjects of special interest in the work of these bureaus. The collection in the Bureau of Chemistry is more limited, since on account of lack of space in the bureau it is necessary to file in the Main Library many of the sets of chemical periodicals. The collections in the libraries of the Bureau of Plant Industry, the Office of Public Roads and Rural Engineering, the Biological Survey, the Bureau of Markets, the States Relations Service and the Dairy Division are limited strictly to books in frequent use. Scarcely a year passes that some additional evidence of the value of a unified library system for the Department is not brought out. The frequent changes in the organization of the Department and in the location of offices due to the expansion of the work would result in much confusion and be most wasteful as far as the libraries of the various units are concerned if they were all separately administered.

Catalogues and Bibliographies

When the Library was reorganized in 1893 there was no catalogue of the collection. This was an advantage in some respects as it made it possible to start a dictionary card catalogue on modern lines. The catalogue has grown until it now con-

tains approximately 400,000 cards and constitutes an invaluable bibliography and index to the literature of agriculture and the related sciences. In addition to the cards for books in this Library it contains cards for those in the Library of Congress and other libraries which are on subjects of interest in the work of the Department.

The printed cards for the publications of the Department and the accessions to the Library are described in another article in this number. Printed lists of the books on botany, irrigation, entomology and forestry, contained in the Library have been issued as Library Bulletins No. 41 (1902), No. 42 (1902), No. 55 (1906), and No. 76 (1909) respectively. A catalogue of the periodicals and serials contained in the Library was issued as Library Bulletin No. 37 (1901) and a supplement to it was published in 1906. Lack of space forbids a detailed statement as to the valuable bibliographical work and indexing which is done in the various bureau and division libraries. Information in regard to the subjects covered is given in No. 6 of the multigraphed series of Library Notes issued by the Library. Special mention should, however, be made of the extensive catalogue of botanical and horticultural literature which is maintained in the Bureau of Plant Industry Library through the co-operation of the Office of Economic and Systematic Botany of the Bureau of Plant Industry. A detailed

description of the catalogue was published as Bureau of Plant Industry circular No. 87.

Use of the Library

The Library exists first of all for the benefit of the Department but is also free for reference to any one who wish to use it. The use of its books by other institutions in and out of Washington is increasing from year to year. During the past year there has been a greatly increased use of the books by other government departments especially by the new departments created since the war. A large number of books are lent to institutions in every state of the Union, to the various state agricultural colleges and experiment stations in particular, and to other institutions engaged in agricultural research. In addition to the service rendered by the use of its books, it endeavors to serve to some extent as a bureau of information about agricultural literature. Not infrequently the subjects on which inquiries are received are subjects on which little or no printed information is available. If they are under investigation by officers of the Department the Library endeavors to serve as a medium for connecting the requests with the offices or individuals that can supply the information. In general it may be said that it is the aim of the Library to make its resources and its bibliographical equipment as widely useful as possible.

The Agricultural Collections of the Ohio State University

BY OLIVE JONES

Librarian, Ohio State University

Although the College of Agriculture of the Ohio State University is one of the best and largest in the country, conditions have not made it desirable, or even possible, to have a separate agricultural library. I think that sometime this will come, but probably not for a number of years. The main building of the College of Agriculture is just across the road from the General Library building and there has been a feeling among a great many of the agricultural professors that they prefer to have their students use the main library. There is, however, in this building a large department library pertaining to agricultural chemistry and soils. In the Botany and Zoology building there is an excellent department library under the charge of a regular library assistant. We have never made it a point in our statistics to divide our main library up into so many

volumes of agriculture, so many volumes of engineering, so many volumes on other subjects, etc., etc. However, I may say that agriculture has by no means suffered and that the money put into books for that College compares very favorably with the money put into any other line of work. One of our especially valuable collections is the Allen Library of Horticulture which was purchased year before last and which comprises something over a thousand volumes, many of them being rare and almost priceless in value. The Cyclopaedia of Horticulture speaks of it as being "one of the finest private horticultural libraries in this country, many of the volumes of European origin and of rare merit, some tracing back to Holland and to 1497." These volumes with those on the subject already on hand form a very interesting and valuable horticultural

library—one of the few important collections in the country.

Our collection of Herd Books is also one of the most complete in the country, there being very few herd associations of which we do not have the complete records.

One of the most important things which the library does for the College of Agriculture is conducting the course in Agricultural Bibliography. When this course was first established, it was a required subject and was found to be of the greatest value to the students in the college. Several years ago, when the course of the college was being reorganized, it was unfortunately made an elective. Accordingly, instead of having six, and eight sections, the work can now be carried in two sections. The course gives only one-half hour credit. We are sincerely hoping to have it changed very soon so that it may be extended and given an hour's credit. But even the eight lectures which are now given enable the student to use the library as a whole, and his agricultural literature in particular, with a good deal of facility. This course consists of lectures and problems on the use of reference books, indexes, catalogues and the publications of the United States Department of Agriculture and of the state experiment stations. It also includes the making of a short bibliography.

The Agricultural Library of Iowa State College of Agriculture and Mechanic Arts

BY VERA M. DIXON

Acting Librarian, Iowa State College

At the Iowa State College the Agriculture Library is under the control of the General Library but is located in Agriculture Hall. It is administered as a branch of the General Library and is on exactly the same basis as are the other four department libraries except that it is the largest of the group. The Librarian is appointed on the recommendation of the College Librarian, her salary being paid jointly from regular college funds and from station funds. She has the rank of instructor on the College Faculty.

The books and periodicals are purchased from the legislative appropriation for the library, and the library is maintained by the library appropriation.

In several offices of the experiment station staff are maintained small collections of books; these we call laboratory collections. They are also the property of the college library.

The station staff have the same privilege as regards the Agriculture Librarian as do

members of the College Faculty and use it very largely for their reference work.

The book collection consists of approximately 12,000 volumes devoted to agriculture and allied subjects. About fifty agricultural journals are received currently.

A herd book room containing about 6,000 volumes of English and American herd books is maintained in connection with the Agriculture Library.

The Agriculture Library is an integral part of the college library in every way except that for purposes of convenience it is shelved in Agriculture Hall.

MT. PLEASANT FARM LIBRARY

The Mt. Pleasant Farm Library, located at Grahamsville, New York, is somewhat unique in that it is one of the few agricultural libraries if not the only one which is not connected with an institution or society.

It contains about 2,000 books and 13,000 pamphlets. It began its existence about seventeen years ago as a library of strictly agricultural publications for the benefit and use of anyone interested or engaged in farming. It is financed and cared for by private funds but the information it contains is absolutely free to anyone and every effort is made to extend its usefulness. Publications are frequently sent by parcel post to persons in need of information on agricultural subjects in answer to both telephone calls and letters. Through the aid of the Farm Bureau of the County the librarian hopes to extend still further the usefulness of the library. The librarian is Mr. James E. Barkley.

A scientific and industrial society (Instituto Científico Industrial del salitre de Chile) to study, develop and bring together those interested in the nitrate industry has been formed at Santiago de Chile, South America. A *Review* in which, it is stated, will appear not only original contributions on work done or being done of scientific as well as of commercial and technical interests, but also criticisms of such contributions, discussions and abstracts of all work done in other countries in analogous industries, patent as well as original research, is to be issued.

The Federal Board for Vocational Education, Washington, D. C., has just issued Bulletin 27, devoted to *The Training of Teachers for Vocational Education*. The studies of the Board run in several series, the agricultural (5 already issued), commercial education, trade and industry, reeducation (4 issued in each group), and those devoted to emergency war training (Bulletins 1-12). Bibliographies accompany many of the bulletins.

Special Libraries

Published Monthly except July and August

Editorial Office

108 Jersey St., The Fenway, Boston, Mass.

Entered as Second Class Matter at the Post Office at Boston, Mass., under the Act of March 3, 1879.

Subscriptions (10 issues).....\$4.00 a year
Single copies\$0.50

Correspondence with reference to contributions to *Special Libraries* should be addressed to the Editor-in-chief.

Subscriptions, applications for membership in the Special Libraries Association, and remittances should be sent to the Secretary-Treasurer.

SPECIAL LIBRARIES ASSOCIATION

PresidentGuy E. Marlon
27 State Street, Boston, Massachusetts

Vice-President .. Edward A. Redstone
Mass. State Library, Boston, Massachusetts

Secretary-Treasurer ... Caroline E. Williams
Experiment Station.

