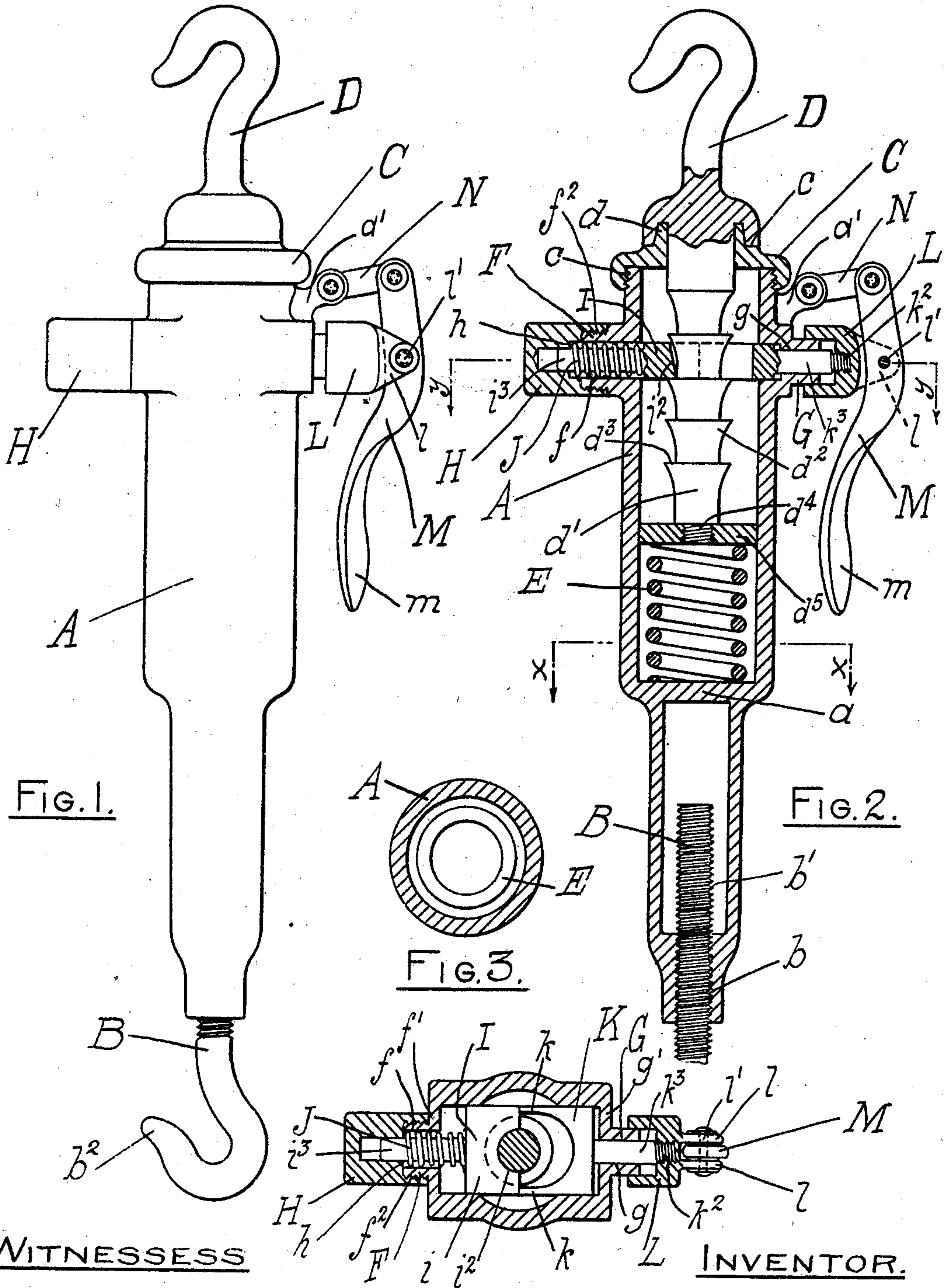


No. 836,063.

PATENTED NOV. 13, 1906.

J. O. C. BRIGGS.
TURNBUCKLE.

APPLICATION FILED DEC. 11, 1905.



UNITED STATES PATENT OFFICE.

JOHN O. C. BRIGGS, OF EAST PROVIDENCE, RHODE ISLAND.

TURNBUCKLE.

No. 836,063.

Specification of Letters Patent.

Patented Nov. 13, 1906.

Application filed December 11, 1905. Serial No. 291,221.

To all whom it may concern:

Be it known that I, JOHN O. C. BRIGGS, a citizen of the United States, residing at East Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Turnbuckles, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to turnbuckles adapted for all uses, but more particularly to such as are employed under conditions of emergency, such as in the lashings of life-boats, where an instantaneous release of the lashings or the davit-guy is imperative.

The primary objects of my invention are the perfect exclusion from the device of air and congealed moisture and capacity for adjustable and instantaneous release.

To the above ends my invention essentially consists in the novel construction and combination of parts hereinafter described, and illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of a turnbuckle embodying my invention; Fig. 2, a vertical central section of a portion of the same, showing parts in side elevation; and Figs. 3 and 4 transverse sections on lines xx and yy , respectively, of Fig. 2.

Like reference characters indicate like parts throughout the views.

