

(No Model.)

H. HULVEI.

SNAP HOOK.

No. 411,442.

Patented Sept. 24, 1889.

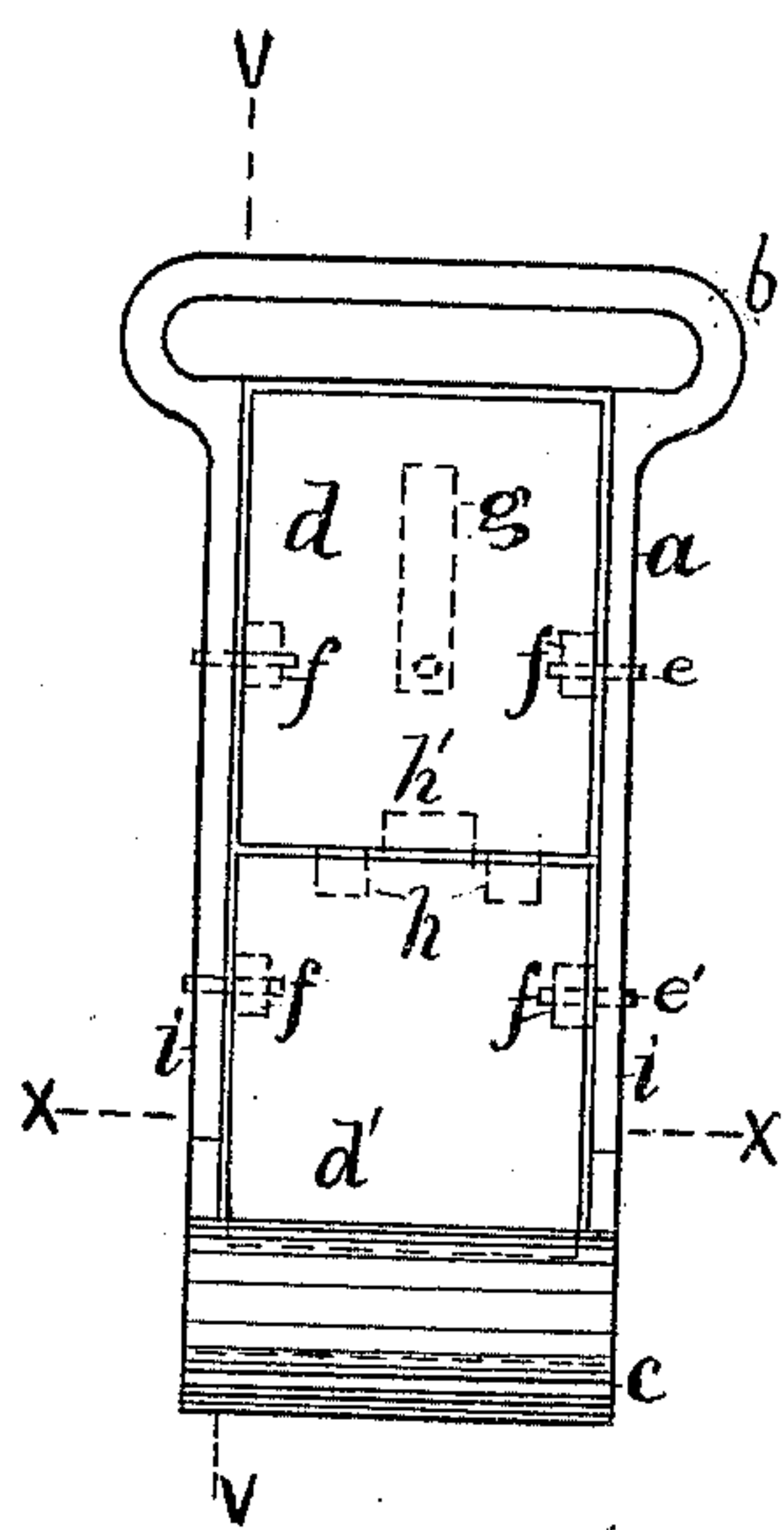


Fig 1.



Fig 2.

