2. Oneonta (of Ithaca or lower Portage age);
1. Kiskatom reds (of Hamilton age).

Strictly speaking, the type Oneonta is only the upper Ithaca (Cincinnatus), but no name is yet available for the red equivalents of the lower Ithaca (Otselic), nor can we yet separate at east the Sherburne-Genesee horizons from these, though probably present. The original Catskill included 1 to 3, but in the later subdivision the Kiskatom was misidentified as Oneonta, while the term Catskill was restricted to 2 and 3, including thus the true Oneonta strata. To keep as close as may be to the intention of these writers, it is proposed to maintain the name Oneonta for all beds properly so correlated, meantime pushing the restricted term Catskill up to the still higher beds forming the peaks of all the true or eastern Catskills, whose age has been proved to be Enfield (upper Senecan). It is clear, however, that this name Catskill can no longer properly be used for those red beds farther west in Pennsylvania and New York that are of later and various ages, though they happen to possess the same continental facies.

Radical as these revisions may seem, that have put the "Portage" of Ohio far above the Chemung and the Catskill below the latter, it has nevertheless been our uniform experience that our mistakes were those of not going far enough. The field facts have forced us farther and farther from the long-accepted ideas. The future may force still greater departures. An indication of this is the unpublished field work of Mr. Charles E. Fralich, of Bradford, Pennsylvania (Torrey, Fralich and Simmons), on the Standish flags of the upper Genesee, showing a great eastward expansion of these and their equivalence to the "Sherburne" beds at Ithaca, formerly referred to the Portage.

GEORGE H. CHADWICK

CATSKILL, N. Y.

NO METEORITE

IN the Pittsburgh *Gazette* of November 16, 1932, under the caption "Inspecting Sky Visitor," was a two column picture of a girl sitting on a table beside a large rock. Underneath it was the following statement: "A piece of a 200-pound meteorite, found two years ago by J. G. Shaw, Northside editor, in a field in Clarion County, is shown in the above photograph. Interest in the meteorite and the history of its fall to earth in a Clarion County oat field in 1896 was intensified by the promised display of Leonids, which were due shortly before daylight this morning."

I wrote at once to Mr. Shaw, the editor of *The North Side Ledger,* Pittsburgh, Pennsylvania, and under date of November 21 he replied that one night in August, 1896, a meteor was seen by people driving home. It appeared to land right beside them in a field about 150 feet from the road. The horses were so frightened that they ran away. A day or two later one of the party returned to the field and "found a boulder near where an oat shock had been set on fire and destroyed by either the sparks or heat from the yet warm meteorite. Nearly one half of it was found to be of iron composition and the remainder stone."

This is the stone now on exhibition in the office of *The North Side Ledger,* 715 West Diamond St., N. S., Pittsburgh. The iron portion was broken off years ago and is believed to be in the possession of a Mr. Swank, brick manufacturer, at Johnstown, Pennsylvania.

On receipt of Mr. Shaw's letter, I wrote to Professor Charles R. Fettke, head of the department of geology, Carnegie Institute of Technology, Pittsburgh, requesting that he examine the stone and give an opinion as to whether it is a meteorite. Professor Fettke's reply of December 7 is exceedingly interesting:

> I had an opportunity this afternoon to examine the so-called "meteorite" on exhibition at the office of J. G. Shaw, editor of *The North Side Ledger,* and found it to consist of a large boulder of medium-grained quartz sandstone. It is full of fossil plant fragments, largely compressed stems and branches, some of which are an inch or more in width. Carbonized plant tissues are associated with some of the fossils. The boulder has undoubtedly been derived from one of the sandstones of Pottsville or Allegheny age cropping out in the locality where it was found. A coating of limonite may possibly have occurred on the part which is said to have been removed and which is now owned by Mr. Swank, of Johnstown.

This proves that the stone in Mr Shaw's possession is not of meteoric origin. Possibly a small meteorite, maybe only an inch in diameter, struck and ignited the oat shock, and buried itself in the ground. It may be concluded that if a meteorite landed in Clarion County, Pennsylvania, one night in August, 1896, it has not been found.

R. W. STONE

PENNSYLVANIA GEOLOGICAL SURVEY

MORE FRESH-WATER MEDUSAE

EVIDENTLY the rare and discontinuously distributed fresh-water jellyfish, *Craspedacusta ryderi* (Potts), is appearing from time to time in various parts of the country, and possibly oftener than reported in scientific literature. I am adding a record of the discovery of this medusa in Summit Lake, within the city of Akron, at about the same time as the discovery in Pennsylvania by Dr. Brooks.[1]

[1] SCIENCE, 76: 465, 1932.

