his account of the colleges and universities of the United States. In this last article he describes Yale, University of Michigan, Johns Hopkins university, the American school for classical studies at Athens, and colleges for the higher education of women.

— The new vice-chancellor of Cambridge university is Dr. Taylor, master of St. John's college.

— The various state teachers' associations take advantage of the Christmas vacation to hold their annual or semi-annual meetings. Among others, the New Jersey teachers are to meet at Trenton; the Iowa teachers, at Des Moines; the Michigan teachers, at Lansing; the Associated academic principals of New York state, at Syracuse.

— M. Goblet, the minister of public instruction in M. de Freycinet's cabinet, has become premier of France. The new minister of public instruction is M. Berthelot, who has been for some time an inspector of secondary schools.

— Dr. W. W. Ireland, the well-known alienist, publishes in the *Journal of mental science* (October, 1886) an admirable account of the insanity of King Louis II. of Bavaria. The influences of hereditary neuroses, the gratification of what were at first slight eccentricities, and the gradual evolution of the most serious symptoms of hopeless insanity, make this case almost a type of the influences most favorable to mental instability. The king was not only insane, but typically insane.

LETTERS TO THE EDITOR.

***Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

Pleuro-pneumonia.

IN your issue of Nov. 26 you speak of the prevalence of pleuro-pneumonia in the counties of Harvard, Clinton, Newton, Jasper, and Benton.

1°. There is no Harvard county: presumably you mean *Howard*.

2°. Dr. Salmon and the officers of the state board of health declare the disease to be 'black leg,' and up to date about 400 head have died in this state. Dr. Salmon announces there is now no pleuro-pneumonia in the western states except at and near Chicago, Ill.

AMOS W. BUTLER.

Brookville, Ind., Nov. 29.

[The reports that contagious pleuro-pneumonia existed in Indiana are denied, and it is now stated that what was reported to be that disease is pronounced by Dr. Salmon and the officers of the state board of health to be 'black leg,' from which 400 head of cattle are said to have died. It is also stated that Dr. Salmon of the U. S. bureau of animal industry has announced that there is no contagious pleuro-pneumonia in the western states except at and near Chicago, Ill.

On this subject we quote from a letter just received from Dr. D. E. Salmon, chief of the bureau of animal industry: "In reference to the districts in which contagious pleuro-pneumonia exists in the United States, would say, that beginning with Long Island, New York, and Westchester counties, in the state of New York, we have found it to exist in various parts of New Jersey and the south-eastern part of Pennsylvania. The points of infection are continually changing in these states, and it is a very difficult thing to make a definite statement by counties. In Maryland there is a good deal of the disease in Baltimore and vicinity, but the remainder of the state appears to be nearly free. The District of Columbia has been infected for a long time, but I do not know of any herds here in which the disease exists now. Probably a vigorous inspection would discover some. In Virginia I do not know of any infected district except Norfolk. This is all there is east of the Alleghanies. In the Mississippi valley states there is but one outbreak at present, and that is in Cook county, Ill. The disease which I investigated in Indiana was 'verminous bronchitis,' or lung worms." — ED.]

Liberty's torch.

The noble statue of Bartholdi in New York harbor suffers a great injustice, so far as the idea of its conception goes, and the requisites for its most complete artistic presentation is concerned, in being made to hold a star in its hand instead of a wavering pile of flame. The blue orb of intense light shining from the uplifted hand poorly represents the lambent and rolling stalks of fire which the thought of a torch suggests, and fails to accentuate the statue with any dramatic or spectacular force.

The attempt should be made to burn a large volume of gas properly distributed over the present surface of the torch, and this would seem altogether feasible. A consumption of from a thousand to two thousand cubic feet of gas per hour might be required, but the result would be incomparably more striking and noteworthy. A series of one-inch pipes passing up into the torch, emerging at various points so as to completely invest it with the confluent flames issuing from their openings, would probably serve the purpose, the gas being permitted to burn under a pressure but slightly in excess of its own ascensional power. Two objections might be urged against this proposition, — first, the smokiness of the flame, producing an ugly and dirty appearance; second, the probability of its extinction in high gales. The first objection has not really much weight, as the tail of drifting smoke would hardly detract from the splendor of the pillar of flame, and in any case could be considerably overcome by an efferent tube with a perforated circular cap feeding air to the summit of the torch, somewhat on the plan of the central air-channel in the popular climax oil-lamp. The second objection is valid, but only in extreme cases; and, as the gas should be lit by electricity, the highest gales would only alter the constancy of the light, its extinction being succeeded by the renewed flame. Again by curving the extremities of the pipe, even these exceptional cases might be yet further reduced in number. The gas might be supplied from the mainland, or if that appears too expensive, or itself impracticable, naphtha or gasoline gas (enriched air) could be safely used, the precaution being taken of substituting for the large tubes bundles of smaller pipes.

The penetrative power of such a flame, and hence its beneficial uses in the foggy weather of our latitude, combined with its *photometric massiveness*, would compare, it would seem, very favorably with the incandescent point of light which now at night marks the watch-tower of Liberty on Bedloe's Island, and in fogs dimly shines through the mist in an apologetic and feeble way quite disappointing.

