DAVID M. DELO

cassine, Ilex glabra, Morella cerifera, Vitis rotundifolia, Taxodium distinctum, etc., form a dense growth over most of the area and appear to be many years old. The Solanum grows around the edge of the denser portion of the vegetation. The jamaicense seems to be thrifty in the habitat and fruits abundantly and when last seen bore all stages from bloom to ripe berries.

Aeschynomene americana L. has been observed growing and seeding profusely in waste low pine in Orange, Polk and Hillsborough counties, Florida. It seems well suited to the new environment.

ORLANDO, FLORIDA

MAURICE MULVANIA

## DREIKANTER IN WYOMING AND MONTANA

WHILE engaged in geologic work during the past summer in company with Dr. C. K. Wentworth, associate professor of geology, Washington University, St. Louis, the attention of the writer was called to several occurrences of dreikanter or wind-etched pebbles in Wyoming and southern Montana.

Text-books generally tell us that dreikanter are found in desert areas where there is an abundant supply of loose sand. With this conception in mind, the occurrence of the dreikanter found during the past summer is doubly interesting.

The most perfect examples of dreikanter were found on the western slope of the Wind River Mountains in western Wyoming. Here is an ancient land surface, apparently undisturbed during recent geologic time, with a relief low enough to allow for the free sweep of the wind. The pebbles were partly buried, with the upper etched portion protruding from the ground. Many finely polished specimens with the three angular edges so characteristic of true dreikanter were found at this locality. Far exceeding these in number were those showing only one welldeveloped angular edge (Einkanter), and others in which the upper portion of the pebble had been removed by the sand-blast action. The average size of the pebbles was about that of a lemon, although many larger specimens were found. The largest seen was a very well-developed dreikanter boulder which measured 24 inches long, 16 inches high and about 14 inches wide.

Another Wyoming locality between Rawlins and Medicine Bow yielded numbers of wind-etched cobbles of various sizes. Here the shaping of the individual cobbles had not progressed to completion, but a large proportion of the boulders studding the surface showed definite evidence of sand-blast action, many of them with characteristic einkanter shape. Wind-etched cobbles were also found in the neighborhood of Bosler, Wyoming. The surface of terraces in the valley of the Yellowstone River east of Livingston, Montana, were found to contain numbers of etched cobbles, only a few of which showed a definite shaped dreikanter profile. Here, as elsewhere, were found many einkanter, but these were far outnumbered by fragments showing only partial etching and shaping.

It is interesting to note that at none of these localities does the country show true desert characters. All are in areas of scanty rainfall and sparse vegetation, but the amount of loose sandy material is small. Again, it may be worthy of mention that the better shaped cobbles were found in localities where the ground was not too thickly studded with rock fragments.

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## DEMONSTRATIONS IN CYTOLOGY

THE teaching of cytology requires abundant microscopic demonstrations to acquaint the student with factual evidence of the different topics discussed in the lectures. At the present time cytologic investigation is so diversified and specialized that it is impossible to prepare adequate material for this purpose. To overcome this difficulty, the writer proposes to establish a mutual exchange of slides among the many investigators in cytology. The following plan is submitted as a tentative procedure.

(1) The writer offers to exchange preparations of polar body formation, fertilization, segregation of germ-cells and cleavage stages up to blastoderm formation in *Drosophila melanogaster* and Cerebratulus for any other preparations of great cytologie interest.

(2) From the slides thus received the writer will select some for his own collection and offer the remainder to all others who are interested on the basis of mutual exchange. Slides will be itemized on a mimeographed list.

The writer discussed this proposition with several cytologists in Woods Hole this summer and it was approved by all. Most investigators have duplicate preparations or some which can not be used in their work but would serve a useful purpose in general cytology. Instead of discarding such preparations, they should be put into service to demonstrate cytologic phenomena.

Teachers of cytology who wish to cooperate in this mutual exchange should label the slides carefully, and if the point of interest is limited to a small field, the area should be marked.

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