

BIBLIOGRAPHICAL NOTICE.

Pocket-Book of Mechanics and Engineering, containing a Memorandum of Facts and Connection of Practice and Theory. By John W. Nystrom, C.E. 5th edition, Philadelphia: J. B. Lippincott & Co., 1861.

Mr. Nystrom sends us another excellent little book of mechanical data and memoranda, for which he has made himself celebrated. Our mechanics will find this manual very convenient, well-arranged, and apparently accurate. We have to remark, however, that the French metre given on page 73 as 39·38091 inches, is, by the determination of the Coast Survey, which is an authority in America, 39·3685. This should be corrected. F.

METEOROLOGY.

For the Journal of the Franklin Institute.

The Meteorology of Philadelphia. By JAMES A. KIRKPATRICK, A.M.

MAY.—The mean temperature of the month was $59\cdot38^{\circ}$, nearly five degrees below that for May of last year, and two and a half degrees less than the average for ten years past. The highest thermometric indication was 83° on the afternoon of the 27th, but the 26th was the warmest day of the month, its mean temperature being $73\cdot7^{\circ}$. The coldest day was the 3d, of which the mean temperature was 40° ; the lowest (36°) was reached on the morning of the 2d of the month.

The greatest daily oscillation of temperature was 27° on the 5th; the average oscillation for the month $19\cdot55^{\circ}$, nearly 3° greater than the mean for the last ten years. The least daily oscillation was 8° on the 20th, when rain fell nearly all day. The greatest daily range—that is to say, the greatest mean difference between two successive days—was $10\frac{1}{2}^{\circ}$ between the 20th and 21st; the least was 1° between the 23d and 24th. The mean daily range for the month was $5\cdot06^{\circ}$, nearly half a degree less than usual.

The force of vapor and relative humidity were both considerably less than the average, as will more fully appear in the annexed table of comparisons.

During the month, a greater quantity of rain fell than in the corresponding month in any year since 1854, when about one inch more fell. The amount in May, 1854, was 7·299 inches, in May, 1861, 6·240 inches. The number of days on which rain fell (13) was six less than in May, 1860, but was just equal to the average number for ten years. More than half of the rain for the month fell between noon on the 3d and the night of the 6th. In that time 3·420 inches fell.

The sky was entirely clear, or free from clouds, on six days, and completely covered on two days of the month at the hours of observation.