THE PRESERVATION OF CATERPILLARS BY INFLATION.*

BY SAMUEL H. SCUDDER.

Many persons are deterred from collecting caterpillars by the difficulty and expense of preserving them in the ordinary way. The easy and inexpensive method of blowing up and mounting the pellicle is so little known in this country, that at the last meeting of the American Association, only one entomologist besides myself had ever seen the operation; since then others have tried it, and been delighted with its simplicity. In the hope of inducing all our entomologists to experiment for themselves, the following explanation of the process has been prepared.

It should be premised that caterpillars may be prepared in this way, so as to retain their colors far better than by any other method, and often to to be fit subjects at any subsequent time for the artist's pencil; the most delicate processes may be preserved uninjured, and the examination of hairy or spiny appendages made even more readily than during life. Specimens taken from spirits, unless absolutely naked, are always difficult to examine from the matting of the hairs; and the internal organs can seldom be studied, even in the rudest manner, unless the greatest care has been bestowed upon their preservation; in fact, no specimen can be fitted by any process for the study of both internal and external organizations, and for the latter, no method of preparation compares with that of inflation.

The instruments necessary for the operation, besides the tools in the hands of every entomologist, are a small tin oven, a spirit lamp, a pair of finely pointed scissors, a bit of rag, a little fine wire and a straw.

The oven is simply an oblong tin box, about 2½ inches high, 2½ inches wide, and five inches long; the cover is of glass, and one end of the box is perforated by a circular hole 1¼ inches in diameter. It would be well to have this end of glass, and the opposite end should be movable; the oven rests upon an open standard of twisted wire or riveted tin plates, as in the woodcut (fig. 20.) No soldering should be used upon the oven or standard, as it would soon be melted. Mr. Riley suggests that there would be an advantage in having the front end of the standard higher than the back, as he has shown in the sketch. He also proposes

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