

Sept. 16, 1947.

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2,427,645

TRAIN ORDER STAND

Filed June 28, 1945

3 Sheets-Sheet 1

Fig. 1

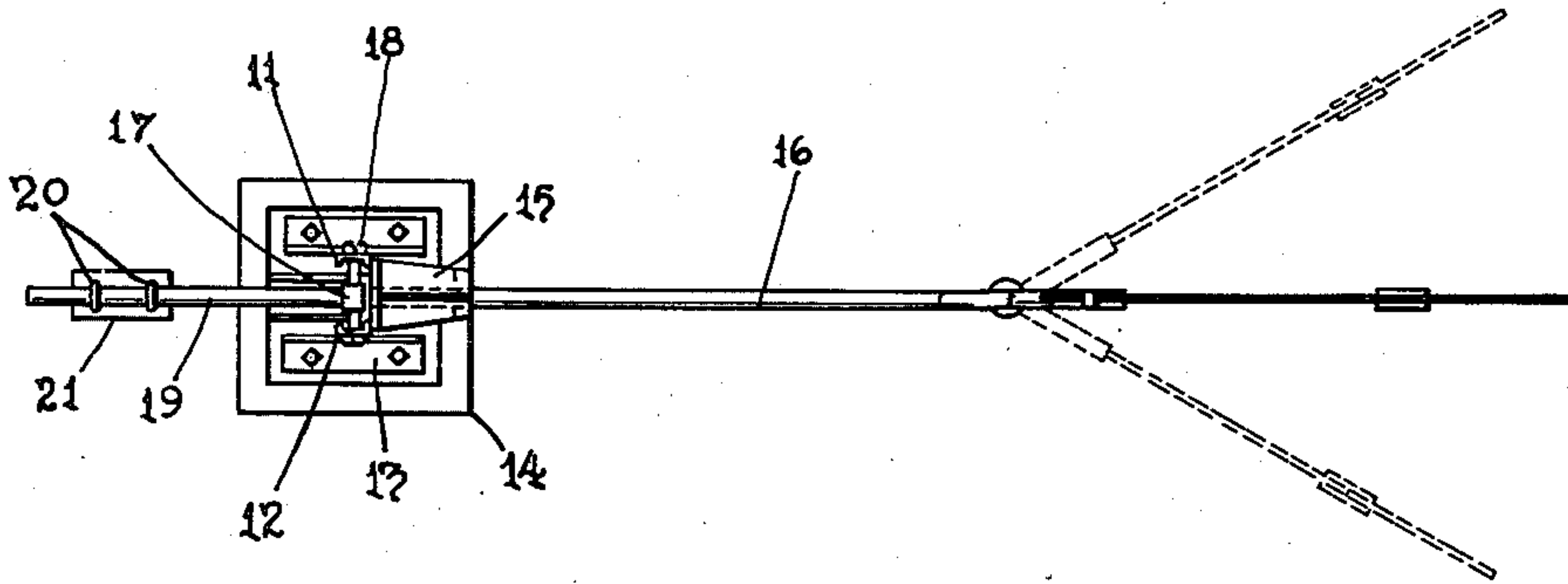
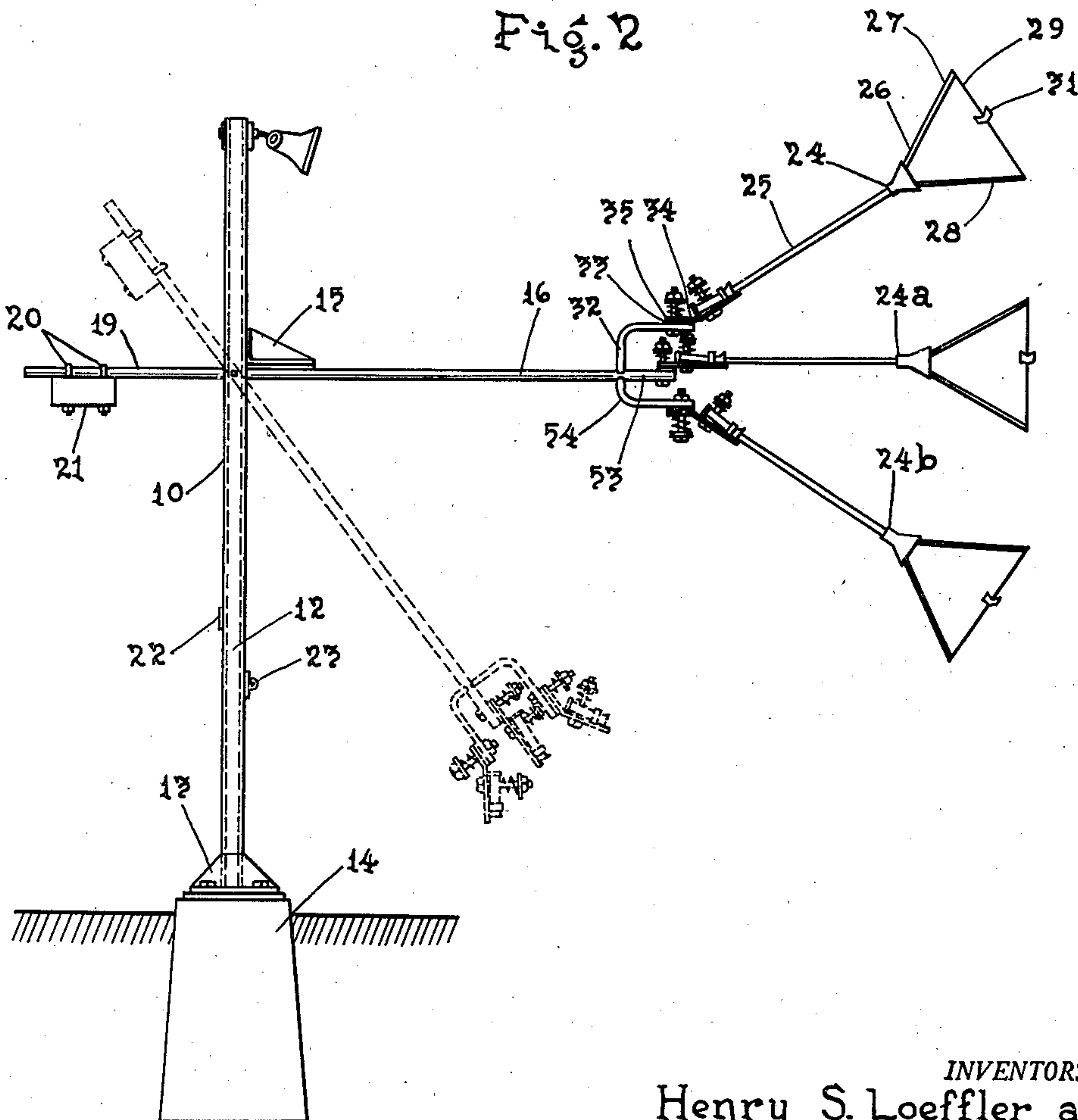