E. I. Du Pont de Nemours & Co., Wilmington, Del.

EXECUTIVE BOARD

President, Vice-President, Secretary, Treasurer,
J. H. Friedel, Boston, Mass.

Miss Edith Phail, Waterbury, Conn

SPECIAL LIBRARIES

Editor-in-Chief... J. H. FRIEDEL

ASSOCIATE EDITORS

Agricultural and Government Libraries

Claribel R. Barnett

State Libraries..... Herbert O. Brigham

Business and Commercial Libraries.. Mary B. Day

Financial Libraries..... Ella M. Genung

Technological and Engineering Libraries

Edward D. Greenman

Theological and Fine Arts Libraries

Mary A. Pillsbury

Law Libraries..... Edward H. Redstone

EDITORIALS

In this agricultural number of *Special Libraries* an effort has been made to bring together some useful information in regard to agricultural libraries, to indicate other sources of information, and to call attention to a few of the problems and opportunities in this special branch of library work. While some agricultural libraries are doing excellent work, taken as a whole, agricultural libraries have lagged behind the progressive institutions with which they are connected and are not performing the full service which can rightfully be expected of them. This is probably due to two causes. In the first place, those in authority in many

of the agricultural colleges and experiment stations have not realized the importance of the library in the work of the colleges and stations. In the second place, there have been comparatively few librarians who have taken any special interest in agricultural library work and its development. With the increased interest in agriculture which the war has stimulated, it is hoped that the growth and improvement of agricultural libraries will be accelerated.

There have been frequent articles in library periodicals of late on the need of specialization in library work. Dr. E. W. Allen, in an article in this number, has pointed out the opportunities for librarians to be of service in agricultural research. There are similar opportunities in agricultural extension work. In other words, the agricultural college libraries and the experiment stations are in great need of trained librarians with special qualifications along agricultural lines. If librarians and library assistants in agricultural libraries will make the necessary effort, they can do much by reading and study to make themselves more efficient in their work. Some time in the near future, however, it is hoped that some library school will find it possible to give a special course for agricultural library work. The agricultural librarian who has only a knowledge of general library technique with no special knowledge of the literature and history of agriculture and no grasp of rural life problems, is likely to give only mediocre service and will not help to raise the standards of agricultural library work as a whole. If, on the other hand, he knows something of the history and lore of agriculture and interests himself in the lives and efforts of the men who have contributed to its advancement, then, in the words of Dr. E. J. Russell, Director of the Rothamsted Agricultural Experiment Station, "he sees the noble side of the subject, and realizes that it is not merely a way of making money, but of getting all the best out of life. When he does that, he becomes an enthusiast, and to make an enthusiast is emphatically a great achievement." As soon as an agricultural librarian has become an enthusiast in his work, his success can be said to be assured.

The Agricultural Libraries Section

The Agricultural Libraries Round Table, held during the Mackinac Meeting of the American Library Association in July, 1910, at which Mr. J. I. Wyer, Jr., presided was probably the first attempt to bring together librarians of agricultural libraries and those interested in agricultural literature, for the discussion of their special problems. The plan for this Round Table was the result of the conviction on the part of a group of

agricultural librarians that there were problems peculiar to agricultural libraries which could be better settled by a closer cooperation between them. The two sessions of this Round Table were well attended and much interest was shown. At their close it was voted that steps be taken towards forming a permanent Agricultural Libraries Section and in the event of such a section being formed that Miss Claribel R. Barnett, Librarian, U. S. Department of Agriculture, serve as chairman. A circular was sent out to agricultural libraries having agricultural collections of considerable size, and to other librarians whose work would give them an interest in such a Section. There was some confusion in the minds of a few librarians as to the distinction between agricultural libraries and rural libraries and therefore they expressed some doubt as to the need for such a Section but on the whole the response was so hearty and favorable as to leave no doubt in the minds of the council of the A. L. A. about the advisability of forming an Agricultural Libraries Section. It was accordingly authorized at the next meeting of the A. L. A. Council.

The first meeting of the Agricultural Libraries Section after its organization was held at Ottawa in 1912, at which Mr. J. I. Wyer, Jr., again presided at the request of the Chairman. At the next meeting in 1914 at Washington, Miss Claribel R. Barnett presided as Chairman. Since 1914 there have been meetings of the Section each year. At Berkeley, California, in 1915 Mrs. Ida A. Kidder, Librarian of the Oregon Agricultural College was Chairman; at Asbury Park in 1916 Mr. Malcolm Wyer, Librarian of the University of Nebraska was Chairman; at Louisville in 1917 Mr. W. M. Hepburn, Librarian of Purdue University presided in the absence of the Chairman Charles R. Green, Librarian, Massachusetts Agricultural College; at Saratoga in 1918 Mr. George A. Deveneau, at that time Librarian of the Illinois College of Agriculture was Chairman, and Miss Mary G. Lacy, Secretary. For the 1919 meeting to be held next summer Miss Vera M. Dixon, Assistant Librarian of the Iowa State College has been elected Chairman and Miss Lucy Fay, Secretary.

Most of the meetings have been well attended considering the number of agricultural libraries and the fact that they are widely scattered. Among the definite accomplishments of the Agricultural Libraries Section may be noted the *Agricultural Index* which was undertaken by the H. W. Wilson Company in response to the repeated and insistent urging of the Section accompanied by the greatly increased interest in agriculture on the part of the public libraries. It was this Section also which pointed out to the American Library Association War Service Committee the opportunity for libra-

ries to be of vital help in the food campaign undertaken by our Government when we entered the war. This suggestion resulted in the appointment of the Food Information Committee which laid the foundation for the work later vigorously prosecuted by the Food Administration.

The bibliography of articles on subjects of interest to agricultural libraries which appears elsewhere in this number consists very largely of papers written for the meetings of the Agricultural Libraries Section and together form a creditable contribution to a formulation of the principles which should govern the administration of and practice in agricultural libraries. Taken as a whole the results obtained by the Section have fully justified its existence and it is believed that a still larger field of usefulness is opening out under the development of the Smith-Lever Act for agricultural extension, and the other quickened agencies of an improved agriculture in this country.

New Agencies Helping in the Work of Agricultural Education

The new era which has dawned for agriculture has given rise to many new agencies dealing with more or less special phases of the subject and thereby supplementing the great educational work being done by the Federal Department of Agriculture and the land grant colleges. Noticeable among these is the Federal Board for Vocational Education, which has appointed a State supervisor of agricultural education in the secondary schools and is publishing an "Agricultural series" of bulletins. The relations, which are very close, between this work and the extension work being carried on co-operatively by the States and the U. S. Department of Agriculture, are fully explained in Bulletin No. 1 of this Agricultural series.

The U. S. Boys' Working Reserve, under the Department of Labor, is another active agency in the spread of agricultural education. It is estimated that 400,000 names will be on the 1919 enrollment of the Reserve. The demand for boys on the farm is expected to be greater than in 1918. The Boys' Working Reserve does much to interest boys in the study of agriculture. A full account of what is being done along this and other lines will be contained in an article by Mr. Deveneau in the next issue.

The Woman's Land Army, closely affiliated with the U. S. Department of Labor, has also done fine work during the period of the war and has comprehensive plans for a continuance of the work.

The War Work Council of the Y. M. C. A. is systematically carrying on educational work with the soldiers not yet demobilized and still overseas. A commission on the

teaching of agriculture to the soldiers who desire it has been sent abroad under the Chairmanship of President Butterfield of the Massachusetts Agricultural College which will have general direction of this work. It is expected that many soldiers, interested in the subject of agriculture by this means and others, will desire to settle on the land, and Secretary Lane has made comprehensive plans for the reclamation of great tracts of land for this purpose, which will be sold to the returning soldiers on easy terms if the bill embodying this plan is passed by Congress.

The U. S. Bureau of Education early last year organized a new agency called the United States School Garden Army to help in the food crisis. In urging upon Congress the continuance of the appropriations to carry on this work the chairman of the Conservation department of the General Federation of Women's Clubs wrote in part as follows: "We believe that practical knowledge of gardening ranks in importance with reading, writing and arithmetic in the development of the child. We believe that in learning to produce food from the soil the child acquires a mental and moral growth of far greater value than any knowledge which is limited to text books. It fits him for intelligent and creative citizenship."

All these new agencies present rich opportunities for libraries, particularly public libraries to be of service in the work of agricultural education.

