

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 *monies*, 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; brain-case 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.

• *Bulletin mensuel de la ligue française de l'enseignement*, November. — Les sociétés d'éducation civique et militaire, Jean Macé. — Cantines scolaires de Toulouse, Eugene Dubief. — Faits divers.

Canada educational monthly. — Annual convention of Queen's university. — A plea for our reading-circles. — The relation of higher education to religion, President William DeWitt Hyde. — Lord Derby on juvenile education. — Children past and present. — Preserve the voice of the child. — Notes, correspondence, etc.

Pädagogisches archiv. — Die ersten sätze der stereo tomie, Dr. C. Lackemann. — Die verdeutschungsbestrebungen der gegenwart, Regierungsrath Sarrazin. — Unterrichtsminister Trefort über die schulreform. — Sprachsaal, anzeigen, nachrichten, u. s. w.

Educational times, December. — Folk-tales. — Meeting of the Council of the college of preceptors. — University and college intelligence. — Educational notes and summary. — The retirement of Mr. Matthew Arnold. — Education in India. — Dr. Percival's election to the mastership of Rugby. — The Bishop of London at the City of London college. — Reviews, notices, etc.

Journal of education, December. — Occasional notes. — Practice versus theory, E. R. Wethey. — The training of elementary school teachers. — A fair field and no favor. — English literature and the classics. — Reviews. — Sonnenschein's cyclopaedia of education. — Sunday at school. Rev. J. Robertson; A lay brother's reply. — Correspondence. — History-teaching, a lesson from America. — Notices, etc. — The training of the faculties of judgment and reasoning, H. Courthope Bowen. — Education in Australia. — The teachers' guild of Great Britain and Ireland.

Revue internationale de l'enseignement, Nov. 15. — Ouverture des conférences à la faculté des lettres de Paris; Allocution de MM. Lavis et Petit de Julleville. — Le Droit et le Latin, M. J. E. Labbé. — Universités et collèges d'enseignement supérieure aux Etats-Unis, M. E. Buisson. — La nouvelle loi sur l'organisation de l'enseignement primaire, M. Carré. — Chronique, nouvelles, bibliographie.

Educational articles in miscellaneous periodicals.

Alcoolismo, sue conseguenze morali e sue cause. E. Morselli. *Rivista di filosofia scientifica*, October.

[A review of N. Colajanni's book of the same title.]

Anatomistes anciennes, les. M. A. Laboulière. *Revue scientifique*, Nov. 20.

Application de la psychologie à la classification des races. G. Le Bon. *Revue philosophique*, December.

Bibliographie u. quellen-kunde der österreichischen literaturgeschichte. J. Minor. *Zeitschrift f. d. österreichischen gymnasien*, Oct. 14.

Breymann de l'étude des langues modernes. Anonymous. *Revue critique*, Nov. 1.

[“L'étude de M. Breymann se divise en deux parties: dans la première, il recherche le but que poursuit l'enseignement des langues dans les universités allemandes; dans la seconde, il examine les moyens d'arriver à ce but”]

British school at Athens. Unsigned. *Macmillan's magazine*, December.

Dean Plumtre's 'Dante.' Bishop of Ripon. *Contemporary review*, December.

Educational methods. George Sand. *North American review*, December.

English literature at the universities. Unsigned. *Macmillan's magazine*, December.

Enseignement de la philosophie dans l'université de France, l'. M. Emile Beaussire. *Revue des deux mondes*, Nov. 1.

Enseignement des sciences; les femmes-médecins en Angleterre. Unsigned. *Revue scientifique*, Nov. 27.

Genève et la nouvelle loi scolaire. Ernest Stoehlin. *La nouvelle revue*, Nov. 1.

Goethe and philosophy. Prof. Edward Caird. *Contemporary review*, December.

Hellinisme dans les écrivains du moyen âge du VII^e au XII^e siècle, l'. A. Delboulle. *Revue critique*, Nov. 1.

[A review of Abbé Tongard's book of the same title.]

How I was educated. Pres. E. G. Robinson. *Forum*, December.

Hypnotisme et responsabilité. Mm. Binet et Féré. *Revue scientifique*, Nov. 13.

[An extract from the forthcoming work by these authors on animal magnetism]

Influence des femmes dans la littérature française, l'. F. Brunetière. *Revue des deux mondes*, Nov. 1.

Intellectual mission of the Saracens, the. Edward Hungerford. *Atlantic monthly*, December.

