

MINOR CONTRIBUTIONS AND NOTES

CHANGE IN TIME OF PUBLICATION.

THE attention of subscribers to the *ASTROPHYSICAL JOURNAL* is called to the fact that hereafter the February and August numbers of each year will be omitted, instead of the July and September numbers, as formerly. Thus the first volume of each year will consist of the January, March, April, May, and June numbers, while the July, September, October, November, and December numbers will constitute the second volume.

THE GREAT REFRACTOR OF THE POTSDAM ASTROPHYSICAL OBSERVATORY.¹

THE recent dedication of the great refractor of the Potsdam Observatory was an event of the first importance in the progress of astrophysics. The principal address on this occasion was that of Director Vogel, who reviewed the advances which have been made in the determination of stellar motions in the line of sight, and referred to the important contributions to this work which we owe to the Potsdam Observatory. After Professor Vogel's address, the motions of the telescope and dome were explained and demonstrated by Professor Scheiner. The telescope has two objectives, one of 80 cm aperture and 12 m focal length, and another of 50 cm aperture and 12½ m focal length. Both objectives, for which the glass was furnished by Schott & Co., of Jena, were made by C. A. Steinheil Sons, of Munich; the larger of the two is corrected for the actinic rays, the smaller for the visual rays. The mounting by A. Repsold & Sons, of Hamburg, is of the so-called German form as modified by Repsold; the motions of the telescope in both coördinates are easily effected from the floor by means of two hand wheels supported on the column of the instrument. The weight of the moving parts is about 7000 kg.

¹ See frontispiece.

The dome is 22 m in diameter and 18 m high. The iron construction of the hemispherical movable part is by Bretschneider and Krüger, of Pankow; the inner lining of wood was put in place by Joester, of Potsdam. It rests on a system of twenty trucks, each containing three wheels, of which the middle one bears the dome, while the outer ones run on a track fastened to the masonry. The rotation of the dome, in which a weight of 200,000 kg is set in motion, can be effected by hand, without great labor, although very slowly; by the aid of electricity a complete revolution can be accomplished in five minutes. The driving mechanism was made by the firm of C. Hoppe, which also furnished the very ingeniously constructed movable platform for the observer. This movable platform, which was first suggested by Dr. J. Repsold, is suspended from the dome, with which it moves, directly opposite the observing slit. It can also be moved independently through a limited distance to the right and left. The stage on which the observer stands moves up or down on an inclined plane. This motion can be effected by hand, or with great ease from the platform itself by means of electric motors. The opening in the dome has a width of $3\frac{1}{2}$ m and extends $1\frac{1}{2}$ m beyond the zenith. The shutter can be operated by hand from a gallery on the inner wall of the tower or electrically from the observing platform. The lower part of the opening can be closed by means of two screens 5 m high, which are moved outward from the middle of the slit.

We are informed that the preliminary tests of the two spectrographs constructed for the new telescope by Toepfer have been in every respect satisfactory. It may be expected that the great work of determining the motions in the line of sight of some five hundred stars, for which the telescope is specially designed, will soon be in progress.