Why an Agricultural Number?

The agricultural number is issued with more than one object in view. It has in it much of excellence that might well go into a handbook on agricultural libraries. Little attempt has been made in the past to examine intensively their workings, characteristic features, tools, or the literature descriptive of them.

This number is thus an innovation. It will be useful to the agricultural libraries. By its content that is assured. It will help also toward comparison, suggestion, improvement, standardization upwards. No one is perhaps more conscious of the good work or of the deficiencies of the agricultural libraries than their librarians. There will, however, be much food for thought for the special librarian in other lines. There is always opportunity to learn; there is no time when any of us are beyond improvement. Although in size this number is larger than any issued in our history, certain articles were necessarily crowded out and will be contained in the following issue.

The present number is in the nature of a

round table. There is great value in talking things over, in comparing notes. The number has also certain lists for which a need has been felt and which it is thought may be useful to those in special library work as well as to such persons who are desirous of acquainting themselves with special library methods and practice. Although fundamentally alike special library methods will be found to vary not only with every type of library but frequently with every establishment. These are differences of degree rather than of kind, of shade rather than of color.

The adoption of the special library into the agricultural field is but another indication of the introduction and extension of science into this important industry. The special library stands with technical and industrial research. As the public library and the school have been the indication of educational development, so the special library and the laboratory have been the indication of scientific development. To foster the growth of the special library is, therefore, to foster the growth of the scientific spirit in industry.

The United States Shipping Board Emergency Fleet Corporation, Industrial Relations Division, Philadelphia, Pa. has issued a report on *Works Committees and Joint Industrial Councils* analyzing the origin and development of these committees in Great Britain and in the United States and summarizing the reports of the well-known Subcommittee on Relations between Employers and Employed (the Whitley Committee) which has been playing such an important part in British industrial readjustment.

Attention is called to an article in *School and Society*, Feb. 22, 1919, which gives a statement on the work of the Division of Agricultural Instruction of the U. S. Department of Agriculture. The various lists of books, bulletins, maps, charts, exhibits and sources of pictures and slides, which this office is prepared to furnish will be helpful to librarians.

"It has been said that the added wealth of the State of Wisconsin each year, as a result of the Agricultural Experiment Station work is many times the whole appropriation made by Wisconsin for agricultural education."

Some Typical Agricultural College and Experiment Station Libraries

[While all the agricultural college and experiment station libraries are in most respects very similar they nevertheless have some marked differences due largely to differences in the organization of the colleges and stations and to geographical conditions. In a broad way the agricultural college libraries of the various states can be divided into three groups, (1) those in which the agricultural colleges are not connected with a state university as in Massachusetts and Oregon, (2) those in which the agricultural colleges are connected with a State university as in Minnesota, and Wisconsin, and (3) those in which the agricultural experiment stations are not connected with an agricultural college, as in Ohio and Georgia. The first and second groups can again be subdivided. In the first group there are colleges in which the college library and the station library are combined as at Oregon, and others in which a separate station library is maintained but under the supervision of the librarian of the college as in Massachu-

setts. In the second group where the agricultural colleges are connected with state universities, the agricultural college library and the station library are generally combined, as in Illinois, Minnesota and Wisconsin but in some states there is no separate agricultural library, the agricultural collections being in with the other collections as in Ohio and Maine. The library of the New Hampshire State College of Agriculture differs from all other agricultural libraries in that, in accordance with an act of consolidation between the library of the college and the library of the town of Durham, the books of the college and the Durham Public Library are all shelved in one building, forming the Hamilton Smith Public Library.

The libraries, of which descriptions follow, may be said to be fairly representative of the three groups of state agricultural college and experiment station libraries named above. The various differences in organization present interesting problems of administration.]

The Library of the Ohio Agricultural Experiment Station

BY W. K. GREENBANK, LIBRARIAN

Ohio is one of the very few states in which the state agricultural experiment station is not connected with the state agricultural college, the Agricultural Experiment Station at Wooster being in no way directly connected with the College of Agriculture, of the Ohio State University at Columbus. This fact has an important bearing on the character of the Library of the Agricultural Experiment Station which is entirely scientific and technical and selected to meet the needs of the Station staff. It contains 11,000 bound volumes and several thousand pamphlets.

In addition to the general library each of the twelve departments of the Station has a small collection of books and journals which bear directly upon the work of that department. All are under the direct supervision of the Librarian of the Station who classifies and catalogues all publications. Duplicate cards are made for each department for the books on its shelves. The Dewey Decimal classification supplemented by Wyer's classification for agriculture is used. In general this system is satisfactory but for entomology and forestry it is inadequate.

Some 200 agricultural, scientific and technical periodicals come to the Station, about half of which are bound and placed on the shelves. Several of the journals are circulated regularly to certain members of the staff in definite order before they are filed.

The Station library is strongest in works on chemistry, economic entomology, animal nutrition, plant breeding and soils. The files of the American and principal foreign experiment stations publications are, with three or four exceptions, complete. There are also complete sets of such works as the *Sylloge Fungorum* by Saccardo, the *Journal of the American Medical Association*, *Journal of the Royal Agricultural Society*, dating back to 1840; *The American Farmer*; *Farmers' Cabinet*; *Centralblatt fuer Bakteriologie Landwirthschaftliche Jahrbuecher*; *Archiv fuer die Gesamte Physiologie des Menschen und der Thiere*; *Zeitschrift fuer Physiologische Chemie*; *Archives of Pediatrics*, *American Journal of the Diseases of Children*, *Transactions of the American Pediatric Society*, *Journal of Biological Chemistry*, publications of the American Chemical Society; *Journal of Pharmacology*; *Annals and Bulletin of the Pasteur Institute*; *Zeitschrift fuer Physikalische Chemie*; *Kolloid-Zeitschrift*; *Comptes Rendus des Seances de l'Academie des Sciences*, and *Internationale Mitteilungen fuer Bodenkunde*. These periodicals are evidence of the fact that the library is a research library. It is of great value to the station staff and contains few volumes which are not in frequent use. While it is used almost entirely by the Station Staff its resources are nevertheless free for reference to all who wish to use them.

The Library of the Massachusetts Agricultural College

BY CHARLES R. GREEN, LIBRARIAN

Librarian, Massachusetts Agricultural College

The Massachusetts Agricultural College is unique in that it is the only institution of its kind in the United States. It is part of the national system of agricultural education—one of a group of sixty-five somewhat similar institutions, supported by federal and state funds and teaching agriculture, mechanic arts, and home economics. Of this group twenty-three are state universities, some of which grew out of the Morrill land grant act and some being in existence before the passage of that bill by Congress in July, 1862. Twenty-seven are not state universities or connected with universities, but are separate institutions, bearing the right or having the function of state colleges of agriculture and mechanic arts. Fourteen are for colored people in the South where the work is duplicated in the institutions for white students.

At the very beginning the Massachusetts Legislature divided the federal land grant fund, giving one-third of the income to the Massachusetts Institute of Technology for the purpose of teaching the mechanic arts and engineering work at that institution rather than at the Agricultural College at Amherst. This fact explains our isolation—the only college which has agriculture alone for its field. Agriculture is, of course, broadly defined so as to include those subjects related to it and necessary to its successful application. This situation and the organization of the institution is important in that they define the work of the College Library.

Three methods are used in carrying out the educational policy of the institution. First, investigational, through the Agricultural Experiment Station; second, the teaching of resident students—those who come to the College for four weeks, four years or longer; third, the Extension Service which has the entire state for its campus. The work of the College Library may best be de-

scribed by following this educational organization.

Agricultural Experiment Station. The Director and his staff have the entire use of two buildings and partial use of six others. This makes imperative the maintenance of department or branch libraries. Fortunately for the local situation the College Librarian is also Librarian of the Experiment Station; he has a stated apportionment of funds for this part of his work and the Experiment Station Library material is under his supervision. The main card catalog in the College Library will in time be a complete record of the book resources of the entire campus—including all of the material in the laboratories of the Experiment Station workers. Most of the books purchased by Experiment Station funds are housed in the various buildings but considerable material, especially sets of periodicals, is cared for in the College Library.

