

possession of legs: for some caterpillars move slowly, while others can run very nimbly. The following is the order in which the legs are usually moved: namely, the anterior and the posterior leg on the same side are advanced at the same moment, together with the intermediate one on the other side; and this takes place alternately on both sides.

There is one tribe of caterpillars called *Surveyors* or *Geometers*, (Fig. 148,\* A) which walk by first fixing the



fore feet, and then doubling the body into a vertical arch; this action brings up the hind part of the caterpillar, which is furnished with prolegs, close to the head. The hind extremity being then fixed by means of the prolegs situated at that part, the body is again extended into a straight line; and this process being repeated, the caterpillar advances by a succession of paces, as if it were measuring the distance, by converting its body into a pair of compasses. At the same time that they employ this process, they farther provide for their security by spinning a thread, which they fasten to different points of the ground as they go along. The great force exerted by the muscles of many caterpillars is exemplified by their often fixing themselves to an object, and extending the body to a distance, as if it were a rigid cylinder. This attitude is shown in Fig. 148\* B.

Many other species of caterpillar practise the same art of spinning fine silken threads, which especially assist them in their progression over smooth surfaces, and also in descending from a height through the air. The caterpillar of the cabbage butterfly is thus enabled to climb up and down a pane of glass, for which purpose it fixes the threads which it spins in a zig-zag line, forming so many steps of a rope ladder. The material of which these threads are made is a glu-