

the circle. The succeeding divisions, to the sixteenth, are all made in the same manner. In the next place, the error of the second bisecting dot is to be set off by the micrometer head of the first microscope; and the contemporaneous coincidence of this dot, with that of the seventh of the succeeding small divisions of the sector, is to be observed, and then the sector must be moved backwards upon its axle sixteen divisions; so that it will have to move forward again by the motion of the circle one eighth of a division before the seventeenth division upon the circle is to be cut. The succeeding divisions follow in due course to the thirty-second, when allowance must be again made for the known error of the third dot, and the work proceeds in the same manner to the completion of the circle.

In the application of this method to the instrument now constructing for the Royal Observatory, which is to be divided on its edge, instead of having the divisions upon the face of the instrument, nothing new in principle is requisite, but merely a new position given to the roller, and other apparatus employed; but as that instrument may deserve a particular description, the author hopes to have an opportunity of giving an account of its construction, to the Society, at no very distant period.

*A Letter on a Canal in the Medulla Spinalis of some Quadrupeds. In a Letter from Mr. William Sewell, to Everard Home, Esq. F.R.S. Read December 8, 1808. [Phil. Trans. 1809, p. 146.]*

The canal, which is the subject of this letter, appears to have been discovered by the author in the year 1803, although no account has been given of it till the present description was drawn up at the request of Mr. Home.

From the extremity of the sixth ventricle of the brain in the horse, bullock, sheep, hog, and dog (which corresponds to the fourth ventricle in the human subject), a canal passes in a direct course to the centre of the spinal marrow, and may be discovered in its course by a transverse section of the spinal marrow in any part of its length, having a diameter sufficient to admit a large-sized pin; and it is proved to be a continued tube, from one extremity to the other, by the passage of quicksilver in a small stream in either direction through it.

This canal is lined by a membrane resembling the tunica arachnoidea; and it is most easily distinguished where the large nerves are given off in the bend of the neck, and at the sacrum.

*A numerical Table of elective Attractions; with Remarks on the Sequences of double Decompositions. By Thomas Young, M.D. For. Sec. R.S. Read February 9, 1809. [Phil. Trans. 1809, p. 148.]*

The attempts that have been made by some chemists to represent the attractive forces of chemical bodies by number, having been limited and hastily abandoned, some important consequences which