

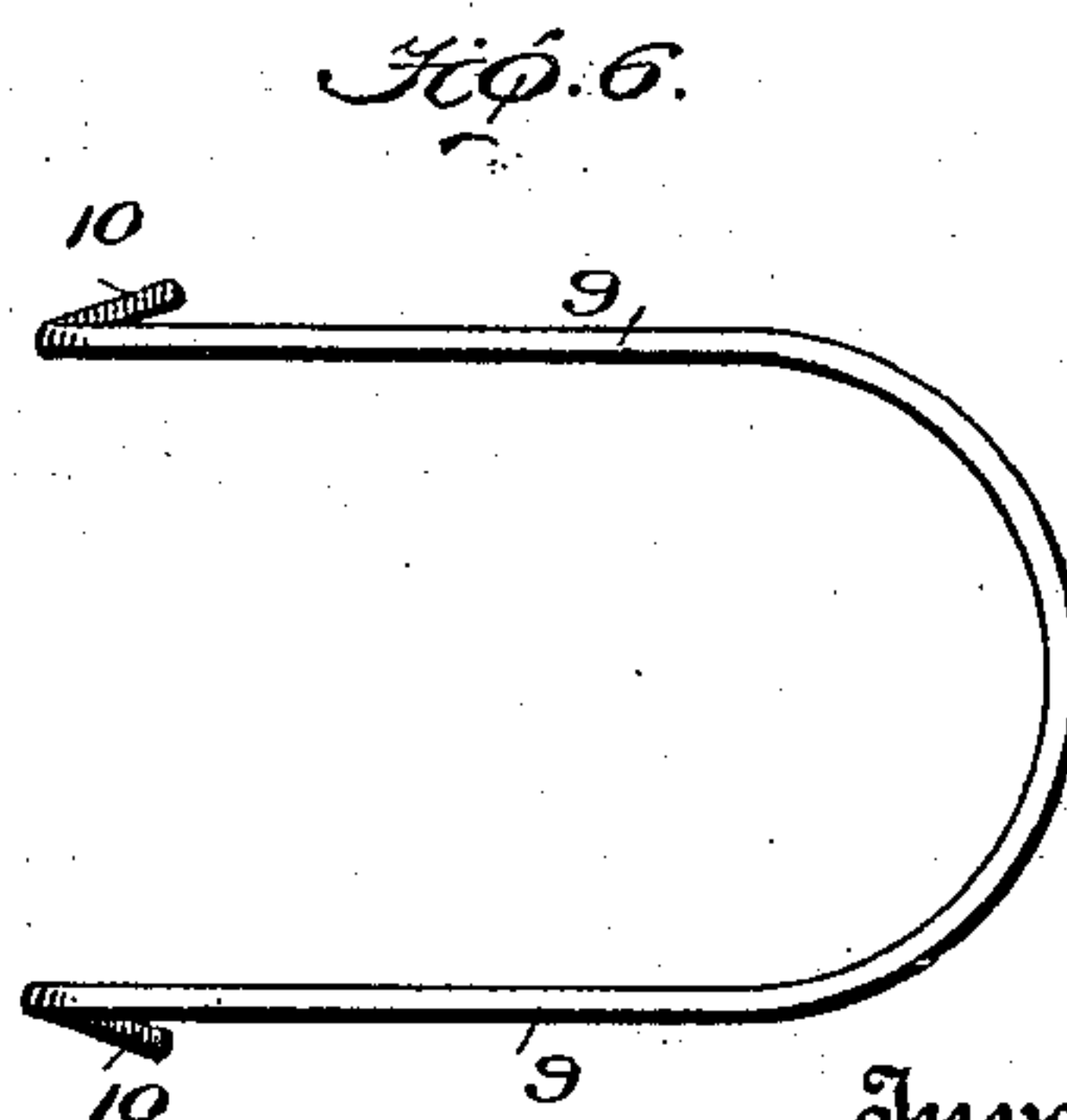
