

the task of the bibliographic instructor is no mean one. The difficulty can be overcome only by diligent and persistent instruction of the individual student.

The best point of attack for this task seems to be the thesis. With the aid of the YEAR BOOK and the "Digest of Criticism" the student can be asked to get acquainted with the abstracts pertaining to his subject. The preparation of a bibliographic sheet for each article is the next step. This should involve looking up the original no matter in what foreign or domestic journal. Here is where the instructor must lend a helping hand, not only once or twice, but in connection with every sheet that is prepared. Inasmuch as laboratory work and library work on the thesis should constantly go hand in hand, this process of working with the student should continue throughout the academic year. Professor Richtmann, *e. g.*, has found it convenient to assign Saturday mornings to this task and, for this purpose, meets his thesis students in the stacks of the university library. However, the students can be asked to bring volume after volume to the desk of the instructor.

It is remarkable how the original dread of books, especially of those printed in foreign languages, gradually gives way to a certain familiarity. In thirty years of experience along this line, the writer has been agreeably surprised many and many a time to find that the student learned to love to browse among the books in the stacks. After all, good books are some of the best friends we possess and to enrich the life of the student with such friends is a task well worth all the time and trouble it takes on the part of the teacher.

PHARMACEUTICAL APPRENTICESHIP, A POSSIBLE EDUCATIONAL RENAISSANCE.

BY EDWARD KREMERS.

The drug store that, once upon a time, played a proud part in the training of the prospective pharmacist, has at last repudiated the apprentice. The college, having slowly adapted itself to the new condition, finds that whereas the high school affords a better general preliminary education, it of necessity falls short in special training. The result is that much information of an elementary nature must be imparted to young men and women which should have been offered to the more receptive minds of boys and girls.

Because of this unsatisfactory state of affairs an educational experiment was tried during the year's summer session of 1922 with boys and girls who had just graduated from the grammar schools of Madison and who had expressed their intention to go to high school. Instruction was imparted, not with the aid of textbooks, but by having the pupils do things. The story of this five weeks' course of necessity consists for the most part of details that cannot be reported in an abstract. Suffice it to say that the experiment was a complete success.

The chief value of this educational experiment does not lie primarily in having given this small class of boys and girls a mental impetus—valuable as this may be—such as they possibly have never received before, neither does it consist in having proved to the experimenter what he knew must be true if but given a fair trial. The real success or failure of this experiment will depend upon the adoption, or rejection, of the lesson to be learned by both pharmaceutical practitioners and

educators. That the pharmaceutical apprenticeship may be revived, with the aid of our state industrial commissions, and be placed on a sound educational basis there can no longer be a doubt. Such a renaissance of the pharmaceutical apprenticeship would give to pharmacy the pick of high school graduates. This would do more than anything else to raise the professional status of pharmacy. Incidentally it would enable the colleges to demand no small amount of elementary technical information and training as prerequisite and thus to make better use of the limited time at our disposal.

ARIZONA PHARMACEUTICAL ASSOCIATION ORGANIZED.

The Arizona Pharmaceutical Association was organized at Phoenix, November 2. E. G. Mason was elected president and Arthur G. Hulett, secretary-treasurer—both of Phoenix. A. L. Boemer and D. F. Kimball, of Phoenix, and Loren C. Neal, of Prescott, were appointed a committee on by-laws. Annual dues were fixed at \$5.00, and affiliation with the N. A. R. D. was decided upon.

One vice-president was elected for each county in the state, namely: Albert F. Anderson, of St. Johns; A. C. Crouch, of Douglas; John H. Seay, of Flagstaff; J. B. Ryan, of Globe; S. L. Crandall, of Safford; J. R. Farahay, of Clifton; Fred W. Ritter, of Phoenix; James Sharpe, of Kingman; Fred H. Brown, of Winslow; T. E. Litt, of Tucson; Oscar L. Hancock, of Casa Grande; W. J. Phillips, of Nogales; Loren C. Neal, of Prescott, and William Minor, of Yuma. Monthly county meetings were provided for.

An executive committee was elected as follows: W. R. Wayland, Fred Ritter, and D. F. Kimball, all of Phoenix; Hugh C. Gardner, of Chandler, and D. R. Jones, of Glendale.

T. W. Jones, of Los Angeles, secretary of the Southern California Retail Druggists' Association; L. D. Sale, of Los Angeles, former president of the National Wholesale Druggists' Association, who went by airplane; N. C. Beckery, of Portland, Ore., and Bert Butterworth, of Los Angeles, were present, took part in the meeting and were made honorary members of the association.

Among others taking part in the meeting were: E. C. Stults, George Dashiell, W. C. McCormick, C. P. Dunn, and O. H. Breusteadt, all of Phoenix; Fred Fleishman, of Tucson; Thomas J. Anderson, of Prescott; E. J. Huxtable, of Douglas; G. B. Cunningham, of Hayden; R. A. Delaney, of Mesa; and Mrs. Cora McGomery, of Chicago, Ill.

PASTEUR'S MEMORY HONORED.

The centenary of Pasteur was celebrated in Philadelphia, December 27. The afternoon meeting was open to the public, and held in the Academy of Music; a banquet was provided for the celebration at the Bellevue Stratford. Dr. E. H. LaPlace, a student of Pasteur, presided at the latter function. He exhibited a sealed flask of veal broth, which the scientist had used to illustrate his theory in his lectures.

Dr. Lewis S. McMurtry, of the University of Louisville, Kentucky, discussed Pasteur's contribution to surgery at the evening assemblage, as Dr. John B. Deaver, Philadelphia surgeon, had done at the exercises in the afternoon in the Academy of Music.

M. Jules Jusserand, the French Ambassador to the United States, was the leading speaker at the exercises in the Academy of Music. With him were gathered leading scientists of the country.

President Harding, former President Woodrow Wilson, Chief Justice Taft and notable foreign scientists joined in sending their appreciation of the work of the man who has done so much to promote public health.

Dr. Russell H. Chittenden, professor of physiological chemistry at Yale University, Dr. Vernon Kellogg, chairman of the National Research Council, Dr. Hugh S. Cumming, surgeon general, and Drs. Edgar Fahs Smith, Hobart A. Hare and Robert Abbe, were among the speakers. State and city officials participated.

Members of the committee in charge of the celebration included our fellow-member, Dr. William Duffield Robinson, *chairman*; Dr. McCluney Radcliffe, *secretary*; Dr. Judson Daland, *treasurer*; Dr. Edgar Fahs Smith, Dr. Ernest LaPlace, Dr. Francis X. Dercum, Dr. Charles A. E. Codman and Dr. Wilmer Krusen.