College Work. Library facilities for students engaged in the short courses, regular college grade work and the graduate school are provided in the Main College Library. The ground floor and basement of the Chapel building are used for this purpose. A small reading room is separated from the office and work room by a stack room on one floor, while duplicate collections, government documents, and overflow from the stack room are cared for in the cellar. The larger part of the general collections of the Library is available to students who have access to the stack room—in fact they are urged to make free use of its contents, chairs and ledges being provided for their convenience. About 40,000 volumes are available on this floor. Several thousand volumes are shelved in the basement, and perhaps eight thousand volumes in the Department libraries making a total of approximately 58,500 volumes. Especially good collections in agriculture, horticulture, botany, entomology, bacteriology,

chemistry and forestry are available. The main card catalog consisting of three sixty tray cases and approximately 100,000 cards is accessible to all. The catalogs of the U. S. Department of Agriculture and Experiment Station publications are kept separate but near by. The reading room is provided with six newspapers, two dozen farm papers and the best general periodicals. A goodly collection of reference books and about two thousand bound volumes of general periodicals and recent farm papers are also kept in this room. Books are circulated from one end of the stack room. The reserved book collection is also supervised from this delivery desk. The office provides accommodations for the Librarian, the cataloger and other assistants, and recent numbers of the most used scientific periodicals, magazines and farm papers. All Library material is ordered, accessioned, shelf listed and cataloged here before being shelved in the main or department libraries.

General. Our budget though small is essential and fundamental in principle. Estimates for new book funds are called for by the Librarian from the heads of departments. These with his estimates for periodicals, binding, travel and general maintenance are supplied to the president and trustees, the budget for the new year varying according to the generosity of the Legislature. As a result the heads of departments in the College and Experiment Station have a definite apportionment of book funds and know exactly how much money is available for the purchase of new books. except in a few special cases all periodicals are charged against the general fund for this purpose and not against department apportionments as is the practice in some places. Records of all expenditures are kept on hand in the library, as well as in the office of the College Treasurer.

The idea of centralizing the ownership and supervision of all books, maps, papers, etc., is absolutely essential and does not conflict with the widest use of that library material. The card records showing authority for ordering and purchasing, and the catalog cards showing final disposition of the books whether in the Zoological Department, cellar, reference collection, or Experiment Station, are very necessary and render the situation much less difficult than is often times supposed.

Student assistants are good when available. The scheme helps to keep the Librarian in touch with student activities, and on the other hand benefits the students by instruction as well as by substantial remuneration. With us the students do the jan-

tor work, card typing, evening desk work, book plating and various other jobs.

Reserved books for assigned readings have become an indispensable part of college instruction. The teachers offend more than students in the use of them. Neglect to reserve early, failure to keep live collections before the students and a disposition to fall back upon a text book or two with few copies for large classes are some of the unpleasant features. Courses in Agricultural Economics, Sociology and English Literature carry a good deal of required reading and make considerable demand upon the Library. This is a perfectly legitimate part of college library work, the success of which, however, necessitates perfect co-operation between teaching and library staff.

Extension Service. Library Extension work was started at the Massachusetts Agricultural College in the fall of 1910. At first it was carried on from the office of the Extension Service independent of the College Library. Fixed collections in stout boxes were the rule. Since 1912 this work has been carried on by the College Library and the package idea has been resorted to almost entirely. Shipments are made in response to rather definitely specified desires. It may be that a village librarian needs material on a somewhat special topic such as co-operation in agriculture or forestry for the farmer. In such cases comparatively small shipments will suffice. In case an extension school in agriculture and home economics is to be held in town or a good general supply of agricultural books is desired we send twenty-five or thirty books and some bulletins.

Books are lent for a period of eight weeks subject to renewal if desired and if they can be spared from our supply. The borrowing library pays the transportation both ways. Parcel post packages do not cost very much and express packages are returned at one-half the first charge. Our records for the seven years from 1912 to 1918 show that we have lent 4447 books and 1037 bulletins in 276 shipments.

Another phase of our Library Extension Work is that of publishing a series of Library Leaflets listing the latest and best books on agriculture and related subjects. Up to date twenty-eight lists of books have been issued. Books of interest to dairymen, fruit-growers, beekeepers, young gardeners, farm women, poultrymen, tree wardens, and on farm machinery, farm papers, co-operation and marketing have been listed.

Numerous letters are also sent out from time to time in response to requests for information about books, farm papers on other agricultural publications.

The Library of the Department of Agriculture of the University of Minnesota

BY HARRIET W. SEWALL, LIBRARIAN

The Agricultural library of the University of Minnesota serves the entire Department of Agriculture which includes the College of Agriculture and Home Economics, the College of Forestry, the School of Agriculture, the Experiment Station, the Extension Division, and three sub-stations, two of which have schools in connection with them.

It is really a part of the University library and its statistics are included in the general library report, but its maintenance comes from the separate appropriations for the Department and it is administered separately, being directly under the authority of the Director of the Department. There is a Departmental library committee which acts in an advisory capacity.

The Department of Agriculture is at the University Farm, St. Paul, several miles distant from the Minneapolis campus. The library rooms are chiefly on the second floor of the Administration building. They include a reading room, seating about one hundred and fifty, book-room which connects with the reading room by open arches, and four small rooms opening from the book room, which serve as office, workroom, bulletin room and magazine room. The circulation desk is between the reading room and the book-room. Over the magazine room and connected by a narrow iron staircase, a room on the third floor has been set aside for the use of the faculty and research students. In this room are shelved sets of the more general scientific books and serials, including their current files. There is a small store room for reserve bulletins on the first floor and one in the basement in which are shelved files of agricultural papers for which there is no room upstairs, and all sorts of duplicates.

There are library collections also in the following divisions: Entomology, Plant Pathology, Agricultural Chemistry, Horticulture, Forestry, Animal Husbandry, Veterinary Science.

The library rooms are pleasantly situated and have a beautiful outlook to the east, south, and west. They are badly arranged, however, for convenience, supervision, and cleaning, and more space is needed both for readers and for books. The library is growing rapidly. It has increased by over one half in the last five years and now numbers about 28,000 volumes. It has several thousand pamphlets and many thousands of greatly valued bulletins. About 500 periodi-

cals are filed permanently. Of these 350 are purchased.

The library appropriation is \$11,455.00, divided as follows: Salaries and labor, \$6875.00; Books, binding and periodicals, \$4000.00; Equipment and supplies, \$580.00. It is possible to transfer small amounts from one fund to another if necessary.

The library is classified by the Decimal system, using the revision of the 630's arranged for use in Berea College by Mrs. Ridgway. Some modifications in that have been made for our needs.

The regular staff is now six, Librarian, two loan-desk and reference assistants, two cataloguers, and a periodical clerk. There are usually five or six student assistants who work by the hour. They assist at the desk, do evening work, messenger work, and various odd jobs usually done by students in libraries. They are constantly shifting, often the cause of much worry and vexation and resolutions never to have them any more, and then one will come who proves to be the best helper the library ever had and the sins of the rest are forgotten.

Ordering and correspondence are part of the work of the chief cataloguer, pamphlets and bulletins are cared for by the assistant in charge of the loan desk.

The classes of material contained in the library and the work done are of course determined by the needs of the various sections of the department. There are no separate collections, however, for the College, School, or Station, nor is the work for those in any way kept distinct.

The School of Agriculture is of high school rank and offers a three-years' course of six months in each year, with some required practice work in the summer. There are general courses in English, arithmetic, geography, etc., but most of the work is in practical agriculture and home-making. The School students all belong to literary societies which meet weekly and have debates and speeches. Most of the students live in dormitories on the campus and depend on the library for all their reading.

The College students also have general courses, about the same as those given on the main campus. These are chiefly English and public speaking, economics, education, and the basic scientific courses. Owing to the distance from the main campus, the students are unable to use the University library to any extent and all their needs in every class of literature must be

provided for in the Agricultural library. Except for the preponderance of books on agriculture, home economics, and nutrition, the main part of the library seems very much like a small public library with all the classes of books found in public libraries.

The College of Forestry has a special reading room for its students and faculty and nearly all the books relating to Forestry are shelved there.

One of the most valuable parts of the central library is the file of unbound bulletins. Sets of the publications of all the State Stations and of the U. S. Department of Agriculture are kept in unbound form as complete as they can be made. Extra copies of numbers in much demand are kept, sometimes as many as fifteen copies of one number. All have copy numbers and are checked on cards. Those much used are protected by stiff manila covers. They are used for reference and for circulating and are carefully charged as books. They save the bound volumes much wear and it is possible to serve many more persons at one time with them than with bound files only. Although the checking and shelving entails much work, we would not part with this collection under any consideration.

