

PATENTED FEB. 9, 1904.

APPLICATION FILED NOV. 13, 1903.

NO MODEL.

Fig. 1.

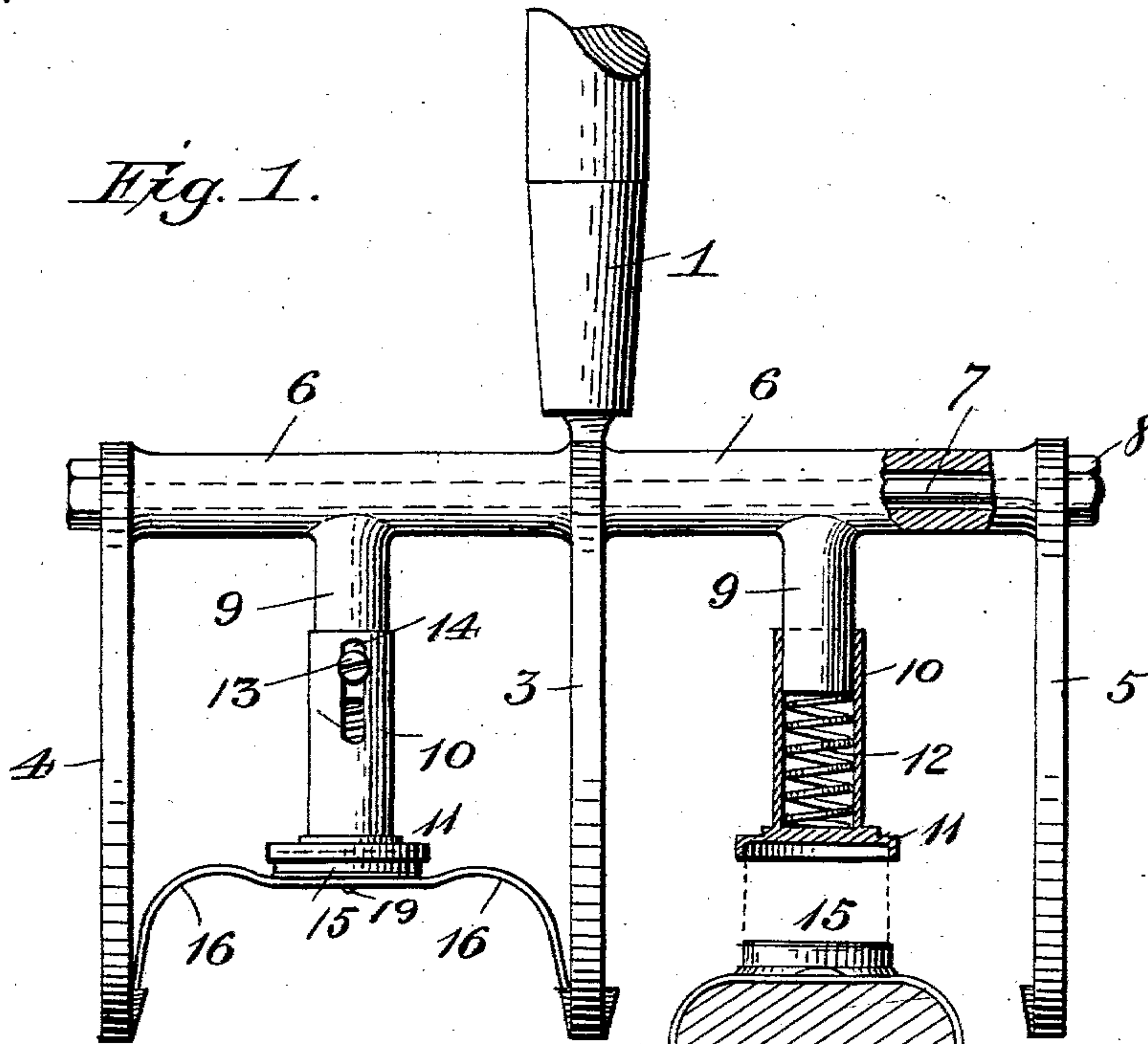


Fig. 2.