Fig. 2



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Fig. 3

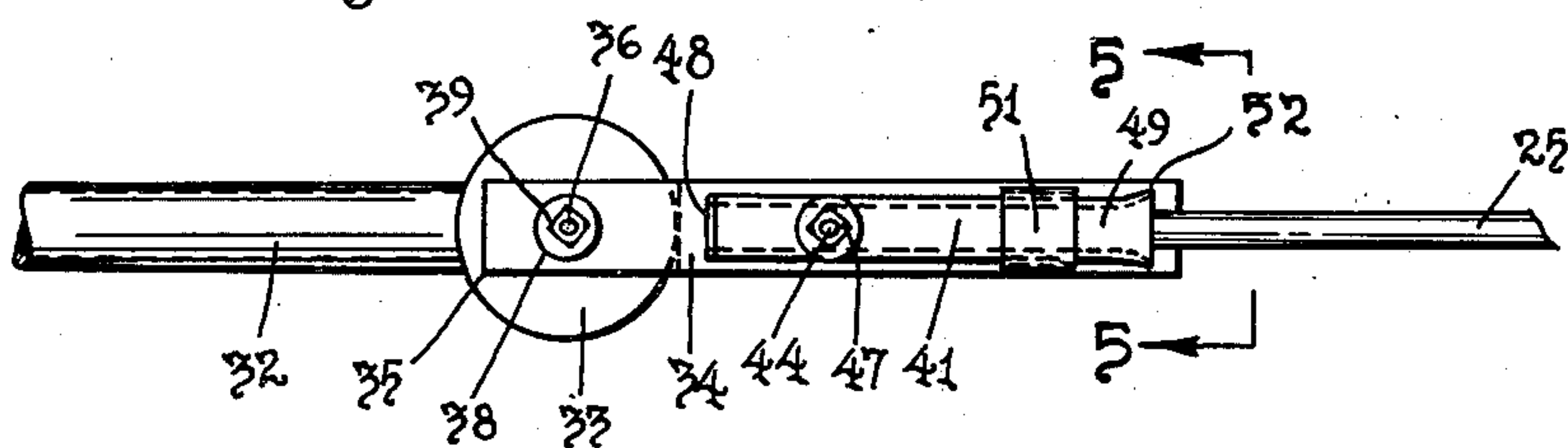


