Judging from the apparent direction of its path, as shown in the chart, this one may possibly have been an offshoot of a tropical "low" of which there was evidence on the preceding day.

Of all the atmospheric disturbances the "secondary" is undoubtedly the most difficult one for the forecaster to deal with. Its development may take place practically within local limits, in which case its effects would be felt before the forecaster became acquainted of its presence. There have been cases where heavy local rains have occurred which have utterly

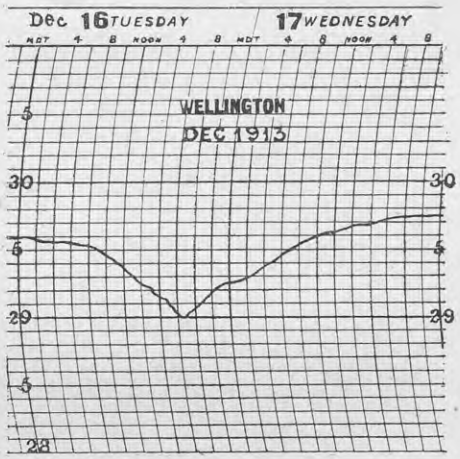

FIG. 13.—Barographic curve during passage of cyclone, Wellington, 16th–17th December, 1913.

falsified the forecast issued, at least for particular districts. When this happens people, especially those lacking a knowledge of weather science, are often apt to blame the forecaster, when neither the forecaster nor the system is really at fault.

Cyclone originating in Tasman Sea.

Cyclones sometimes develop on the Tasman Sea between New Zealand and Australia, and Figs. 11 and 12 show one of this nature, the centre of which passed through Cook Strait between 6 and 8 o'clock on the night of the 16th December, 1913. The winds and the weather proved more intense on the northern side of the centre. The shaded portion of Fig. 11 shows where rain was falling at 9 a.m. on the 16th. It is noticeable how certain portions of New Zealand had no rain falling, particularly the east coast of the North Island, although near the storm-centre. This may be taken as a further illustration of how a forecast of rain may fail, and how impossible it is to state definitely those places which, perhaps through local peculiarities, are likely to miss many of the effects of the storm.

The lowest reading of the barometer at Wellington on the night of the 16th was 29·00 in., and this took place at 6.30 p.m. according to the barogram Fig. 13.

Usually, with approaching cyclones, in front of the centre there is a striking increase in temperature, but in this case this effect was somewhat counteracted by the passage of the rear of a "low" the previous day, the centre of which is shown in the south-east corner of Fig. 11.