next biennium, and $1,250,000 for the Kansas State Agricultural College. The three normal schools were given approximately $970,000, and the various other schools and sub-experiment stations $242,000. The total appropriation for all designated educational institutions was a little less than four million dollars for the two years beginning July 1, 1917.

THE will of the late William W. Lawrence, president of the National Lead Company, provides that on the death of Mrs. Lawrence a sum of over $200,000 will go to Princeton University.

A BILL has been enacted in New Jersey designating the scientific departments of Rutgers College as the State University of New Jersey.

ARRANGEMENTS have been completed between Northwestern University Medical School and the Chicago Fresh Air Hospital for a course of instruction in tuberculosis for the members of the senior class in the medical school. The class is divided into sections, each receiving clinical instruction for a period of four weeks.

To meet the increased cost of supplies and to permit an enlargement of educational facilities, tuition in the medical school of George Washington University has been increased from $150 to $175 a year, and in the dental school from $125 to $150, to take effect next fall.

DR. SCOTT NEARING has presented his resignation at Toledo University owing to criticisms made by citizens of the city of his anti-militaristic activities. It will be considered by a committee of the trustees.

IN accordance with the reorganization plan at the Creighton University College of Medicine, the bio-chemical and physiological laboratories have been merged into a single department under the direction of Professor S. Morgulis. Dr. William A. Perlzweig, of the Rockefeller Institute, has been appointed assistant professor of bio-chemistry in the department.

DR. ETHAN A. GRAY, medical superintendent of the Chicago Fresh Air Hospital, has been appointed assistant professor of medicine in Northwestern University.

DISCUSSION AND CORRESPONDENCE

A RELIEF MAP OF THE UNITED STATES

TO THE EDITOR OF SCIENCE: Mr. Kinkaid's proposition (SCIENCE, March 9), to construct a relief map of the United States "300 feet square or 600 feet square" would be, judging from my own experience, a pretty costly one. A relief map of the state of New York 35 feet long, east and west, and 26 feet broad, north and south, now in our museum, cost $17,000 to make. Estimating broadly the dimensions, area and cost of a map of the entire United States on the same scale, the map would be 237.5 feet long, and at the same proportion of cost the expense of making it would be $1,045,500. This is on the scale of one mile to the inch. If the scale were one half mile to the inch, the cost would be, in the same proportion, $4,182,000.

And where in Washington or elsewhere would Mr. Kinkaid put such a map of the United States, 600, or even 300 feet long? There is no building large enough to hold it. Buildings 600 feet long and 300 feet wide are not bagatelles. Perhaps one might be built for a million dollars, but it is doubtful.

Surely for this proposition, as Mr. Kinkaid suggests, "the main problem is to find the philanthropist." But before going out to hunt him, let us remember that only 40.2 per cent. of the United States has been covered by topographic surveys in such detail as to give an adequate basis for such a relief map as he has dreamed of.

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AN ANCIENT REFERENCE TO THE EMERALD

OUR college librarian, Professor Chipman, while arranging a course on "Books and Libraries" happened to call my attention to a translation of the oldest known manuscript which could justly be called a book, an Egyptian parchment entitled "The Instruction of Ptah-hotep."[1] In glancing it through I came across this interesting sentence:

[1] Translated by B. G. Gunn. E. P. Dutton, 1910.

> Fair speech is more rare than the emerald that is found by slave-maidens on the pebbles.

Since the actual parchment is said to date from 2500 B.C., and since Ptah-hotep lived about 3500 B.C., this gives us a written mention of the emerald and its occurrence as a placer mineral on a document 4,500 years old, and shows that it was prized as a gem about 5,500 years ago, perhaps 2,500 years before the "Iliad" and "Odyssey" had come into existence, and over 2,300 years before the traditional date of the siege of Troy.

Whether the word here translated emerald is strictly the emerald as we define it I do not know. At any rate such a translation harmonizes with the usual implication that Egypt is the place of earliest recognition of the stone. The Encyclopedia Britannica, for instance, says:

> Ancients appear to have obtained the emerald from upper Egypt, where it is said to have been worked as early as 1650 B.C.

The document under discussion shows that it was searched for and prized almost 2,000 years before this.

The same publication that contains the "Instruction of Ptah-hotep" contains a short "Instruction of Amenemhê'et" who ruled in Egypt about 2778–2748 B.C. He remarks:

> I have made me an house adorned with gold, its ceilings with lapis lazuli. . . .

This document in the part quoted is said not to be so reliable as the preceding one.

Since a geologist would only by accident have this book called to his attention, it seems worth while to quote such ancient—so far as I know the most ancient—references to these minerals.

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METHYL AND ETHYL ALCOHOL

To the Editor of Science: When the Mapp prohibition law, which went into effect in Virginia last November, was before the state legislature we communicated with our representative, asking that the interests of the colleges be safeguarded in respect to the use of alcohol for scientific purposes, but the law as enacted ignores biological laboratories entirely. We are therefore compelled to seek a substitute for ethyl alcohol, at least until the law can be amended. Hence the following queries:

1. Can methyl alcohol be substituted generally in processes of dehydration without modifying the methods otherwise or without prejudice to the staining or keeping qualities of the preparations?
2. Can methyl alcohol be generally substituted in the formulas for stains, etc.?
3. Are there any special cases in which this substitution may not be made?
4. What kind of methyl alcohol should be used?

The manuals on histological technique give little information on this question, but it may be that someone in "bone dry" territory has found a substitute for ethyl alcohol. If so, there are a number of readers of Science who would be grateful to hear of it.

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SCIENTIFIC BOOKS

Institut de France. Académie des Sciences, Annuaire pour 1917, Paris, Gauthier-Villars et Cie. sm. 8vo (17 × 11 × 1.3 centimeters). 315 pp.

The Yearbook of the Académie des Sciences bears but slight trace of the terrible experience through which France is now passing, an experience all well-wishers of our traditional friend trust will have a speedy ending. It is thus a grateful sign that science may pursue her way unperturbed by the conflicts of the hour, and may have nothing to unlearn or to forget when the period of destruction and suffering brought about by an outbreak of man's basest passions shall have at last been brought to a close.

The most attractive part of the *Annual* for one interested in the history of science is the complete biographical index of all the members and correspondants from 1795 to 1917 (pp. 111–288). In this register of 1,188 names appear all the leaders in French science for the