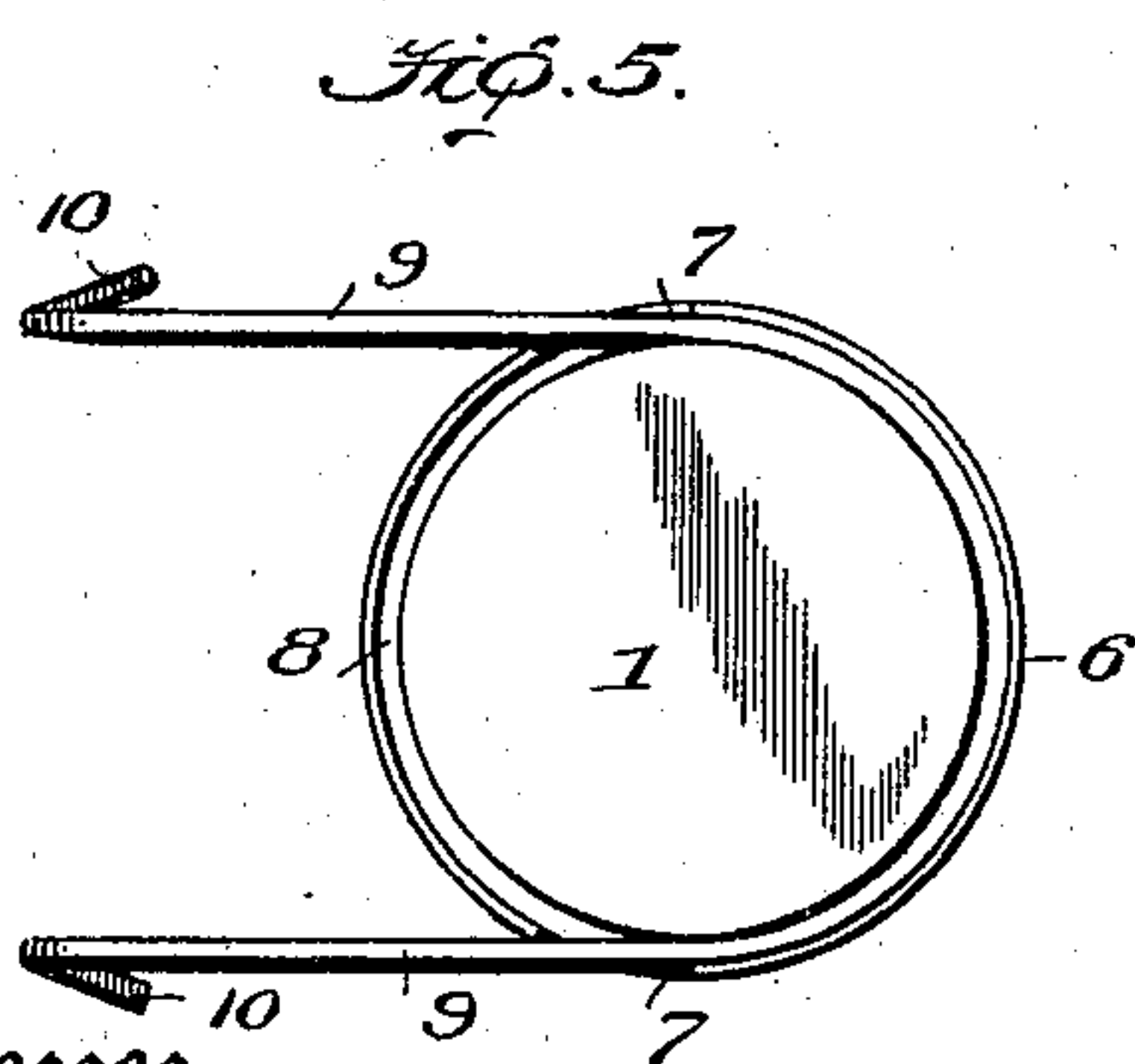
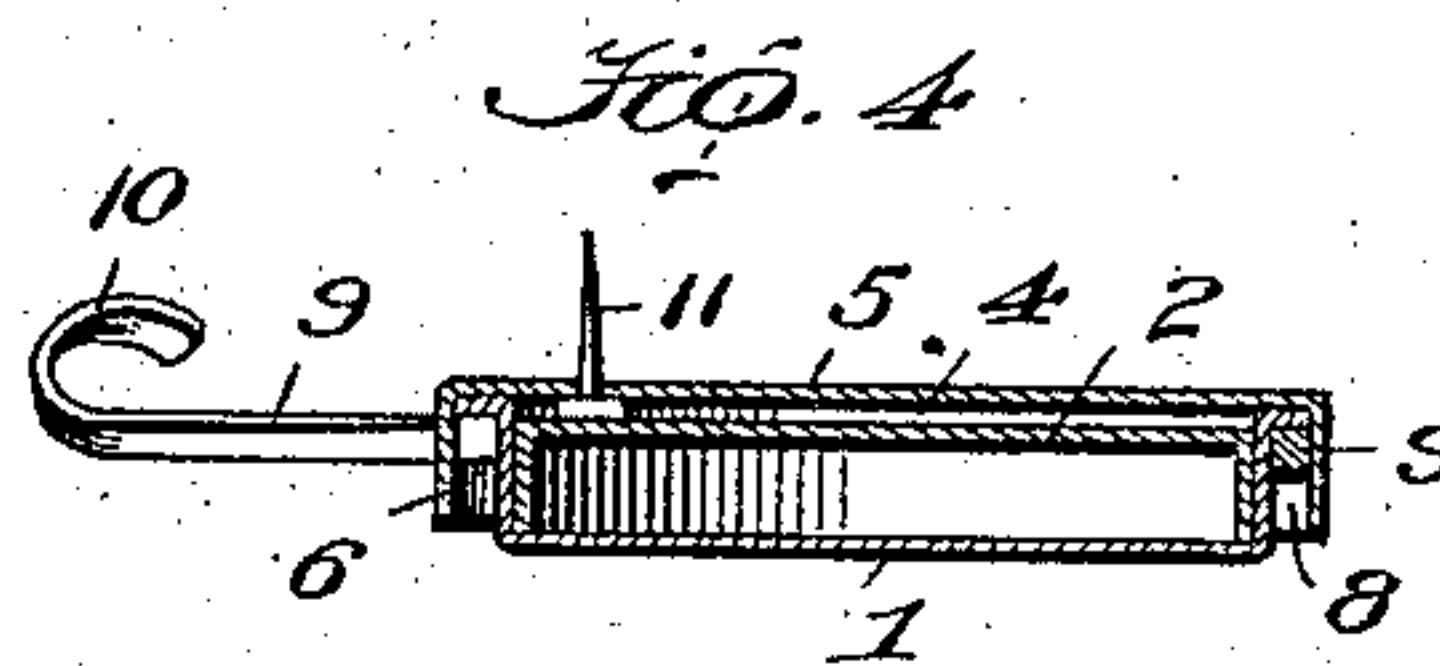
