critically observed facts and carefully tested reasoning may justify. An interpretation thus cautiously reached and conservatively formulated will surely command the serious consideration of scientific men.

### CONCLUSION

Have we, in the method of multiple working hypotheses, applied with the aid of rigorous analysis something which will guide us unfailingly to the discovery of truth? We are compelled to answer this question in the negative. No device, however perfect, can wholly deprive the human intellect of its capacity for making mistakes. De Leon searched in vain for the fountain of youth. Can we hope for a magical fountain of truth?

The most for which we may reasonably hope is by correct methods of research to reduce the chances of error to a minimum and to raise to its maximum the probability of discovering the real causes and relations of things. This we have done, so far as lies within our power, when we are accurate in observing facts, careful in classifying them, cautious in generalizing from them, fertile in inventing hypotheses, ingenious and impartial in testing their validity, skilful in securing their confirmation or revision and judicial in formulating ultimate interpretations.

Multiple working hypotheses as a method, employed in connection with critical analysis as an instrument of precision, offer us, in my opinion, the best guarantee of success in scientific research.

# SCIENTIFIC EVENTS

## UNIFICATION OF RADIO RESEARCH FACILITIES IN GREAT BRITAIN

THE facilities for radio research carried out by the British Department of Scientific and Industrial Research on the advice of their Radio Research Board have been improved by the unification of the Wireless Division of the National Physical Laboratory and the department's Radio Research Station at Slough into a new radio department of the National Physical Laboratory. Mr. R. A. Watson Watt, hitherto the superintendent of the Radio Research Station, is the superintendent of the new department.

Under the new arrangements the Radio Research Board continues to be appointed as at present by the lord president of the council, and its constitution and functions remain unchanged except that the opportunity has been taken to remove the anomaly by which the general work on the maintenance of radio standards at the National Physical Laboratory was a responsibility of the board. In the future the executive committee of the National Physical Laboratory will assume direct responsibility for these standards in the same way as it assumes responsibility for other national standards.

On the formation of the Radio Research Board in 1920, the National Physical Laboratory was entrusted with all work which required a laboratory equipped with instruments of the highest precision. Such work included the development of radio frequency standards, the study of problems of selectivity, aerial arrays and the generation of extremely short waves, as well as methods for the measurement of fundamental quantities necessary in accurate circuit design. Owing, however, to its situation and the proximity of other electrical work, the National Physical Laboratory was considered unsuitable for the conduct of radio research work requiring measurements in the field or on isolated sites. For work of this character facilities were provided by the department at the Radio Research Station erected on land adjoining the Admiralty Compass Observatory at Ditton Park, near Slough. Practically the whole work carried out on behalf of the Radio Research Board was thus divided between the Radio Research Station, Slough, and the National Physical Laboratory.

Although the Radio Research Station and the National Physical Laboratory have closely cooperated in the past, the unification which has taken place gives the Radio Research Board much greater freedom in planning its program as a single unit. The amalgamation of the staff of the two sections under a single direction is in the interests of efficiency and economy, and enables the increasing number of inquiries from industry to be made to one single establishment.

## THE ANNUAL MEETING OF THE ROYAL INSTITUTION

THE annual meeting of the members of the Royal Institution was held on May 1, the president, Lord Eustace Percy, being in the chair. According to the report in *Nature* the annual report of visitors for the year ended December 31, 1932, testified to a year of considerable activity. The membership had been well maintained. The privilege of free attendance at the afternoon lectures by *bona-fide* students in London had been much appreciated and used. The report on the progress of the researches in the Davy Faraday Laboratory gave a good indication of the considerable extent of the research organization which is at work under the direction of Sir William Bragg. Some sixteen or eighteen workers are engaged, the majority on problems related to the x-ray determination of structure. Mention was made of Dr. J. M. Robertson's determination of the structure of anthracene, of Dr. A. Müller's work on the long-chain compounds, and of the growth in accuracy and capacity of the