Life at the Scotch universities. J. Leys. *National review*, December.

Loi sur l'organisation de l'enseignement primaire. *Journal des économistes*, November.

[The full official text of the new French law regulating primary instruction.]

Master of Trinity, the late. Unsigned. *Temple Bar magazine*, December.

Miller manual labor school of Albemarle, Va., the. *Scientific American*, Dec. 11.

Modern philosophy: realism vs. idealism. R. S. Moffatt. *National review*, December.

Mouvements réfléchis de l'enfants, les. *Revue scientifique*, Nov. 20.

[A chapter from the forthcoming French translation of Prever's 'Die seele des Kindes']

Mysticisme au XII^e siècle. M. Ch. Levêque. *Revue politique et littéraire*, Nov. 13.

Notes on Americanisms. R. A. Proctor. *Knowledge*, December.

Object of a university, the. Elisha Mulford. *Atlantic monthly*, December.

Open spaces and physical education. Lord Brabazon. *National review*, December.

Professeurs de littérature dans l'ancienne Rome et leur enseignement depuis l'origine jusqu'à la mort d'Auguste. Charles Cucuel. *Revue critique*, Nov. 1.

[A review of M. E. Juillen's book of the same title. "L'école, l'élève, la famille, le pédagogue, le professeur, l'enseignement (auteurs, grammaire, littérature), les devoirs, les études accessoires, M. Juillen examine successivement chacun de ces points avec une netteté jointe à une abondance de détails dont on ne saurait trop se féliciter."]

Science and morals. Prof. T. H. Huxley. *Fortnightly review*, December.

Techner's und Sweet's vorschläge zur reform des

- unterrichts im englischen. H. Klinghardt. *Englische studien*, Sept. 15.
- Thought-reader's experiences, a. Stuart C. Cumberland. *Nineteenth century*, December.
- Uniforme des élèves de l'école normale, l'. M. Dionys Ordinaire. *Revue politique et littéraire*, Nov. 6.
- Wiese's (L.) Lebenerinnerungen u. amts-erfahrungen. Friedrich Paulsen. *Berliner philologische wochenschrift*, Sept. 11, 1886.
- [An excellent account by Professor Paulsen of Dr. Wiese's educational work and influence.]
- Zwang-erziehung verwaarloster kinder in Hessen. Dr. Ludwig Fuld. *Jahrbücher f. national-ökonomie u. statistik*, Oct. 23.

Calendar of Societies.

Chemical society, Washington.

Dec. 9. — H. W. Wiley, Our sugar-supply.

Anthropological society, Washington.

Dec. 7. — H. C. Yarrow, Navajo treatment of ague; H. Ten Kate, Travels in Guiana and Venezuela; Cyrus Thomas, Mound - exploration work of the bureau of ethnology.

Biological society, Washington.

Dec. 11. — Theobald Smith, Parasitic bacteria and their relation to saprophytes; F. A. Lucas, On the osteology of the spotted Tinamou (*Nothura maculosa*); C. D. Walcott, Tracks found on strata of upper Cambrian (Potsdam) age; Frank Baker, The foramen of Magendie; C. Hart Merriam, Contributions to North American mammalogy of a new sub-species of pocket gopher.

Philosophical society, Washington.

Dec. 18, election of officers for 1887. — President, William Harkness; vice-presidents, C. E. Dutton, Garrick Mallory, J. R. Eastman, G. K. Gilbert; treasurer, Robert Fletcher; secretaries, Marcus Baker, J. H. Kidder; members at large of the general committee, H. H. Bates, F. W. Clarke, W. H. Dall, E. B. Elliott, G. B. Goode, H. M. Paul, C. V. Riley, W. C. Winlock, R. S. Woodward.

Engineers' club, Philadelphia.

Dec. 4. — Carl Hering, Analogies between electrical and mechanical units and phenomena; A. H. Howland, On the general subject of water-pipes; Rudolph Hering, Notes upon the present investigation of the drainage and water-supply of Chicago.

Academy of natural sciences, Philadelphia.

Nov. 30. — Miss Helen C. De S. Abbott, Haematoxylin; Professor Ryder, The transmission of morphological changes; G. A. Koenig, Boiler incrustation; On schorlemite as a variety of melanite.

Torrey botanical club, New York.

Dec. 14. — Julius Bisky, Additions to the flora of Queens county, N.Y.; Arthur Hollick, Revision of the species *Cerastium arvense*, L., and its varieties.

Institute of social science, New York.

