

shaped, $3\frac{3}{4}$ in. long, $1\frac{1}{4}$ in. at widest part; caterpillar can still be faintly seen moving.

Sept. 28—Cocoon complete; caterpillar quiet.

Oct. 8—7 o'clock p.m.: heard a scratching noise like tearing of silk, continued all the evening and next day.

" 9—8 o'clock p.m.: must see what is going on, cannot resist.

" 10—The caterpillar life is over and the pupa lies within its silken case, not to move again till June awakens it.

How to tell what I saw! Words can scarcely express its wonder.

I carefully clipped the cocoon with a scissors, making two incisions, to a point at the top, so that I could bend down the section like a door.

The caterpillar lay within the smooth inner wall. It did not look any different than when last seen. Using a large lens, so as not to lose a single item of its proceedings, I set myself to watch. Presently it rose and fell as if heaving a deep sigh; then it began swaying round and round, then from side to side, very much like the motion of a bear.

After some time of this a crack appeared in the skin at the back of its neck. The motion became more violent. Extending itself, it raised its first pair of legs upward as if "throwing high hands to Heaven" in appeal for help. Then drawing back and down it crouched as if in depths of humility or despair. Looking more deeply into the cocoon I saw the object of these movements and also why a caterpillar wears spines and knobs.

In moving, the spines on the segments rubbed against the wall of the cocoon, and assisted in the removal of the caterpillar-skin, which was the object worked for. The crack in the skin had gradually lengthened down the back. Then the head parts and legs seemed to slide downward, just like a child's dress comes off after it is unbuttoned.

Now the new form of the insect appeared. Soft and of a velvety, indescribably beautiful, yellow, the heavy antennæ and legs looking as if made of gelatine. This new creature kept up the swaying till the whole caterpillar-skin was neatly packed beneath it like a concave cushion in which it rested in the bottom of the cocoon.

After this the pupa kept on moving slightly for some time. Then from around the legs and antennæ (which were now folded flat and close) and from the segments a yellowish glassy fluid seemed to ooze, which hardened and turned brown as it covered the pupa till it became as if varnished. All movement now