

A. B. TANNER.
SNAP-HOOK.

No. 186,637.

Patented Jan. 23, 1877.

fig. 1

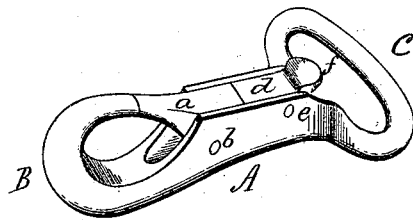
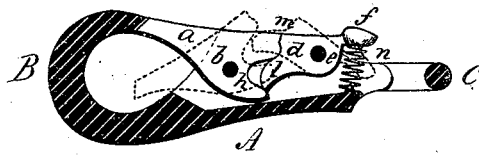


fig. 2



Witnesses.
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ALFRED B. TANNER, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO SARGENT & CO., OF SAME PLACE.

IMPROVEMENT IN SNAP-HOOKS.

Specification forming part of Letters Patent No. 186,637, dated January 23, 1877; application filed December 6, 1876.

To all whom it may concern:

Be it known that I, ALFRED B. TANNER, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Snap-Hooks; and I do hereby declare the following, when taken in connection with the 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 perspective view, and in Fig. 2 a longitudinal central section.

This invention relates to an improvement in the snap for which Letters Patent No. 172,355, dated January 18, 1876, were granted to E. J. Steele, assignor to the assignees in this application, as also in the patent granted to J. B. Sargent, November 12, 1867. That patent consists of a tongue and a lever in rear of it, by which the tongue is released, so as to automatically open, and which lever also serves to close and lock the tongue. The tongue and lever are each necessarily provided with a spring, acting independently, the one of the other, and the opening of the tongue is dependent upon the action of its own spring.

The object of the improvement set forth in this application is to dispense with one spring, and make the opening as well as the closing of the tongue positive; and the invention consists in constructing the meeting or adjacent surfaces of the tongue and lever so that the turning of the lever, either in opening or closing, correspondingly opens or closes the tongue, and combined with a spring, whereby the closing is made automatic, the said adjacent surfaces taking a bearing, one upon the other, so that the positive lock of the tongue takes place when closed.

A is the body, terminating at one end in a hook, B, and at the other in a loop, C, substantially as in the said Steele patent. *a*, the tongue, is hung upon a pivot, *b*, in a cavity in the body. *d*, the lever, is hung upon a pivot, *e*, in rear of the tongue. This lever is provided with a thumb-piece, *f*, by

which it is easily operated, and substantially like the said Steele patent. The rear end of the tongue is formed with a recess, *h*, and the lever with a projection, *l*, bearing upon the lower rear end of the tongue, within the said recess, and preferably so as to make the bearing at that point between the tongue and lever at a point where a radial line drawn from each of the pivots and meeting will form nearly a right angle, so that any force applied to the tongue tending to open it will be communicated to the lever on the said radial line, and in consequence of such bearing the lever would resist such force and prevent the opening of the tongue; but by pressing upon the thumb-piece *f* of the lever, the arm or projection *l* will turn upward in the cavity *h*, and cause the tongue to open, as indicated in broken lines. A spring applied to either the lever or the tongue—say, to the lever, as at *n*, Fig. 2—will act to close the tongue when released from the pressure which opened it. A shoulder, *m*, is formed on the back of the tongue, and on the lever, where they meet and come to a bearing in their closed condition, substantially the same as in the said Steele patent.

As before mentioned, I am aware of the patent of Steele, January 8, 1876, and of Sargent, November 12, 1867, and do not wish to be understood as claiming anything shown or described in the said patents.

I claim—

1. The combination, in a snap-hook, of the hook B, tongue *a*, and lever *d*, the meeting or bearing surfaces between the tongue and lever constructed with recess and projection, so that the turning of the one in either direction for opening or closing correspondingly turns the other, substantially as described.

2. The combination, in a snap-hook, of the hook B, tongue *a*, and lever *d*, the meeting or bearing surfaces between the tongue and lever constructed with recess and projection, so as to positively engage the two in both opening and closing, with a bearing-point on the tongue and a corresponding bearing-point on the lever, the said point arranged relatively to the pivot of the said tongue and lever, so

that the bearing of the tongue upon the lever is substantially in a direct line with the pivot, substantially as and for the purpose described.

3. The combination, in a snap-hook, of the hook B, tongue *a*, and lever *d*, the meeting or bearing surfaces between the tongue and lever constructed with recess and projection, so as to positively engage the two in both open-

ing and closing, and a spring arranged to act upon one of the said parts, to force the two into their normal or closed condition, substantially as described.

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Witnesses:

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