complete without an examination of the memoirs of both H. Oldenburg and Robert Hooke.

I am inclined to think, all things considered, that a complete survey of Robert Boyle's papers, were that possible, would show him to be the author of the word. A parallel case of word-making by him is found in the following letter to Mr. Oldenburg dated September 8, 1665, in which he says: " * * * that among some hydrostatical things I was once pursuing, I bethought myself of an easy slight instrument, which I called the measuring (or steriometrical) balance * * * " (Vol. V., p. 250). At all events Robert Boyle made the first public use of the word in his papers of March 24, 1665. Strict historical priority, however, must be given to Robert Hooke. The anonymous passage in the *Philosophical Transactions,* quoted by Dr. Bolton, I should be inclined to credit to the secretary of the Royal Society, H. Oldenburg, rather than to Robert Boyle.

John C. Shedd.
Physical Laboratory, Colorado College.

SHORTER ARTICLES.

ON A NEW LILAC-COLORED TRANSPARENT SPODUMENE.

The mineral spodumene is generally known in large opaque whitish crystals, but occasionally it appears in small specimens that are transparent and richly colored. Such are the clear yellow gem-spodumene of Brazil,* the green variety hiddenite, or 'little emerald,' of North Carolina,† and the lilac or amethystine pieces rarely found at Branchville, Conn.‡ These last are plainly remnants of what must once have been elegant specimens; but spodumene is extremely subject to alteration, and has generally lost all its transparency and beauty of tint.

A notable discovery has just been made, however, of large splendid crystals of transparent unaltered spodumene, of rich lilac color, in connection with other lithia minerals, in San Diego Co., Calif. The locality is a mile and a half northeast of the town of Pala, and less than a mile from the famous rubellite and lepidolite mine at that place. Pala is already one of the most remarkable lithia localities known; amblygonite has been found there by the ton, and the lepidolite is estimated to occur by thousands of tons; while the pink rubellite crystals in the lilac lepidolite are familiar ornaments in every fine mineralogical cabinet.

At the new locality spodumene crystals occur up to the size of a man's hand, entirely clear, and of a rosy lilac tint, varying with the spodumene dichroism from a very pale tinge when looked at transversely to the prism to a rich amethystine hue longitudinally. If cut and mounted parallel to the base, these will undoubtedly yield gems of great beauty. No such crystals of spodumene have ever been seen before, and the discovery is one of extreme interest. A marked difference in color is noticeable also in these crystals, according as they come from some depth in the rock or lie nearer to the surface, the former having a deeper tint. This difference is doubtless due to the effect of air, water and light, which so frequently affect the color of minerals for some little distance into the rock. The material is exceedingly pure, with a hardness of about 7, and specific gravity (average of three crystals) of 3.183. The crystals are somewhat etched and corroded, and have a twinning, like the hiddenite variety, about the *a* (100) face; this is strikingly shown in the etched crystals, where the etching extends to the twinning-plane, and there stops.

Close to the opening, also, a splendid occurrence of colored tourmaline was found, some of the crystals being a foot long and three inches across, of rich pink rubellite with an exterior coating, or terminal caping, of dark blue indicolite.

Some similar, though smaller, crystals of transparent lilac spodumene were brought to the writer last winter, ostensibly from Hermosillo, Mexico; they were, however, found near Menchoir, California.

As this is an entirely new gem of a peculiar beauty, a name will be given to it as soon as its characteristics are definitely determined.

George Frederic Kunz.

* Pisani, *Comptes Rendus,* 84, 1509, 1877.

† J. L. Smith, *Am. J. Sci.,* 21, 128, 1881.

‡ Penfield, *id.,* 20, 259, 1880.