journal in my possession of my great-grandfather, William Brown. The observations were made by him at his home three miles north of Hodgenville, Kentucky, and forty-six miles directly south of Louisville. This location was 225 miles slightly north of east of New Madrid. He has left numerous records in this journal, some of which have been published, that indicate the accuracy of his observations and records. The notes of the earthquake seem worthy of publication because accurate records of it made at the time are few and unexcited ones very rare.

Mount Gilead Kentucky Earthquake on Sunday night Decr. 15th, 2 of the clock at night a severe shock of an earth quake was felt. The motion of shaking continued about 15 minutes. About half an hour after this shock was over another was felt less severe, continued only a minute or two. The next day, Monday morning the 16th, a little after sun rise another shock was felt, the tremor continued a few minutes. Two other slight shocks were felt that morning—the next shock was on Sunday about midday not so violent as the first. The weather for some days before had been dull and cloudy. Again on the night of the 30th instant a shock was felt. Again on Jany (Thursday) 23 1812 at 8 o'clock in the morning another severe shock was felt. The tremor continued for several minutes. When it had stilled another shock was felt which lasted a minute or two. On Monday morning Jany. 27th, a slight shock was felt—on Tuesday evening, 4th Feby 1812 a slight shock was felt. The trembling of the earth continued for several minutes suppd. 6 or 7—and a rumbling noise heard. These are the shocks that we have felt at this place. By report hardly a day passes but the trembling of the Earth is more or less felt. In time of the severest shocks to attempt to walk you feel light head and reel about like a drunken man. Again on the night of Thursday, the 6th Feby. about 4 o'clock A. M. a very severe shock was felt which lasted fully 15 minutes with a rumbling noise like distant thunder and three very distinct reports like cannon was heard at the end of it. Again on Friday night the 7th a smart shock at 8 o'clock then about 11 o'clock another less severe. Frequently you may feel a trembling in the Earth when there is no visible appearance of shaking. It has invariably been cloudy weather about the time of the shocks and rains or snow shortly after. Again on the night 20th Feb. about 9 or 10 o'clock 2 slight shocks were felt the last of which continued its tremor for more than 15 minutes. Again on Saturday night 22d about 10 o'clock another slight shock.[1]

There are not many contemporaneous accounts. Fuller republished in SCIENCE[2] most of Audubon's account in his "Journal." It was written two or three years after the occurrence and is inaccurate; he puts the date a year after it occurred, and the first shock as occurring in the afternoon while he was riding. Bradbury, the British botanist, happened to be at the very center of the disturbance, on the Mississippi River, and describes it carefully in his "Travels in the Interior of America." Bradbury was a trained scientific observer and, as might be expected, his account is the most valuable. In the *American Geologist*,[3] Broadhead brings together most or all of the other early accounts that have been published. Of these, the account of Eliza Bryan, of New Madrid, taken down four and one half years later by Lorenzo Dow, is the only one that is free from excitement and gives a chronological account of the shocks. Brown's record of the repeated shocks agrees closely with those of Bradbury and Bryan and is the only one that is equally temperate and detailed.

Bradbury mentions the previous appearance of a comet in the following words: "One of the men . . . attributed it to the comet that had appeared a few months before, which he described as having two horns."

Brown also refers to this comet in the note next preceding that of the earthquake in his journal as follows:

A comet with a broomy tail appeared about the first week in September 1811 in the northern region of the Heavens. Its course appeared to be coming from the Northeast and making its way to the Southwest. Continued to be visible until about middle of Jany 1812. The last appearance of it was in the So. Western region of the Heavens.

It is evidence of his freedom from superstition that he does not suggest any connection between the comet and the earthquake.

WM. ALLEN PUSEY

BIOLOGICAL NOMENCLATURE

IN the issue of SCIENCE of January 10, Professor Needham renews, without enthusiasm, his proposal of 1910 of a system of numbering species in lieu of naming them. One serious objection to that plan is that it is much easier to remember names than numbers, and easier to associate names with species than to associate numbers with species. In a magazine article or an address to biologists most of them might recognize names of species, but few would recognize numbers. Furthermore, it is much more difficult to avoid mistakes in writing and printing names than in writing or printing numbers. A mistake in a figure makes the whole number wrong. A mistake in spelling a name may leave the meaning perfectly clear. In proof-reading a mistake in a number may be easily overlooked, whereas a misspelled name is likely to be noticed.