Fig. 4

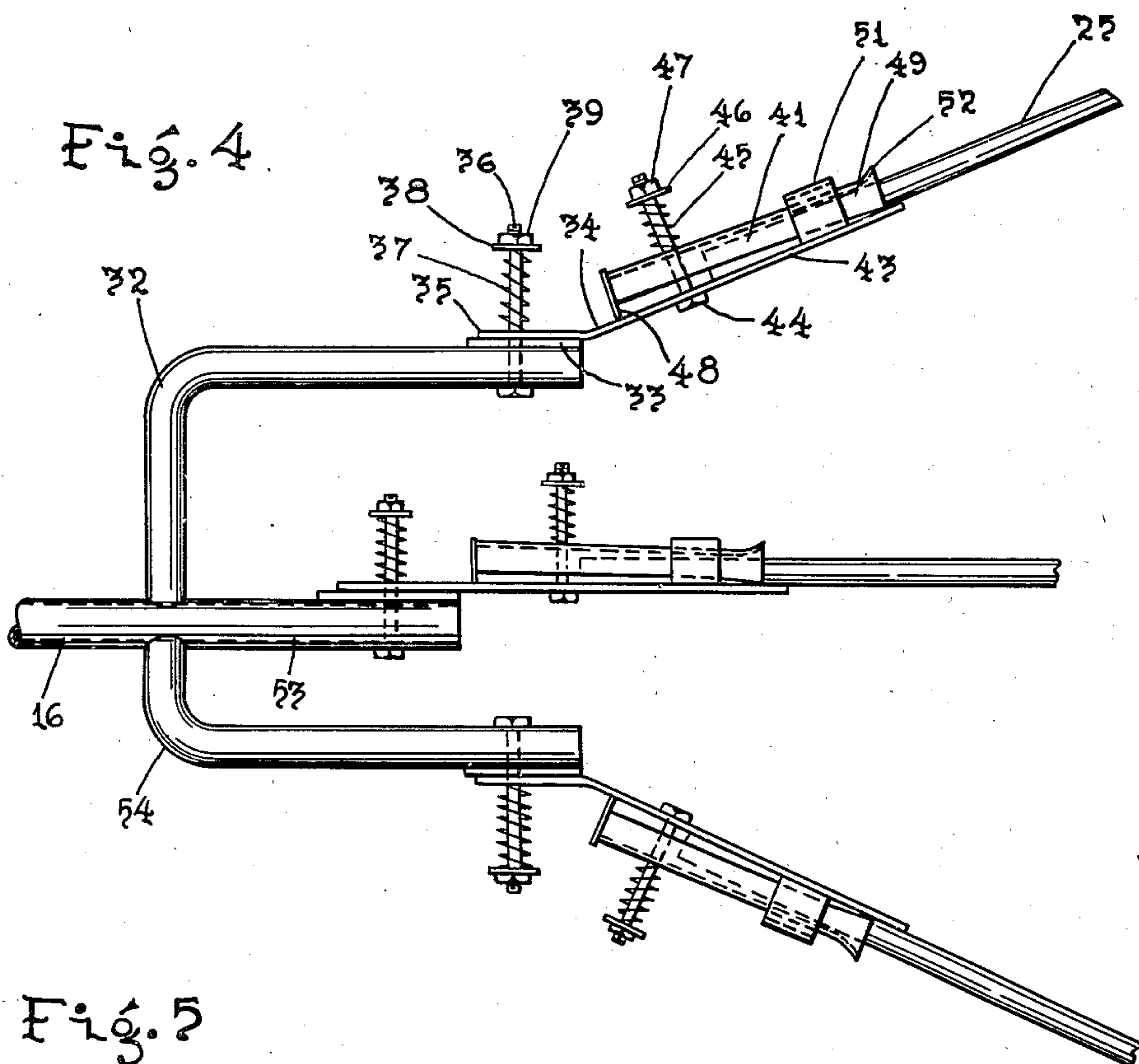
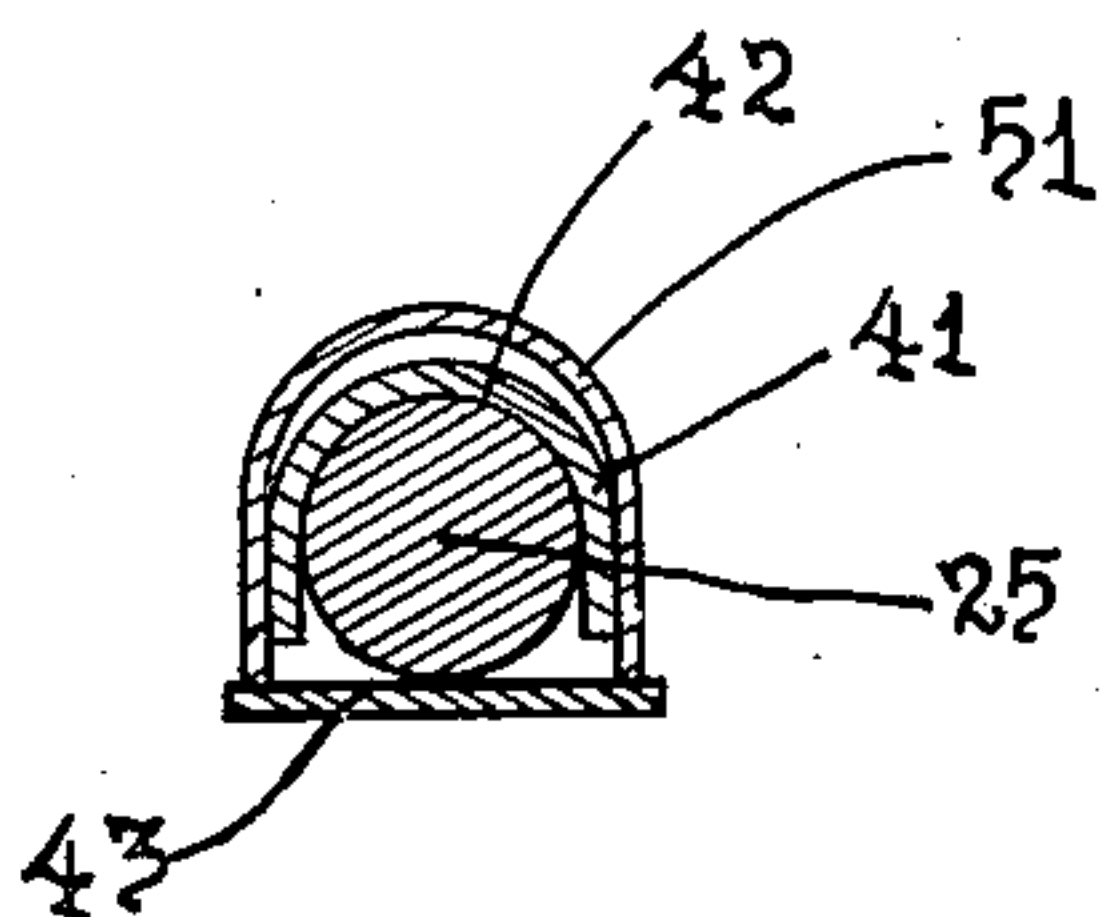