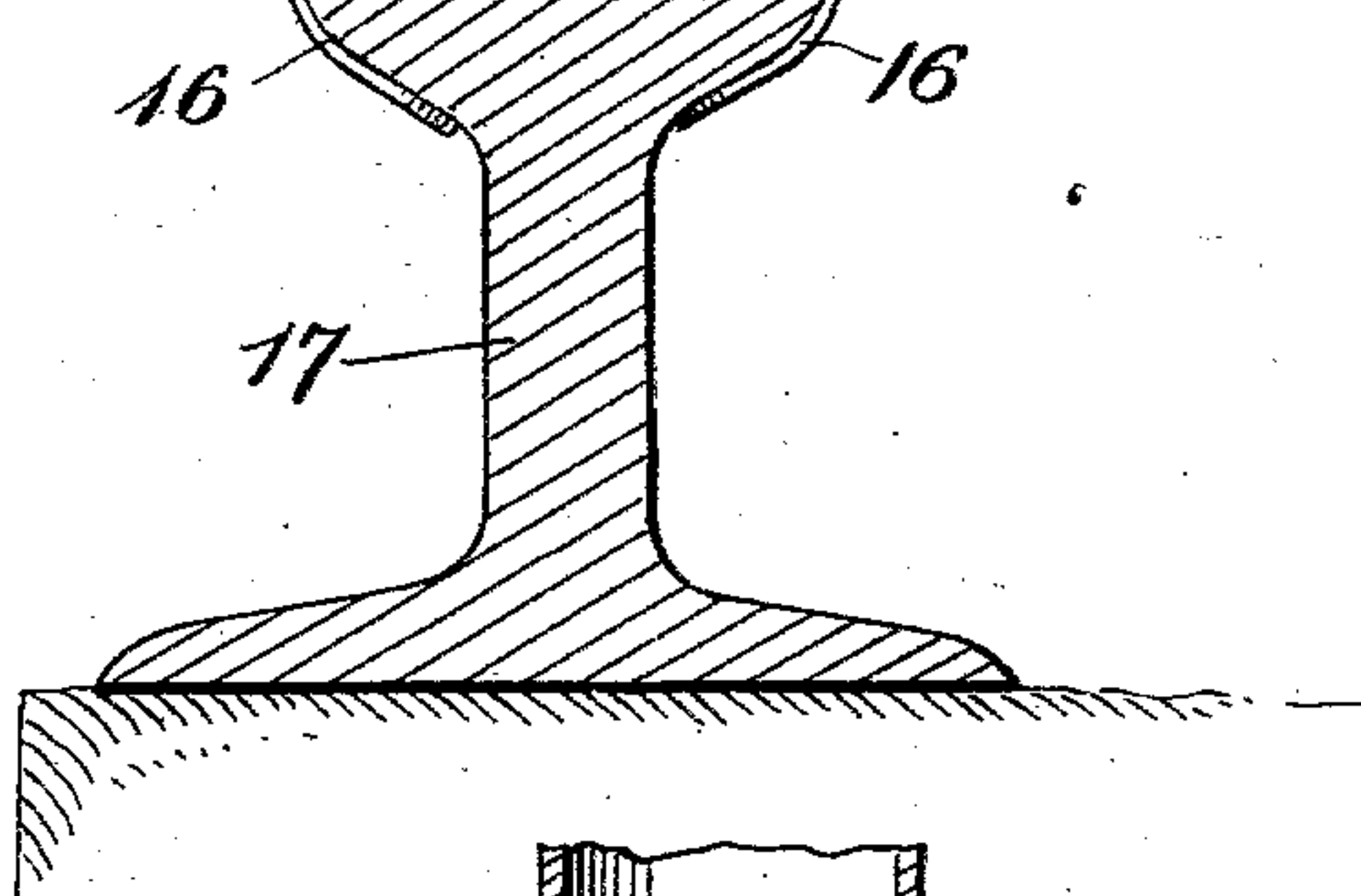