[1] From Wm. Brown's "Journal," pp. 19 and 20, in University of Chicago Library.

[2] May 12, 1905, N. S. XXI, No. 541.

[3] Vol. 30, August, 1902.

Professor Needham's suggestion that trinomials be discarded entirely would only make a bad mess worse. Trinomial nomenclature, recognizing very slight differences by name, whether they be biological, geographical or environmental differences, must be relied upon to save the idea of species, based upon more important and constant differences. It is often necessary to discuss such races, and they can be designated intelligibly only by giving them names. To give them binomial names, thus placing them in the same rank as full species, would be biologically less accurate and would also greatly multiply the species which, to use Professor Needham's own phrase, do not "concern the general reader."

However, I am in hearty sympathy with Professor Needham's protest against the multiplication of genera, now rapidly reaching the point where one must "learn a new genus for almost every species." A vast number of genera now recognized would better serve the ends of science if regarded as subgenera. This splitting process is discouraging to students who would like to engage in biological work, and it makes most of the literature of biology usable to only a very few, neither of which results is desirable. If it were necessary to consider all these small groups genera, regardless of how slight the differences by which they are separated, nothing more need be said, but it is not at all necessary.

Genera are not of equal rank and can not be. Division of species into genera, families, etc., is a man-made system, purely for the convenience of men and women. The question as to whether a given group should be considered a genus or a subgenus is purely a matter of individual opinion, in most cases. It no more accurately represents nature to call most of these groups genera than to call them subgenera. A juryman explained that the jury could have agreed except for eleven obstinate men on the jury. Of course the specialist naturally considers his own brain-children more important than any others, but are they? Should he not consider the thousands of naturalists who are not specializing in his particular line? Should he not endeavor to make his writings and addresses intelligible to a large number of people instead of to two or three narrow specialists, and instead of trying to obscure or conceal his ideas from most of his readers and hearers? Using a well-known generic name, followed by a subgeneric name in parentheses, would indicate to both specialist and non-specialists what organism is under discussion, which is the real purpose of nomenclature, and the subgeneric name would sufficiently indicate the slightly differentiated group in which the specialist is interested. Those who believe that "the purpose of language is to conceal thought" from everybody else will continue to multiply genera, while those who use language to make their meaning plain to all who hear or read will relegate many genera to subgeneric rank.

UNIVERSITY OF COLORADO JUNIUS HENDERSON

A NATURAL CAT MUMMY

THE November–December, 1929, issue of *Natural History* prints the following statement:

> In a recent issue of *Palaeobiologia,* Professor Julius *Vigh of Budapest describes a natural mummy of a house* cat. After death the cadaver of the cat dried out thoroughly without decay and has been preserved for more than ten years.

The writer has in his possession a similar specimen which he has used for the past six years in lectures to his classes in paleontology at Brown University, since it is an illustration of how fossilization may originate through desiccation. The history of the specimen and its state of preservation may interest paleontologists and others.

The cat in its present state came into the writer's possession about 1911 or 1912 while he was a boy in high school at Plainfield, New Jersey. It had been found in a barn, under the following circumstances. The finder, a fellow student of the writer, had disturbed some hay which had long lain in a corner of the building. In so doing he came upon the dried body of the cat lying on its side. How long it had been under the hay there was no means of knowing, but certainly it had been there long enough for complete desiccation of what parts remained at the time of discovery. Turning the carcass over, an opening nearly as large as a tennis ball may be observed on the under (right) side, exposing nearly the entire visceral cavity from which all soft parts have decayed. These, and part of the left hind foot, the tail and most of the fur are missing, but otherwise the specimen is practically complete, even to the dried eyeballs and remnants of whiskers. The stiff, hard, resonant skin is drawn tightly over the bones in all parts, and the ears are dried to thin, parchment-like pockets. When first secured, the cat had a slight odor, but this long since disappeared, and the specimen has been kept for some seventeen or eighteen years without any preservative or particular care. To-day it shows no sign of further deterioration. Evidently, the viscera rotted away soon after death; and, this locus of decomposition having been removed even after the manner of preservation of the Egyptians of old, the rest of the body, partly shut off from the air by its hay covering, "kept" perfectly.

The manner of death may be surmised. There is evidence of mutilation prior to death. The missing tail may have been lost before or since the cat died; that can not be definitely determined. But the left hind foot is crushed, the bones protruding from the