

There is only one point left for explanation, and this is the band-like appearance of the light at distances from the sun of more than 90°.

Many years ago I made a careful reduction of the star gages of the two Herschels in order to eliminate the Milky Way as far as possible, for Proctor had shown that there is good reason for supposing that the Milky Way is an irregular stream of stars at no great distance, comparatively speaking, from our solar system. The results are given in Table 8. The north galactic pole was taken to be at right ascension 12<sup>h</sup> 47<sup>m</sup>, north polar distance 59° in 1860, and the numbers of stars given are those seen in the field of view of a telescope 15 inches in diameter. I may say that the observations were very irregularly distributed over the heavens; in some of the areas marked off by galactic longitudes and latitudes there were a large number of observations, in others there were none at all.

TABLE 8.—Herschel's star gages.

Galactic north polar distance.	Number of stars in field of view.
0 to 15	No observation made.
15 to 30	5.2
30 to 45	7.0
45 to 60	12.2
60 to 75	21.8
75 to 90	{ 41.1 not on Milky Way. 133.9 on Milky Way.
90 to 105	{ 126.1 on Milky Way. 49.2 not on Milky Way.
105 to 120	27.2
120 to 135	18.4
135 to 150	9.1
150 to 165	6.5
165 to 180	5.7

It will here be seen that the rise in the number of the stars, from about 45 on or near the Galactic equator to 130 on the Milky Way itself, produces that band-like appearance so familiar to us all, and so it is with the zodiacal light—there is somewhat rapid condensation near the invariable plane which produces the same appearance as in the case of the Milky Way.

**THE ZODIACAL LIGHT—IS IT METEOROLOGICAL OR ASTRONOMICAL?**

In printing the preceding memoir by Mr. Maxwell Hall, on the zodiacal light, we hope to contribute something to the question whether this appearance in the sky is due principally to astronomical or meteorological conditions. For two centuries it was considered to be a purely astronomical phenomenon, and supposed to be a flat disk ring of meteoric matter inside the orbit of Venus; but, as observations increased, the extent of the orbit had to be increased, until finally the very accurate work by Rev. George Jones, carried out during the Wilkes Exploring Expedition around the globe, and published

in full in one large volume, established beyond a doubt the fact that the orbits of the meteors must extend beyond the earth's orbit. As this seemed incompatible with the stability of the earth's orbit, efforts were made to reconcile the observations with the hypothesis that we were observing a meteoric ring revolving about the earth, analogous to the inner crêpe or dusky ring of Saturn. But the laws of mechanics forbade the permanent existence of such a ring. Attention was then called to the fact that we have no record of the zodiacal light ever having been observed from the high mountain tops; whence it follows that, in some way or other, this light must have its origin in some condition peculiar to the lower atmosphere. Therefore for many years the zodiacal light has been noted by meteorological observers, especially by those who have some interest in astronomy. The conclusions arrived at by Dr. Maxwell Hall, however, would relegate the phenomenon to the department of astrophysics instead of terrestrial physics, so that the only influence of the atmosphere would be to render obscure the fainter details. If this be so then the light should be visible from the summits of mountains even better and more frequently than from the low lying stations; and we especially commend it to the attention of observers at high stations throughout the world, whether on plateaus or on mountains.—C. A.

**CORRIGENDA.**

MONTHLY WEATHER REVIEW for October, 1905, Vol. XXXIII, No. 10, page 445, first column, line 1; for "August 24" read "August 4". Also in the same column, the first line beneath the dash, for "—4" read "—2".

MONTHLY WEATHER REVIEW for January, 1906, Vol. XXXIV, No. 1, page 14, second column, table at foot: in every case for "P" read "C"; also page 15, second column, Table 8, at head of each subcolumn make the same change.

MONTHLY WEATHER REVIEW for January, 1906, Vol. XXXIV, No. 1, page 15, first column, line 17, for "cirro-cumulus" read "strato-cumulus." Page 30, second column, line 2, beneath title "Tornadoes," etc., for "Wake County, N. C.," read "Rowan County, N. C."

MONTHLY WEATHER REVIEW for March, 1906, page 111, second column, line 2, for

$$\int_{z_0}^z T = T_m, \text{ and } \frac{T_m}{T_0} = (1 + 0.367 \theta) = (1 + a\theta),$$

read

$$\frac{1}{z - z_0} \sum_{z_0}^z T_z = T_m, \text{ and } \frac{T_m}{T_0} = (1 + 0.367\theta) = (1 + a\theta).$$

Page 114, first column, formulas (42) and (43), and the text below, change the expressions for angular velocity from  $(2n + \nu)$  to  $(2\omega + \nu)$ .

**FORECASTS AND WARNINGS.**

By Prof. E. B. GARRIOTT, in charge of Forecast Division.

North Atlantic weather was notably severe. During the first half of the month low barometric pressure prevailed over the British coasts and the barometer continued high over the Azores. During the last half of the month an area of high barometer persistently covered the British Isles, and low barometric pressure and stormy weather prevailed from the region of the Azores eastward over southwestern Europe.

In the United States the course and character of areas of high and low barometric pressure produced strikingly abnormal weather. Temperature was generally deficient, and in an area extending from the lower Ohio Valley over the middle-eastern slope of the Rocky Mountains the deficiency was 9° to 10° F. Except on the north Pacific coast and in limited areas east of the Rocky Mountains precipitation was in excess

of the March average, and in interior portions of the middle and east Gulf States, Georgia, and northern California the excess exceeded four inches. Southern and eastern districts were visited by a number of storms of unusual severity, and the second decade of the month covered a period of exceptionally low temperature and heavy snow in an area extending from Lake Superior over the Missouri Valley and the middle and northern Rocky Mountain and Plateau districts.

From the 1st to 4th an area of low barometer advanced from Colorado to the Canadian Maritime Provinces, attended by heavy snow in the Middle-western and Northwestern States on the 1st and in the Missouri Valley and the northern Lake region on the 2d, and by heavy rain from the southern Lake region and the Ohio Valley to the east Gulf and south Atlantic