Dec. 22. — Simon Sterne, Free trade.

Jan. 13. — A paper is expected on The economic heresies of Mr. Henry George.

Natural science association, Staten Island.

Dec. 11. — Mr. Henshaw, *Azolla Caroliniana*, Willd.; W. T. Davis, Fasciated stems and branches from *Rhus glabra* and *Ailanthus glandulosus*; Mr. Hollick, Glaciation on the island.

Connecticut academy of arts and sciences.

Dec. 15. — J. H. Emerton, New England spiders of the family Cinifionidae; J. T. Fewkes, Is the vast mass of oceanic water, between the surface and bottom, barren of life, or occupied by a peculiar fauna?

Society of arts, Boston.

Dec. 9. — Elihu Thomson, New art of electric welding.

Society of natural history, Boston.

Dec. 15. — Edward G. Gardiner, Recent researches on a third (rudimentary) eye in lizards; W. M. Davis, The mechanical origin of the triassic monoclin in the Connecticut valley.

Brookville society of natural history, Brookville, Ind.

Dec. 7. — A. W. Butler, Some notes on the habits of turtles; C. F. Goodwin, Observations on the sense of vision in domestic animals; Joseph Lindsay, The manufacture of paper.

Publications received at Editor's Office, Dec. 6-18.

Agricultural science, proceedings of the society for the promotion of, 1886. Columbus, O., *Gazette pr. house*, 1886. 88 p. 8°.

Brown, G. Report on experiments in trap siphonage at the Museum of hygiene, U. S. navy department, Washington, D.C. Washington, *Fudd & Detweiler, pr.*, 1886. 14 p., 2 pl. 8°.

Canada, annual report of geological and natural history survey of, 1885. Vol. i. Montreal *Dawson*, 1886. 791+24 p., maps, illustr. 8°.

Dagincourt, Dr. Annuaire géologique universel et guide du géologue. Paris, *Comptoir géologique de Paris*, 1886. 28+362+79 p., 1 pl. 12°.

Diller, J. S. Notes on the geology of northern California. (U. S. geol. surv., bull. 33.) Washington, *Government*, 1886. 23 p., illustr. 8°.

Gordon, J. C. Practical hints to parents concerning the preliminary home-training of young deaf children. Washington, *Gibson Bros., pr.*, 1886. 45 p., illustr. 8°.

Gurney, E., Myers, F. W. H., and Podmore, F. Phantasms of the living. Vols. i. and ii. London, *Trübner*, 1886. 84+573, 28+733 p., illustr. 8°. (New York, Stechert.)

Heilprin, A. Explorations of the west coast of Florida and in the Okeechobee wilderness. Philadelphia, *Wagner free inst.*, 1886. [63] p., 4°.

Hunt, T. S. Mineral physiology and physiography. Boston, *Cassino*, 1886. 18+710 p., 8°.

Linnean society of New South Wales, catalogue of the library of the Sydney, *Cunninghame & Co.*, 1886. 74 p., 12°.

Low, J. G. and J. F. Plastic sketches. Boston, *Lee & Shepard*, 1887. 12 p., 47 pl., 1°.

McCalley, H. On the Warrior coal field. (Geol. surv. Ala.) Montgomery, *State*, 1886. 16+571 p., 8°.

Ranke, J. Allgemeine naturkunde. Lief. 60, heft 1. Leipzig, *Bibliographische institut*, 1886. 48 p., 1 col. pl., illustr. 4°. (New York, Westermann.)

Ratzel, F. Allgemeine naturkunde. Lief. 51-59, hefte 9-17. Leipzig, *Bibliographische institut*, 1886. [431]+10 p., 9 col. pl., illustr. 4°. (New York, Westermann.)

Sanitary convention held at Ypsilanti, June 30 and July 1, 1885, proceedings of the Lansing, *State*, 1886. 173 p., illustr. 8°.

Scudder, S. H. The cockroach of the past. London, *Reeve & Co.*, 1886. [16] p., illustr. 12°.

Shaw, A. Coöperation in a western city. Vol. i. No. 4. Baltimore, *Amer. econom. assoc.*, 1886. 106 p., 8°. 75 cents.

U. S. navy, annual report of the secretary of, for 1886. Washington, *Government*, 1886. 28 p., 8°.

Wyoming, historical and geological society, proceedings and collections of the. Vol. iii. Wilkesbarre, Penn., *Wyoming hist. geol. soc.*, 1886. 128 p., portr. 8°.