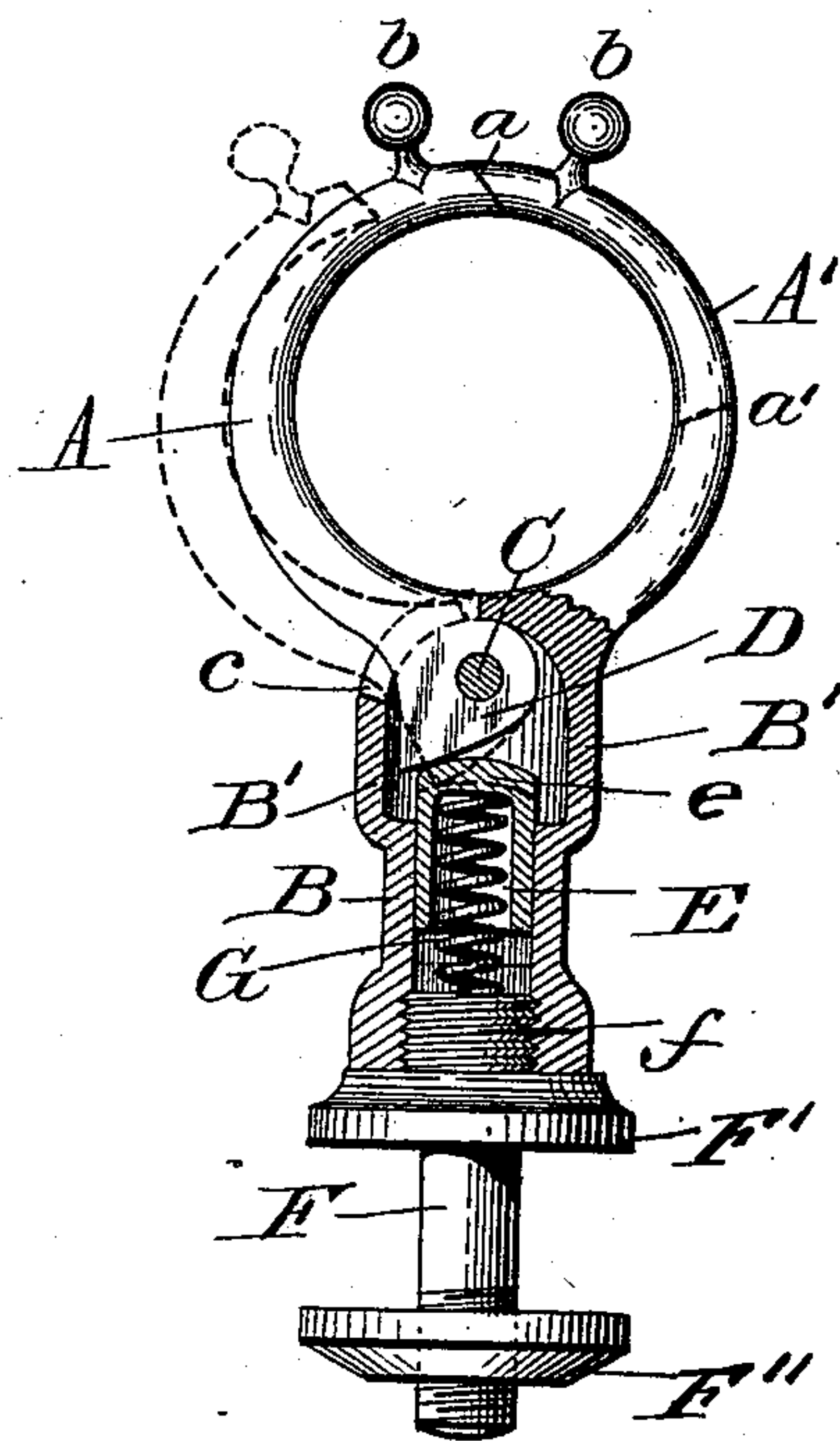


(No Model.)

J. W. CALEF.
SNAP HOOK.

No. 539,666.

Patented May 21, 1895.