A convenient embodiment of my invention consists of a cylindrical barrel or body A, having an internal base or abutment a . The lower end of the body has a threaded aperture b to receive and engage the threads b' upon a longitudinally-movable screw-rod B, provided with the usual hook or eye b^2 . The body includes upon its upper extremity a collar C, fixed by threads c or in any other convenient manner to the body end. The collar is provided with an external annular shoulder or seat c' to receive an annular flange d upon the upper portion of a hook or eye member D, which is slidably mounted in the collar of the body A and has a shank portion d' extending within the body and provided with a series of ribs d^2 , having inclined or conical-shaped sides and flat upper surfaces or shoulders d^3 . Fixed by threads d^4 or otherwise to the bottom of shank d' is a disk d^5 . Pressing against the lower face of this disk and resting upon the base a within the body A is a spiral spring E.

Upon diametrically opposite sides of the body are tubular projections F and G, provided, respectively, with central apertures f and g and annular external seats or shoulders f' and g' . The exterior of the projection f is provided with threads f^2 to engage the threads of an interiorly-threaded cap H, which has an internal annular shoulder h . A slidable stop I, transversely mounted in the body, has a flat rectangular head i , provided with a semicircular inclined recess i^2 upon its inner margin and carrying upon its opposite margin a stem i^3 , adapted to slide in the cap H and projection F. A spiral spring J surrounds the shank and has one end resting against the cap-shoulder h and the other end against the stop-head I, thereby normally forcing the head into engagement with the ribbed shank d' .

A plunger K is also mounted in the body and comprises a forked or bifurcated head k , contacting with the head of the stop I and provided with a stem or shank k^3 , slidably mounted in the aperture g of the projection G. The outer extremity of the stem K is engaged by threads k^2 or otherwise with the cap L, slidably mounted on the projection G. Pivoted to lugs l upon the cap L by pin l' is a lever M, whose free end constitutes a handle m , parallel with the body A, and is pivoted at its other end to a link N, which in turn is pivoted to a lug a' upon the body.

The operation of the turnbuckle is as follows: The hook members D and b^2 are each engaged with the loops or eyebolts or other desired portions of the lashings, and the body A is manually rotated upon the threaded rod B to secure the desired tension. In locked or engaged position the stop I engages the ribbed shank d' of the hooked member D, the stop-head i thereof resting upon the flat face d^3 of one of the ribs d^2 , as shown in Fig. 2.

When in case of sudden emergency it is desired to release the lashings, the handle m of the lever is manually pressed toward the body A, thereby forcing inwardly the plunger K, whose forked head k presses rearwardly against the tension of spring J, the stop I thereby releasing the ribbed shank d' . The latter is thereupon forced upwardly by the spring E, thereby elevating the hook member D and releasing the lashings.

The exterior form of the ribs and the inclined surface I^2 of the stop I permits the depression of the shank d' any desired extent.

What I claim is—

1. In a device of the character described the combination with the body, of a threaded hook mounted in one end of the body, a slid-
5 able hook mounted in the other end of the body, means in the body for retaining the slidable hook in locked position, and means in the body coacting with the retaining means for releasing the slidable hook member.
- 10 2. In a device of the character described the combination with the body, of a threaded hook mounted in one end of the body, a slid-
able hook provided with a shank mounted in the other end of the body, ribs upon the
15 shank, means in the body for pressing the shank upwardly, a yielding stop in the body for forcing the stop out of engagement with the rib to release the shank.
- 20 3. In a device of the character described the combination with the body, of a threaded hook mounted in one end of the body, a slid-
able hook provided with a shank mounted in the other end of the body, ribs upon the
25 shank, means in the body for pressing the shank upwardly, a transversely-disposed stop slidably mounted in the body, a spring upon the stop for pressing the stop into lock-
ing engagement with one of the ribs, and means in the body for forcing the stop out of
30 engagement with the rib to release the shank.
4. In a device of the character described the combination with the body, of a threaded hook mounted in one end of the body a slid-
able hook provided with a shank mounted in the other end of the body, ribs upon the
35 shank, means in the body for pressing the shank upwardly, a yielding stop in the body normally engaging one of the ribs, a plunger also mounted in the body and in contact with
40 the stop, and means upon the body acting through the plunger to force the yielding stop out of engagement with the rib.
5. In a device of the character described

the combination with the body, of a threaded hook mounted in one end, of the body, a slid- 45
able hook provided with a shank mounted in the other end of the body, ribs upon the shank, means for pressing the shank up-
wardly, a yielding stop in the body normally engaging one of the ribs, a tubular projection 50
upon the body, a cap upon the projection, a plunger in the body contacting with the stop and fixed to the cap, lugs upon the cap, a lever fulcrumed in the lugs, a lug upon the
body adjacent the projection, and a link con- 55
necting the lug with one end of the lever.

6. In a device of the character described, the combination with the body, of a threaded hook mounted in one end of the body, a slid- 60
able hook provided with a shank mounted in the other end of the body, ribs upon the shank, a disk upon the extremity of the shank, a spring in the body pressing against the disk, a yielding stop in the body engaging 65
one of the ribs, and means in the body for forcing the stop out of engagement with the rib to release the shank.

7. In a device of the character described the combination with a bolt, of a socket in which the bolt is seated, means in the socket 70
for upwardly pressing the bolt, a locking-pin engaging the bolt, and means for disengaging the locking-pin.

8. In a device of the character described, the combination with a bolt, of a socket in 75
which the bolt is seated, spring means in the socket for upwardly pressing the bolt, a lever-bar pivoted adjacent the socket, and a slidable locking-pin pivoted to the lever-bar and engaging the bolt. 80

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN O. C. BRIGGS.

Witnesses:

HORATIO E. BELLOWES,
WILLIAM H. WRIGHT.