Fig. 5



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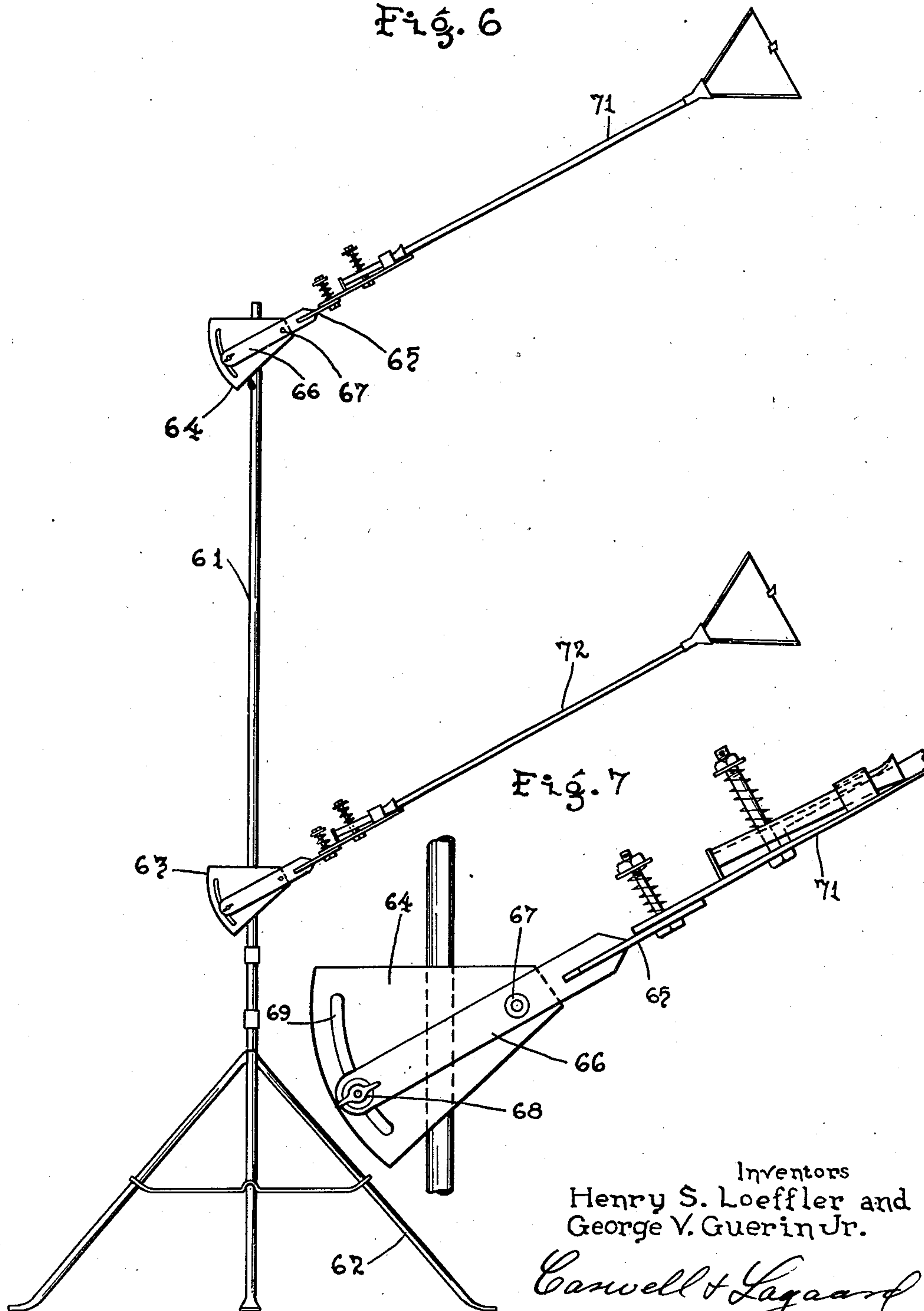
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Fig. 6



