

Laprey in the important letter of the Dutch ambassador Boreel to the physician Borelli, the author of the treatise *De vero*

1831, vol. i., p. 319; and by Wilde, of Berlin, in his *Gesch. der Optik*, 1838, th. i., s. 138-172. The work referred to, and written in the Dutch language, is entitled "*Geschiedkundig Onderzoek naar de eerste Uitfinders der Vernkykers, uit de Aunekenningen van wyle den Hoogl. van Swinden zamengesteld door, G. Moll*," Amsterdam, 1831. Albers has given an extract from this interesting treatise in Schumacher's *Jahrbuch für 1843*, s. 56-65. The optical instruments with which Jansen furnished Prince Maurice of Nassau, and the Archduke Albert (the latter gave his to Cornelius Drebbel), were (as is shown by the letter of the ambassador Boreel, who, when a child, had been often in the house of Jansen, the spectacle maker, and who subsequently saw the instruments in the shop) microscopes eighteen inches in length, "through which small objects were wonderfully magnified when one looked down at them from above." The confusion between the microscope and the telescope has rendered the history of the invention of both instruments obscure. The letter of Boreel (Paris, 1655), above alluded to, notwithstanding the authority of Tiraboschi, renders it improbable that the first invention of the compound microscope belonged to Galileo. Compare, on this obscure history of optical instruments, Vicenzio Antinori, in the *Saggi di Naturali Esperienze fatte nell' Accademia del Cimento*, 1841, p. 22-26. Even Huygens, who was born scarcely twenty-five years after the conjectural date of the invention of the telescope, does not venture to decide with certainty on the name of the first inventor (*Opera Reliqua*, 1728, vol. ii., p. 125). According to the researches made in public archives by Van Swiden and Mole, Lippershey was not only in possession of a telescope made by himself as early as the 2d of October, 1608, but the French ambassador at the Hague, President Jeannin, wrote, on the 28th of December of the same year, to Sully, "that he was in treaty with the Middleburg spectacle maker for a telescope, which he wished to send to the king, Henry IV." Simon Marius (Mayor of Genzenhausen, one of the discoverers of Jupiter's satellites) even relates that a telescope was offered for sale in the autumn of 1608, at Frankfort-on-Maine, by a Belgian, to his friend Fuchs of Bimbach, Privy Counselor of the Margrave of Ansbach. Telescopes were made in London in February, 1610, therefore a year after Galileo had completed his own. (Rigaud, *On Harriot's Papers*, 1833, p. 23, 26, and 46.) They were at first called *cylinders*. Porta, the inventor of the *camera obscura*, like Francastoro, the cotemporary of Columbus, Copernicus and Cardanus, at earlier periods, had merely spoken of the possibility "of seeing all things larger and nearer" by means of convex and concave glasses being placed on each other (*duo specilla ocularia alterum alteri superposita*); but we can not ascribe the invention of the telescope to them (Tiraboschi, *Storia della Letter.*, ital., t. xi., p. 467; Wilde, *Gesch. der Optik*, th. i., s. 121). Spectacles had been known in Haarlem since the beginning of the fourteenth century; and an epitaph in the church of Maria Maggiore, at Florence, names Salvi- no degli Armati, who died in 1317, as the inventor (*inventore degli occhiali*). Some apparently authentic notices of the use of spectacles by aged persons are to be met with as early as 1299 and 1305. The passages of Roger Bacon refer to the magnifying power of spherical segments of glass. See Wilde, *Gesch. der Optik*, th. i., s. 93-96; and *ante*, p. 245.