

Some difficulty was experienced in interpreting the carpals, due to overlapping in the photograph. A careful study indicated that synostosis had occurred between trapezium and trapezoid, and between unciform and os magnum (Fig. 1). The unusual degree of flexibility in the wrist was explained by a highly developed joint between proximal and distal groups of carpals.

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## NOTES

### DR. WHITSITT PRESENTS PAPER BEFORE CHEMICAL SOCIETY

Dr. May L. Whitsitt, of the Chemistry Department, presented a paper on vitamins B and G before the recent meeting of the American Chemical Society at Washington.

The following summary of her paper by Science Service, Washington, D. C., was published in *Science*, on March 31:

"Cottonseed meal, valuable cattle feed by-product of the cotton industry, is a rich source of vitamins B and G, according to Professor May L. Whitsitt, of the Southern Methodist University. She found cottonseed meal richer in these two important factors than an equal weight of whole wheat, dried yeast, or skim milk powder. Cottonseed oil shows no trace of either of these two vitamins, while the hull bran has a varying amount of the vitamins, depending on the way it is extracted. Vitamin B is necessary to prevent the development of beriberi in man or a condition known as polyneuritis in birds. Vitamin G, also known as vitamin B<sub>2</sub>, is said to be the factor in certain foods, notably yeast, that prevents pellagra in man and a similar condition, black tongue, in dogs."

E. O. H.

### A MINIATURE SNOWSTORM

A meteorological phenomenon occurred on the morning of February 7, 1933, at White Rock Lake, Dallas, Texas. From the west side of the lake (an artificial body of water three miles from north to south, by one mile from east to west) a dense, boiling fog seemed to rise some 75-100 feet above the water. However, upon arriving at the southeast side of the lake, this "fog" proved to be a miniature but intense snowstorm. The snow was blown about a half mile beyond the water's edge by a northwest wind which attained a velocity of about 30 miles per hour. Similar miniature storms were reported on the leeward sides of other lakes and ponds in the vicinity.

The reasons for this unusual condition are rather simple. During the entire month of January the water of White Rock Lake was warmed by relatively high temperatures. At midnight on February 6, the southerly wind shifted suddenly to the northwest, accompanied by a drop in temperature from 55° at midnight to 8° above zero at ten o'clock the next morning. A 25° drop took place during the first half hour after midnight. Because of the low atmospheric temperature, moisture rising from the warm waters of the lake con-

densed into snow a few feet above the surface, which was then blown by the strong wind into relatively deep drifts on the leeward side of the lake.

MABEL HAMILTON  
ROBERT C. DUNLAP

### A UNIVERSITY WEATHER RECORDING STATION

Through the co-operation of the Engineering School and the Geology and Geography Department of the College of Arts and Sciences, Southern Methodist University recently established a weather recording station. The equipment consists of a thermograph, a maximum - minimum thermometer, a sling psychrometer, all housed in a standard thermometer shelter of government specifications, a standard rain gauge, and a barograph. Maximum and minimum temperatures, total precipitation for preceding twenty-four hours, relative humidity, condition of sky, types of clouds, wind direction, and pressure are recorded daily.

The station, on the top of the Engineering Building at an altitude of approximately 600 feet above sea level, has about the same height as the regular government station on top of the Cotton Exchange Building in Dallas. The distance between the two is about six miles. A close check will be made between the two records to determine variations. An interesting contrast appeared in total rainfall at the two stations during a hard shower of March 18; the government station reporting .52 inches, while the University station recorded .66 inches, a variation of .14 inches in a single shower of forty-five minutes duration. Minor variations in temperature also will likely appear.

While the station was established primarily for student instruction, records will be kept on file for reference.

E. J. F.

### CAN CHLOROPHYLL DEVELOP IN DARKNESS?

It has been known for a number of years that, as a rule, light is necessary for the development of chlorophyll in plants. This generalization appears in many textbooks of plant physiology, a small number of exceptional cases usually being noted. These include the embryos and seedlings of certain conifers, fronds of young ferns, certain unicellular algae, the sacred bean, *Nelumbo*, and, perhaps, seeds of pumpkins and of some citrus fruits.

Some of these exceptional cases have been explained on the basis of possible penetration of light rays in greatly diminished intensity through seed coats, or even through rinds and fleshy portions of fruits, although no experimental evidence has thus far been brought forth in proof.

