

above, yellowish subventrally, with a faint geminate yellowish dorsal line. The conical spined tubercles of rows (1)–(3) are black, rows (4)–(6) straw-yellow, spiracles black; thoracic feet black, abdominal pale. As the stage advances subdorsal, stigmatal and substigmatal lines appear, not very distinct, and formed of yellowish mottlings on the black ground colour.

*Chrysalis*.—Of usual shape, thorax not carinated but with three blunt points, the anterior part rounded; cases moderately prominent; a depression between thorax and abdomen. Abdomen straight along the ventral side, curved dorsally, with five rows of short, blunt points, cremaster flattened, rather long, colour nearly uniform, dull wood-brown from black mottlings on a reddish-brown ground colour, the dorsal tubercles reddish. A row of minute white dots on antennæ cases and around borders of wing. Length, 12 mm.; width, 4 mm.

*Food Plant*.—Thistle (*Carduus*).

*Chrysophanus arota*, Boisd.

*Larva*.—Elongate elliptical, flat below, the feet all short; sides sloping; dorsum forming a narrow flattened ridge, slightly wider on joints 3 and 4; body highest at joint 5 and tapering to the extremities. Head retracted under joint 2, pale testaceous, the mouth parts surrounded with brown; width in the last stage, 1 mm. Body minutely pilose, with very small white granulations, or subdorsal white line along the ridge interrupted at the segmental sutures (which are deep), beginning on joint 3, most distinct on joints 3 and 4, somewhat fainter centrally, and somewhat more continuous posteriorly. A similar fainter line on the subventral ridge, becoming obsolete at the extremities. Both lines look as if not quite on the surface. Spiracles small, circular, yellowish. Cervical shield in the middle of joint 2, very small, triangular, depressed. Length, 17 mm.; width, 5 mm.

*Chrysalis*.—Robust, short, rounded; depression between the thorax and abdomen small; abdominal segments appressed, motionless. General colour sordid green, most distinct on the abdomen dorsally; thorax with a few black specks and a smoky black dorsal line which is continued in a row of dots on the abdomen. Each side of this, on the central part of the thorax, is a white streak, supplemented on the posterior part by a short white curved line. On the abdomen, a subdorsal row of blackish