H.—7.

A most valuable original work on the Coleoptera of New Zealand, by Captain Brown, has been placed at the disposal of the department for publication, and Government has authorized the necessary expenditure. This work, which has involved great labour in its preparation, contains descriptions of 1,050 species of beetles, a large proportion of which are new. A leading naturalist has expressed his opinion that no country outside Europe and America has such a complete descriptive catalogue of this class of animal life, a thorough knowledge of which is of the utmost practical importance to the agriculturist.

A work descriptive of the economic minerals of New Zealand, embodying all the results of the work done in the laboratory since its establishment—part of which only has hitherto been published—is being prepared for press with the assistance of Mr. Cox, and it is hoped may be issued some time

during the year.

METEOROLOGY.

Observations are taken continuously on a uniform system, by the use of registering instruments, at the following stations, fifteen in number:—Mongonui, Auckland, New Plymouth, Napier, Wanganui, Wellington, Nelson, Cape Campbell, Christchurch, Bealey, Hokitika, Dunedin, Queenstown, Wallace-

town, Waitangi (Chatham Islands).

The observations are taken at 9.30 each morning. At the end of the month the returns are completed and forwarded to the head office at Wellington, when, after having been examined, corrected, and reduced, the results are prepared for publication in the Gazette.

At the end of the year, the monthly sheets from these fifteen stations are averaged, and a comparative table, showing the climate of New Zealand for the year, prepared, and the whole forwarded to the Registrar-General for publication with the statistics of the colony.

A monthly return is prepared for publication with "Vital Statistics," from information received

by telegram from the six principal stations.

A return is also furnished to the Press by the Wellington Observer, giving the daily readings,

with averages and remarks, for each month for that place.

A special yearly report is made on the climate of New Zealand, including results from all stations, as compared with previous years, for publication in the volume of Transactions of the New Zealand Institute.

A return, giving an abstract of the weather for the year, is also furnished for insertion in the yearly "Wellington Almanac."

Every two years a report is published in a pamphlet form, containing all the results of meteorological observations, and arranged in a convenient form for reference and comparison, together with all extra information from other than official sources on the subject, and giving diagrams and curves of the principal readings.

TIME-BALL OBSERVATORY.

The astronomical observations required for giving mean time for the use of the Telegraph Department and throughout the colony are taken, as hitherto, by the Ven. Archdeacon Stock; but the Observatory has lost a valuable amateur assistant through the death of Mr. John Kebbell, who for many years past devoted a great deal of his time and unrivalled mechanical skill to its interests.

A vote was obtained last session for the supply of a second rating clock and chronograph, and the necessary order has been sent to the Agent-General, with instructions to obtain it from the best maker

in London.

The time-ball at Wellington is dropped by the Observatory clock, and the same time is supplied for dropping the time-ball at Lyttelton; but in neither case is the dropping-machine under the control of this department. It is very desirable that some uniform system of distributing correct time to the most important seaports should be organized, as inaccurate time-balls are apt to mislead ships' captains, who are accustomed to seaports in other countries where extreme importance is attached to the accuracy of the time-ball service.

LABORATORY.

The number of analyses performed in the Colonial Laboratory during the past year is 235, which makes up the total number to 2,401.

These are subdivided as follows, the same classification being used as heretofore:—

Coals and oils		•••	•••	•••	••.	12
Rocks and minerals		•••				35
Metals and ores			•••	•••		52
Examinations for silver and	gold	•••	•••	•••		88
Waters			•••	•••		15
Miscellaneous						33

Certain special processes have been employed in different examinations which have been conducted during the past year, and a description of these will be found in the usual report, with the results obtained in the various samples to which they refer.

All analyses of interest or importance have been also reproduced in full, together with such notes as have been furnished to the contributors in reporting on the specimens submitted for examination.

LIBRARY.

Two hundred volumes have been added to the Library since June, 1878. They consist chiefly of the publications of British and foreign scientific societies, received in exchange for the Transactions of the New Zealand Institute.

The whole of the books have been systematically arranged, and a catalogue made; but here, as in other parts of the Museum, the want of sufficient space leads to great inconvenience.

2—H. 7.