really, a difference of "spelling." *Scimitar, simitar, simiter, cimiter,* are four out of more than thirty spellings of one word, and *amoeba* and *ameba* are two spellings of one word; but *Ambystoma* and *Amblystoma,* whatever their status may be in zoology, are either two different words, or else two forms, one erroneous, of one word. No one asserts that they are two different words. All who have spoken agree that one is an erroneous form of the other. Which was intended? Let it be decided.

In all scientific compound names, intention is supposed to be present; and for this reason it will always be necessary that "science" shall correct what "science" has erroneously published; in other words, that Jones and Robinson shall correct the errors of their distinguished predecessors Brown and Smith. This is good science, and good fun, too, for Jones and Robinson. What but this, indeed, is the progress of science?

Is there not a scientific error in the attitude of those scientific men who prefer to take the first form and "have done with it"? Can science have done with anything? What the advocates of priority do is, in fact, to turn over an unfinished job to other men. This is reasonable enough, if they will let the other men finish it.

It were to be wished that the advocates of rule in zoologic nomenclature would play one game or the other—either the good old Presbyterian euchre, in which words are borrowed or manufactured orthodoxly from Greek and Latin sources (admitting, also, some heathen of the better sort), or else the less exacting Mohammedan solitaire, whose first law is the chance priority of print. It is hardly fair to mix with cards bearing the good old Presbyterian names of *Amblycephalus, Amblychila, Amblycorypha, Amblyopsis, Amblyrhynchus,* and the rest, a card bearing the Mohammedan and solitaire appellation of *Ambystoma.* (I am assuming that euchre and solitaire are played with cards.)

If this isolated *Ambystoma* is correctly formed, tell us how it is done and what it means. And then throw it out, nevertheless; for the scientific reason that it would be forever confusable with the similar-seeming words with which, on the Mohammedan theory, it has no connection.

Notwithstanding all the politic reports and mosaic codes of the committees on nomenclature, committees which have done an inestimable service to science, and which should be liberally supported by money and advice (two sources of enrichment, of which one will never fail), I hold that it is the duty of scientific men to correct the errors which they find within their own domain; or at least not to enforce or prolong any error, great or small, by devotion to any rule of priority or any other hand-made rule intended to serve convenience in registration, regulation, indexing or proofreading. It is not right to make a rule out of chance and to call it a rule of order. It is not right to set up priority, which is a part of history, and to call it science, which is a part of reason.

If we will use the language of science, we must apply the science of language. And we must not ignore or reject that science on the ground that "the authorities differ" or that "the doctors disagree." Let me end with a hard saying: The doctors do not disagree. It is only some writers and advisers and committee men who disagree. The rest of us are agreeably unanimous. Let every man of science place his hand upon his heart, and agree!

CHARLES P. G. SCOTT

YONKERS,
July 28, 1916

AMBYSTOMA

IN connection with Professor M. W. Lyon, Jr.'s note on "*Ambystoma* not *Amblystoma*," I may mention the fact that Dr. Willard G. Van Name used *Ambystoma* as the scientific generic name of the spotted salamander in Webster's "New International Dictionary" which was published in 1909.

F. STURGES ALLEN

THE LIME REQUIREMENT OF SOILS

TO THE EDITOR OF SCIENCE: At this time when methods for the determination of the lime requirement of soils are receiving much

attention it is desired to point out several improvements in the lime-water method, as described in *Journal of the American Chemical Society, 26,* p. 661.

It has been found that to "draw off" the supernatant liquid and boil it to a volume of about 5 c.c. may lead to errors of 200 or 300 parts per million, because traces of soluble alkaline lime salts may not diffuse into the upper portion of the supernatant liquid. The method has been modified to read

> . . . allow to stand over night, with occasional shaking, shake thoroughly and filter immediately through a neutral filter paper (S. & S. 588 is good) rejecting the first 10 to 15 c.c., or until the filtrate is quite or nearly clear, place in a Jena (Nonsol or Pyrex, or other insoluble glass may be used) beaker. . . .

I have realized from the first that the lime-water method gives high results on soils very rich in organic matter. One of the reasons for this was recently observed by Mr. Holman, of this laboratory. It is that the characteristic pink color developed when phenolphthalein is added to an alkaline solution is often almost immediately destroyed rather than masked in solutions containing much dissolved organic matter.

The error which may be thus introduced is lessened but not entirely eliminated by boiling down the filtrate to about 10 c.c. and adding, watching carefully meanwhile for the temporary pink color, the phenolphthalein a drop at a time.

This is not the only cause for the high results obtained on soils rich in organic matter. Other causes, modifications to eliminate them and improvements simplifying and shortening the method, will be presented at an early date.

F. P. Veitch

Washington, D. C.

THE SURVIVAL OF BEAT IN THE REMOVED HEART OF THE SNAPPING TURTLE

The aim of the present note is to place on record the details of the survival of pulsations in the heart of the snapping turtle. A specimen having a shell-length of about twelve inches was captured in the vicinity of Kingston by one of the boys of the community. For three days it was kept in a tub without food and on the fourth was killed and dressed "to make a stew." The writer was not present at the killing which occurred at 9:45 in the morning. The heart was brought to the laboratory at 10:45, the boy being interested in the fact that the beating continued. At the time the writer first observed the specimen it was lying in a small pool of blood in a saucer with the vessels cut short. It was then beating strongly at the rate of eleven times per minute. At 11:35 the blood was washed out of the saucer and normal salt solution added to partly cover the organ. The further record of the beats per minute was made as follows, the room temperature being 73° F.

9:45	turtle killed.
10:45	rate 11 beats.
11:05	rate 12 beats.
11:35	rate 12 beats.
12:30	rate 16 beats.
1:00	rate 18 beats.
1:30	rate 18 beats.
2:00	rate 18 beats.
2:30	rate 18 beats.
3:00	no contractions.

From the above it will be observed that the contractions continued at a slightly increasing rate for a period of about six hours. At the end of this time mechanical stimulus failed to produce further contractions.

Philip B. Hadley

Kingston, R. I.,
June 27, 1916

QUOTATIONS

SCIENTIFIC SOCIETIES AND THE GOVERNMENT

The letter in the *Times* of Professor E. G. Conklin, of Princeton, pointing out that no president has given such generous recognition to the National Academy of Sciences and other scientific bodies as Wilson, deserves larger attention than it will get. It occurs to few that the government could make profitable use of scientific auxiliaries. Though the National Academy of Sciences was authorized fifty-three years ago by Congress, in response to a demand by Alexander Bache, superintendent of the Coast Survey, for an official organization for research; though it was launched with a membership including Agassiz, Davis,