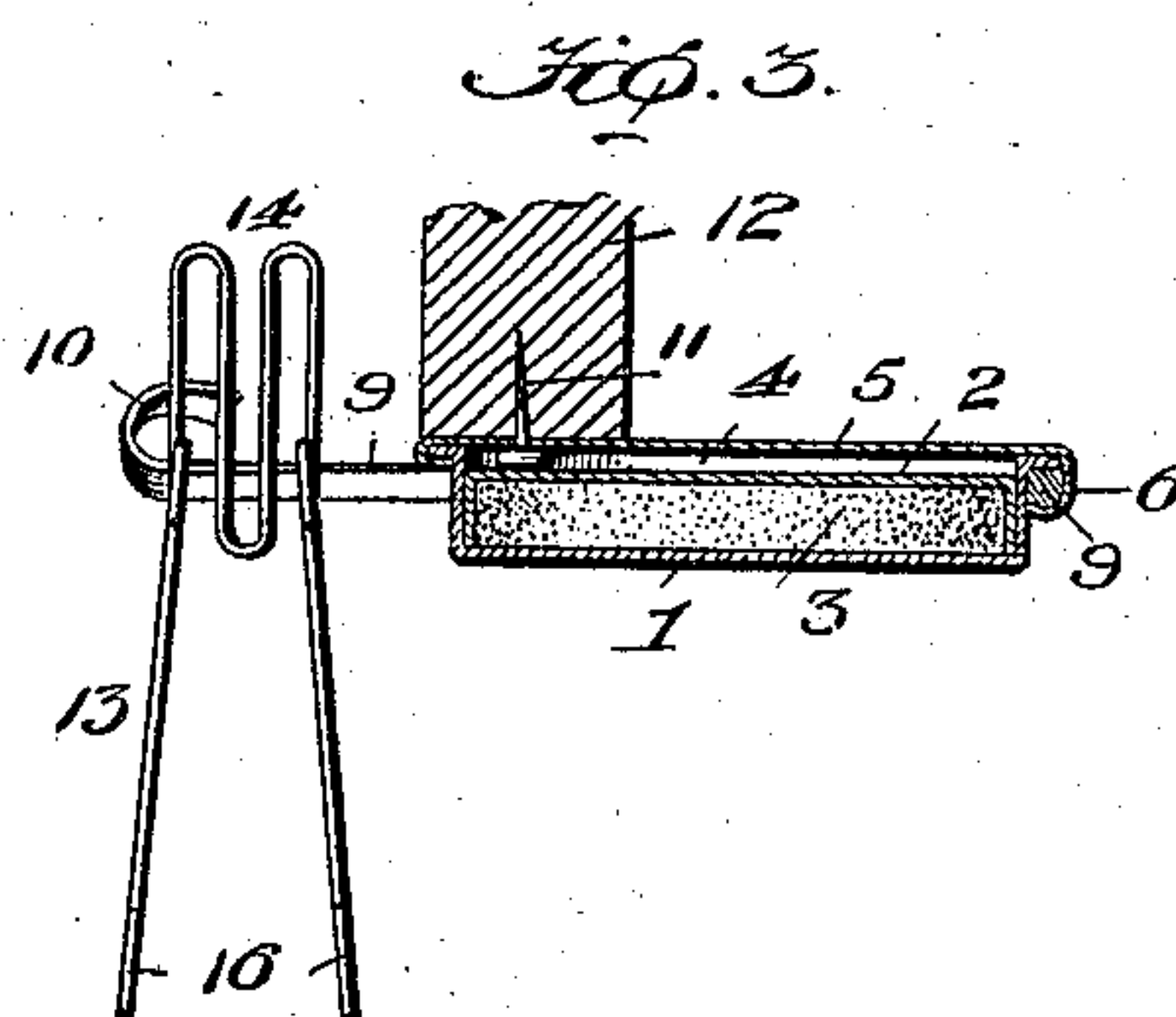
