

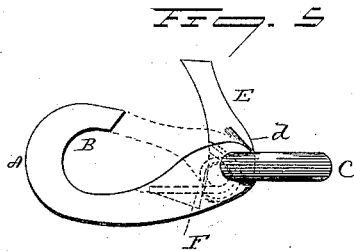
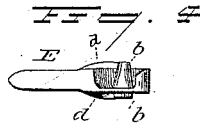
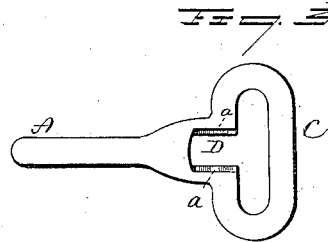
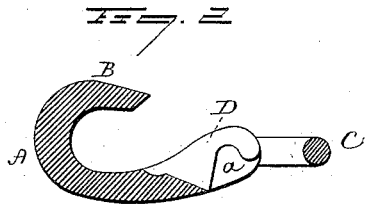
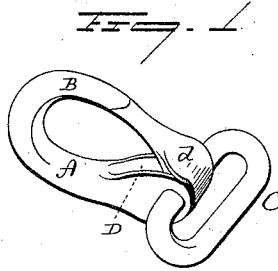
(No Model.)

C. H. SMITH.

SNAP HOOK.

No. 343,862.

Patented June 15, 1886.



Witnesses.  
*J. A. Shumway*  
*Edw. C. Eare*

Chas. H. Smith  
Inventor.  
By *Atty.*  
*Wm. E. ...*

# UNITED STATES PATENT OFFICE.

CHARLES H. SMITH, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO O. B. NORTH & COMPANY, OF SAME PLACE.

## SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 343,862, dated June 15, 1886.

Application filed April 26, 1885. Serial No. 200,145. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. SMITH, 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; Fig. 2, a section through the body, the tongue removed; Fig. 3, an under side view of the body, the tongue removed; Fig. 4, an under side view of the tongue detached; Fig. 5, a side view showing the manner of introducing the tongue.

This invention relates to an improvement in that class of snap-hooks in which the tongue is pivoted in a recess in the shank or body of the hook, and is an improvement on the well-known snap in which the tongue is constructed with a recess in one side of its hub to receive a torsion-spring, and with the spring is set between the cheeks or sides of the recess in the body and hung upon a pivot.

The object of this invention is to form the trunnion or pivot as a part of the tongue and avoid bending the cheeks to engage the trunnions; and it consists in the construction, as hereinafter described, and particularly recited in the claim.

A represents the body of the snap, constructed with the hook B at one end and the eye C at the opposite end, and the recess D at the eye end of the body. In each of the cheeks of the recess D in the body is a groove, *a*, extending from the under side into the center of the cheeks.

E is the tongue, of substantially the usual shape, with a stud, *b*, extending from each side. The entire length of the stud is longer than the width of the recess D in the body, and forms the trunnions on which the tongue may turn. One side of the hub of the tongue is recessed around the trunnion to receive the spring. On the upper side of the hub of the tongue and over the trunnions a wing, *d*, extends outward on each side. The spring F, preferably a torsion-spring, is adapted to set into the recess in the side of the tongue, one

arm resting in a notch in the body forward of the recess, the other arm resting upon the under side of the tongue, the tendency being to force the tongue upward against the nose of the hook, but yield to allow the snap to be opened.

To assemble the parts, the spring is placed in the recess in the tongue. The tongue is then passed through the eye from the under side, point forward, as shown in Fig. 5, the trunnions *b* entering the respective grooves *a* in the cheeks, and one arm of the spring set into the notch in the body, and the other arm extends forward upon the under side of the tongue. The tongue is then turned forward and under the nose of the hook, as shown in broken lines, Fig. 5, and so that its forward end will bear upon the under side of the end of the hook, the tendency of the spring being to hold it in such position. The wings *d d* on the tongue extend over the cheeks and form stops to hold the hub of the tongue in place, with the trunnions resting in the grooves in the cheeks as pivots upon which the tongue may turn. By this construction the tongue is held perfectly secure without bending the cheeks, thereby saving the loss which unavoidably occurs when the cheeks are cast open, and then bent together to engage the tongue.

I prefer to construct the tongue with a wing, *d*, at each side; but one is sufficient to prevent the displacement of the tongue.

I claim—

In a snap-hook, the combination of the hook constructed with a recess at its rear end, the cheeks formed by said recess each constructed with a groove, *a*, extending from the under side upward to form trunnion or pivot seats, the tongue constructed with a trunnion, *b*, on each side of the hub, the said trunnions adapted to enter the grooves in the cheeks, and the tongue constructed with one or more wings, *d*, upon its upper side to extend over the edges of the cheeks, and a spring adapted to yieldingly hold the forward end of the tongue against the under side of the nose of the hook, substantially as described.

CHARLES H. SMITH.

Witnesses:

A. H. JACKSON,  
F. M. ROBINSON.