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### NATURE AND FATE OF THE METEOR CRATER BOLIDE

By Emeritus Professor HERMAN L. FAIRCHILD

UNIVERSITY OF ROCHESTER

THE impact origin of Meteor Crater, Arizona, is an accepted fact. The fate or disposition of the colliding body is yet undetermined, and a very interesting problem in cosmic science.

Through many years of exploration, with large expense, the Barringers, father and sons, have collected and published a mass of surprising facts about the crater and its associated meteoric materials. The data, however, have not been marshaled to attack the question of what has become of the greater part of the meteor, except to sustain the theory that the mass lies buried under the south wall of the crater.<sup>1</sup>

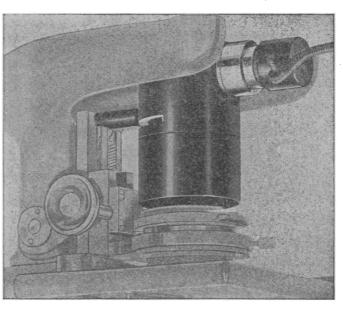
The problem of the fate of the meteor involves not only the physical and chemical properties of the discovered meteor fragments but the nature of other

<sup>1</sup> See article by D. M. Barringer, Jr., in the *Scientific American* of July, August and September, 1927. A list of the more important writings is given in SCIENCE, 69: 485-487, 1929. meteorites. There are also involved most of the features of the crater and the characters of the rock strata which were disrupted.

#### CANYON DIABLO SIDEROLITES

The meteoric irons known as Canyon Diablo, from the near-by creek and canyon, have been gathered from the desert plain about the crater to the number of thousands and distributed to institutions all over the world. Because of their number and wide distribution, their inclusion of minute diamonds, their genetic relation to the unique crater and their remarkable chemical and physical characters they are the most interesting and instructive of known meteorites. The facts concerning these irons should give some clue to the character and fate of the giant bolide of which they were a part.

The typical C. D. irons were scattered over the des-



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