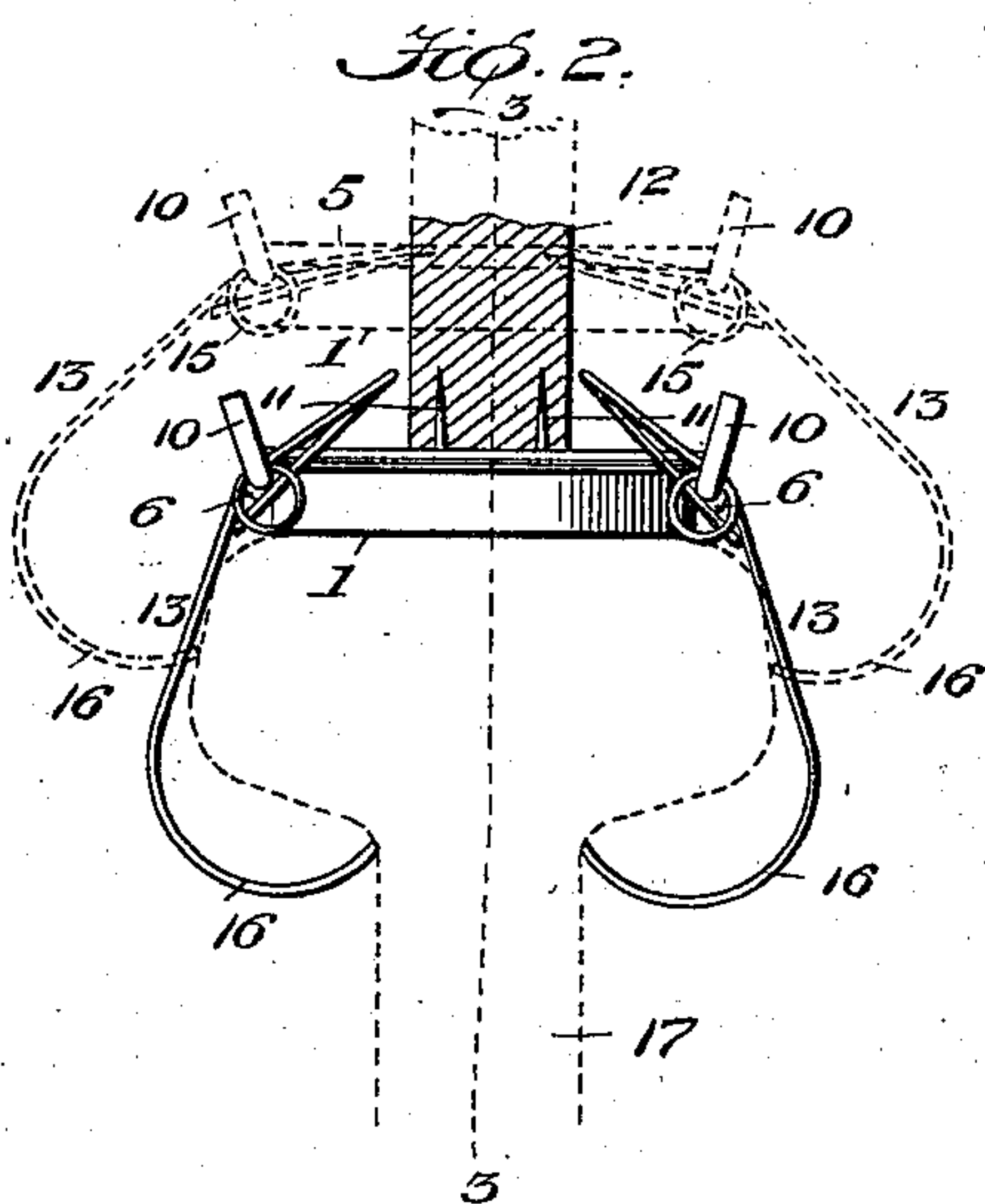