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UNITED STATES PATENT OFFICE

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TRAIN ORDER STAND

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3 Claims. (Cl. 258—23)

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Our invention relates to train order stands and has for an object to provide a train order stand in which the operating parts may be readily brought into operating position or into retracted position when not desired for use.

Another object of the invention resides in providing a train order stand comprising an upright standard and an arm pivoted to said standard and adapted to move from an extended position projecting outwardly from said standard and to a retracted position lying along said standard.

Another object of the invention resides in pivoting the arm about a pivot having a substantially horizontal axis.

Another object of the invention resides in mounting the train order holder at the end of said arm and in providing a counterweight for counterbalancing the train order holder and arm.

Another object of the invention resides in providing a train order stand utilizing a support and a mounting for the train order holder yieldably carried by the support and adapted to move in the direction of movement of the train.

Another object of the invention resides in providing the mounting and support with frictional engaging surfaces and in further providing resilient means for urging said mounting and support into frictional engagement.

Another object of the invention resides in pivotally attaching the mounting to the support by means of a bolt and in employing a spring on the bolt for urging the mounting and support into frictional engagement with one another.

Another object of the invention resides in providing a socket for the reception of the train order holder and in further providing friction means for detachably holding the train order holder in the socket.

Another object of the invention resides in providing a train order stand having a plurality of branches each formed with a support and in yieldably mounting on said support corresponding mountings in which train order holders are separately supported.

Other objects of the invention reside in the novel combination and arrangement of parts and in the details of construction hereinafter illustrated and/or described.

In the drawings:

Fig. 1 is a plan view of a train order stand illustrating an embodiment of our invention applied thereto.

Fig. 2 is an elevational view of the structure shown in Fig. 1.

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Fig. 3 is a plan view of a portion of the structure shown in Fig. 1 and drawn to a greater scale.

Fig. 4 is an elevational view of the structure shown in Fig. 3.

Fig. 5 is a cross-sectional view taken on line 5—5 of Fig. 3.

Fig. 6 is a view similar to Fig. 1 of another form of the invention.

Fig. 7 is a view similar to Fig. 4 of the structure shown in Fig. 5.

In the form of the invention shown in Figs. 1 to 4, inclusive, a standard 10 is employed which comprises two spaced uprights 11 and 12.

These uprights, as illustrated, are channel-shaped in form, being arranged with their flanges facing one another and in spaced relation to one another. The uprights 11 and 12 are welded or otherwise attached to a base 13 which is mounted on a foundation 14 situated at the right locality with respect to the railroad track or tracks to service the trains passing thereover. The two uprights 11 and 12 are secured together near their upper ends by means of a bracket 15 which is welded or riveted to the said uprights.

