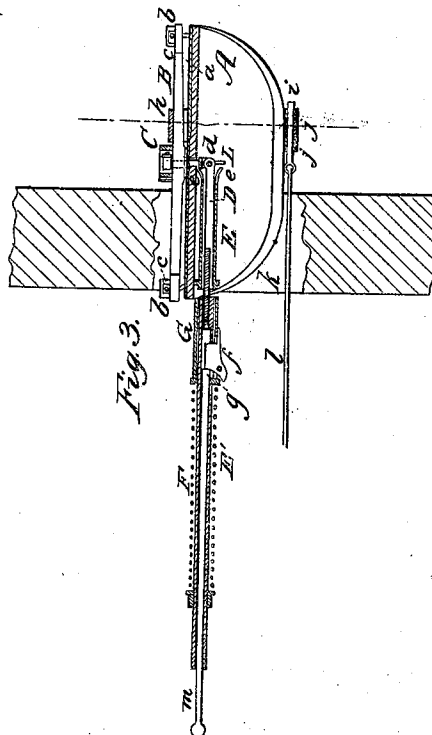
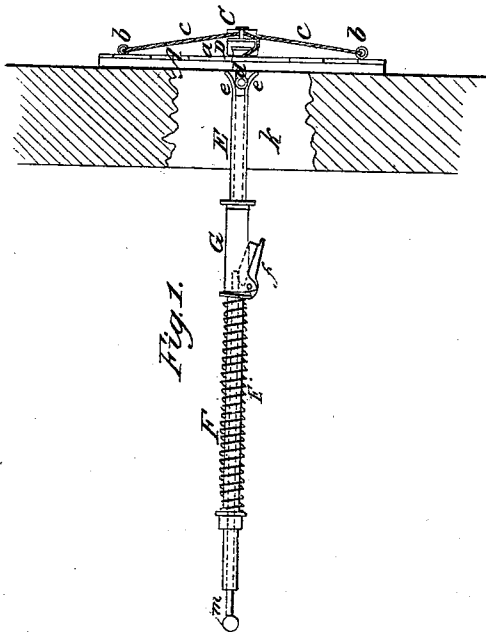
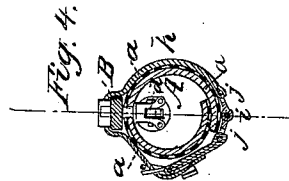
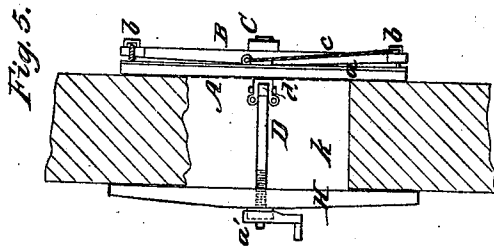
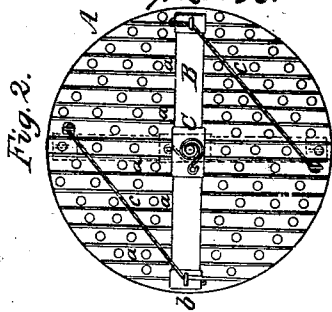


J. Woodville.
Leak Stopper.

N^o 17,852.

Patented Jul 21, 1857.



UNITED STATES PATENT OFFICE.

JOHN WOODVILLE, OF CHILLICOTHE, OHIO.

MEANS FOR STOPPING SHOT-HOLES IN VESSELS.

Specification of Letters Patent No. 17,852, dated July 21, 1857.

To all whom it may concern:

Be it known that I, JOHN WOODVILLE, of Chillicothe, in the county of Ross and State of Ohio, have invented a new and Improved
5 Device for Stopping or Covering Shot-Holes in Vessels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this
10 specification, in which—

Figure 1 is a side view of my improvement, fitted over a shot hole in a vessel. Fig. 2 is an outer or face view of ditto. Fig. 3 is a longitudinal section of ditto, the elastic pad
15 or disk being represented in a coiled state, and in the act of being drawn through the shot hole. Fig. 4 is a transverse section of the pad or disk, taken in the line (x) (x) Fig. 3. Fig. 5 is a view of the device firmly secured
20 over the shot hole.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of my invention consists in the arrangement of the means herein specified
25 for stopping the shot holes in vessels of war.