L. P. GRATACAP.

New York, Dec. 15.

The relations of our colleges and preparatory schools.

In *Science* for Nov. 26 you comment editorially on the teachers' convention at Philadelphia, and close with the sentence, "It would be especially notable should it prove to be the first step in bringing our colleges and preparatory schools into frequent and close conference in some official manner."

Allow me to call your attention to the fact that in Michigan there now exists, and has existed since the year 1870, a relation between the university and the public high schools of the state, under which the graduates of schools, whose courses of study have received, after personal inspection by a committee sent for that purpose, the approval of the university faculty, are admitted to the university on the presentation of their high-school diplomas. The inspection of the schools is repeated at intervals, whenever it seems desirable to do so.

The privilege of admission on diploma, which was at first restricted to the public high schools of Michigan, has been gradually extended, and at the present time the University of Michigan holds this close official relation with thirty schools, public and private, in Michigan, and also with schools in New York, Illinois, Minnesota, and California.

WM. H. PETTEE.

[We were, of course, aware that in Michigan there is a system of co-ordination of university and high schools and academies, and we are now gratified to learn that this co-ordination embraces schools outside of the state of Michigan. It is to be regretted that this system is not adopted generally by our universities and colleges, and we renew our expression of hope that the late Philadelphia conference may emphasize the value of the Michigan system, and lead to its general adoption.—ED.]

The Americanists.

There is a ludicrous slip of the pen in the account given in the last number of *Science*, of the Proceedings of the sixth congress of Americanists, held at Turin in September last. Supreme wisdom does not always seem to preside over the councils of this learned body; but it is hardly fair to Professor Grossi to represent him as having read a paper on the 'coins' of the old and new worlds before a society devoted to the study of prehistoric questions. What he had to say was about *momies*, and not *monnaies*, in the two continents, and was a sensible and learned discussion of the question. The same gentleman also presented a paper upon pyramids in the old and new worlds, and one upon the folk-lore of the primitive tribes of America.

HENRY W. HAYNES.

Boston, Dec. 13.

A new bat from Puget Sound.

Among the specimens collected in 1880 by Prof. D. S. Jordan, in the vicinity of Puget Sound, for the national museum, is a small bat, which, upon examination, proves to be different from any hitherto described. It resembles the common blunt-nosed bat, V. lucifugus, but differs from it in several important characters. Most noticeable of these is the great length of the tibia; and I have therefore thought it appropriate to name the species Vespertilio longicrus. It is the third species added to the fauna of the United States during the year. I subjoin a brief diagnosis.

Vespertilio longicrus: fur uniform, umber color above; the same below, but with the upper fourth dull Naples yellow; interfemoral membrane clothed above and below to a line joining the centre of the tibiae; ears shorter than the head; inner margin of the couch convex, that of the tragus concave; calcaneum reaching only to middle of hind margin of interfemoral membrane; teeth as in V. lucifugus, but first premolar not imbricate with canine; braincase very high; length of head and body 47.5 mm., head 16; height of ear, 12.5, tragus 6.5, fore-arm 39, thumb 6, tibia 20, foot 7.5.

F. W. TRUE.

U.S. nat. mus., Dec. 17.

Preliminary description of a new pocket gopher from California.

Mr. F. Stephens, one of my Californian mammal-collectors, has sent me several specimens of a small pocket gopher, of the genus Thomomys (Thomomys talpoides perpallidus, sub-sp. nov.), which I do not find described. The sub-specific name 'perpallidus' refers to the very pale color of the animal. It may be distinguished at a glance from all its congeners, except T. clusius of Coues, by its color, which is very pale brownish-yellow above, and white underneath and on the sides and legs. It differs from T. clusius in the great length of its tail, which is half as long as the head and body, and in other characters which will be pointed out in a later paper on the animal. All the specimens were captured on the arid Colorado desert, in southern California, in March and April, 1886.

C. HART MERRIAM.

Contents of foreign educational periodicals.

Zeitschrift für schul-geographie, October. — Bemerkungen zum geographischen unterricht an den gymnasien nach den neuen instructionen, Dr. Karl Lechner. — Ueber das verhältniss des land- und wasserareales auf der erdoberfläche. — Notizen, literatur, u.s.w.

Zeitschrift für schul-geographie, November. — Einige bemerkungen über den zustand der geographie in Dänemark als schulfach, Prof. Dr. Löffler. — Die verbesserung des julianischen kalenders, Dr. Pein-Belgrad und seine umgebung, Prof. G. Jauss. — Die prairie, ein geographisches charakterbild. — Notizen, literatur, u.s.w.

Zeitschrift für das realschulwesen, November. — Die pluralisation der substantivischen wortcomplexe im Französischen, Felix Zverina. — Der planimetrische und constructive unterricht in der unterrealschule, Joseph Bayala. — Schulnachrichten, notizen, anzeigen, u.s.w.