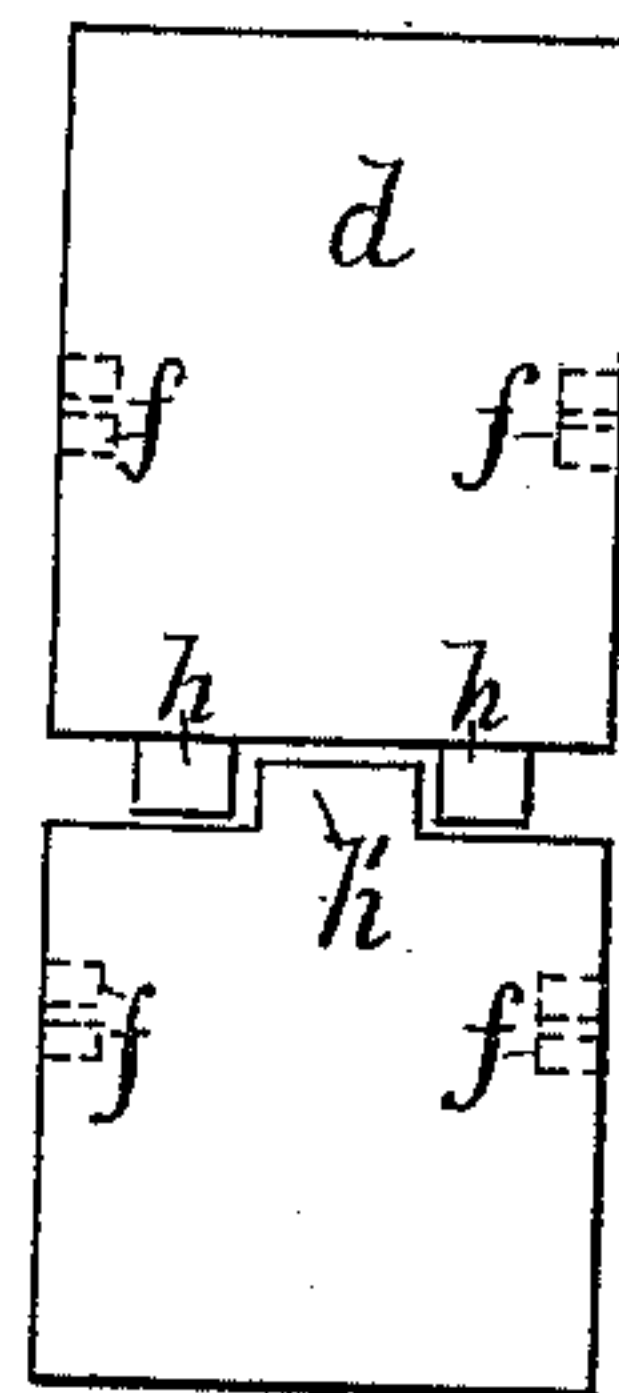


Fig 3.

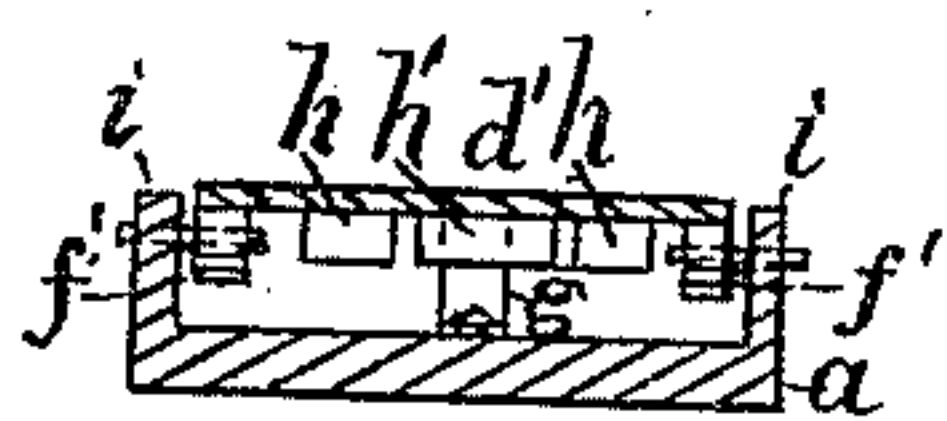


Fig 4.

Witnesses
Anton Fougner
C. Vogel

Inventor
Hans Hulvei
By his Attorney Wm Zimmerman

UNITED STATES PATENT OFFICE.