To enable those skilled in the art to make and use my invention I will proceed to describe it.

A represents a circular disk or pad which
30 should be somewhat larger than the shot hole it is to cover. This disk is constructed of india rubber or other suitable elastic substance, and whalebone slats (a) are riveted to its outer or face side, as shown clearly in
35 Fig. 2, said slats giving the disk or pad the requisite stiffness and at the same time allowing it to be sufficiently elastic. To the center of the outer side of the disk or pad A a bar B is pivoted. This bar is equal in length to
40 the diameter of the pad or disk and a staple (c) is attached to each end of the bar B through which cords or chains (c) which are attached to the pad or disk A pass. A coil spring C is attached to the center of the bar,
45 and the spring C and cords or chains (c) keep the bar B at right angles with the slats (a) and stiffen the same or prevent it from rolling or curling up together with the slats. See Fig. 2. To the inner side of the pad or
50 disk A a rod D is attached by a joint (d). This rod has a screw thread cut on it, and a tube E is fitted loosely on the rod D the end of the tube adjoining the pad or disk having

two prongs or projections (e) upon it as shown clearly in Figs. 1 and 3.

E' represents a tubular rod on which a spiral spring F is placed and G is a tubular slide placed on the rod E and against which one end of the spring F bears. The slide G has a catch (f) placed on it, which catch
60 when the slide G is forced back on the rod E a certain distance from the pad A, fits in a recess (g) in said rod and retains the slide. See Fig. 3. The end of the rod D is screwed into the rod E as shown clearly in Fig. 3.

When the implement is not in use the bar B is turned around parallel with the slats (a) and the disk or pad is rolled up in scroll form and secured in such form or state by a strap
70 (h) the ends of which are connected by a pin (i) passing through metal loops (j) secured to the ends of the straps. See Fig. 4. The pad or disk when thus rolled up may be passed through the shot hole (k) see Fig. 3, and when through the hole the pin (i) is
75 withdrawn from the loops (j) by means of a string (l) which is attached to the pin, the pad or disk then, by its own elasticity spreads out and a rod (m) is forced into the tubular rod E and the catch (f) thrown from
80 the recess (g) the catch being thrown from the recess, the spring F forces the tube E against the shank of the pivot (L) and throws the pad or disk A around directly over the shot hole, and at right angles with the rod
85 (d) as shown in Fig. 1. The rod E' is then unscrewed from the rod D and the end of said rod D is passed through a bar H and a nut (d') placed on it by screwing up while the pad or disk is firmly secured over the
90 hole. See Fig. 5.

By this improvement shot holes may be covered perfectly watertight from within the vessel and therefore without exposing the operator to the fire of the enemy. Different
95 sized pads or disks should be kept on hand to suit different sized shot holes, and the implement should be prepared or kept ready for immediate use by having the pads or disks attached to the rods E and rolled or
100 coiled. The implement or device may be manufactured at a small cost.

What I claim as my invention and desire to secure by Letters Patent, is

1. The arrangement of the disk A, formed
105 of india rubber and whalebone slats a, the

rigid bar B, the jointed rod D, the chains or cords *c, c*, and the spring C, relatively to one another, in the manner substantially as and for the purposes herein set forth.

- 5 2. The arrangement on the bar D, of the slide E, the tubular rod E', the slide G, with catch *f*, the rod *m*, and the straps *b*, rela-

tively to one another, and to the disk and its attachments substantially as and for the purposes herein set forth.

JOHN WOODVILLE.

Witnesses:

W. TUSCH,

J. F. BUCKLEY.