About March 1 of this year, while turning over soil for a garden, a glass container filled with earth was found at a depth of about seven inches. Within it, on the side nearer the surface, were found a number of small green plants, which have been tentatively identified as *Lamium amplexicaule*.

The soil where these were found was rather tightly packed, and had certainly not been disturbed for a year, perhaps for a longer period. The glass jar was a wide-mouthed one with a capacity of a pint or more, similar to the containers in which prepared mustard is sold. The plants, eight in number, varying in length from 6 to 15 cm., were distinctly green, with the exception of the central parts of the leaves, adjacent to the portion which clasped the stems. This was somewhat yellowish in each leaf.

It is not known when the jar was buried, nor whether it contained seeds or seedlings at the time, but there can be little doubt that some growth and development, including chlorophyll for-

mation, took place under the circumstances described.

A series of controlled experiments, using both seeds and young plants of this and related species, is planned, and it is hoped that a fuller report may be given at a later date.

M. L.

#### SANDSTONE DIKES NEAR ROCKWALL, TEXAS

The University of Texas Bulletin 3201, Memorial Volume to Dr. J. A. Udden, carries a contribution by Martin Kelsey and Harold Denton, Southern Methodist University alumni and graduate students in Geology, on the Sandstone Dikes of Rockwall County, Texas.

Early settlers of this area, while digging a well, discovered a wall of sandstone blocks of uniform character and spacing, and with the appearance of mortar joints, popularly supposed to have been built by a prehistoric race. Other walls were discovered, and when the county was organized it was called Rockwall.

A voluminous literature has accumulated concerning the walls. Count Byron de Prorok, a distinguished archeologist, became the most ardent advocate of artificial origin. Geologists have uniformly explained the walls as natural jointed sandstone dikes. Among those advocating such natural origin are Hill, Hyer, Lahee, Paige, Patton, Sellards, and Stevenson.

Kelsey and Denton mapped nine dikes in addition to those already known in the area. An analysis of the heavy minerals and a study of the general structural relations led them to conclude that the sand in the dikes was injected upward into open fissures of the Pecan Gap marl, the country rock, from the underlying Wolfe City sands.

E. W. S.

#### CORRECTIONS VOL. 1, NO. 1

[P. 8, line 8 from bottom] read "(Ab)(ab)=x<sup>2</sup>+y<sup>2</sup>"; [p. 8, line 6 from bottom] "(aB)(ab)=x<sup>2</sup>+y<sup>2</sup>"; [p. 9, Table II, col. 5, line 7] read "0.07."

## ALUMNAE NOTES

- William A. Bramlette**, B.S. in Geology, Southern Methodist, 1931, is now a graduate student in Geology at the University of Texas.
- Chas. Gill Morgan**, B.S. in Geology, Southern Methodist, 1928; two years on the staff of the Geophysical Research Corporation, 1928-1930; graduate student, Harvard University, 1930-1931; instructor in Field Geology, Southern Methodist; summer school 1932; is now working with Dr. Robert T. Hill.
- J. G. Kearby**, B.S. in Physics, Southern Methodist, 1929; A.M. 1931; is now teaching Physics and Chemistry at Peacock Military Academy, Dallas.
- J. K. Gwynn Silvey**, B.S. in Biology, Southern Methodist, 1927; M.S., 1928, and Ph.D., 1932, Michigan; is now head of the Science Division at McMurry College, Abilene, Texas. Dr. Silvey was an instructor in Biology at Southern Methodist in 1928-1929.
- Robert M. Gengnagel**, who studied at S. M. U. from 1928 to 1931, has just received his Bachelor's degree from Leland Stanford University. His work has been in the field of Biology.
- William Goerner**, '32, who majored in Biology and Chemistry here, is now studying physiology under Dr. E. J. Lund, in the graduate school at the University of Texas.
- Lawrence Clark**, '32, whose major work was in Chemistry and Biology, is studying medicine at Washington University, St. Louis.
- James Toomey**, '32, a major in the Chemistry Department, is now with Geophysical Research Corporation.
- Dr. Lewis K. Sweet**, who was referred to in our last number, writes that the hospital in which he is working in China is but twenty-five miles from the front, and that he has volunteered for surgical work in the Chinese Army, in case a nearer approach of the Japanese makes it necessary that the hospital be closed.