

The genus *Lithomespilus* differs from the closely allied *Ellipsoxiphus* in the further differentiation of both poles of the main axis. One pole exhibits only a single polar spine, the other pole a group of several spines, peculiarly grouped together. It differs from the similar *Sphæromespilus* (Pl. 14, figs. 12, 13) in the ellipsoidal form of the shell.

1. *Lithomespilus phloginus*, n. sp. (Pl. 14, fig. 16).

Proportion of the major axis of the ellipsoid to the minor = 4:3. Shell thick walled, with circular pores of different size, the breadth of which equals that of the bars; twelve to fifteen pores on the half equator. Surface smooth, with the exception of a circumpolar region covered with numerous thick spines of unequal size, which surround the large single polar spine and are curved like a bow against its axis. This larger polar spine is straight, and equals in length the major axis of the shell. The other and opposite polar spine is scarcely one-fourth as long, perfectly simple, very stout, and of a three-sided pyramidal shape.

*Dimensions*.—Longer axis of the ellipsoidal shell 0.08, shorter axis 0.06; pores 0.002 to 0.006, bars 0.003 to 0.005; length of the polar spines—longer 0.08, shorter 0.02.

*Habitat*.—Indian Ocean, near Madagascar, depth 1200 fathoms, Smith.

2. *Lithomespilus phlogoides*, n. sp. (Pl. 14, fig. 17).

Proportion of the major axis to the minor = 5:4. Shell very thick walled, with roundish, double-contoured pores of different size and form, twice to three times as broad as the bars; sixteen to eighteen pores on the half equator. Surface smooth, with the exception of a circumpolar region covered with numerous thin spines of unequal size, which surround the large single polar spine and are curved like a bow against its axis. This larger polar spine is straight, and equals half the size of the major axis of the shell; the other polar spine (sometimes double, as in the figured specimen) is much shorter, being scarcely one-fourth as long.

*Dimensions*.—Longer axis of the shell 0.08, shorter axis 0.065; pores 0.003 to 0.006, bars 0.002 to 0.004; length of the polar spines—longer 0.04, shorter 0.01.

*Habitat*.—Central area of the Pacific, Stations 270 to 272, depth 2425 to 2925 fathoms.

3. *Lithomespilus flammeus*, n. sp.

*Stylosphæra* species, Bury, 1862, Polycystins of Barbados, pl. xi. fig. 3.

Proportion of the major axis to the minor = 4:3. Shell thick walled, with irregular, roundish pores, about as broad as the bars; ten to twelve pores on the half equator. Surface spiny. Length of the conical straight spines increasing towards the poles; each polar spine surrounded by a circumpolar group of larger, somewhat curved spines. The larger polar spine equals in length the major axis; the smaller is scarcely half as long. (The figure, given by Bury, is not quite exact; there the spines are situated in the pores, instead of between them. In my specimen the polar spines were not branched.)