Summit Lake is about two thirds of a mile long and a quarter of a mile wide in places. It is one of the chain of Portage Lakes. The other lakes, partly natural, partly artificial reservoirs, are south of the city. They are connected by channels and the Ohio Canal connects the waters of the others with Summit Lake. Some plankton and other aquatic work have indicated these lakes as satisfactory in their biota, though Summit Lake has been at times more or less polluted, and has a somewhat less varied fauna.

Craspedacusta has not appeared in any of the other lakes. All available specimens came from Summit from about September 6 to 17. The medusae were first seen and collected mostly by several persons living close to the lake shore. Collection was by buckets and dip nets from boats. The writer collected few himself, but obtained many others from the finders. In our own collection, we found scarcely any in sunny weather in midday, though this would supposedly be the best time for them to be near the surface, as recorded by several observers, as, for instance, Garman,[2] in Kentucky, who also noted calm water as most favorable. After I secured so few, local collecters said they took their large numbers at sundown. When finally we could get to collect at sundown, we found none, but the day was unusually cold and very windy, making the water very rough for a lake of this size. The water attains a depth of about 10 feet, where it was claimed most were collected.

Between 200 and 300 specimens were taken alive into the laboratory, but were probably overcrowded in collecting jars. They died off very rapidly, some disintegrating quickly. No exact date of their disappearance in the lake can be given, but certainly they were not seen over a period of more than half a month.

This is the second Ohio discovery. In 1926, also in September, Dr. R. C. Osburn, of Ohio State University, collected many medusae in an artificial pond near Coshocton, Ohio, about 58 miles southwest of Akron.

Dr. Brooks in his recent note on finding these medusae is mistaken in saying that seemingly his would make the fifth different locality for the medusae in the Western hemisphere. There will not be space for the citation of the records, most of which have been published in SCIENCE. My data on all these records, and papers of observers, indicate that there have been at least a dozen different localities in this country and one other in the western hemisphere.

WALTER C. KRAATZ

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[2] SCIENCE, 60: 477, 1924.

"A CORRELATION CURIOSITY"

IN a recent issue of SCIENCE,[1] E. B. Wilson has obtained the probability that the three correlation coefficients correlating three variables should all be positive. Denoting the coefficients by r, s, t, it is stated that "the conditions on r, s, t are that they shall lie between +1 and −1 and that

$$1 - r^2 - s^2 - t^2 + 2rst \geqq 0.''$$

It may be of interest to note that these conditions on r, s, t lead to a rather surprising formulation of the problem. Putting $r = \cos A$, $s = \cos B$, $t = \cos C$, we have (i) the angles A, B, C lie between zero and pi, and

$$\begin{vmatrix} 1 & \cos A & \cos B \\ \cos A & 1 & \cos C \\ \cos B & \cos C & 1 \end{vmatrix} \geqq 0$$

Now it may be shown that these two conditions imply $A + B + C \leqq 2\pi$, and the three angles satisfy the triangular inequality. The writer has shown that these relations are the necessary and sufficient conditions that three angles are the face angles of a trihedral angle. Hence, the problem is equivalent to finding the probability that three angles selected arbitrarily between zero and pi be the face angles of a trihedral angle.

Assuming that the distribution of points (A, B, C) in the cube with vertices (0, 0, 0), (π, 0, 0), (π, π, π) (0, π, 0) is of uniform density unity (an assumption that in terms of the variables r, s, t is different from the one made in the paper under discussion) it is found that the probability equals one-third.

LEONARD M. BLUMENTHAL

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HOW DID JOULE PRONOUNCE HIS NAME?

IN the summer of 1897, while being conducted through the physics laboratory of the University of Edinburgh by Professor P. G. Tait, I chanced to tell him that at the University of Strassburg Professor Wilhelm Hallwachs, in speaking of Joule, had given the ou the sound of ou in you, and that after the lecture an English student had told him that the ou should have the sound of ou in out. And I asked Professor Tait whether he could tell me how the name should be pronounced. He smiled and said, "Well, I used to work with him and I can only say that he always called himself Joule," sounding the ou as in you.

The 1895 edition of the Standard Dictionary states that the ou is pronounced like u in rule, agreeing with Joule's own pronunciation, but the latest edition gives the ou the sound of ou in out. When I up-

[1] N. S., 76, No. 1979 (1932), p. 515.