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THE RISE OF GENETICS¹

By Professor T. H. MORGAN

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THE new developments in science that occur from time to time can generally be traced either to the invention of a new method or to the discovery of a new fact that has far-reaching consequences, or to the elaboration of a new theoretical principle that suggests new lines of investigation. In the latter case, it is the prerogative of science, in comparison with the speculative procedure of philosophy and metaphysics, to cherish those theories that can be given an experimental verification and to disregard the rest, not because they are wrong, but because they are useless.

In the case of genetics the situation was in some respects different from any of these procedures; for it began with the discovery of a discovery that had been made 35 years before. We can date the begin-

ning of genetics, then, from the resurrection of Mendel's paper in 1900. Its rehabilitation was not, however, due to a literary find, but to a need resulting from similar experiments by de Vries, Correns, and Tschermak that unveiled a series of phenomena identical with the facts of Mendel's earlier work.

The significant fact is that when the time was ripe to appreciate its fundamental significance, Mendel's forgotten paper was discovered with the result that the activities of hundreds of biologists, as the program of this present Congress bears witness, had the direction of their scientific careers entirely redirected, or begun along new lines. The discoveries that rapidly followed, showing that the same laws applied widely to the other plants and to animals also, brought about realization that a great step forward in biology had been made.

But before we consider the rise of genetics after the year 1900, it is proper on this occasion to pay

¹ Address of the president of the Sixth International Congress of Genetics at Cornell University, Ithaca, New York, August 25, 1932.

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