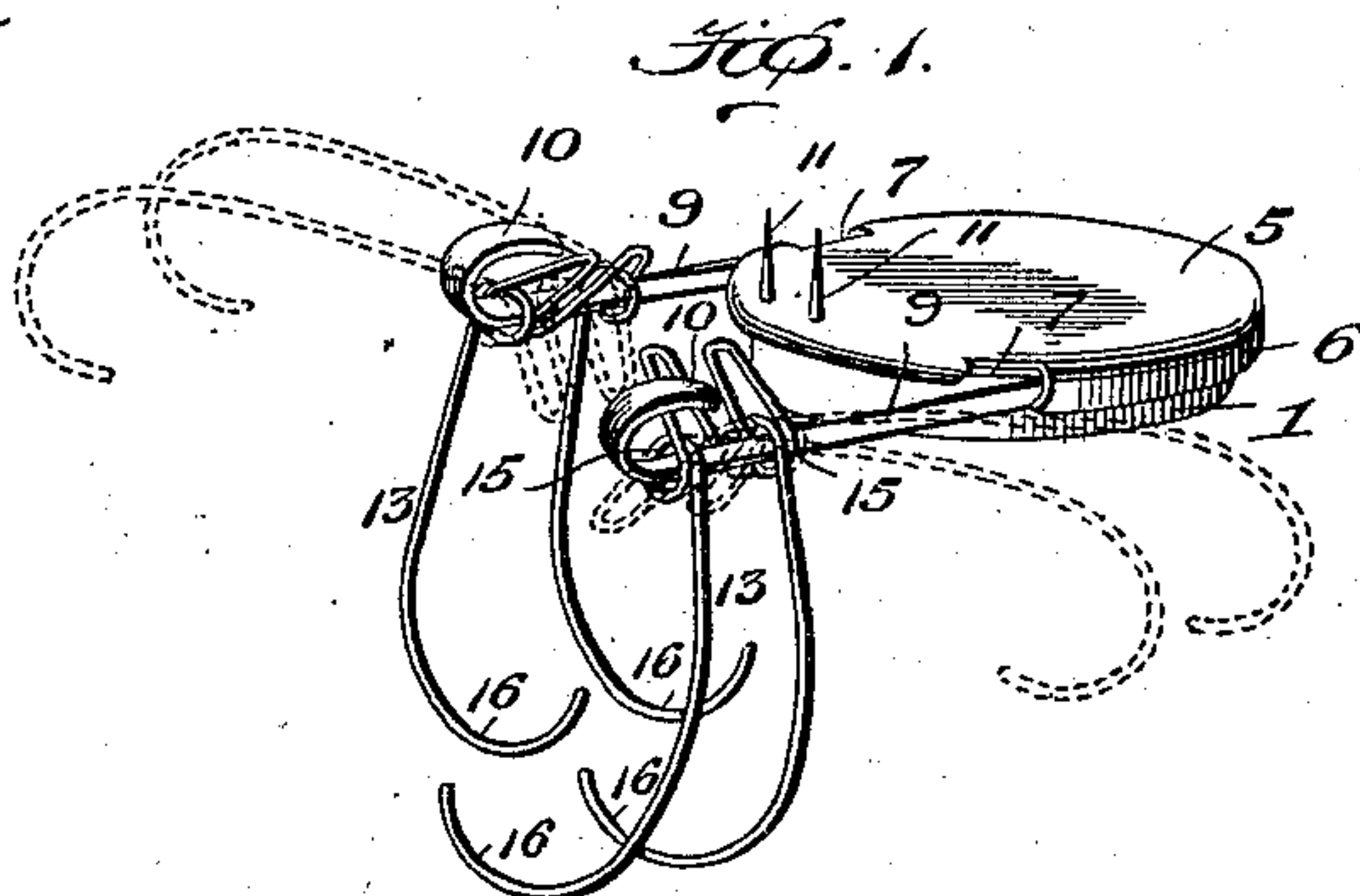
No. 698,069.

