

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,<sup>2</sup> in Kentucky, who also noted calm water as most favorable. After I secured so few, local collectors 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.

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<sup>2</sup> *SCIENCE*, 60: 477, 1924.

### "A CORRELATION CURIOSITY"

IN a recent issue of *SCIENCE*,<sup>1</sup> 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

$$1 - r^2 - s^2 - t^2 + 2rst \geq 0."$$

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

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

Now it may be shown that these two conditions imply  $A + B + C \leq 2\pi$ , 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  $(0, 0, 0), (\pi, 0, 0), (\pi, \pi, \pi), (0, \pi, 0)$  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.

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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-

<sup>1</sup> *N. S.*, 76, No. 1979 (1932), p. 515.