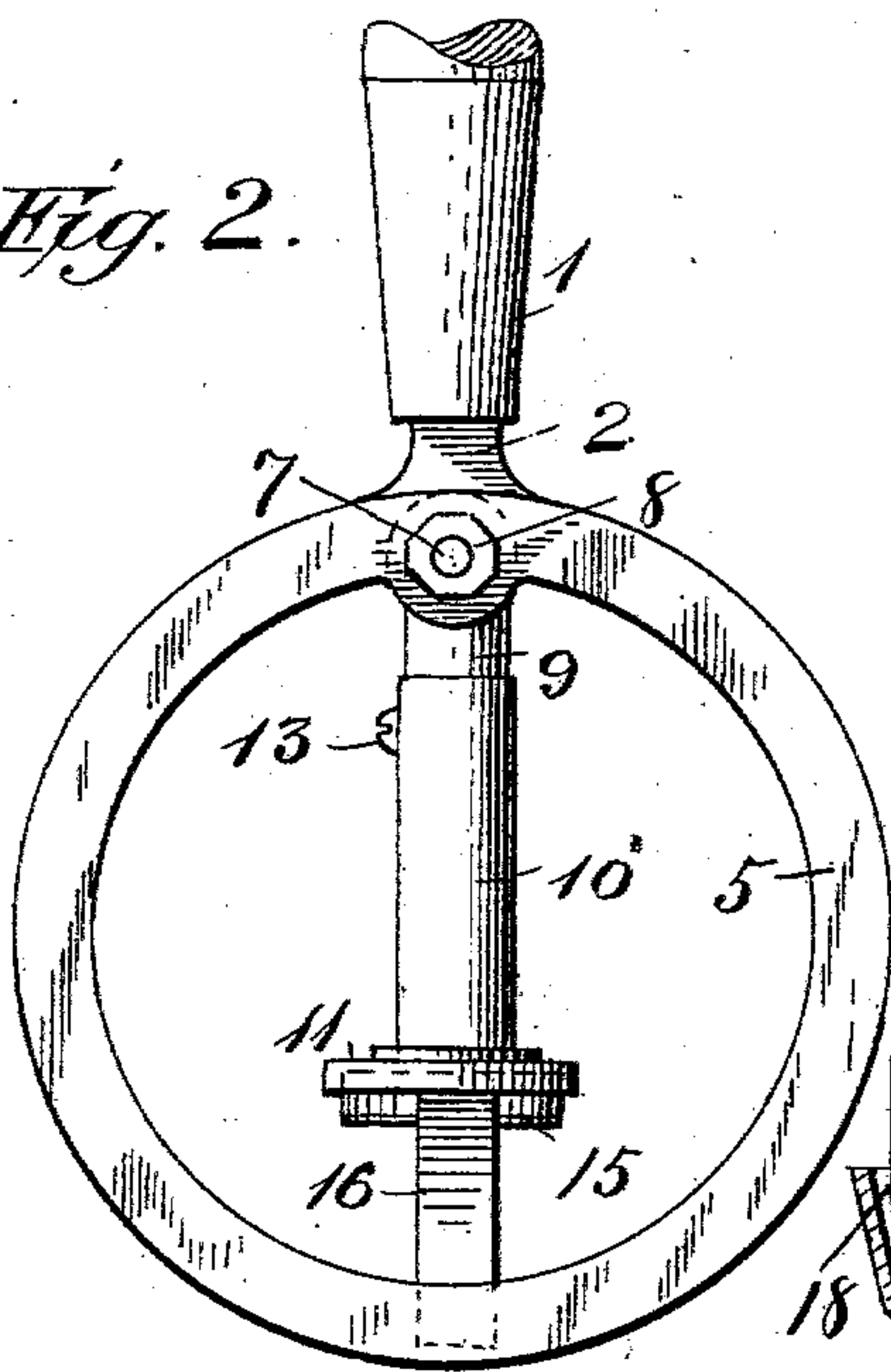