For those engaged in experimental and research work, the library resources are as yet very inadequate. In some classes, as in economic entomology, horticulture, and animal husbandry, a good beginning has been made, but there are many standard sets in all classes, especially in foreign languages, which are much needed. Additions to the Division collections depend very much on the initiative of the men in charge of the Division who decide what should be purchased. The buying is done by the library and all books are catalogued in the library. So far as possible duplication of sets in the University library is avoided. Constant use is made of the University library files, chiefly those in botany, medicine, animal biology, and chemistry. Books are interchanged daily. Current numbers of forty or fifty scientific journals are sent over regularly by the University library to the Agricultural campus for examination. For agricultural books and journals not in the library, we depend on the U. S. Department of Agriculture library, borrowing from there many dozens of volumes each year.

For the benefit of the faculty and Station workers, a limited number of periodicals is circulated to the different officers. We have found that a too extensive circulation defeats its own object. Many of the most used scientific journals are kept in the faculty room and with the help of the library committee we are trying to persuade the men to leave their offices and spend a

little time each week in this room away from their desks and telephones.

The persons employed in the Agricultural Extension Division make much use of the library in preparing their work but the library has not found it necessary to undertake any extension work itself as this is so well taken care of by the State Library Commission. The Commission has paid particular attention to the needs of rural communities and farmers' clubs. The Department library has co-operated with the Commission in a limited way by compiling lists and furnishing material when needed.

For several years the library has prepared special lists of books for distribution during the Farmers' and Home-makers' short course. Exhibits of books have been prepared for these courses also. Books and bulletins of interest to farmers have been shown at the State Fair for some years past in connection with the Department of Agriculture exhibit.

The sub-stations are situated in parts of the State where climate and soil conditions are essentially different from that at the central station. Experimental work of various kinds is carried on under the direction of the Department. The libraries at the sub-stations are small and administered separately.

VOCATIONAL LIBRARY IN LONDON

"A vocational library was opened yesterday afternoon at 5, Prince's street, Cavendish square, W. 1, where the Central Bureau for the Employment of Women has its offices overhead.

The object of the library is to meet the needs of women who wish to consult government publications—blue-books, white papers, and pamphlets—dealing with subjects of importance to women, and those of women seeking information of present and future openings. It is expected that this library, which is composed of 700 books, covering a wide field and carefully indexed, will be used by women who wish to know what is being done and what the future offers them in different professions and industries. Publications on the medical profession, nursing, agricultural work, teaching, domestic economy, secretarial work, accountancy, history, biography, and economics will be found on the shelves.

A librarian is in charge, who will be ready to supply information or advice on the choice of books or to give specific details of training. The library will be open each afternoon from 2.30 to 5, and on Saturdays from 2 to 5.30. The charge for single applications is sixpence."

From *The Times*, London, Wednesday, Feb 5, 1919.

List of References on Agricultural Libraries in the United States

INCLUDING THEIR HISTORY, ADMINISTRATION AND PROBLEMS IN GENERAL

BY MARY G. LACY

Reference Librarian, U. S. Department of Agriculture

1. Agricultural libraries of the United States. U. S. Dept. of Agriculture. Yearbook 1899. p. 757-758.
List of agricultural libraries, including those of state boards of agriculture, giving number of volumes in the collections.
2. Allen E. W. (Needs and opportunities of the libraries of the state agricultural colleges and experiment stations.) American library association. Proceedings. Washington. 1914. p. 200-201. (A. L. A. Bull. v. 8, no. 4.)
Discusses the increased opportunities for service afforded by the provisions of the Smith-Lever act, some of the funds provided being available for extension work through libraries. Suggestion made that the libraries might help with the editorial work of the Stations.
3. American library association—Agricultural libraries section—Committee on greater uniformity in publications of agricultural colleges and experiment stations. Communication. Association of American agricultural colleges and experiment stations. Proceedings, 28th, 1914. p. 152-155.
Recommendations are made as to uniformity in publications in matters of size, series, annual reports, title pages, running titles, bibliographies and paginations.
4. American library association—Agricultural libraries section—Committee on station publications. Report. Association of American agricultural colleges and experiment stations. Proceedings, 31st, 1917. p. 28-30.
Recommendations relating to more general and regular distribution of station and extension publications to libraries, the maintenance of reserve supplies of such publications and their sale.
5. Andrews, Clement W. Agricultural literature in a reference library. American library association. Proceedings. Mackinac Island. 1910. p. 789-790. (A. L. A. Bull. v. 4, no. 5.)
Short paper giving the experience of the John Crerar Library in meeting the demand of the general public for agricultural literature.
6. Barnett, Claribel R. Co-operation of libraries with the county agents and home demonstration agents. U. S. Food administration. Food news notes for public libraries, v. 1, no. 6. p. 14-17, March 1918.
A short review of the history of agricultural extension work with suggestions as to ways in which libraries may co-operate with county agents.
7. Barnett, Claribel R. The relation of the agricultural college and experiment station libraries to the library of the federal department of agriculture. American library association. Proceedings. Berkeley. 1915. p. 156-159. (A. L. A. Bull. v. 9, no. 4.)
Presentation of the view that as the National library of agriculture, the state colleges of agriculture and the experiment stations have a just claim on the services of the Library of the U. S. Department of Agriculture. This Library seeks to aid them by inter-library loans, exchange of duplicates, bibliographical information, and advice in the matter of arrangement of their collections.
8. Barnett, Claribel R. Some opportunities and problems of the agricultural libraries. American library association. Proceedings. Washington. 1914. p. 190-192. (A. L. A. Bull. v. 8, no. 4.)
Opening address as Chairman of Agricultural Libraries Section. Discusses the problems peculiar to agricultural libraries and the need for closer co-operation between these libraries if these problems are to be worked out in the best way. Opportunities for increased usefulness are noted.
9. Beal, W. H. Statistics of experiment station libraries. Association of American agricultural colleges and experiment stations. Proceedings. Columbus. 1911. p. 162-171.
This article gives the results of a circular of inquiry sent to station directors. The size of the station libraries is given and their relation to the college or university with which they are connected.
10. Clark, Josephine A. Agricultural college libraries. Association of American agricultural colleges and experi-

- ment stations. Proceedings. 15th. Washington. 1901. p. 25-27.
- A statement regarding the work of the agricultural college libraries and a plea for the recognition of their importance in the administration of the colleges.
11. Clark, Vina E. An index to agricultural periodicals. American library association. Proceedings Berkeley. 1915. p. 162-163. (A. L. A. Bull. v. 9, no. 4.)
Presents need of an agricultural index and gives a list of 50 agricultural periodicals compiled from the titles receiving most votes in reply to the circular sent out by Mrs. Kidder.
 12. Cutter, William P. The classification of an agricultural library. American library association. Proceedings. Mackinac Island. 1910. p. 793-794. (A. L. A. Bull. v. 4, no. 5.)
A comparison of the "Expansive" and the "Decimal" systems, with terse comments on the other less used classifications.
 13. Cutter, William P. The library. U. S. Department of Agriculture. Yearbook. 1897. p. 220-224.
A description of the U. S. Department of Agriculture library and its work.
 14. Deveneau, George A. Agricultural extension work and the opportunities it offers to agricultural college librarians. American library association. Proceedings. Louisville, 1917. p. 140-148. (A. L. A. Bull. v. 11, no. 4.)
Summary of the history of the agricultural extension movement, and a statement of the work done by the Illinois college of agriculture library to aid the extension work of that state. Urges agricultural libraries to recognize and embrace the opportunities for service which is afforded by agricultural extension.
 15. Dixon, Vera M. Library extension work in agriculture and home economics. Special libraries, v. 9, no. 10, p. 226-229. Dec., 1918.
Plan for library extension work in Iowa and tabulation of information obtained by means of a questionnaire as to such work being done in state universities, agricultural colleges and library commissions.
 16. Endicott, William E. The library of the Massachusetts horticultural society. (In Transactions of the Mass. hort. soc. for the year 1892. Pt. 1, p. 174-189).
Highly informing and interesting description of this notable horticultural collection.
 17. Forrest, Elizabeth. How shall we interest and induce our faculty and students to more general cultural reading. American library association. Proceedings. Berkeley. 1915. p. 159-162. (A. L. A. Bull. v. 9, no. 4.)
Presents conclusions based on replies to questionnaire sent to the Agr. colleges on methods used to induce cultural reading.
 18. Gardiner, Jacquetta. The agricultural literature of Canada. Summary only. American library association. Proceedings Saratoga Springs. 1918. (A. L. A. Bull. v. 12, Sept. 1918.)
Statement of the series published by the different branches of the Canadian Department of agriculture
 19. Greathouse, Charles H. Development of agricultural libraries. U. S. Dept. of agriculture. Yearbook, 1899. p. 491-512.
History of agricultural collections in this country by agricultural societies, private individuals, educational institutions, the U. S. Dept. of agriculture, farmers' organizations, etc.
 20. Green, Charles R. The relation of the experiment station library to the college library. American library association. Proceedings. Mackinac Island. 1910. p. 791-793. (A. L. A. Bull. v. 4, no. 5.)
Suggestions as to ways in which the college library and the experiment station may be mutually helpful.
 21. Hean, Clarence S. Possibilities of library co-operation with the farmers' institute and short course. American library association. Proceedings. Washington. 1914. p. 370-374. (A. L. A. Bull. v. 8, no. 4.)
Outline of a profitable opportunity for co-operation between libraries and the farmers' institutes and short courses. List of books suitable for an exhibit at a farmers' institute is included.
 22. Hean, C. S., Dickinson, Asa Don, Hutchins, Margaret, and Kidder, (Mrs.) Ida A. Some types of agricultural college and experiment station libraries. American library association. Proceedings. Ottawa. 1912. p. 222-227. (A. L. A. Bull. v. 6, no. 4.)
Descriptions of some typical libraries.
 23. Hepburn, Wm. M. Agricultural periodicals. American library association. Proceedings. Washington. 1914. p. 198-199. (A. L. A. Bull. v. 8, no. 4.)
Summary of data obtained in response to a questionnaire sent to the directors of the experiment stations and the librarians of the agricultural colleges in an effort to gather material for a union list of agricultural periodicals in the agricultural colleges, and to compile a list of from 20 to 50 of the best and most representative of the farm journals. A list of 20 such journals is included.

