

rapidly increasing number of students taking mining engineering work, it has been necessary to add two wings to the School of Mines building and to employ additional assistance. Certain laboratories will be set aside for the experimental and research work on gas, coal, clays, building materials, cements, etc., and for this work the laboratories will be among the very best equipped in America. This work is unquestionably of very great importance to the state.

The research which has already been carried on in the Mining Engineering College of the State University relative to lignite, coal, gas and clays has attracted the attention of many men throughout the country who are interested in these subjects. It is intended to build up laboratories and carry on investigations which will be a help to the state.

The work which will be taken up most vigorously during the coming year will be for the purpose of obtaining by investigations and practical tests, a cheap and commercially satisfactory method of lignite coal briquetting, to show the best methods of burning lignite, and to determine the possibility of utilizing lignite for producing gas for light, heat and power. Considerable attention will be given also to the utilization of the high grade clays of the state for the manufacture of a variety of wares.

In order to carry on this work on a practical commercial basis, considerable machinery of special design will be installed at the sub-station at Hebron. For several months work has been devoted to machinery and methods which seemed to be suited to the manufacture of briquettes from lignite. As a result complete briquetting plant has been designed and is now being built. The press will have a capacity of 2 tons of briquettes per hour. In addition to this a specially constructed gas plant is being made for the purpose of manufacturing gas for light, heat and power from lignite coal. This will be one of the most perfect types of gas plants and large enough to produce several thousand cubic feet per day. Machinery and kilns of commercial

working size will be installed later for practical testing of the higher grade clays.

#### THE ELIZABETH THOMPSON SCIENCE FUND

In January, 1910, there will be a meeting of the trustees of the Elizabeth Thompson Science Fund for the award of grants. Applications, in order to be considered at that time, should reach the secretary, Dr. C. S. Minot, Harvard Medical School, Boston, before January 15, 1910. All applications *must be accompanied by full information*, especially in regard to the following points:

1. Precise amount required.
2. Exact nature of the investigation proposed.
3. Conditions under which the research is to be prosecuted.
4. Manner in which the appropriation asked for is to be expended.

The trustees are disinclined, for the present, to make any grant to meet ordinary expenses of living or to purchase instruments such as are found commonly in laboratories. Decided preference will be given to applications for small amounts, and grants exceeding \$300 will be made only under very exceptional circumstances. Preference will be given to those investigations which can not otherwise be provided for.

#### THE BOSTON MEETING OF THE AMERICAN ASSOCIATION

THE hotel headquarters for physicists at the Boston meeting of the American Association for the Advancement of Science and the American Physical Society will be the Hotel Brunswick, Boylston Street, near Copley Square, which is also the general association headquarters. Rates: single rooms, \$1.50 to \$2.50; double, \$2.50 to \$3.50; with bath, single, \$2.50 to \$3.50; double, \$3 to \$4.

Section B has a joint session with Section A on Tuesday afternoon, December 28, immediately after the address of Vice-president Guthe. Interesting papers will be presented by Professors G. Runge, A. A. Michelson, E. W. Brown and H. F. Reid.

Friday morning, December 31, there will be

a joint session of Section B and Section L, the former furnishing the program. Speakers will be Professors E. H. Hall, A. G. Webster, J. F. Woodhull, C. R. Mann and probably Presidents E. F. Nichols and N. H. Black.

The Engineering Section (D) of the American Association for the Advancement of Science will hold its meetings in Room 31, Engineering Building A, Trinity Place, Boston, on December 29 and 30. Professor G. F. Swain, retiring chairman of the section and vice-president of the association, will deliver his address at 2:30 P.M. on Wednesday, December 29, subject, "The Profession of Engineering and its relation to the American Association for the Advancement of Science." Other papers have been definitely promised as follows:

Professor A. L. Rotch: "The Relation of Wind to Aeronautics."

O. Chanute: "The Present Status of Aerial Navigation."

S. P. Ferguson: "Wind Pressure and Velocity."

A. J. Henry: "Shifting of Wind with Altitude."

A. M. Herring: "Aerodynamics."

Albert Zahm, Alexander Graham Bell and others will probably contribute papers or discussions on aeronautical subjects.

C. J. H. Woodbury: "The Development of the Modern Textile Mill."

J. F. Kelly: "Music Roll Cutters."

H. E. Wetherill: "Parallel Rules."

E. H. Berry: "The Photographic Lens as an Engineering Implement."

Other interesting papers, for which titles can not yet be announced, will be on the program. The dates and hour of presentation of each paper will be announced in the Official Program of the Association which will be obtainable at the office of the Permanent Secretary, Technology Union, Trinity Place, on Monday, December 27.

#### SCIENTIFIC NOTES AND NEWS

MR. WILLIAM H. HOLMES, chief of the Bureau of American Ethnology, will on January 1 sever his official connection with the bureau and resume his place as head curator

of anthropology in the U. S. National Museum, and in this connection will also become curator of the National Gallery of Art. Mr. F. W. Hodge will take charge of the Bureau of American Ethnology with the title ethnologist in charge.

It is proposed to add to the collection of portraits of deceased members of the American Philosophical Society that of Professor Simon Newcomb. The formal presentation of the portrait is expected to take place in connection with the annual meeting in April, 1910. The committee in charge is: C. L. Doolittle, chairman, E. C. Pickering, Ernest W. Brown, Ira Remsen and Charles D. Walcott.

DR. THEODORE W. RICHARDS, professor of chemistry at Harvard University, has been elected a corresponding member of the Paris Academy of Sciences.

DR. ALBRECHT PENCK, professor of geography at Berlin, has been elected a corresponding member of the Munich Academy of Sciences.

DR. W. WALDEYER, professor of anatomy at Berlin, has been elected an honorary member of the Anthropological Society of that city.

PROFESSOR A. C. SEWARD, F.R.S., professor of botany in the University of Cambridge, has been elected president of the Yorkshire Naturalists' Union.

THE Walsingham medal for 1909 has been awarded by Cambridge University to Mr. L. J. Wills, for his essay entitled "The Fossiliferous Lower Keuper Rocks of Worcestershire," and a second medal to Mr. H. H. Thomas, for his essay entitled "The Leaves of Calamites (*Calamocladus* section), with special reference to the conditions under which they grew."

THE La Caze prize (10,000 francs) of the Paris Academy of Sciences has been given to Dr. Delezenne, of the Pasteur Institute, for his collective works.

MR. THEODORE D. URBHANS, of the Bureau of Entomology, has been employed as assistant in research field work by the division of en-