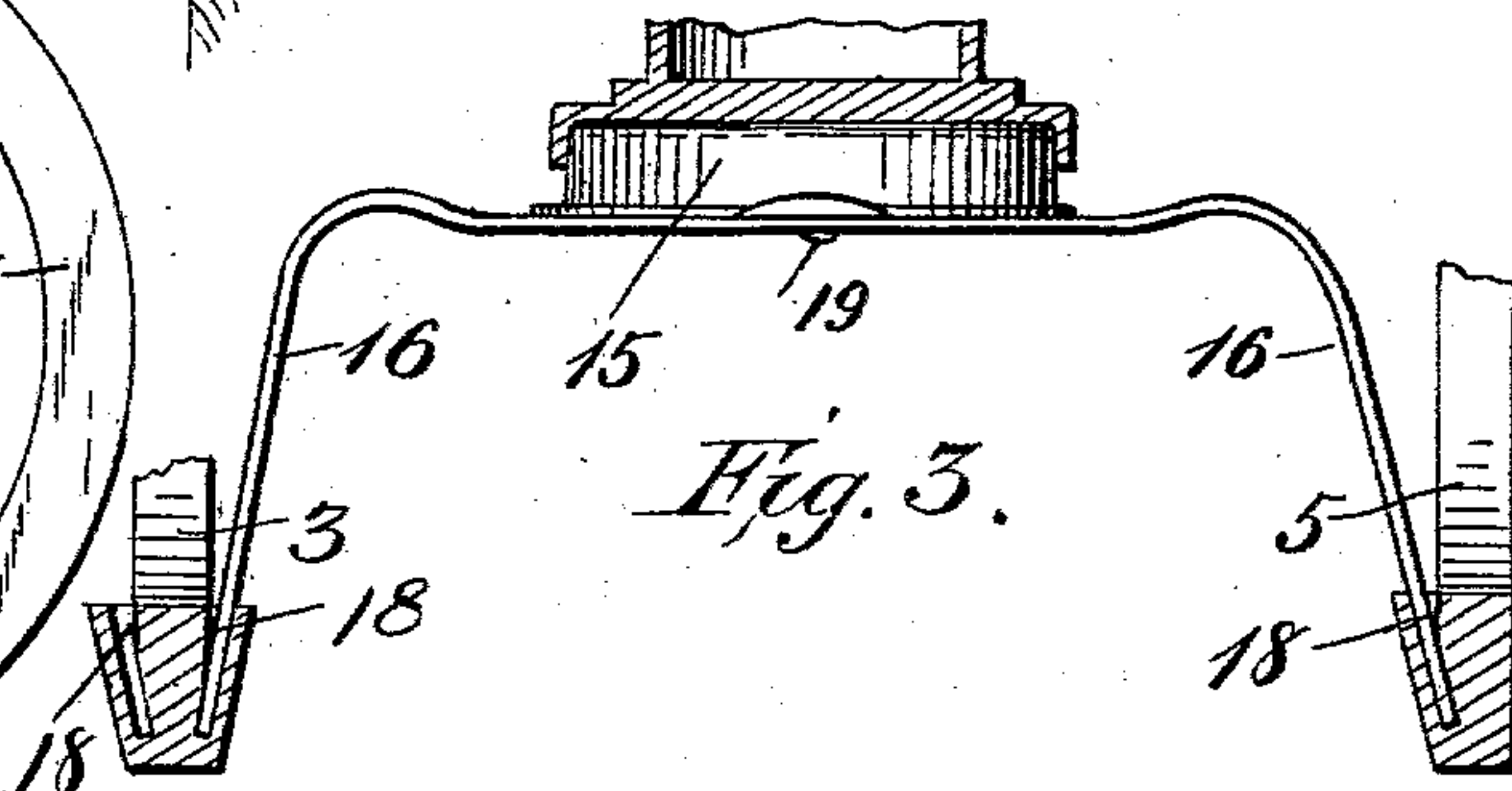