Patented Apr. 22, 1902.

L. O. SPROUT.
RAILWAY TORPEDO.

(Application filed Jan. 18, 1902.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

LEWIS O. SPROUT, OF FOSTORIA, OHIO.

RAILWAY-TORPEDO.

SPECIFICATION forming part of Letters Patent No. 698,069, dated April 22, 1902.

Application filed January 18, 1902. Serial No. 90,276. (No model.)

To all whom it may concern:

Be it known that I, LEWIS O. SPROUT, a citizen of the United States, residing at Fostoria, Seneca county, Ohio, have invented a new and
5 useful Improvement in Railway-Torpedoes, of which the following is a specification.

This invention relates to certain new and useful improvements in railway-torpedoes of that class designed to be applied to the track
10 from the moving train; and it has for its objects, among others, to provide a simple and cheap torpedo of this character that can be readily applied, which will be securely held to the rail, and from which the applying-staff
15 can be easily removed without danger of pulling the torpedo from the rail.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined
20 by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

25 Figure 1 is a perspective view of the improved torpedo complete ready to be attached to the applying-staff, the dotted lines showing the position of the parts before the torpedo is applied to the rail and the full lines the position they assume when in position on the rail. Fig. 2 is a view showing the application of the torpedo to the track, the torpedo being shown
30 in two positions, one by full and the other dotted lines. Fig. 3 is a substantially central vertical section taken on the line 3 3 of Fig. 2. Fig. 4 is a substantially central vertical section through the torpedo before the cap portion is secured in place and before the spring is applied. Fig. 5 shows in top plan the tor-
40 pedo with the holder in position before the cap is applied. Fig. 6 shows the holder detached.

Like numerals of reference indicate like parts throughout the several views.

45 Referring now to the drawings, 1 designates the casing or body portion of the torpedo adapted to contain the usual detonating composition, and within this casing or shell is snugly fitted the inverted inner shell 2, as
50 seen best in Figs. 3 or 4, the fulminate 3 being of known character and held within the shells 1 and 2, as seen in Fig. 3. The two

shells are held together by frictional contact or otherwise. Fig. 4 shows the shells before they are compressed and before the fulminate
55 is placed in position.