HANS HULVEI, OF CHICAGO, ILLINOIS.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 411,442, dated September 24, 1889.

Application filed May 2, 1889. Serial No. 309,404. (No model.)

To all whom it may concern:

Be it known that I, HANS HULVEI, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented certain new and useful Improvements in Snap-Hooks, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part hereof, and in which—

10 Figure 1 is a front or top view of my improved snap-hook. Fig. 2 is a longitudinal side or edge view of the same, taken on a vertical plane *v v*, shown in Fig. 1, this showing the body of the hook in section. Fig. 3
15 is a top or plan view of the levers or parts *d d'* removed from the body of the hook and separated longitudinally, so as to show the spurs at the abutting ends of said levers. Fig. 4 shows a transverse vertical section of
20 the snap-hook, taken on the plane *x x* of Fig. 1.

Like letters refer to like parts.

The object of my invention is to produce a snap-hook which shall be easier of operation than those now in use, and at the same
25 time secure against liability of accidental opening, and be easily and cheaply produced; and to attain said ends I construct my improved snap-hook substantially as follows,
30 namely:

The body *a* of my improved snap-hook consists of a loop *b*, through which one end of a belt or strap is fastened, a back provided with vertical sides *i*, and a hook *c*, by means
35 of which it may be attached to a ring or other like serving device. The sides or walls *i* rise vertically and parallel from each side of the back to an equal height and extend from the interior of the loop *b*, of which they form a
40 part, down to the beginning of the hook *c* at the back, where they end, with a slope from the top of said walls sufficient to admit suitable objects into the hook *c*, thus forming a channel or trough between said walls; and
45 between said walls, on pins *e e'* near the upper edge of them, play two levers *d d'*, of which the lever *d'* terminates slightly within the point of the hook *c*, and of which its fulcrum

e' is nearest the opposite end thereof in about the proportion of one-third to one-fourth its
50 length, as may be necessary to give the requisite amount of play to said levers. At said end which abuts against the lower end of the lever *d* is a hook or spur *h'*, attached to the under side of said lever *d'*, which projects
55 downwardly or inwardly from said lever in an inclined position and under the lower or abutting end of the lever *d*, as clearly shown in Fig. 2. On the lower end of the lever *d* are also attached one or more like spurs *h* on
60 either side of said spur *h'*, which pass under the upper end of said lever *d'*, as clearly shown in Fig. 2. Said levers have lugs *f* and *f'* on their under sides, into which the pins forming the fulcrums *e* and *e'* are fastened,
65 and against the upper or free end of the lever *d* presses a spring *g*, which may be constructed as here shown or be made of any other and suitable form, with which my improved snap-hook is completed and ready for
70 use. The spurs *h h'* form a sort of hinge for the ends of the abutting levers, by means of which the ends of the levers are made to work together, and which at the same time permit the ends of said levers to separate, as
75 they necessarily must, as is evident and also indicated by the positions of said levers when moved to the extreme limit of their motion. (Shown in broken lines in Fig. 2.) In said
80 latter position the hook *c* is open. The hook *c* cannot, however, be opened by pressing upon any part of said levers except that part of the lever *d* above or beyond the fulcrum *e* forming the free part of said lever, and which said free end is attached outwardly by
85 the force of the spring *g*.

What I claim is—

1. In a snap-hook, the body *a*, provided with hook *c*, in combination with the spring *g* and levers *d d'*, fulcrumed at *e e'*, the abut-
90 ting ends of said levers being united by a joint which permits longitudinal separation of said ends, substantially as specified.

2. In a snap-hook, the body *a*, provided with sides *i* and hook *c*, in combination with
95 the spring *g*, levers *d d'*, fulcrumed at *e e'*

on said walls and provided with spurs *h h'* at their abutting ends, substantially as specified.

3. In a snap-hook, the body *a*, provided
5 with hook *c*, in combination with the abutting levers *d d'*, fulcrumed at *e e'*, and provided with lugs *f f'*, and spurs *h h'* at the abutting ends of said levers, whereby their

abutting ends must move together and may separate longitudinally when in operation, so substantially as specified.

HANS HULVEL.

Witnesses:

WM. ZIMMERMAN,
T. VOGEL.