The Wide Bay mill, previously situated in Henry Reid Bay, has also been dismantled, and is now in the course of erection on the banks of the Wunung River, Jacquinot Bay, sub-district Gasmata.

In Mr. Lane Poole's Preface on the *Forest Resources of the Territories of Papua and New Guinea,* he writes:—

"The possibility of commercial forests on the smaller islands seemed less than on the main island, but on New Britain there are still small areas of profitable forests of *E. naudiniana,* the tree that for many years has yielded the best general building timber for Rabaul and outlying stations, otherwise the islands were disappointing.

"Australia's tropical dependencies, while offering no prospect of immediate gain to large saw-milling interests, possess forest potentialities of a high order. The range of forest regions extends from the mangrove swamp at sea level, through the main forests of the low lands, on to the oak of the hills and the pine forests of the mountains.

"It is nature's very abundance that has made the forests of these Territories unprofitable.

"Less species, and some pure stands, are what are wanted, and here is where the forester can assist nature. In this splendid growing climate there is no reason why Australia should not establish forests to supply a large part of her timber requirements."

[Article for publication by C. C. Marr, H.D.A., Inspector and Instructor of the Department of Agriculture, Territory of New Guinea—

EDITORIAL NOTE.—In discussing the value of this timber with Mr. E. Knox, Director of Public Works Department, he informed me that it was of comparatively little value for bridging, decking, or other places where fully exposed to the weather. It is, however, well suited for indoor work in houses, and for furniture.—G.H.M.]

METEOROLOGY.

Meteorology, the science of the atmosphere, the term usually being used with reference to the study of all influences affecting the weather conditions and climate, begins with observations, taken over a long series of years, of all kinds of natural atmospheric properties, such as temperature, pressure, wind direction and velocity, state of the sky, humidity, atmospheric electricity and ionization, and so on.

These observations are taken at as many stations as possible.

The meteorologist reduces this enormous mass of data to manageable dimensions by taking *averages* or *means*; the mean may be taken over the whole year, or over parts of it, such as halves or single months. Meteorology is largely a science of such averages.

The results derived from meteorological records are constantly being consulted for information regarding climatic conditions by persons in practically every walk of life. The enumeration of the avenues of social and industrial activity in which climatological data are of importance would consume much space, and could never be complete, as fresh ones are continually being found. Among the more important, however, are agricultural, aviation, pastoral industries, public health, and scientific research. In the case of the introduction

of the cotton industry into Australia, for instance, the first step was to discover, from their climatological characteristics, what places should be expected, in the light of experience elsewhere, to be suitable for its growth. Again, certain tropical diseases are found to be confined to places with rainfall above a certain limiting value. The medical organizations are thus forewarned as to the directions in which these diseases are likely to spread, as well as having information which may suggest models of attack on them. In the securing of reliable observations, the Meteorological Bureau is largely in the hands of observers. Poor returns mean a great deal of extra work in the office in the checking and correction or rejection of faulty observations, and in endeavours to supply missing ones. No one of the various observations listed in the routine can be considered unimportant; each may be required for some special investigation. Unreliable observations are a permanent blemish on the records of a station, and observers can be sure that their sins in this direction will ultimately find them out. Unfortunately, no opportunity of rectifying them can occur. Nothing is so depressing or so calculated to waste the time of an investigator as unreliable records. The variations to be dealt with in comparing different seasons or places, or in other researches, are often very small, and any persistent error becomes important. As an example, it may be mentioned that close relationships have been shown to exist between the deviations from normal of the monthly mean pressure at Darwin and the seasons in the Dutch East Indies and Australia, yet these deviations extremely rarely exceed 0.05 inch.

PHENOLOGICAL OBSERVATIONS.

Phenology is the study of the sequence of seasonal changes in nature. All natural phenomena, such as the first flowering of uncultivated plants, the migration and song of birds, ripening of fruit, the appearance of butterflies, caterpillars, insects, and so on, are included. Interesting results have been obtained from the study of these phenomena in England and the United States of America especially. Observers should include their observations of such happenings in the weather notes.

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