

properly checked, I will quote the following, which is a masterpiece of descriptive writing, and leaves little doubt concerning the various standpoints from which the subject has been treated:

SACHS, Phil. Jacob. *Γαμμαρολογία sive gammarorum, vulgo cancrorum consideratio physico-philologico-historico-medico-chymica, in qua præter Gammarorum singularem naturam, indolens et multivarium usum non minus reliquorum crustatorum tractatio ad normam collegii naturæ curiosorum plurimis inventis secretionibus naturæ artisque locupletata.* 8vo, Francofurti et Lipsiæ, 1665.

On this head I may state as a sort of confession, that in an early article of my own I employed a title of eighteen words to designate the same number of pages. There may possibly have been reasons other than the length of the title which denied me the pleasure of seeing this article extensively quoted, but in my own later experience I know that an article of indifferent value may often be saved for a bibliography through the merit of having an easily quotable title.

Modest titles, or those in which the author acknowledges that the final word has not been said upon the subject, usually begin with 'A contribution to the study of,' 'A few points in the anatomy of,' 'Observations upon the structure and development of,' and seem to be especially popular with younger investigators. While composed in the most laudable spirit, such titles are hardly necessary, since there is little danger of a misunderstanding on the point guarded against by the writer.

There are in all probability other forms of lengthy titles besides those touched upon here, and it is certain that titles may have numerous other defects besides length, but this article is intended as a protest, not a treatise; in short, '*a contribution to the study of the relative length of scientific titles, including an inquiry into the cause and origin of those that may be considered excessive, together with suggestions concerning the remedy for the same.*'

HARRIS HAWTHORNE WILDER.

SMITH COLLEGE,
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ELLIPTICAL HUMAN RED CORPUSCLES.

IN this short note the writer desires to place on record a peculiar anomaly in human red blood corpuscles. This interesting variation came to notice in the histological laboratory of the Ohio State University in October, 1902. The class at that time was studying the human corpuscles, and the attention of the laboratory assistant, Mr. Seymour, was attracted by the sketches made by a student who had represented the red corpuscles by elliptical outlines. Examination disclosed the fact that the colored corpuscles in the sample recently drawn by the student from his own finger were elliptical and not circular.

The student was directed to prepare another specimen, using a perfectly clean slide and cover-glass, and he followed directions closely, covering the slide as quickly as possible. The corpuscles were observed to have the same shape as before. Professor Bleile and Dr. Morrey confirmed the observation, and at Professor Bleile's suggestion numerous samples were taken by several people and the specimens invariably showed the same peculiarity. It was deemed advisable to extend the observations over a period of several weeks, subjecting the corpuscles to the action of various reagents, and also making measurements of the size of the cells.

To this end the writer carried the work on during a period of four months, specimens being taken at various intervals. The reactions to such reagents as water, dilute caustic potash, dilute acetic acid, dilute hydrochloric acid, tannic acid, etc., were normal, but in each specimen taken many cells having the abnormal shape were noted. The erythrocytes were distinctly elliptical, slightly biconcave, non-nucleated cells which did not adhere in rouleaux. In many of them the biconcavity was scarcely perceptible. It was estimated that 90 per cent. of the red cells did not have the circular outline of normal corpuscles. It was also shown that these cells were elliptical whether they were subjected to the pressure of a cover-glass or not. This seemed to be the only manner in which they differed morphologically from the normal cells, except in the slight degree of biconcavity. As this dif-

ference proved to be a permanent one, and not a variation caused by accident or error in technique, it was deemed worthy of being placed on record.

A large number of corpuscles were measured, but only the extremes and averages are here presented. They are as follows:

Shortest width observed	3.9 microns.
Greatest width observed	4.8 microns.
Shortest length observed	8.5 microns.
Greatest length observed	10.7 microns.
Average length	10.3 microns.
Average width	4.1 microns.
Ratio of width to length	1:2.5.
Average thickness	2 microns.

Thus it is seen that the outline was distinctly elliptical, the long diameter being on the average two and a half times the shorter diameter. It is also to be observed that the above figures differ considerably from those of the normal red corpuscles, which vary from 7.2 microns to 7.8 microns. The thickness was practically the same as that of the normal red corpuscles. The number was five millions per cubic millimeter and the quantity of hæmoglobin was up to the standard. The colorless corpuscles presented no peculiarities.

The student in whose blood these corpuscles were found was a healthy mulatto about twenty-two years of age. His brother, who attended the university a few years ago, had normal red blood cells. Other than this no family history is at hand.

MELVIN DRESBACH.

OHIO STATE UNIVERSITY.

NOTES ON ENTOMOLOGY.

AUGUSTE BARBEY, an expert Swiss forester, has published a review of the Scolytidæ of central Europe.* They are treated from a systematic standpoint, but after the description of each species there is usually a considerable amount of biological matter. With each species of great destructive power is given the best means of combating it. A number of the European species also occur in the United States, so that the book will be of great value to all American students of forest insects. The excellent plates illustrate the

* 'Les Scolytides de l'Europe Centrale,' Geneva, folio, 120 pp., 18 plates (also a German edition).

insects and their work; several of the latter are particularly fine.

The Münchener Koleopterologische Zeitschrift is a new entomological journal, devoted to the study of palæarctic beetles. It is issued from Munich, and edited by Drs. Karl and Joseph Daniel. Volume I. (1903) is now complete and contains over 400 pages. A large majority of the articles are systematic, and consist of reviews and revisions of genera and groups, and descriptions of new species and varieties. This volume contains Dr. Ganglbauer's notable classification of the coleoptera. He criticizes the recent classifications of Lameere and Kolbe, and presents a new one, which, in general, is like that of LeConte and Horn (1883). There are seven leading groups of families, but the groups Clavicornia and Serricornia of those authors are arranged under the groups Staphylinoidea and Diversicornia. It would appear, however, even from the names of some of the groups, that a logical classification of the beetles is a thing only to be hoped for.

The British Museum of Natural History has issued an elaborate account of the African tse-tse flies, prepared by Mr. E. E. Austen.* The fact that one species (*G. morsitans*) carries the germs of the Nagana disease lends great interest to the study of these flies. This disease, so fatal to domestic animals, was supposed to be due to a poison injected by the bite of the tse-tse fly. All travelers in those regions have been delayed or disheartened by its ravages in their animals. And Mr. Austen suggests that were it not for the tse-tse fly, the entire history of South Africa would have been different. Although as long ago as 1879 it was suspected that the tse-tse fly was merely the carrier of a blood-parasite, it was not so proved until 1895 by Col. Bruce. This parasite was then described by Plimmer and Bradford as *Trypanosoma brucei*. Mr. Austen devotes many pages to the recital of the ravages of the disease, quoting from many works of travel. Detailed technical descriptions are given of the seven species of the genus, one of

* 'A Monograph of the Tse-tse Flies (*Glossina*),' with a chapter on the mouthparts, by H. J. Hansen, London, 1903, pp. 319, 9 pls.