WITNESSES:
F. L. Ourand
Samuel Jones

INVENTOR:
Joseph W. Calef,
by Louis Bagges & Co.
his Attorneys.

UNITED STATES PATENT OFFICE.

JOSEPH WARREN CALEF, OF NORTH EASTON, MASSACHUSETTS.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 539,666, dated May 21, 1895.

Application filed April 5, 1895. Serial No. 544,596. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WARREN CALEF, a citizen of the United States, and a resident of North Easton, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Snap-Hooks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, which forms a part of this specification, and in which I have shown my improved snap-hook in side elevation, with the barrel in longitudinal section, so as to show the interior spring and other details of construction.

My invention relates to devices or appliances known technically and generically as "snap-hooks," and consists in a novel and improved construction and combination of parts of devices of that type, whereby they may be adapted to a great variety of uses. For example, my improved snap-hook may be used as terrets on harness; as check-hooks; rein-holders; hold-backs; as whiffletree-hooks, and for a great many other purposes, which will readily suggest themselves and do not require enumeration here.

Referring to the drawing, the reference letters A and A' denote, respectively, the two links or jaws of my improved snap-hook, which may either—as in the example illustrated on the drawing—be of even size and snap together at the top-part, marked *a* (i. e., in alignment with a line passing through the center of the barrel B of the hook); or one of the limbs may be made longer than the other, so that they will snap together on one side of the hook, as at the point marked *a'*. For convenience, I prefer to construct both limbs A and A' with projecting knobs or finger-pieces, *b b*, for the easy manipulation of the hook.

One of the limbs, A', is cast integral with, or rigidly fastened upon, the enlarged upper part or head B' of the spring-inclosing barrel B; while the opposite limb A is loose, and projects through a slot *c* in the top of the head B', within which it is pivoted upon the transverse fulcrum-pin C. This movable, pivoted limb A is cast with a cam, D, projecting below and to one side of its fulcrum C, and

impinging with its lower end upon a cylindrical thimble, E, the hollow cylinder of which is inserted into and plays within the cylindrical stem of the barrel B below its head or enlargement B', while the upper, slightly convex, top or cap *e* of the thimble, which is made of thicker or heavier metal, projects up into the hollow head B', so as to bear against the impinging lower end of the cam-shaped arm D of the fulcrumed, movable limb A.

The cylindrical thimble E *e* forms a cap or sheath for the upper end of a coiled spring G, which is inserted into the barrel B, with its lower end bearing against or resting upon the top of a screw-threaded stud *f*, which is screwed into the lower open end of the barrel and forms a continuation of the bolt F, by means of which the device is fastened upon the harness, or other article upon or in connection with which it is to be used. The bolt F has a flange F', which, when stud *f* is screwed into barrel B, impinges upon the lower rim of the latter, as clearly shown on the drawing, so that, when this device is to be used as a terret, for example, the flange F' will bear against the top of the saddle-housing, bolt F being inserted through an aperture in the harness-saddle, and the device fastened thereto by means of a nut F'' at the lower screw-threaded end of the bolt. By means of this bolt F, with or without the nut F'', as the case may be, the device may be fastened upon the hames or other part of a harness; to the ends of a whiffletree; upon the tip end of a carriage-pole (when the device is to be used as a "hold-back"); or wherever else it is to be applied for use.

When used as a row-lock, for example, the stud or bolt F is fastened in the gunwale of the boat, but not rigidly, so that the hook may turn upon its axis, conforming to the movement of the oars.

Having thus described my improvement, what I claim as novel, and desire to secure by Letters Patent of the United States, is as follows:

The combination, in a snap-hook, of the cylindrical barrel B having an enlarged slotted hollow head B' provided with the rigid limb A', and screw-threaded interiorly at its lower open end; the screw-threaded, flanged, stud or fastening-bolt F *f*; the coiled spring G; the

thimble E having a thickened convex head *e*; and the pivoted limb A extending below its fulcrum to form the cam D adapted to bear against the convex head of the thimble; substantially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as

my own I have hereunto affixed my signature in presence of two witnesses.

JOSEPH WARREN CALEF.

Witnesses:

EDITH L. LANE,

HENRIETTA M. REED.