Fig. 3.



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UNITED STATES PATENT OFFICE.

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TORPEDO-PLACER.

SPECIFICATION forming part of Letters Patent No. 751,931, dated February 9, 1904.

Application filed November 13, 1903. Serial No. 181,057. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. MATTHEW, a citizen of the United States, residing at Bucyrus, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Torpedo-Placers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to torpedo-placers, and more particularly to an appliance adapted for placing torpedoes upon railway-tracks; and my invention consists of certain novel features of combination and construction of parts, the preferred form or materialization whereof will be hereinafter fully set forth, and pointed out in the claims.

The prime object of my invention is to provide reliably efficient means whereby a torpedo may be placed in position upon the top of a track-rail ready to be detonated by the wheels of the next train.

A further object, among others, is to enable the operator to readily and reliably place a plurality of rail-torpedoes in their operative positions, as will be necessary at times in carrying out any adopted signal-code.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are made a part of this application, and in which—

Figure 1 illustrates a side elevation of my invention as applied to use in locating a torpedo upon a track-rail. Fig. 2 is an end view of the appliance shown in Fig. 1. Fig. 3 is a detail view showing the holder proper for an individual torpedo, partly in section.

For convenience in referring to the various details of my invention and accessories deemed necessary to illustrate a practical application thereof to use numerals will be employed, the same numeral referring to a similar part throughout the several views.

Referring to the various elements of my invention, 1 indicates the handle portion, which may be made of any preferred character and is adapted to receive the tapered shank 2, which is secured to or integrally formed with

the central ring-like member 3, there being a plurality of said members, as indicated by the numerals 4 and 5, arranged and secured side by side in a parallel plane, said members being preferably uniformly separated, as by the tubular separating-blocks 6, and it is obvious that by passing the locking-bolt 7 through said tubular members 6 and through registering apertures provided in the members 3, 4, and 5 said members may be very securely locked in operative combination, as by the retaining-nut 8 upon said bolt.

Each of the tubular members 6 has integrally formed therewith or otherwise connected thereto the depending lugs or fingers 9, designed to be received by and telescope with the movable sockets 10, said sockets being provided at their lower ends with the cup-like head 11, the open part of the cup-shaped head being directed downward, as clearly shown in Fig. 1 and other views.

The head 11 is held normally outward by the spring 12, which is disposed within the socket 10 and designed to bear at its free end against the finger 9, as will be clearly obvious by reference to the drawings. The retaining-screw 13 is provided to hold the socket upon the finger 9, while the compensating slot 14 is also provided in the socket, through which said limiting-screw 13 is extended. By the construction thus presented it is obvious that the socket 10 is left free to play loosely upon the finger 9 for a purpose hereinafter more particularly set forth. The object of the cup-shaped head 11 is obvious, though it may be stated that the body portion 15 of the torpedo is adapted to be received by said head, and thereby held against any lateral movement, insuring that the torpedo-body will be reliably directed into its proper position upon the track-rail. The torpedo-body, as is common, is provided with the anchoring spring-arms 16, diametrically disposed upon opposite sides of the body, whereby a contiguous part of the track-rail 17 will be engaged.

The free ends of the spring-arms 16 are designed to be entered into the pockets 18, which are preferably integrally formed by striking out a suitable lip from the lower side of each of the members 3, 4, and 5, it being under-

stood that said pockets upon the members 4 and 5 are to be directed inward, while the pockets upon the member 3 are two in number and lie in the same plane with the pockets upon the outer members, and are thus designed to reliably hold the free ends of the arms 16.

I desire to call particular attention to the location and arrangement of the pockets 18, inasmuch as it will be observed that the open part or receptacle provided by the pocket is inclined away from the members 3, 4, and 5, so that the free ends of the springs will be more readily released when the body portion 15 is directed upward.

By reference to Fig. 3 it will be observed that the spring-arms 16 consist of a single piece of suitable spring metal secured at one or more points to the body portion 15, as by the rivet 19 or otherwise.

In Fig. 1 I have shown one of the torpedoes as being discharged from the holder or located in position upon the track-rail, which result is accomplished by simply forcing the holder downward so that the track-rail will come in contact with the under side of the body portion, and thereby force an upward movement of said body against the tension of the spring 12, causing the socket and its accompanying head to move upward sufficiently to withdraw the ends of the spring-arms 16 out of the pockets in which they have been disposed, when the tensile property of said arms will cause the free ends thereof when released to spring into engagement with a contiguous part of the track-rail, and thus leave the torpedo in position.

The handle portion 1, it will be understood, is of proper length to enable the operator to stand upon the end of the car and reach downward, so that the torpedo-holder will be disposed directly above the track-rail, when by a sudden downward thrust of the handle and its accompanying parts the track will be struck by the under side of the torpedo with sufficient force to overcome the tension of the spring 12 and permit the head 11 to move upward sufficiently to disengage the said spring-arms, when they will instantaneously engage the track-rail, and thus leave the torpedo located at the desired point upon the rail.

It will be obvious that the torpedo-holder proper may be made so as to hold a plurality of torpedoes, thus enabling the operator to locate as many torpedoes in position upon the rail as will be desirable to meet the requirements of each situation. It will be seen that the cup-like head 11 will reliably hold the torpedo against slipping laterally, and thus insure that said body portion will be in proper position when released from said holder by the disengagement of the arm 16.

