

## NOTE ON A DEFECTIVE FORM OF PORTABLE RAIN GAUGE.

The rain-gauge first used at Rousdon was three inches in diameter, specially manufactured for the use of travellers, and designed to occupy as small a space as possible. It consisted of a tin cylinder about eight inches high and three-and-a-half inches in diameter. Into an aperture in the lid, the neck of the funnel was inserted. It followed, therefore, that immediately below the rim of the funnel there was a flat surface always more or less flooded during rain.

The rainfall of September, 1883, was 8.15 inches as recorded by this gauge, an amount so greatly in excess of the measures of other observers in this district as to cast doubts on its accuracy.

I, therefore, procured the 5-inch Snowdon gauge mentioned in the introduction to this volume, and placed it, together with the 3-inch gauge, within two feet of each other and in equally exposed positions. I then found the resulting rainfall for October, 1883, registered by the 5-inch gauge, 2.66 inches, and by the 3-inch, 5.08 inches. This great discrepancy showed conclusively the cause of error.

The flooding of the top of the cylinder has now been obviated, and the smaller gauge is read once monthly, the result being that the monthly record is always *slightly* in excess of the sum of the daily readings, owing to the small amounts of dew, &c., which are often too small to be registered individually. I have mentioned this source of error, as it may explain certain discrepancies which occasionally occur in some observers' records.

### RAINFALL.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Mean Rainfall of the } Seven Selected Stations }	3.61	2.72	2.22	2.37	2.09	1.81	2.39	2.61	3.57	3.51	2.94	3.19
Rainfall of Rousdon, } 1884 }	3.43	4.52	2.78	2.04	1.30	2.52	3.88	1.45	2.17	0.77	1.69	3.99

The above table gives the Mean Monthly Rainfall for the following places, being all the stations within 25 miles of Rousdon, given in "RAINFALL TABLES OF THE BRITISH ISLES FOR 1866-1880" (Official No. 47); compared with the Rainfall observed at Rousdon during 1884. The Annual Mean of these seven stations is 33.03 inches and that of Rousdon, for 1884, is 30.54 inches or 2.49 inches below the average.

No. 92. Cerne Abbas, Melbury, altitude ? feet.	No. 118. Walrond Park . . . altitude 116 feet.
.. 97. Clyst Hydon . . . . . " 200 "	.. 119. South Petherton . . . . . " 150 "
.. 99. Exeter, Bramford Speke " 140 "	.. 120. Taunton . . . . . " ? "
.. 100. Budleigh Salterton . . . . . " 33 "	

## ON THE VALUE OF THE WEATHER FORECASTS, ISSUED BY THE METEOROLOGICAL OFFICE, DURING THE YEAR 1884.

In the autumn of 1883, I commenced a daily comparison of the weather experienced at my Observatory with that predicted for this district in the forecasts of the Meteorological Office, and the results proved of such interest that they have been continued for the entire year 1884.

These Tables have been prepared in the following manner:—Each morning at 9h. 30m., after recording the usual meteorological observations, a report of the wind and weather of the preceding twenty-four hours was drawn up in words as nearly as possible on the model of those employed in the