

Tuscan territory. The States of Holland, to their honour, sent him a gold chain as a mark of their esteem. A short time afterwards this excellent and eminent man died in the seventy-eighth year of his age. In the very year—1642—in which Galileo died, Isaac Newton was born. As we shall have occasion in future papers to refer to the wonderful discoveries of that great man, and others who followed him, we shall conclude our present remarks by stating a few facts regarding the remarkable reflecting telescope of Lord Rosse, by means of which our knowledge of the heavens has been immensely extended.

What a remarkable advance science in its various departments has made within a couple of centuries! Place the small telescope used by Galileo beside that made by Lord Rosse, and what a contrast! The space-penetrating power of a telescope is in proportion to the diameter of its speculum or outer glass. The one is two or three inches in diameter, and the other six feet. What a range of vision Galileo commanded as compared with the naked eye, and what depths has Rosse penetrated as compared with the visual limits of the Florentine patrician! The contrast is as striking as that presented betwixt a hand pump and a gigantic steam coal mining one, or that betwixt the travelling rate of a lumbering old coach and a modern locomotive in full career.

The preparations of the casting of the specula of Rosse's telescope, two in number, were commenced in 1842. The respective weights of the specula are $3\frac{1}{2}$ and 4 tons. Every flint glassmaker can tell you of the difficulty in securing pure metal for decanters; and the still greater difficulty of blowing or casting the metal into the form desired without the slightest flaw, and after that of the delicate precautions necessary to be taken in the cooling process. To fuse and cast five tons of such metal without a flaw or crack was a very formidable undertaking. Then the difficulty of grinding and polishing satisfactorily was not ordinary. A skilful glasscutter, as he subjects the decanter or wineglass to the smoothing or polishing wheel, not unfrequently finds the article cracked after he has expended much labor on it. In the case of the object mirrors of Rosse's telescope, the

smoothing and polishing operations were performed in a few hours by machinery. Their focal length is 53 feet. The tube of the telescope is made of wood, into which the specula are introduced by means of a railway. The whole fabric is supported by piers seventy feet long and nearly fifty feet high. To the discoveries made by this magnificent instrument we shall have occasion to refer in future.

In the meantime we must close by assuring our readers of our desire to give them the most recent information respecting the various points we may bring under their notice, and thus we hope to render our papers in some cases interesting to persons who may not have taken the trouble, although well versed in the general principles of the science, of "posting themselves up" as to recent discoveries.

The subject of our next paper will be the Sun.

The "Liberality" of Wealthy Congregations.

I have seen it stated that there are in New York four or five Presbyterian Churches, each one of which spends more in the salary of its pastor, support of the choir, &c., than it costs to conduct the whole business of the Presbyterian Board of Foreign Missions, which extends its operations to all parts of the earth. And I have no doubt at all that the members of these churches take great credit to themselves for their "liberality" or their noble "generosity." To whom are they liberal? To themselves and to nobody else. They like to hear eloquent speakers and are willing to pay for the luxury. They like to hear good music and are willing to pay for it. And then the expense is seasoned by the reflection that Heaven is giving them credit for Christian self-sacrifice.

But we need not go to the Great Republic, though surely we might expect a nearer approach to "Presbyterian parity" there than anywhere else, for our examples of liberality falsely so called. I read not long ago of a congregation of the Church of Scotland in Edinburgh that had given during the year, £500 for an organ and £5 for missions to the 150 millions of their fellow-subjects in India. Doubtless many a man in that