vided for as usual this year, it is legally impossible to assume that it will in carrying on the work of the bureau.

— Dr. Asa Gray left Harvard College in trust, to aid in the support of the Gray Herbarium of Harvard University, the copyrights of all his books, upon the condition that proper provision be made for the renewal and extension of these copyrights by new editions, continuations, and supplements, such as may be needed in the study of botany, and as may best enhance and prolong the pecuniary value of the bequest.

LETTERS TO THE EDITOR.

**** *Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

Twenty copies of the number containing his communication will be furnished free to any correspondent on request.

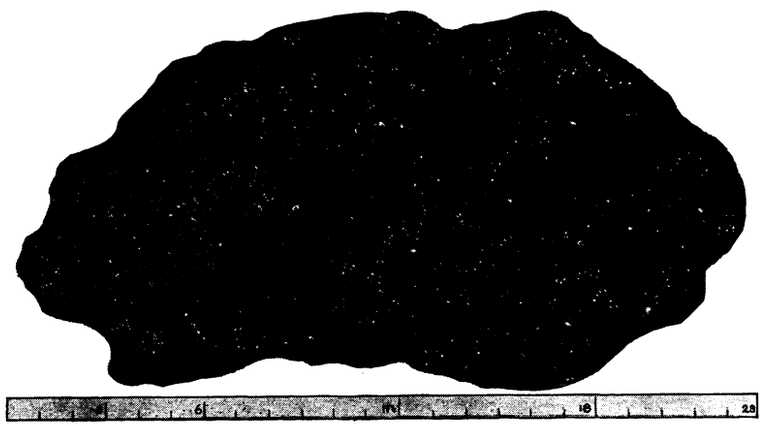
The editor will be glad to publish any queries consonant with the character of the journal.

Fayette County Meteorite.

IN a notice published in this journal Feb. 3, we gave the name of 'La Grange' to this meteorite, overlooking the fact that this name was already applied to the Oldham County (Kentucky) iron. In order to avoid confusion, we would suggest that this name be dropped. and that instead, this meteorite be designated by the name of the county in which it was found (Fayette County, Tex.); and under this title will shortly appear (*American Journal of Science* for June) papers by Mr. J. E. Whitfield of the United States Geological Survey, and Mr. G. P. Merrill of the United States National Museum; the former having worked it up very thoroughly from the chemical side, and the latter microscopically.

They find it to "consist essentially of enstatite and olivine, with a good deal of nickel, iron, and some pyrrhotite." The iron contains over fifteen per cent of nickel, and about two and a half per cent of cobalt.

Since the preparation of these papers, we have cut three slices, an inch and a quarter thick, from the centre of the stone, which enables us to add some interesting facts. The black veins that were observed at several points on the surface are found to extend entirely through the mass, and to be arranged mainly in two sets, in each of which the veins are approximately parallel, the two sets crossing each other at an angle of about 45°. This systematic arrangement of the veins, which may be only accidental, is shown in the accompanying cut, which represents a face of one of the slices.



As the planes of the veins are cut nearly at right angles by the sections, they show on each of them, in approximately the same positions. This is particularly the case with the narrow vein shown at the base of the section. Although only a mere line, it is uniform throughout, and is seen in exactly the same position on all of the sections: therefore we have already revealed the plane of this vein, 15 by 4 inches, with no indications of 'petering out.'

The irregular thick vein also maintains a nearly uniform appearance throughout the four inches of thickness.

The sections also reveal a number of fissures or cracks formed subsequent to the veins, and doubtless at the time of the fall. A dark clouding for the most part surrounds these fissures, the darkest parts being farthest from the fissure, and terminated, in some cases, by a dark line similar to the veins. As all of the fissures are not surrounded by this dark shading, and as some of the clouded spots contain no fissures, it argues that the coloration cannot be the effect of decomposition induced by the cracks, particularly as there is no apparent effect of decomposition extending in from the surface of the stone. The clouding is perhaps older than the cracks, and formed lines of weakness which the cracks followed. Further sections may throw more light on this point.

The general structural appearance of the polished section is that of a fine, compact conglomerate of greenish-gray color. When held so as to reflect the light properly, the grains of iron might, as to number and distribution, be likened to the stars in the Milky Way. Only a few grains attain the size of an eighth of an inch, although two or three grains, composed of iron and troilite, are a full quarter-inch in diameter. Nearly all of the larger grains contain troilite, so that our efforts to develop the Widmanstadtian figures were only partially successful.

In making a mould of the stone before cutting it, the surface was thoroughly oiled, which removed a good deal of the iron-rust, showing much more of the original black crust remaining than could be seen at first.

WARD & HOWELL.

Rochester, N.Y., May 24.

An Unusual Auroral Bow.

FOR several years past the 'northern lights' at Buffalo have been a rare meteor. Last evening an unusually interesting display was witnessed. As twilight faded, a luminous bank appeared in the north, which increased in brightness and altitude until nearly midnight. This was accompanied by the usual phenomena of a bright aurora; i.e., a yellowish-green color, long streamers emanating from a bright, irregular arch resting on dark clouds, and the eastward billowy motion of the streamers of light. The most interesting part, however, was an arch which rested its extremities on the eastern and western horizons, and passed at first a few degrees south of the zenith, but which drifted several degrees farther south before final disappearance. This arch formed about 9 o'clock, remained sharply defined until 9.45, and at 10.15 was still faintly visible. Its width appeared to be about that of the rainbow, and it was at first as symmetrical. Subsequently it became somewhat bent, and of irregular width. The bends, convex southward, slowly passed along the bow westward. As it faded out, the extremities were displaced by streamers of light. Those in the east were very distinct, and four or more at a time appeared in this colonnade.

A phenomenon not before witnessed by me was a steady and rapid drifting or flowing of the luminous, cloud-like matter of the arch from the east towards the west. This could be plainly seen by the unaided eye for about forty degrees of the upper part of the band, and any particular cloud would traverse this space in two minutes.

D. S. KELLICOTT.

Buffalo, N.Y., May 21.