(No Model.)

E. A. & D. L. SMITH.

SNAP HOOK.

No. 385,579. Patented July 3, 1888.

Fig. 1

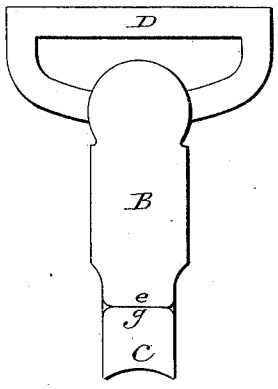


Fig. 2

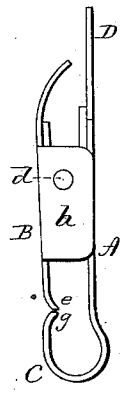


Fig. 3

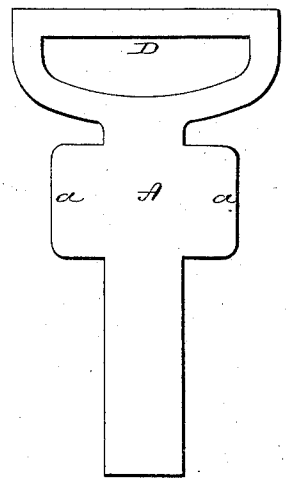


Fig. 4

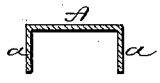


Fig. 5

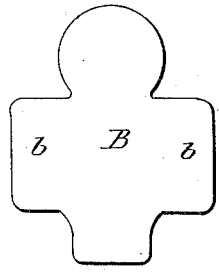


Fig. 6

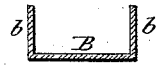


Fig. 8

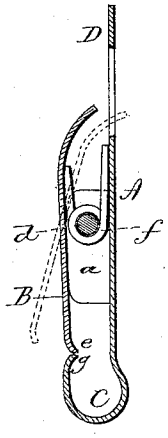


Fig. 7

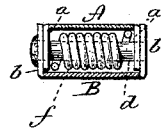
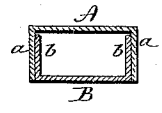


Fig. 9



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UNITED STATES PATENT OFFICE.

EARL A. SMITH AND DWIGHT L. SMITH, OF WATERBURY, CONNECTICUT.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 385,579, dated July 3, 1888.

Application filed May 7, 1888. Serial No. 273,053. (No model.)

To all whom it may concern:

Be it known that we, EARL A. SMITH and DWIGHT L. SMITH, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Snap-Hooks; and we do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view; Fig. 2, a side view; Fig. 3, the blank from which the body is formed; Fig. 4, a transverse section through the body after the wings are turned to position; Fig. 5, the blank from which the tongue is formed; Fig. 6, a transverse section through the tongue after the wings are turned to position; Fig. 7, a transverse section of the two parts set together, cutting forward of the wings; Fig. 8, a longitudinal central section; Fig. 9, a modification.

This invention relates to an improvement in the class of snap-hooks which are used for the attachment of suspender-ends, other articles of wearing-apparel, and various purposes, and particularly to that class in which the hooks are made from sheet metal, the object of the invention being to provide a stop to arrest the tongue when it reaches its closed position independent of the spring which actuates the tongue, and also to construct the meeting ends of the hook and tongue so that they form a guard, the one for the other, to prevent catching upon the garments.

The hook is made from two parts, A B. The part A forms the body and hook. It is struck from sheet metal, substantially as seen in Fig. 3, having a projecting wing, *a*, upon its opposite sides, which are turned upward from the body into a plane at right angles thereto, as represented in Fig. 4. One end of the blank is bent to form the hook C, and the other end is constructed to afford convenient means for attachment, (here represented as forming a loop, D.) The part B forms the tongue, and is cut from sheet metal, as seen in Fig. 5, of a width corresponding substantially to the width of the body of the hook, and, like the body of the hook, is constructed with wings *b b*, projecting from opposite sides, corresponding to the wings *a a* on the body portion. These wings are turned into planes parallel with each other and at right angles to the plane of the tongue, as seen in Fig. 6, the wings distant from each other upon their inner surface equal to the distance between the outer surfaces of the wings *a a* on the body portion, and so that, the tongue portion set upon the body portion, the wings *a* will pass down outside the wings *a* on the body portion, as seen in Fig. 7. The pintle *d*, upon which the tongue turns, is introduced near the rear end of the wings of the two parts, and so as to extend through the wings of the two parts, that the tongue may be turned thereon, as indicated in broken lines, Fig. 8, for the introduction or removal of an engaging device from the hook. The spring *f*, arranged upon the pintle in the usual manner, forces the tongue into the closed position in the usual manner; but the wings *a a* of the body form stops between the pintle and the nose of the hook, upon which the tongue will strike and rest as it reaches its closed position, thus making a very firm and strong support for the tongue and independent of the spring which actuates the tongue.

In the manufacture of the hook it is better to make the wings of the tongue overlap the wings of the body; but this may be reversed, as represented in Fig. 9, so as to bring the wings of the tongue within the wings of the body; but in either case there is the same prolongation of the wings or ears beyond the pivot to form stops which will arrest the tongue when it reaches its closed position.

A slight bend of either part at the meeting ends of the tongue and hook is liable to occur in the use of the hook. Such bend will, under the usual construction, cause either the end of the tongue to project beyond the point of the hook or the point of the hook to project beyond the end of the tongue, and such projection produces an edge which is liable to catch upon or wear the garments. To avoid this difficulty, we turn the end *e* of the tongue inward, and also turn the tip or point *g* of the hook C inward, as represented in Fig. 8, so as to make a depression across the face, and so

that should such a bend as we have mentioned occur the one part will still form a guard for the other, to prevent the exposure of its edge.

While we prefer to form the attaching device on the body, it will be understood that it may be made upon the tongue, the application of the attaching device either to the body or to the tongue being expedients too well known in this class of articles to require illustration or description.

We claim—

1. A snap-hook made from sheet metal, consisting of the body part A and the tongue part B, the body part constructed with wings *a a*, turned at right angles to the plane of the body, and the body terminating in a hook, G, at one end, the tongue constructed with wings *b b* upon its opposite edges corresponding to the wings *a a*, but the wings on the one part distant from each other upon their inner surface corresponding to the distance between the exterior surface of the wings on the other part, the tongue set upon the body, and so as to bring the wings of one part outside the wings of the other part, with a pintle, *d*, through the wings at their rear ends, combined with a spring around the pintle, the tendency of which is to force the tongue to the closed position, the said wings of the one part forming stops upon which the tongue will rest when in its closed position.

2. A snap-hook, substantially such as described, in which the tongue turns outward from the point of the hook in opening, the outer surface of both the hook and the tongue at their meeting ends turned inward, and so as to form a depression transversely across the outer surface at the junction of the tongue with the point of the hook, substantially as and for the purpose described.

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