

MORE than seventeen million pounds (17,211,000) of metallic aluminum were consumed in this country during last year, according to Mr. W. C. Phalen, of the United States Geological Survey, whose statistical report on the production of aluminum and bauxite has just been published by the survey as an advance chapter from *Mineral Resources of the United States, Calendar Year 1907*. This is an increase of 2,301,000 pounds over the consumption in 1906. The great increase in domestic production that was predicted in the early part of 1907 was not realized, and the failure of the predictions is attributed by Mr. Phalen, in large part at least, to the falling off in demand toward the close of the year as a result of general business depression. The output of bauxite, which finds its most important use as raw material for the production of metallic aluminum, increased almost 30 per cent. in quantity and a little over 30 per cent. in value in 1907 as compared with the quantity and value of the output in 1906. In the earlier year 75,332 tons, valued at \$368,311, were produced; in the later, 97,776 tons, valued at \$480,330. Although Arkansas still leads in the total production, the output from Georgia, Alabama and Tennessee increased in 1907 over 50 per cent., as compared with an increase of perhaps 20 per cent. in Arkansas. Bauxite ore to the amount of 25,066 tons, valued at \$93,208, was imported during the year, making the consumption of bauxite in 1907 amount to 122,842 tons, valued at \$573,538. In addition to its use in the production of metallic aluminum, bauxite is in demand for the manufacture of aluminum salts, artificial abrasives (alundum) and bauxite brick. This last use is of very recent date. The chief value of the bricks lies in their resistance to the corrosive action of molten metal at high temperatures, and hence they find application in basic open-hearth steel furnaces, in furnaces for refining lead, in copper reverberatory furnaces, and in the linings of rotary Portland cement kilns.

THE need for conserving the mineral fuels of the country for the use of future generations has been emphasized many times during the last few years, not only in numerous mag-

azine and newspaper articles, but in a number of reports emanating from the government bureau especially charged with the investigation of the mineral resources of the national domain—the Geological Survey. The statements that the coal supply of the country is far from being inexhaustible, that the amount available is susceptible of measurement, and that no very long look into the future is required to see the end of the present known deposits are graphically supported by a map that has just been published by the Geological Survey. A somewhat similar map was issued by the survey in 1906, but the work of the geologists in the western coal fields in the last two years has added so much to the known extent of those fields that a new and revised edition has become necessary. The map now presented to the public is unique in several particulars. It not only shows the location and extent of the coal deposits of the United States, but also, by variation in color and depth of shading, the character of the coals in each of the great fields and the depth at which they occur beneath the surface. For the first time an attempt has been made to represent the coal in the deep basins, or "synclines," as the geologists term them, of the Rocky Mountain states, where there is every reason to suppose that coal exists, although it is so deeply covered by later sediments as to be accessible with great difficulty if at all. Other new features of the map are the explanation printed on the side margins, describing the character and geologic age of the coals, and the accompanying tables, which give estimates of the amount of coal originally present in the deposits, the quantity that has been removed, and the amount still available, subdivided into deposits easily reached and those accessible with difficulty.

#### UNIVERSITY AND EDUCATIONAL NEWS

UNDER the Minnesota state law of 1865 certain swamp lands were set aside to be sold for the benefit of state institutions. The state constitutional amendment which was adopted in 1881 acted to repeal the law of 1865 and the law of 1907 was passed to make effective the plain intent of the constitutional amend-

ment of 1881. The fund from the sale of this land had grown to be \$780,556.25 at the end of the fiscal year 1906. This fund must be kept intact and only its income apportioned for the benefit of the state institutions. One half of the interest, which now amounts to \$62,145, goes to the common school fund and the balance to state institutions pro rata on the basis of the cost of maintenance. This brings into the university fund \$16,542.92.

OWING to the contributions which have been made for the reendowment of Oxford University having reached a total of more than £100,000, the second munificent donation of £10,000 promised by Mr. W. W. Astor has now been received by Lord Curzon of Kedleston, the chairman of the fund.

THE report of the Cambridge University museums and lecture-rooms syndicate records a gift of £500, made by Mr. Frank Smart, for additional fittings in the museum of botany. The library in the department of physiology has been increased by many books formerly in the possession of Sir Michael Foster; the library of the medical school has also received many additions, including a large number of pamphlets and books presented by Sir T. Clifford Allbutt.

PREPARATIONS are being made to celebrate the four hundredth anniversary of the founding of the University of Madrid, which occurred October 18, 1508.

DR. DAVID FRANKLIN HOUSTON has resigned the presidency of the University of Texas, which he has held for the past three years, to accept the chancellorship of Washington University, St. Louis, vacant by the retirement of Dr. W. S. Chapin. Dr. Sidney E. Mezes, professor of philosophy at Texas since 1894 and for the past five years dean of the university faculty, was on July 6 elected president of the University of Texas by the board of regents.

MR. FRANK LEVERETT, geologist of the United States Geological Survey, has been appointed assistant professor of glacial geology at the University of Michigan. He will devote only a portion of his time to university work, retaining his position on the survey.

Mr. R. C. Allen, A.M. (University of Wisconsin), lately in charge of the Badger mines of the Cobalt District, has been appointed instructor in economic geology.

THE vacancy caused by the resignation of Dr. L. J. Cole, at the Rhode Island Agricultural Experiment Station, has been filled by the appointment of Philip B. Hadley, Ph.D., of Brown University, as chief of the division of biology. The following appointments at the station have been made: J. Swett Irish, B.Sc., of the University of Maine, assistant in biology, and A. L. Whiting, B.Sc., of the Massachusetts Agricultural College, assistant in agronomy.

THE trustees of the Thomas S. Clarkson Memorial School of Technology have appointed to the chair of chemistry Mr. L. Kimball Russell, S.B. (Mass. Inst.), A.M. (Columbia). To the newly established chair of physics the trustees have appointed Mr. E. B. Wheeler, B.S. (Missouri), candidate for the doctorate of philosophy, Columbia University.

DR. JOHN CAMERON has been appointed lecturer on anatomy in the Medical School of the Middlesex Hospital, London.

DR. WÜLFING, of Kiel, has been called to the chair of mineralogy and geology at Heidelberg, vacant by the retirement of Professor Rosenbusch.

#### DISCUSSION AND CORRESPONDENCE

##### A CONTINUOUS CALORIMETER

TO THE EDITOR OF SCIENCE: In the issue of SCIENCE of May 15 appeared a special article by H. T. Barnes, of McGill University, entitled, "A Simple Continuous Calorimeter for Students' Use." Permit me to call the attention of your readers to the description of similar apparatus appearing in "Electricity and Magnetism," by Francis E. Nipher, published by John L. Boland Book and Stationery Co., St. Louis, 1895.

The experiment as therein described has been for fifteen years in the hands of students at Washington University.

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