The shell 1 is of greater depth than the shell 2, as seen in Figs. 3 and 4, so that the upper edge of the former shall project above that of the latter to provide a space 4 between the
60 top of the shell 2 and the cap portion 5, as seen in said Figs. 3 and 4. This cap portion 5 is provided with a flange 6, which is cut away, as at 7 7, and the said cap is of somewhat-greater diameter than the diameter of
65 the shell 1 to provide a space 8, in which is disposed the holder 9, which is confined between the walls of the cap and shell 1, as seen in Fig. 4, the ends of the holder projecting through the cut-away portions 7 7, and after
70 once in position it is there held by compressing or crimping the flange 6 of the cap portion so as to closely embrace the holder, as seen in Figs. 1 and 3. The arms of the holder project a considerable distance beyond the
75 torpedo, as seen in Figs. 1, 3, 4, and 5, and their ends are bent, as seen at 10, for a purpose which will soon be made apparent.

Between the head of the shell 2 and the cap portion 5 in the space 4 is designed to be held
80 the head of a tack or tacks 11, as seen in Figs. 3 and 4, it being understood that there may be one or more of such tacks, which are designed to project upward, as indicated, a sufficient distance to be forced into the end of the
85 applying-staff 12.

13 represents twin springs each consisting of a single piece of spring material, as wire, bent upon itself to form short arms 14, the coils 15, which encircle the arms of the holder, as shown, and the free ends of the wire
90 form hooks 16, which are designed to engage over the opposite edges of the rail and hold the torpedo in place thereon. One of these springs is applied to each arm of the holder, 95 as shown, and in the normal position of the parts—that is, when ready to be applied to the rail—the short arms of the springs project downward below the plane of the torpedo, as seen by dotted lines in Fig. 1, and when
100 the torpedo is pressed upon by the operator by means of the staff 12, the lower end of which is pressed upon the tack or tacks 11, the said short arms will be forced upward, as

will be readily understood from Fig. 2, and the said short arms springing upward the hooks will engage on the opposite edges or sides of the rail and then spring under and engage beneath the tread of the rail, as indicated by full lines in Fig. 2, the dotted lines in said figure indicating the position the parts assume as the ends of the hooks engage over the opposite sides of the rail, the latter being indicated by dotted lines at 17. When once in position, the staff is removed, and the hooks will firmly hold the torpedo in place, so that it will not be disturbed by the disengagement of the staff from the tacks.

The spring-arms are disposed at a distance from the torpedo, so that the springs may have a bearing and hold at a distance from the torpedo, which avoids all danger of the latter being tilted by the removal of the staff, and, further, it removes the spring-arms from all danger of injury by the applying-staff or of their interfering with the operation of the torpedo in any way.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is—

1. A railway-torpedo having a holder closely embracing a portion of said torpedo and provided with parallel hooked arms projecting beyond the same, and spring holding devices carried by said arms.

2. A railway-torpedo having a holder projecting beyond the same and having parallel hooked arms, and spring-arms pivotally mounted on said holder and having rail-engaging portions, as set forth.

3. A railway-torpedo comprising a torpedo, a holder secured thereto, a staff-engaging means on the torpedo, and spring-arms with hooks on the holder, as set forth.

4. The combination with a torpedo, of a cap thereon, a holder partially embracing said cap, spring-arms pivotally mounted on said arms, and staff-engaging means retained between the body of the torpedo and said cap, as set forth.

5. The combination with a railway-torpedo, of a cap thereon, staff-engaging means held between the torpedo and cap, and a holder retained by said cap, as set forth.

6. The combination with a torpedo and a cap, of staff-engaging means held between said torpedo and cap, a holder held by the cap and spring-arms on the holder and having spring-hooks, as set forth.

7. A railway-torpedo having a body portion, a cap, a holder retained between the body portion and cap with arms projecting beyond the torpedo and spring-arms on the holder having hooks to engage opposite sides of the rail, as set forth.

8. A torpedo comprising a torpedo proper, a cap portion embracing the same and cut away, a holder held between the cap and body and projecting through said cut-away portions, and spring-arms pivotally mounted on said holder and hooked at one end on the holder, as set forth.

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