Pivoted to the standard 10 is an arm 16 which may be tubular in construction. This arm is disposed between the uprights 11 and 12 and is attached to a fitting 17. A bolt 18 extends through this fitting and through the webs of the uprights 11 and 12 and serves as a pintle on which the arm 16 may swing in a vertical plane. The arm 16 may be moved to a horizontal position, as shown in full lines in Fig. 2, at which locality the same engages the bracket 15 which serves as a stop for limiting the upward movement of the said arm. Extending rearwardly from the fitting 17 is an extension 19 which lies in continuation of the arm 16. This extension carries a counterweight 21 by means of which the arm 16 and the mechanism carried thereby may be counterbalanced. Counterweight 21 is attached to arm extension 19 by means of U-bolts 20 which permit the movement of counterweight 21 along arm extension 19 for the purpose of adjusting the balance of arm 16 and attachments thereto. The space between the uprights 11 and 12 is sufficient to receive the arm 16, extension 19 and the counterweight 21 therebetween, as well as the attaching mechanism secured to the end of the arm 16. When the arm is in retracted position, the same engages a back stop 22 secured to the uprights 11 and 12 and is held in place by means of a

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hasp 23 and a suitable padlock utilized in conjunction therewith.

For use in conjunction with the train order stand, a number of train order holders 24, 24a and 24b are employed which are constructed in accordance with common practice. Since all of the holders are identical in construction, and since the method of supporting the same is similar, only the holder 24 and the supporting structure therefor will be described in detail. The train order holder 24 comprises a shaft 25 from which a fork 26 issues. This fork has prongs 27 and 28 which loosely support a cord 29 to which the train order 31 is secured. When the train passes the train order stand, the train man grasps the order 31, disengaging the cord from the fork 26 and takes the order and cord with him.

The structure for supporting the train order holder 24 comprises a bracket 32 tubular in form which is welded to the arm 16 and extends outwardly therefrom. This bracket has a plate 33 welded to the top of the same and normally occupying a horizontal position. This plate forms a support which carries a mounting 34. The mounting 34 has a plate-like portion 35 overlying the plate 33. Extending through the bracket 32, the plate 33 and the mounting 34 is a bolt 36. A compression coil spring 37 encircles this bolt and bears at one end against the upper surface of the plate-like portion 35 of the mounting 34. The other end of this spring bears against a washer 38 held in place on said bolt by means of a nut 39 screwed on the end of the same. By proper positioning of the nut 39, the proper degree of friction can be procured between the mounting 34 and the support 33. In this manner, the train order holder is supported for yielding movement in the direction of movement of the oncoming train.

The shaft 25 of the train order holder 24 is releasably mounted in a socket 41. This socket is U-shaped in form, being open along the lower side thereof to form a groove indicated by the reference numeral 42. The socket 41 overlies a plate-like member 43 formed on the mounting 34. A bolt 44 extends through the said socket and through this plate-like member is provided with a compression coil spring 45 which encircles the same and which engages the said socket at one end. The other end of said spring engages a washer 46 on the bolt 44 which washer is held in adjustable position on the said bolt by means of a nut 47. The bolt 44 passes through the socket 41 at a locality toward the inner end thereof. At this end of the socket is formed a fulcrum 48 which is welded to said socket and which engages the member 43. This fulcrum keeps the forward end 49 of the socket 41 in engagement with the member 43. A guide 51 encircles the socket 41 and guides the said socket for movement toward and from the member 43. The edge 52 of the portion 49 of the socket 41 is flared outwardly, as shown in Fig. 3, to accommodate insertion of the shaft 25 of train order holder 24 into the groove 42 of said socket. The depth of the groove 42 is less than the diameter of the shaft 25, so that the spring 45 acting through the socket 41 operates to force the shaft 25 into frictional engagement with the member 43 and to hold the train order holder in proper position.

For supporting the train order holder 24a, the support therefor is attached to the extreme end 53 of the arm 16. In a similar manner, the support for the train order holder 24b is similarly

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attached to a bracket 54 welded to the arm 16 and occupies the position shown in Fig. 2. It will be noted that the various train order holders held by the respective supports are held in different elevations so that they are readily distinguishable and that each train order holder is independently supported for yielding movement.

