well as that relating to the development and exploitation of CSIR patents and inventions be transferred to the Corporation. (Patenting of inventions and renewal of patents however continues to be the responsibility of the CSIR.) During the year under review, the assistance of the Corporation has also been sought by the Central Laboratories for Scientific and Industrial Research, Hyderabad (Dn.), Indian Lac Research Institute, Ranchi, College of Engineering and Technology, Calcutta, as well as by a number of private inventors.

Development of inventions by the Corporation is secured by arranging large-scale trials in co-operation with industry, or licensing out patents and inventions to industrialists for large-scale production depending upon the nature of the work and the stage to which laboratory investigations have been pursued. The reports received from research institutions are carefully scrutinised to examine the stage to which laboratory investigations have been conducted and decide whether further pilot or large-scale trials are indicated to develop the research work and establish its practical and economic possibilities.

In cases where large-scale trials at an industrial plant are necessary, as when the investigations have a bearing on industries already established in the country, the Corporation selects, in consultation with the research organisation concerned, the factory where the trials are to be conducted and settles with the firm details regarding expenditure on the conduct of the trials and the concessions which the firm is to receive in return for facilities afforded A model developmental licence agreement to define the rights of the parties has been drafted and is entered into between the Corporation and the firm before trials are undertaken.

Where laboratory investigations are complete and no further pilot or large-scale trials appear indicated, a non-technical note is published and circulated to chambers of commerce, scheduled banks, insurance companies, directors of industries of States, associations of industries likely to be interested in the development of the process and a large number of prominent industrialists. Interested parties are encouraged to examine samples and comment on them. Such information as can be released in the preliminary stages is made available. Terms for the licensing of the process are negotiated, keeping in view the scope of its application, the likely demand and feasibility of arranging production at more than one centre. If a process has a limited application, exclusive licences may be issued. Where wider possibilities of application appear possible, zonal or non-exclusive licences are considered. In cases where the process is of a general application it may be allowed to be used by all interested parties.

Upto the end of the period under review, 177 inventions from various institutions were handled by the Corporation and 62 processes are under critical examination. Plans for the development of the Corporation include a Survey and Statistics Section with a view to (*i*) study the economic significance of researches reported for development and keep abreast of developmental trends; (*ii*) conduct an effective market research and a feasibility study for the promotion of products and processes; and (*iii*) examine and classify patents and information on processes and supply the National laboratories with references and information on all available processes and patents concerning any particular development. An Industrial Relations Section for more effective liaison between research and industry is also contemplated.

The Corporation has made a good beginning and it is to be hoped that it will play an increasingly important part in the development of our industrial methods.

## RADIO WAVES FROM JUPITER

RADIO wave emission from the planet Jupiter has been detected by *Dr. B F. Burk* of the Carnegie Institute, Washington D.C, and confirmed by workers in the Radiophysics Division, the Commonwealth Scientific and Industrial Research Organisation, Australia. The discovery is quite unexpected.

Dr. Burk's observations were made on a frequency of 22 megacycles a second, which corresponds with a wavelength of about 14 metres. It was by chance that the narrow field of view of the telescope—one and a half degrees wide—included Jupiter. Short bursts of radio emission of about one second duration were noticed, and for more than a month the movement of Jupiter was followed. The fact that the bursts are of short duration suggests a more or less localized origin, and the fact that they have been detected only on one day in three may be connected with the rotation of the planet, which has a "day" of 9 hr. 50 min.