

P. BURNS.
Snap-Hooks.

No. 148,665.

Patented March 17, 1874.

Fig. 1.

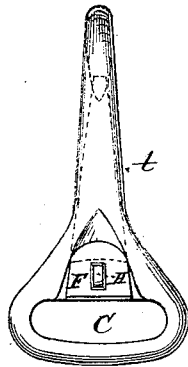


Fig. 2.

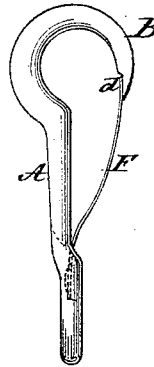


Fig. 3.

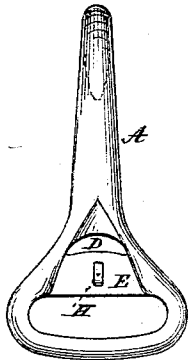


Fig. 4.

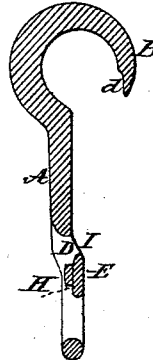
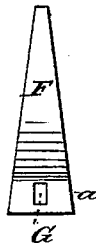


Fig. 5.



Witnesses.

D. P. Cowl
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By James L. Norris
Atty.

UNITED STATES PATENT OFFICE.

PETER BURNS, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN SNAP-HOOKS.

Specification forming part of Letters Patent No. **148,665**, dated March 17, 1874; application filed December 29, 1873.

To all whom it may concern:

Be it known that I, PETER BURNS, of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Snap-Hooks, of which the following is a specification:

The invention consists in providing the shank or body of a snap-hook with two bearing-surfaces, located one slightly in advance of the other, and in juxtaposition to a slot or opening, through which the spring is passed from the rear, the end of the spring being secured by means of a stud or projecting rib, and the strain or pressure upon the same being sustained by the above-named double bearing-surfaces, which constantly bear upon both sides of the spring, whether the same be forced in an inward or outward direction, so as to firmly support the same, and to distribute the pressure to which it is subjected evenly over the spring, in order to prevent its breakage or rupture.

In the accompanying drawings, Figure 1 is a back view of the snap-hook. Fig. 2 is a side view of the same. Fig. 3 is a rear view, showing the spring removed. Fig. 4 is a vertical section, showing the cross-bar, spring-retaining stud, and bearing-surface. Fig. 5 represents, in detail, the slotted spring.

The letter A designates the body or shank, which is provided with the ordinary hook B, and with the loop C, for permanently attaching it to the article in connection with which it is to be used.

As heretofore generally constructed, the spring which closes the mouth or throat of the hook is retained in position by means of a rivet, which is passed through its rear end; and, furthermore, the spring is arranged to bear against the front face of the body of the hook. This construction is objectionable, for the reason that the spring, when strained or pressed to connect the hook with a harness-ring or other object, is liable to break at the front where it is riveted.

My method of attaching and supporting the spring is designed to overcome these defects by dispensing with a rivet, and by providing

a double bearing-surface, which will offer the proper support to the spring when strained or pressed to distribute the pressure equally over the spring at the point where breakage is most liable to occur.

As shown in the drawing, I form in the shank of the hook a slot or opening, D, and in rear of the same there is arranged a transverse cross-bar, E, the rear or upper side of which is made flat to serve as one of the bearing-surfaces for the spring F. Said spring is made of tapering form, as shown in Fig. 5, and is provided with a rear slightly-bent termination, *a*, which is formed with a slot, G. A stud or projecting rib, H, formed in the cross-bar E, enters the slot in the spring, and serves to secure the same in position for preventing the longitudinal displacement of the spring in connection with a seat, *d*, or cut-away end of the hook B, which receives the opposite end of the spring. The spring is supported and retained in position by passing it from the back through the body of the hook, so as to cause the rear portion of the same to bear upon the cross-bar on one side, and upon the advanced bearing-surface I at the front end of the opening D on the other side of the spring.

It will thus be perceived that the pressure upon the spring is equally distributed over the entire rear portion of the same, or subjacent to the attaching-point, so as to prevent the spring from being broken, either by pressing it inward for applying a harness-ring to the hook, or by the outward movement of the latter when the hook is in use.

Having thus described my invention, what I claim as my invention is—

In a snap-hook, the combination of bar E, having rib H on its reverse side, spring F, slot D, and advanced bearing-surface I, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 22d day of December, 1873.

PETER BURNS. [L. s.]

Witnesses:

W. S. HUNTINGTON,
STANLEY BAGG.