In Figs. 6 and 7, we have shown a portable device which consists of a single standard 61. This standard is carried by a tripod 62. A plate 63 is welded to the standard 61 at the lowermost portion of the same, while a plate 64 is welded to the standard 61 at the uppermost portion of the same. With this form of the invention, two train order holders 71 and 72 are employed, one being carried by the plate 63 and the other by the plate 64. Since these train order holders and their supports are the same as those shown in Figs. 1 to 5, the description thereof will not be repeated, and only the structure associated with plate 64 will be described in detail. The holder 71 overlies a plate 65 which is welded to a transverse plate 66 which, in turn, overlies the plate 64. A bolt 67 extends through the plate 66 and the plate 64 and pivots the former for movement relative to the latter. A thumb screw 68 passes through the plate 66 and also through an arcuate slot 69 in the plate 64. The holder 72 is pivotally secured to the plate 65 by means of a construction identical with that shown in the other form of the invention. It will be seen that this form of the invention is the same as that shown in Figs. 3 and 4, except that a portable stand is provided whereby the device may be brought out and used whenever the occasion requires the use of the same. When it becomes desirable to retract the holder shown in Fig. 6, the tripod 62 may be collapsed in the same manner as is customary with an ordinary tripod. At the same time, the thumb screw 68 is removed and the supports for the train holders tilted downwardly to substantial alignment with the standard 61.

The advantages of our invention are manifest. The device can be constructed at a nominal expense and serves the desired purpose. By means of the arm employed, the device may be swung out of the way when not in use, and may be locked in position along the standard. By means of the construction for attaching the holders to the arm, the holders may be swung in the direction of movement of the train. This is accomplished by the swinging of the holders about the pivots between the mounting and the support. In the event that the operator, in removing the train order, should miss the train order and engage the train order holder instead of the train order, the support for the train order holder would yield and injury to the person of the operator would be prevented. With our invention, a separate supporting device for each holder is provided, whereby a plurality of holders may be employed. These holders may be detachably mounted on the supports and when not desired for use, may be removed therefrom. With our invention, the customary holders may be employed and the same quickly and effectively attached to the supports on the supporting arm. In the form of the invention shown in Figs. 1 and 2, the attachment of the holders is conveniently accomplished by pulling the outer end of arm 16 downward until the sockets 41 are within reach of the operator. After the holder or holders are inserted, the arm is released, whereupon the counterweight 21 raises the arm 16 to an approximately horizontal position ready for delivery of train orders.

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Changes in the specific form of our invention, as herein described, may be made within the scope of what is claimed without departing from the spirit of our invention.

Having described our invention, what we claim as new and desire to protect by Letters Patent is:

1. In a train order stand for supporting a holder having a handle, a plate-like mounting, a U-shaped socket open along a portion of its length and having free edges along the open portion of the same and facing said plate-like mounting to form a groove therebetween for the reception of said handle, an end member secured to the innermost end of said socket and extending beyond the free edges of said socket, said end member engaging the outer surface of said mounting and forming a fulcrum for said socket, a bolt extending through said plate-like mounting and through said socket, a spring acting between said bolt and socket and urging said socket toward said mounting, and a guide encircling said socket and attached to said mounting, said guide guiding the socket for movement toward and from the mounting, said guide and bolt holding said socket from lateral movement independently of said fulcrum.

2. A train order holder supporting device for use in connection with the transverse arm of a train order stand, comprising a flat bar adapted to be carried by the transverse arm, and a socket member coacting with said bar to yieldingly receive and releasably retain one end of the shaft of a train order holder, said socket member being substantially trough shaped and having its open

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side facing said bar, and means hingedly and yieldingly connecting the trough to the bar to allow limited swinging movement of the socket toward or away from the bar to permit insertion or removal of the train order holder shaft, said yielding means including a spring pressed bolt extending through the trough and bar, and said hinged means consisting of a down turned end portion on the trough engaging said bar and serving as a fulcrum in the swinging movement of the socket with reference to the bar, and means spaced apart lengthwise from said fulcrum and from said bolt coacting with the bar and socket for limiting the swinging movement of the socket with reference to the bar.

3. A train order holder supporting device as defined in claim 2, wherein the bar is yieldingly mounted with reference to the transverse arm.

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