Edward Kasner: 'Isogonal and dynamical trajectories.'

P. L. Saurel: 'On the distance from a point to a surface.'

T. E. McKinney: 'On concylic quantics.'

T. E. McKinney: 'On continued fractions representing quadratic irrationalities.'

G. A. Miller: 'Groups generated by n operators each of which is the product of the $n-1$ remaining ones.'

F. N. Cole,
Secretary

THE AMERICAN CHEMICAL SOCIETY. NORTH-EASTERN SECTION

A Correction.—In the report of the proceedings of the seventy-fifth regular meeting of this section (this journal, p. 669), through a mistake of the undersigned, the following statement appeared: "For three semesters, the speaker was Wöhler's assistant and took part in the researches on aluminium, silicon, boron, etc." * * * Dr. Remsen was not Wöhler's assistant and did not take part in the researches on these elements, but did later make them under Wöhler's personal direction, by methods which had already been worked out. The speaker left Göttingen in 1870 and became assistant to Fittig at Tübingen. With a view to correcting the false impression given by the above-mentioned report, these few lines are put forth with the hope that they may fall under the eyes of most of the readers of the original report.

Frank H. Thorp,
Secretary

DISCUSSION AND CORRESPONDENCE

THE FIRST REVISER OF SPECIES

I have followed with much interest the recent discussion in Science by Messrs. Stiles, Stone, Jordan and Allen on the proposed new rules in zoological nomenclature. The subject is one of especial concern to me at the present time as involving the propriety of numerous generic names in a work now publishing. I wholly agree with Dr. Allen in his views regarding elimination, and concur quite with his statement that elimination is practically the only rule in use by systematists, at least so far as that especial group of insects with which I am best acquainted is concerned. I believe that, upon the whole, it is the safest and most expedient rule, and one which meets the approbation of most taxonomists. Next to this I would accept the rule of the 'first species,' one that has often been used by entomologists, especially where there has been no doubt as to the meaning of the original describers.

But the first species rule would be unjust when applied to certain writers. It is well known that Meigen, the 'father of dipterology' did not consider the first species as the most typical of his genera, but rather, with the last species, as the most aberrant, and these were the ones he usually figured. Wiedemann, a very prolific describer of exotic diptera on the other hand, arranged his species in his genera usually in the order of their size, and the first here would not in the least represent his most typical species.

As to the rule of the 'first reviser,' when applied to work done in the past, I consider it vicious; so utterly unjust and revolutionary that it is to be hoped it will be stifled in its birth. I, for one, shall never recognize it. Its chief use would be to give unlimited license to the library naturalist, now that 'new genera' are not so common as they were. I will mention a single instance of the effect it would have in a case that has recently been brought to my attention. There is perhaps no genus of flies better known, save *Musca,* than the genus *Syrphus.* Fabricius named the genus in 1775, giving a list of numerous species belonging to it, a composite genus of course, as all of Fabricius's genera were. In 1839, one Curtis, knowing little, critically, of diptera, in a general work on British insects, capriciously designated the nineteenth of Fabricius's species as the 'type' of *Syrphus.* In 1860, Schiner, perhaps the ablest student of diptera, and one of the most conscientious that we have ever had, subtracted one of these original species, which happened to be this 'type' of Curtis, as the type of a new genus *Leucozona.* The genus *Syrphus,* the type of the family Syrphidæ, with all its eliminations, now comprises a hundred or two species distributed in nearly all parts of the

world. The genus *Leucozona* includes a single species, possibly two. In accordance with this iniquitous, *ex post facto* law of the 'First Reviser' it is now proposed to apply the name *Syrphus* to this single species and to give to the hundreds now called by that name, the name of a synonym made years ago by the greatest blunderer that ever wrote on entomology. Schiner was remarkably conscientious, following the usages and rules of his time closely. He, of course, could not imagine that the future historical naturalist would impose so absurd a rule as would make the carelessly designated and wholly unwarranted 'type' of Curtis compulsory; did not dream that it was necessary for him to look through the writings of every author of high and low degree to see whether Fabricius's types had been arbitrarily fixed. His work was done in good faith.

This is but one example of the workings of this newly proposed, *ex post facto* law. There are scores of others not unlike it; in fact, dipterology will be a small chaos until all the present works on the science have been rewritten, and a paradise of the name tinkerer, if such a rule obtains.

I should not object to the 'first species' rule, if it were not made retroactive in such cases as would upset other names established by elimination. Surely those of the past who have done able and conscientious work under accepted usages should not be stigmatized at the caprice of any self-constituted authority. And what assurance have we that a few years hence some other *ex post facto* law will not be invoked to do the work all over again? New writers will have little opportunity to propose new generic names unless some such historical mine is opened up.

I really believe that the final solution of the ever-growing controversies and apparently never-ceasing changes will be some such commission as Dr. Davenport has recently suggested, an accepted commission to pass upon the validity of names without regard to priority or anything else. And one of the first rules that I should attempt, were I a member of such a commission, would be that he who digs up a name that has been buried for fifty years to replace some other in common use, should be ostracised and debarred from all further use of reputable scientific journals.

S. W. WILLISTON

TYPES OF GENERA BY FIRST SPECIES

IN a recent article[1] it is claimed that the first species method is opposed to the law of priority, since it supersedes the action of the first reviser. It is only necessary to reply that the action of the original author always precedes that of any possible reviser, and since the first species method determines the type of the genus solely from the first publication of the original author, it is obviously more in accord with the law of priority than any other method.

The same writer makes the surprising statement that the method of elimination and that of the first reviser are parts of one method. As a matter of fact, they are almost diametrically opposed. The elimination method, or the method of residues, tends to leave as the type of the original genus the one left last after all removals. This is usually the most obscure or unrecognizable species, since the more prominent ones are generally first selected as the types of new genera, or are otherwise removed. The first reviser method, or that of the nomination of types, tends to select some prominent species as the type of the old genus, since such will naturally be first selected by some later author as an illustration. These two opposed rules are, unfortunately, capable of being mixed in various ways (one of which is illustrated in the article here referred to), allowing of almost an infinitude of methods of selecting types. It is this extreme and most undesirable latitude in the rules that renders those most lately promulgated so unsatisfactory and impracticable.

HARRISON G. DYAR

U. S. NATIONAL MUSEUM,
April 19, 1907

A SHEEP-GOAT HYBRID

WHAT seems to be a hybrid between a sheep and a goat was produced this spring on the

[1] SCIENCE, n. s., XXV., 625, 1907.