24. Hepburn, Wm. M. Agricultural periodicals, their selection and preservation. American library association. Proceedings. Mackinac Island. 1910. p. 794-797. (A. L. A. Bull. v. 4, no. 5.) Also printed in Library Journal v. 35, p. 309-311, 1910.
Discusses (1) the journals representing those sciences which underlie or are closely related to agriculture, (2) trade journals of the various manufacturing industries associated with agriculture, and (3) the farm papers. Advocates the preservation by the state college of agriculture of all the farm papers published in that state.
25. Hepburn, Wm. M. The influence of the agricultural college on the farmer's use of books. Library Journal v. 39, p. 435-438. 1914.
The author argues that the agricultural colleges should do much to encourage the buying of helpful books in the farm home by co-operation with state libraries and library commissions which have already seen the value of this work and are seeking by every means at their command to compass it.
26. Hepburn, Wm. M. Library extension work of agricultural colleges. American library association. Proceedings. Ottawa 1912 p. 213-216. (A. L. A. Bull. v. 6, no. 4.)
Comprises a survey of the Extension work done by the agricultural college libraries before 1912.
27. Jenkins, E. H. The station library. Association of American agricultural colleges and experiment stations. Proceedings. Columbus. 1911. p. 159-161.
Interesting because it gives the viewpoint of the scientist. Director Jenkins considers the scientist's books as much a part of his equipment as his laboratory apparatus and argues that they should be equally accessible. He closes by stating that "The library . . . is increasingly important to the success of the station."
28. Kidder, Mrs. Ida A. Some opportunities in agricultural library work. American library association. Proceedings. Asbury Park. 1916. p. 228-234. (A. L. A. Bull. v. 10, no. 4.)
A compilation of what is being done in the agricultural libraries and of what their librarians believe may be done. Based on answers to a questionnaire
29. Lacy, Mary G. The farmer and his tools. Educational review v. 51, no. 3, p. 268-274. March, 1916.
A plea for greater co-operation among all the agencies working for rural betterment and for agricultural library extension through the county agents, and a review of what they are already doing.
30. Lacy, Mary G. The opportunity of the agricultural college library. South Atlantic quarterly v. 9, no. 1, p. 78-82. 1910.
A plea for greater effort on the part of agricultural libraries to disseminate knowledge as to sources of agricultural information through the schools.
31. Lacy, Mary G. Sources of agricultural statistics. Library Journal v. 43, p. 859-866. Dec, 1918.
Description of some publications containing agricultural statistics and a bibliography arranged geographically of sources of such statistics.
32. Massachusetts horticultural society. library. The library of the society in "History of the Mass. hort. soc. 1829-1878." p. 184-212.
History of this library which was begun in 1829 and now comprises the finest purely horticultural collection in existence.
33. Massachusetts—State board of agriculture—Library. Report of the Librarian and curator for 1897 (in 45th annual rept. of the Sec. of the Mass. State bd. of agric. pp. 197-208).
Contains a history of the library, classification of the library, and a general description
34. Powers, W. H. Scope and current cost of libraries in the land grant agricultural colleges. American library association. Proceedings. Washington. 1914. p. 192-197. (A. L. A. Bull. v. 8, no. 4.)
Paper based upon data obtained from the libraries of land grant colleges which exist apart from state universities.
35. Rankin, Fred Henry. The travelling library. U. S. Dept. of agriculture, Office of experiment stations. Bulletin 199, p. 57-65. 1908.
An account of the travelling libraries sent out by the Illinois Farmers' Institute.
36. Smith, Elizabeth. Instruction in agricultural literature. Public libraries v. 17, p. 126, 1912.
A short description of the courses given at the Utah agricultural college in the use of reference books and agricultural and scientific literature in general.
37. Smith, Anna M. The instruction of students in the use of agricultural and scientific literature. American libraries association. Proceedings, Mackinac Island. 1910. p. 790-791. (A. L. A. Bull. v. 4, no. 5.)

- Short statement of the course of instruction in the use of the library, which is given in the college of agriculture, of the University of Minnesota.
38. Stearns, Lutie E. Agricultural collections in public libraries. American library association. Proceedings. Mackinac Island, 1910. p. 788-789. (A. L. A. Bull. v. 4, no. 5.)
Gives the results of a circular of inquiry concerning agricultural collections in public libraries recently sent out. Abundant proof is given of the increasing interest in the subject of agriculture among city people
39. True, A. C. Co-operation between agricultural libraries. Association of American agricultural colleges and experiment stations. Proceedings. Atlanta. 1912. p. 16-17.
An excellent statement of the increased service which would be possible if there were closer co-operation between agricultural libraries, and if the U. S. Dept. of agriculture library could have its facilities increased sufficiently to handle the duplicates of the agr. college libraries in a way which would be a mutual benefit.
40. The experiment station library, being the Report of bibliographer. Association of American agricultural colleges and experiment stations. Proceedings. 23d. Portland. 1909. p. 16-17.
Need of "bibliographical aid" by the experiment station workers is stated and a plea made for the employment of those who can give it in the station libraries.
41. True, A. C. Suggestions as to policy of administration of agricultural college and experiment station libraries. American library association. Proceedings. Ottawa. 1912. p. 216-222. (A. L. A. Bull. v. 6, no. 4.)
Comprehensive exposition of the principles underlying successful administration in the three types of agricultural libraries found in the State colleges of agriculture, with a statement of the opportunities for service to the investigator, the student and the farmer which these libraries afford.
42. Tuck, C. H. How to reach the rural communities. Library Journal v. 37, p. 12-14. Jan., 1912.
The writer, a Cornell professor, pleads for co-operation between the extension activities of the colleges of agriculture and the libraries of the various communities in order that they may both learn more of the individual rural neighborhoods and may be prepared to furnish just the agricultural reading suited to a special section.
43. Wells, Henry W. The United States Working Reserve. American library association. Proceedings. Saratoga Springs. 1918. p. 198-199. (A. L. A. Bull. v. 12, no. 4.)
Statement of the purposes of the Reserve and an enumeration of the ways in which libraries may aid in its work.
44. Williams, Charles H. Publicity work for the county agent. American library association. Proceedings. Washington. 1914. p. 362-367. (A. L. A. Bull. v. 8, no. 4.)
Plea for co-operation between the state university, the agricultural college, the state library commission and the county agent.
45. Working, D. W. The county agent in relation to rural library work. American library association. Proceedings. Washington, 1914. p. 358-362. (A. L. A. Bull. v. 8, no. 4.)
Excellent presentation of the opportunities which county agents have to interest country people in agricultural literature and the great advantage of co-operation between them and library workers.
46. Working, D. W. The relation between the agricultural college libraries and the extension work of the country as developing under the Smith-Lever act. American library association. Proceedings. Berkeley. 1915. p. 153-156. (A. L. A. Bull. v. 9, no. 4.)
Presents the principles of extension work and shows how important the library should be in its successful prosecution.
47. Wyer, James I., Jr. Agricultural libraries. American library association. Proceedings. Mackinac Island. 1910. p. 786-787. (A. L. A. Bull. v. 4, no. 5.)
Opening address of chairman of first session of agr. libraries round table. Discusses the several distinct types of agr. libraries and the reasons why they should be considered "special libraries."

