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**CENTRAL BOARD OF
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PART II

EDITED BY
N. D. GULHATI, I.S.E., M.I.E. (INDIA)
SECRETARY



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FOREWORD

This Annual Report contains an account of research and other technical investigations on subjects connected with irrigation, waterways, hydro-electric, navigation and allied subjects, carried out in India and other member countries during the year 1947. It is published for the information of engineers and scientists in India and abroad who are interested in the work of the Central Board of Irrigation (India).

Summary reports of the work carried out during the year 1946 at eight out of the ten research stations in the member countries, and papers on specific subjects selected by the Board, together with the discussions thereon, appear under the respective subject-heads. The discussions constitute the technical, proceedings of :

- (i) The seventeenth annual meeting of the Research Committee of the Board held in Simla from July 7 to 12, 1947 and
- (ii) The eighteenth annual meeting of the Central Board of Irrigation, held in Delhi from December 1 to 6, 1947.

The preliminary notes were written by the Secretary for the information of those attending the Research Committee and the Board meetings.

It is regretted that, due to lack of space, it has not been possible to include in full articles from the annual reports of the research stations contributed for discussion at the Research Committee meeting. Abstracts or abridgements of articles not included in full are, however, provided. In other cases where abstracts or explanatory introductions were not supplied by authors, the Secretary has provided introductory abstracts.

The report like that of last year is printed in two volumes, but is arranged according to the latest grouping of subjects approved by the Board : Hydrology, Theory of flow and design of channels, Hydraulic Works, Water power works, Soil science, Water utilization projects and General. In addition as usual there are two chapters on Meetings of the Board and the Research Committee during the year and summarised annual reports of the research stations given in the beginning.

The undersigned would repeat the request, contained in previous reports, for the supply of information relating to any of the problems mentioned in the publication. He will gladly furnish further details of any of the experiments investigations *etc.*, or other information relating thereto.

N. D. GULHATI,

Secretary,

Central Board of Irrigation.

Simla

Dated January 17, 1948.

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