young men to special work, usually preparatory to their early promotion into professorships elsewhere, is found, it is reported, to be somewhat trying to the heads of departments, as compelling too frequent changes; although it is most creditable to the college and very helpful to the growing technical schools and college departments into which this output passes.

THE Association of Collegiate Alumnæ has awarded its European Fellowship to Miss Caroline Stewart (A.B. Kansas University '92, A.M. Michigan '95). Miss Stewart held a Scholarship in Germanic languages at Bryn Mawr, in '95–6, and a Fellowship at the same College in '97. The American Fellowship has been awarded by the Association to Miss Caroline E. Furness, Vassar '91, who has been assistant the past three years in the Observatory at Vassar.

THE Women's Education Association of Boston, which awards its Fellowships through a joint committee composed of members of its own organization and the Fellowship Committee of the Association of Collegiate Alumnæ, has this year awarded two European Fellowships of $500 each. The successful candidates are Miss Louise Phelps Kellogg, Wisconsin '97, student in American history; and Miss Katherine B. Davis, Vassar '92. Miss Davis was in charge of the Model Workingmen's Home at the World's Fair and was for a time head-worker at the College Settlement in Philadelphia. The past year she has held a Fellowship in Political Economy at Chicago University, and declined a reappointment to accept this Foreign Fellowship.

A PUBLIC meeting was held in Birmingham on July 1st, to consider the proposal of establishing a university in Birmingham. The principal address was made by Mr. Chamberlain, M. P., who strongly advocated the plan, and the following resolution was carried: "That, in the opinion of this meeting, it is essential that, in the interests of the city and the Midland districts generally, a university should forthwith be established in Birmingham." The resolution was carried. Donations were announced to the amount of £95,244. Included in this was £20,000 from the Birmingham, Brewers' Fund, an anonymous donation of £20,000, £10,000 from Mr. G. H. Kendrick, five donations of £5,000 each, two of £2,000 each, and 21 of £1,000 each. Mr. Chamberlain was amongst those who gave £1,000.

SIR WILLIAM FORWOOD, Chairman of the Library, Museum, Art and Technical Instruction Committee of the Liverpool City Council, laid, on July 1st, says the London *Times*, the foundation-stone of an addition to the fine range of buildings (the Brown Library and Museum, the Picton Reading-room and the Walker Art Gallery) on the north side of William Brown-street in that city. The new structure, which is estimated to cost the corporation close upon £100,000, will provide additional needed accommodation for the Museum (which will then be one of the finest of its kind in the kingdom), besides the Central Technical School. The three lower floors, reached from a separate entrance in Byrom-street, will be devoted to the purposes of the Liverpool School of Science, Technology and Art. In the basement will be rooms for practical instruction in electricity, engineering and various other technical subjects. Above this will be a lecture-hall, capable of accommodating nearly 400 students, besides class rooms for various subjects, and the necessary administrative offices. On the floor above this again will be a number of other class-rooms, adapted for the instruction in mathematics, building construction, etc.; and in a cross gallery on a higher level (isolated from the other portion of the School) will be a properly equipped chemical laboratory and lecture-room.

THERE are this summer 5,606 students matriculated at the University of Berlin, which is more than 1,200 in excess of the registration last summer. There are in addition 678 auditors, of whom 193 are women.

SCIENTIFIC LITERATURE.

L'Electro-Chimie: Prodution électrolytique des composés chimiques. Par AD. MINET.

This little volume comprises two sections. Forty-two pages are devoted to the description of the electrolysis of sodium chloride. Every point of interest to manufacturing chemists is carefully considered and explained in detail.

Methods of preparing the chlorates of sodium and potassium, of purifying aluminium sulphate, of manufacturing persulphates, alkali bichromates, potassium permanganate, sodium hyposulphite, white lead, vermilion, etc., in the electrolytic way, are placed before the reader in a most attractive manner, so that as we proceed we are inspired with a desire to repeat these experiments, but having previously carried out similar schemes for most of the substances mentioned we find pleasure in corroborating the statements of the author, with an invitation to others to embark in this field of investigation.

The second section considers the application of the current to organic substances. The author credits Davy with having been the first chemist to venture into the field, but adds that Kolbe, Wurtz, Bourgoin, Walker, Miller, Weems, Berthelot and others made researches in this direction. Your reviewer would include the name of Mulliken in this list. The efforts of these men, bestowed upon the aliphatic acids and their salts, have been most fruitful, but the author of the work before us is content, and naturally enough, to give certain generalizations and deductions from the pen of Bourgoin, and then branches forth upon the synthesis of alcohol by Lapeyriere in 1880, with brief mention of that of Eisenmann, the decolorization of bark liquors, electrolytic tanning, etc. This section may be said to be entirely technical, but it, as well as the first section, merits the attention of chemists generally, for both contain much valuable matter, concisely expressed and highly suggestive.

EDGAR F. SMITH.

Electro-Metallurgie. Voie humide et voie sèche. Par AD. MINET. Paris, Boulevard St. Germain, 120, Masson et Cie.

The author first defines electro-metallurgy, describes different types of electrical apparatus, and reviews the various laws relating to electrolytes, then outlines the precipitation of copper, lead, silver, bismuth, cadmium, mercury, gold, platinum, iridium, tin, antimony, iron, nickel, cobalt and zinc, giving with each the most suitable composition of bath, the proper current density, the regeneration of the liquors and other data valuable to those engaged in electroplating.

The second section of the book, devoted to electro-metallurgy in the dry way, is most interesting. The metals considered are aluminium, magnesium, sodium, potassium, lithium, calcium, strontium, barium and zinc. A short historical sketch precedes the working conditions laid down for each metal. Taking aluminium as an example, there first appears a general outline for its isolation from the double fluoride of aluminium and sodium; then follow a description of the methods proposed by Minet, Heroult and Hall, with directions as to choice of electrolyte, including its physical properties, as well as the mode of regeneration, and also the electromotive force necessary for the decomposition of the various salts, and hints as to the nature and shape of the vessel intended to carry the electrolyte.

Students of chemistry will read this section with pleasure and profit, and lay aside the volume with the conviction that it brings little which can be criticised and a very great deal which will be helpful to all who wish to pursue this line of study further.

EDGAR F. SMITH.

A Manual of Quantitative Chemical Analysis. By E. F. LADD, B.S., Professor of Chemistry in the North Dakota Agricultural College, and Chemist to the Government Experiment Station, Fargo, N. D. New York, John Wiley & Sons. 1898.

"This little manual is intended for the use of beginners in quantitative analysis. The methods have been selected to advance the student from the simple analysis to the more complex and difficult, and when he has completed the course as laid down here he will be in a position to intelligently use and interpret the advanced works of Fresenius, Crookes and the Encyclopædias." A book which will give a few simple examples illustrating the principles of analytical chemistry can be used with advantage by those who only wish a general idea of chemistry; but it is doubtful whether such a book is useful to one who expects to go more deeply into the subject. He would either have a very slight knowledge of the subject or would have to repeat the work in a more thorough manner.