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DESIRABLE PRODUCT FROM THE TEACHER OF MATHEMATICS—THE POINT OF VIEW OF AN ENGINEERING TEACHER.¹

THE school curriculum of to-day lies under the charge, vigorously pressed at the hands of many, of leaning to fads and being given over to poor teaching. The teaching of only two subjects seems to be excepted from the general charge of incompetency that is often made—namely, Latin and mathematics—and I have sometimes reflected upon the meaning and propriety of the exceptions. Returning to these reflections when your courteous secretary invited me to address you, I determined to lead you over some of this ground—old and often trod ground you may say—but nevertheless it is ground well worthy of surveying again and even again.

I think the charge of fads grows partly or wholly out of the character of work done in the kindergartens—under which name numerous sins are often cloaked by well meaning, accomplished, but highly impractical, and often incompetent, teachers. I am an earnest believer in the purposes of the kindergarten, but the practical results of its operation, where I have observed it, seem often to disseminate faulty methods of observation, poor workmanship in handicrafts and inaccuracy in thought. It is suggested that the pure kindergarten methods have their most important place in connection with the schools of social set-

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¹An address delivered before the general session of the Central Association of Science and Mathematics Teachers, November 25, 1904.

An unfortunate result of the contrary view held by the two authors is that *Pongo* Lacép. (1799) takes the place of *Simia* for the orang. Unfortunate, for however much the proper use of this word has been confused by later authors, old Andrew Battell, in 'Purchas' made it clear that the native name *pongo* belongs to the gorilla, and while it is true that some of the codes now in use do not consider that grievous misapplication in meaning is cause for removal, it may be doubted if any rule which serves to perpetuate error in fact stands on a lasting base where scientific exactness is the object.

Simia satyrus being transferred to a species of chimpanzee, the proper name for the orang, according to Mr. Rothschild (p. 421), is *Pongo pygmæus* (Linn.). The paper of Linnaeus's understudy, Hoppius, in the 'Amœnitates Academicæ' (1763), which is the reliance for this, is not really binominal and should not be considered. The first available use of *pygmæus* is in Schreber (1796), where it is based on Tyson's excellent figure of a chimpanzee. This is adopted by Rothschild for one of the chimpanzees, as *Simia pygmæa* (Schr.); the orang being *Pongo pygmæus* (Linn.)—an ill-judged and indefensible confusion.

All these lamentable changes may be avoided by the manner of treatment I have suggested, which appears to me to be quite within the rules. Present synonymy will be undisturbed and an appalling amount of confusion will be escaped. How great this is will be seen on attempting to correlate Mr. Rothschild's nomenclature with some known species. The only change required is that *Pan* Oken (1816) seems necessary for the chimpanzee, but this does not entail any alteration in specific names.

If it is to be regretted that Mr. Rothschild (p. 421) has followed Matschie so closely as to continue the erroneous date of '*Satyrus* Lesson, 1799'—which should be 1840—it is, at least, unalloyed gratification to be assured (p. 440) that the distinguished author and patron of zoological science is prepared to lead con-

tinental and American zoologists in the campaign for a system of pure trinomials.

ARTHUR ERWIN BROWN.

ZOOLOGICAL GARDENS, PHILADELPHIA,
May 27, 1905.

SCIENTIFIC JOURNALS AND ARTICLES.

The American Naturalist for June contains the following articles:

E. W. BERRY: 'Fossil Grasses and Sedges.'

H. W. RAND and J. L. ULRICH: 'Posterior Connections of the Lateral Vein of the Skate.'

H. W. RAND: 'The Skate as a Subject for Classes in Comparative Anatomy; Injection Methods.'

T. H. ROMEISER: 'A Case of Abnormal Venous System in *Necturus maculatus*.'

R. H. HOWE, JR.: 'Sir Charles Blagden, earliest of Rhode Island Ornithologists.'

C. R. EASTMAN: 'The Literature of *Edestus*.'

SOCIETIES AND ACADEMIES.

THE BOTANICAL SOCIETY OF WASHINGTON.

THE twenty-ninth regular meeting of the Botanical Society of Washington was held at the Portner Hotel, May 27, 1905. The following papers were presented:

Evolutionary Status of the Laminariaceæ:

WALTER T. SWINGLE.

Mr. Swingle's paper was illustrated by specimens from the algal herbarium of Mrs. W. T. Swingle. It was pointed out that of the twenty-two genera belonging to the true Laminariaceæ (*Corda* and *Adenocystis* being excluded) twelve (or over one half) are limited to the Pacific coast of the United States, from Lower California to British Columbia. In all, sixteen genera occur within these limits, while two more occur in Alaska and one more in New England, making nineteen genera in all from the United States territory in North America, or *over four fifths of the known genera*. In this territory there are fifty-one species, or almost exactly half of the one hundred and five species now known from the whole world.

The Laminariaceæ were shown to be cold-water algæ and are limited in their distribution chiefly by the summer temperatures of the sea water. The family originated in the