Classifications of the Literature of Agriculture and Forestry

Agriculture

1. Cutter, C. A. Expansive classification. 7th classification. Rq-Rx, 1904. 10p. This classification of agriculture was made by Mr. W. P. Cutter. No index is provided.
2. Cutter, W. P. Suggested classification of agriculture. (In U. S. Department of Agriculture, Office of Experiment Stations. Bulletin 65, 1899, p. 50-54.)

- This, as far as known, is the first expansion of the Dewey Decimal Classification for agricultural literature. For comments on the classification, see introduction to Mr. J. I. Wyer's Classification of the literature of agriculture.
3. Dewey, Melvil. Agriculture scheme for decimal classification. 79p. Lake Placid, N. Y. 1918.
A preliminary edition of the classification of agriculture to be included in the 10th edition of the Decimal Classification. Sent out to agricultural libraries in this preliminary form to obtain criticisms. The classification of agriculture in the previous editions of the Decimal Classification is too broad to be of use in an agricultural library.
 4. Fuller, H. B. Office filing system for county agricultural agents in the northern and western states. 15p. Washington, Gov't Print. Off., 1917. (U. S. Department of Agriculture, States Relations Service, Doc. 34, Circular 2, Ext. N.)
"A simple . . . system of filing correspondence, agricultural bulletins, photographic prints, negatives, lantern slides, newspaper clippings, and miscellaneous matter."—Introduction.
 5. Massachusetts State Board of Agriculture. Classification and catalogue of the library. Prepared and arranged by Frederick H. Fowler, Librarian. 125p. Boston, 1899.
Classification of the library. pp. 8-10.
 6. Morton, G. E. A classification of agricultural literature. (16th annual report of the Agricultural Experiment Station of Wyoming. Appendix, 1906.)
"Designed primarily for the use of animal husbandmen. . . . Based on the Dewey Decimal system."—Preface. An index is provided.
 7. New South Wales, Dept. of Agriculture, Library and Publication Division. Classification of literature in the agricultural library. 80p. Rev. ed. Sydney, 1911. (It's Library Bulletin No. 2)
Based on the Dewey Decimal Classification but its nomenclature is not used. An index is provided.
 8. Ridgway, Mrs. F. H. A classification for agricultural literature. (Library Journal, v. 38, p. 561-563, 1913 Also in U. S. Bureau of Education. Bulletin, 1917, no. 41. Library books for high schools.)
Revision of the Dewey Decimal Classification used in the library of Berea College.
 9. Rowe, Miltanna. Classification of agricultural bulletins. (South Dakota library bulletin. Pierre, S. D. v. 4, no. 3, p. 94-96. Sept. 1918.)
Classification of agricultural bulletins used in the State Normal School Library at Spearfish, S. D. Based on the Dewey Decimal Classification.
 10. U. S. Department of Agriculture—Library. Scheme of classification. 51p. Ed. 3, 1916.
Expanded from a classification made in 1889 for the Library of the U. S. Department of Agriculture by Mr. W. I. Fletcher. An index is provided.
 11. U. S. Department of Agriculture—Office of Experiment Stations. Circular 23, 1893. Key to subject index of agriculture. (See also S. R. S. Doc. 85. The card index of experiment station literature. April, 1918.)
Intended only for use in connection with the card index of experiment station literature.
 12. U. S. Department of Agriculture—States Relations Service. The agricultural reference library for schools. Prepared by the Office Agricultural Instruction in Schools. 9p. Washington, D. C. 1918. In multigraphed form.
A system for arranging, classifying and using a small agricultural library in a school or in a home.
 13. U. S. Library of Congress—Catalog Division. Classification. Class S: Agriculture—plant and animal industry. 87p. Washington, Govt. Print. Off. 1911. Letter nomenclature.
An index is provided.
 14. Vermorel, Victor. Manuel du répertoire bibliographique des sciences agricoles établi d'après la classification decimale. 234p. Bruxelles, 1900. (Institut international de bibliographie. Publication no. 41.)
"Unnecessarily detailed and hysterical in nomenclature." An index is provided.
 15. Wyer, J. I., Jr. Classification of the literature of agriculture. Lincoln, Neb. 1900. (Nebraska Agricultural Experiment Station. 13th annual report, p. 91-121.)
An expansion of the Dewey Decimal Classification. An index is provided. A revised and extended edition in manuscript form can be obtained from Mr. J. I. Wyer, Jr., Director, New York State Library.

Forestry

1. Bruncken, Ernest. Scheme of classification for books on forestry. (Library Journal, v. 33, 1908, p. 313-14.)

- Intended "primarily for forestry library of not inconsiderable extent and independent of another library." Has 8 main divisions. Not on the decimal plan.
2. Detwiler, S. B. Classification of forestry. (In his teaching students how to conserve energy. Forestry Quarterly, v. 10, p. 403-406, Sept. 1912.)
An "adaptation of the decimal system." Intended especially for filing information, notes and references.
 3. Korstian, Clarence F. A decimal classification for forestry literature. Journal of Forestry, v. 15, p. 449-462. April, 1917.
Comments on above by H. E. Stockbridge, Librarian, Forest Service.
 4. Yale University Forest School. A classification of forestry literature prepared by the faculty of the Yale Forest School. New Haven. Yale Univ. Press, 1912. (Yale Forest School. Bulletin 1.)
"Published to supply the demand for a simple and comprehensive system. . . Divided into nine parts of approximately equal importance. The secondary divisions also have been limited to nine. . . This makes possible the adoption of the classification without change, in libraries using the Dewey Decimal System."—Preface.

List of Agricultural Libraries in the United States

- State Agricultural College and Experiment Station Libraries
- Alabama:**
Alabama Polytechnic Institute, Auburn. Miss Mary E. Martin, Librarian. 28,000 volumes.
Agricultural & Mechanical College for Negroes, Normal. Mrs. F. J. Rogers, Librarian.
Tuskegee Normal and Industrial Institute, Tuskegee Institute. Miss Ernestine Suarez, Librarian.
- Arizona:**
College of Agriculture, University of Arizona, Tucson. Miss Estelle Lutrell, Librarian. 625 volumes.
- Arkansas:**
College of Agriculture, University of Arkansas, Fayetteville. Miss Margaret Galloway, Librarian. 2,200 volumes.
- California:**
College of Agriculture, University of California, Berkeley. Mrs. D. L. Bunnell, Librarian. 16,753 volumes.
Citrus Experiment Station, Riverside. Mrs. M. J. Abbott, Librarian. 4,000 volumes.
- Colorado:**
The State College of Agriculture, Fort Collins. Miss Charlotte A. Baker, Librarian. 42,000 volumes.
- Connecticut:**
Connecticut Agricultural College, Storrs. Miss Edwina M. Whitney Librarian.
Connecticut State Agricultural Experiment Station, New Haven. Miss V. E. Cole, Librarian. 12,000 volumes.
- Delaware:**
Agricultural Experiment Station, Delaware College, Newark. Miss Marion C. Brown, Librarian.
- Florida:**
Agricultural Experiment Station, University of Florida, Gainesville. Mr. T. Van Hynning, Librarian. 5,460 volumes.
Agricultural & Mechanical College for Negroes, Tallahassee. Miss J. A. Calvin, Librarian. 2,900 volumes.
- Georgia:**
Georgia State College of Agriculture, University of Georgia, Athens. Miss Nellie M. Reese, Librarian. 3,600 volumes.
Georgia Experiment Station, Experiment. Miss Sadie Kilpatrick, Librarian. 10,000 volumes.
- Idaho:**
College of Agriculture, University of Idaho, Moscow. Miss Mary B. Sweet, Librarian.
- Illinois:**
College of Agriculture, University of Illinois, Urbana. Miss Mary G. Burwash, Librarian. 10,000 volumes.
- Indiana:**
Purdue University, Lafayette. Mr. Wm. M. Hepburn, Librarian. 50,000 volumes.
Agricultural Experiment Station, Purdue University, Lafayette. Mr. Wm. M. Hepburn Librarian. 10,000 volumes.
- Iowa:**
Iowa State College of Agriculture & Mechanic Arts, Ames. Miss Vera M. Dixon, Acting Librarian.
Agricultural Library, Iowa State College of Agricultural & Mechanic Arts, Ames. Miss Mary G. Lacy, Librarian 10,000 volumes.