By reference to Fig. 2 of the drawings it will be observed that the members 3, 4, and 5 are ring-like in formation, and this construction is very desirable and important in pro-

viding the torpedo-holders, inasmuch as said rings are not liable to engage or bind the track-rail or any of the fish-plates or securing-bolts thereof, as is often the case where the rings are dispensed with and straight downwardly-extending arms employed in lieu thereof.

In cases where straight depending arms are used instead of the ring-like members 3, 4, and 5 a slight twisting movement of the handle 1 will cause two of the arms to pinch or tightly engage the track-rail, with the result that the instrument is violently forced out of the hands of the operator and lost, whereas when the ring-like members are used they at all times present a curved edge to the track-rail and contiguous parts thereof and the tendency is that they will ride out of all pinching or engaging action and that even should there be a slight twisting movement of the handle said ring-like members will act substantially in the same manner as wheels and prevent frictional engagement between the same and the track-rail and other parts. I desire, therefore, to call special attention to this novel construction which I have provided for the torpedo-holding arms. The employment of the ring-like members 3, 4, and 5 fit my torpedo-placer for instant use, it being immaterial which side is placed forward, inasmuch as the result will be the same. Very little care is necessary in placing the torpedo upon the track-rail, as all that is required is to turn the handle 1 so that the members 6 will be disposed substantially at right angles to the plane of the track-rail; but should said parts not be truly at right angles the peripheral edges of the ring-like members will tend to act as guides, and thus bring the torpedo in proper position to engage the top of the rail, when a slight pressure will release the spring-arms from the pockets or seats 18, and thereby leave the torpedo anchored in its operative position.

Believing that the construction and manner of using my improved torpedo-placer will thus be made clearly apparent, further reference to the details is deemed unnecessary.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described torpedo-holder comprising a plurality of members 3, 4 and 5; suitable means to connect said holders to the handle portion; downwardly-extending lugs or fingers 9; suitable sockets receiving said fingers; means to normally hold said sockets outward; a cup-shaped head carried by said sockets and a pair of pockets inclined toward each other for each of said heads whereby the free ends of the torpedo spring-arms will be secured by said pockets and readily released when the tension of said spring is overcome, all combined substantially as specified and for the purpose set forth.

2. A torpedo holder and placer comprising a suitable handle, a plurality of ring-like members as 3, 4 and 5 properly spaced or separated to receive a torpedo and a contiguous part of the track-rail and means located intermediate a pair of said ring-like members designed to hold the torpedo in position to be released substantially as specified and for the purpose set forth.

10 3. The herein-described torpedo holder and releaser comprising a suitable handle having a plurality of ring or disk like members properly separated to receive a contiguous part of the track-rail; recesses provided near the peripheral edges of said ring members designed to receive the ends of the torpedo-clamping spring and means adapted to yieldingly hold the torpedo in discharging position whereby when the lower side of the torpedo is forced 20 against the track-rail the ends of the springs will be withdrawn to instantly engage the rail as and for the purpose set forth.

4. A torpedo holder and placer comprising a suitable handle and also having a plurality 25 of ring or disk like members 3, 4 and 5 properly separated; pockets or recesses provided in the approximating faces of said ring members adapted to receive the free ends of the torpedo-clamping springs; a spring-cushion 30 between said ring-like members adapted to

hold the ends of the clamping-springs downward in said recesses whereby when the lower side of the torpedo is forced against the track-rail the ends of the clamping-springs will be released to engage the track-rail substantially 35 as specified and for the purpose set forth.

5. The herein-described torpedo holding and releasing device comprising a suitable controlling-handle having a plurality of ring or disk like members 3, 4 and 5; suitable means to hold 40 said members properly separated and in union with the handle; a finger 9 carried between each pair of ring members; a telescoping member cooperating with said finger and means to hold said cooperating member normally extended whereby when the torpedo-body is placed against the lower end of said telescoping member and the anchoring-springs entered in suitable recesses in a contiguous part of the ring or disk like members said telescoping member will move upward against its 50 spring sufficiently to release the ends of the torpedo-clamping members, all substantially as specified and for the purpose set forth.

In testimony whereof I affix my signature in 55 presence of two witnesses.

WILLIAM E. MATTHEW.

Witnesses:

R. V. SEARS,

EMMA KEPLINGER.