Kansas:

Kansas State Agricultural College, Manhattan. Mr. Arthur B. Smith, Librarian. 63,000 volumes.

Kentucky:

College of Agriculture, University of Kentucky, Lexington. Miss Cornelia C. Page, Librarian.

Agricultural Experiment Station, University of Kentucky, Lexington. Miss Grace L. Snodgrass, Librarian. 7,000 volumes.

Louisiana:

Agricultural & Mechanical College, The Louisiana State University, University Station, Baton Rouge. Miss Annie M. Beale, Librarian.

Louisiana Sugar Experiment Station, New Orleans. James K. McHugh, Librarian. 3,000 volumes.

North Louisiana Experiment Station, Calhoun. G. D. Cain, Assistant Director in Charge. 750 volumes.

Maine:

University of Maine, Orono. Miss Ethel G. Wigmore, Acting Librarian. 60,000 volumes.

Maryland:

Maryland State College of Agriculture, College Park. Miss Miltanna Rowe, Librarian. 4,100 volumes.

Massachusetts:

Massachusetts Agricultural College, Amherst. Mr. Chas. R. Green, Librarian. 58,563 volumes.

Michigan:

Michigan Agricultural College, East Lansing. Mrs. Linda E. Landon, Librarian. 38,750 volumes.

Minnesota:

Department of Agriculture, University of Minnesota, University Farm, St. Paul. Miss Harriet W. Sewall, Librarian. 28,000 volumes.

Mississippi:

Mississippi Agricultural & Mechanical College, Agricultural College. Miss Laura Hall, Librarian. 30,000 volumes.

Missouri:

College of Agriculture, University of Missouri, Columbia. Miss Annalee Peepless, Librarian. 16,000 volumes.

Missouri State Fruit Experiment Station, Mountain Grove. 672 volumes.

Montana:

Montana State College of Agriculture and Mechanic Arts, Bozeman. Miss Elizabeth Forrest, Librarian. 17,175 volumes.

Nebraska:

College of Agriculture, University of Nebraska, Lincoln. Miss Edna C. Noble, Librarian. 12,000 volumes.

Nevada:

College of Agriculture, University of Nevada, Reno. Mr. J. D. Layman, Librarian. 31,964 volumes.

New Hampshire:

New Hampshire College of Agriculture and the Mechanic Arts, Durham. Miss Martha F. Emerson, Librarian. 35,000 volumes.

New Jersey:

Rutgers College, New Brunswick. Mr. George A. Osborn, Librarian. 96,000 volumes.

New Mexico:

New Mexico College of Agriculture and Mechanic Arts, State College. Floy E. French, Librarian. 18,323 volumes.

New York:

New York State College of Agriculture, Cornell University, Ithaca. Mr. Willard W. Ellis, Librarian. 13,000 volumes.

New York State Agricultural Experiment Station, Geneva. Mr. F. H. Hall, Librarian. 10,000 volumes.

North Carolina:

North Carolina State College of Agriculture & Engineering, West Raleigh. Mrs. Charlotte M. Williamson, Librarian. 10,000 volumes.

North Dakota:

North Dakota Agricultural College, Agricultural College. Mrs. Ethel McVeety, Librarian. 28,040 volumes.

Ohio:

Ohio State University, Columbus. Miss Olive B. Jones, Librarian.

Ohio Agricultural Experiment Station, Wooster. Mr. W. K. Greenbank, Librarian. 11,000 volumes.

Oklahoma:

Oklahoma Agricultural & Mechanical College, Stillwater. Mr. Chas. H. Stone, Librarian.

Oregon:

Oregon Agricultural College, Corvallis. Mrs. Ida A. Kidder, Librarian. 45,000 volumes.

Eastern Oregon Experiment Station, Union. Robt. Withycombe, Superintendent. 2000 publications.

Pennsylvania:

The Carnegie Library of the Pennsylvania State College, State College. Mr. Erwin W. Runkle, Librarian. 75,000 volumes.

Agricultural Experiment Station, Pennsylvania State College, State College. Miss Julia C. Gray, Librarian. 6,000 volumes.

Rhode Island:

Rhode Island State College, Kingston. Miss Helen E. Peck, Librarian. 17,000 volumes.

Agricultural Experiment Station, Rhode Island State College, Kingston. Miss H. Alida Birch, Librarian. 6,700 volumes.

South Carolina:

Clemson Agricultural College, Clemson College. Miss K. B. Trescot, Librarian. 20,000 volumes.

State Agricultural & Mechanical College of South Carolina, Orangeburg. B. F. Hubert, Secretary of Book Depository.

South Dakota:

South Dakota State College of Agriculture & Mechanical Arts, Brookings. Wm. H. Powers, Librarian. 25,000 volumes.

Tennessee:

Agricultural Experiment Station, University of Tennessee, Knoxville. Mr. F. H. Broome, Librarian. 6,000 volumes.

Tennessee Agricultural and Industrial State Normal School, Nashville. Miss Kathleen Smith, Librarian. 200 volumes.

Texas:

Agricultural & Mechanical College of Texas, College Station. Mr. W. N. Daniels, Librarian. 12,000 volumes.

Agricultural Experiment Station, College Station. Mr. W. Brink, Librarian.

Utah:

Agricultural College of Utah, Logan. Miss Hattie Smith, Acting Librarian. 33,000 volumes.

Agricultural Experiment Station, Logan. Miss O. Blanche Condit, Librarian.

Vermont:

Billings Library, University of Vermont, Burlington. Miss Helen B. Shattuck, Librarian. 100,000 volumes.

Agricultural Experiment Station, University of Vermont, Burlington. Miss May O. Boynton, Librarian. 4,600 volumes.

Virginia:

Virginia Polytechnic Institute, Blacksburg. Miss Eleanor I. Jones, Librarian. 28,000 volumes.

Agricultural Experiment Station, Virginia Polytechnic Institute, Blacksburg. Miss Anna Murrill, Librarian. Virginia Truck Experiment Station, Norfolk. 550 volumes.

Hampton Normal and Agricultural Institute, Hampton. Miss Leonora E. Herron, Librarian. 46,000 volumes.

Washington:

State College of Washington, Pullman. Mr. W. W. Foote, Librarian. 70,000 volumes.

West Virginia:

West Virginia University, Morgantown. Dr. L. D. Arnett, Librarian. About 9,000 volumes on agriculture.

Wisconsin:

College of Agriculture, University of Wisconsin, Madison. Mr. Clarence S. Hean, Librarian. 17,000 volumes.

Wyoming:

College of Agriculture, University of Wyoming, Laramie. Marion V. Higgins, Librarian. 5,000 volumes.

Personal Notes

Miss Gertrude Brandes, formerly in the Baylor University Library, has recently been appointed to a position in the catalogue division of the U. S. Department of Agriculture Library.

Miss Marion C. Brown has been appointed Librarian of the Delaware Agricultural Experiment Station, Newark, Del.

Miss Mary G. Burwash has been appointed Librarian of the College of Agriculture, University of Illinois, in place of Mr. George A. Deveneau who resigned to accept the position of Director of Library Cooperation, U. S. Boys' Working Reserve, Department of Labor.

Miss Lillie Cilley, Assistant Reference Librarian at the Kansas State Agricultural College Library, has been appointed as Head Cataloguer vice Miss Fanny Dunlop who recently resigned to accept a position with the University of Missouri Library.

Mr. Guy E. Marlon, President of the Special Libraries Association and for several years its active secretary, was married on Tuesday, March 25, 1919, to Miss Sarah Bingham White at Saint Paul's Pro-Cathedral, Los Angeles, Cal. The Association extends to the bride and groom its best wishes for a life of prosperity and contentment.