

W. O. H. BERGMAN.

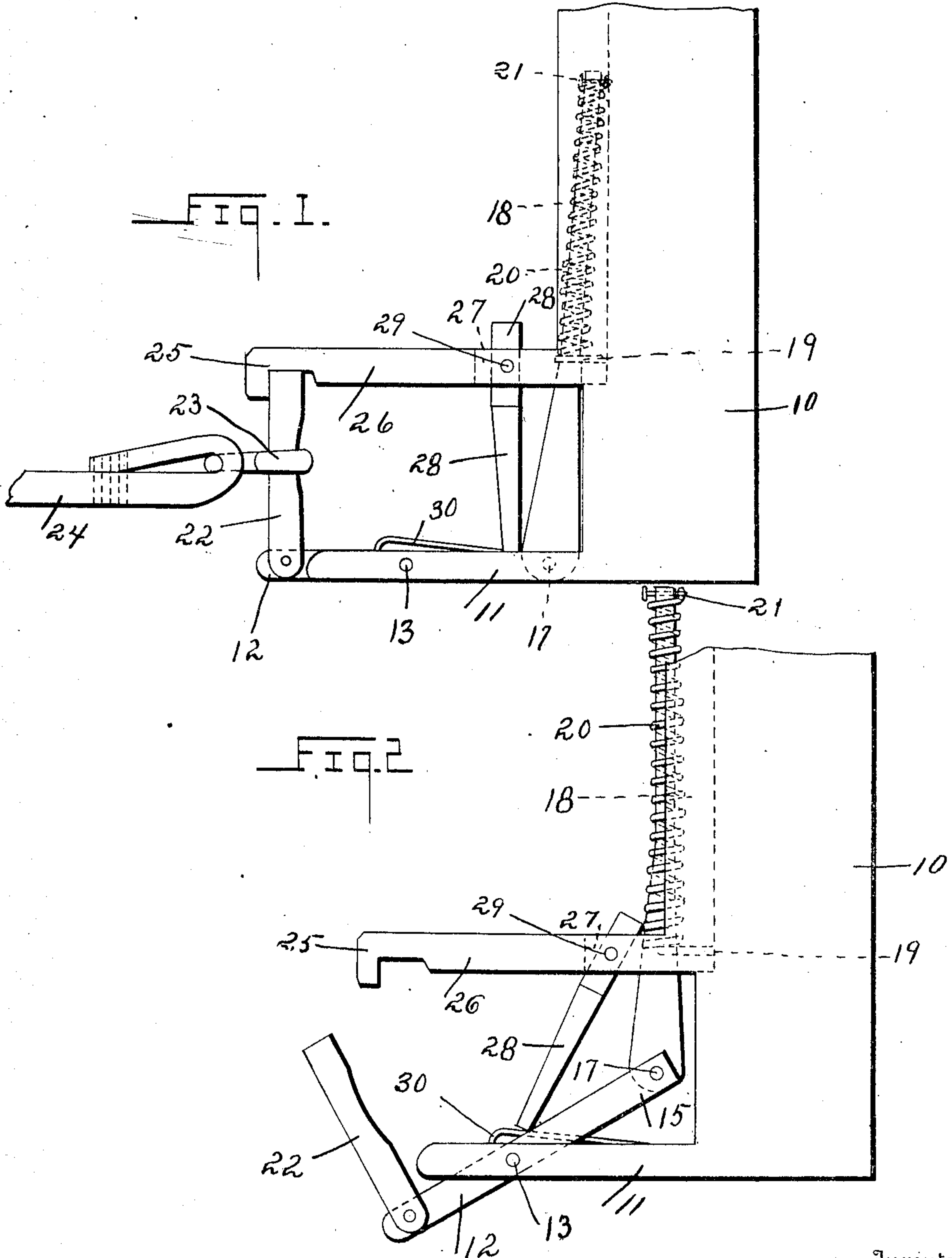
WHIFFLETREE HOOK.

APPLICATION FILED MAY 20, 1908.

916,830.

Patented Mar. 30, 1909.

2 SHEETS—SHEET 1.



Inventor

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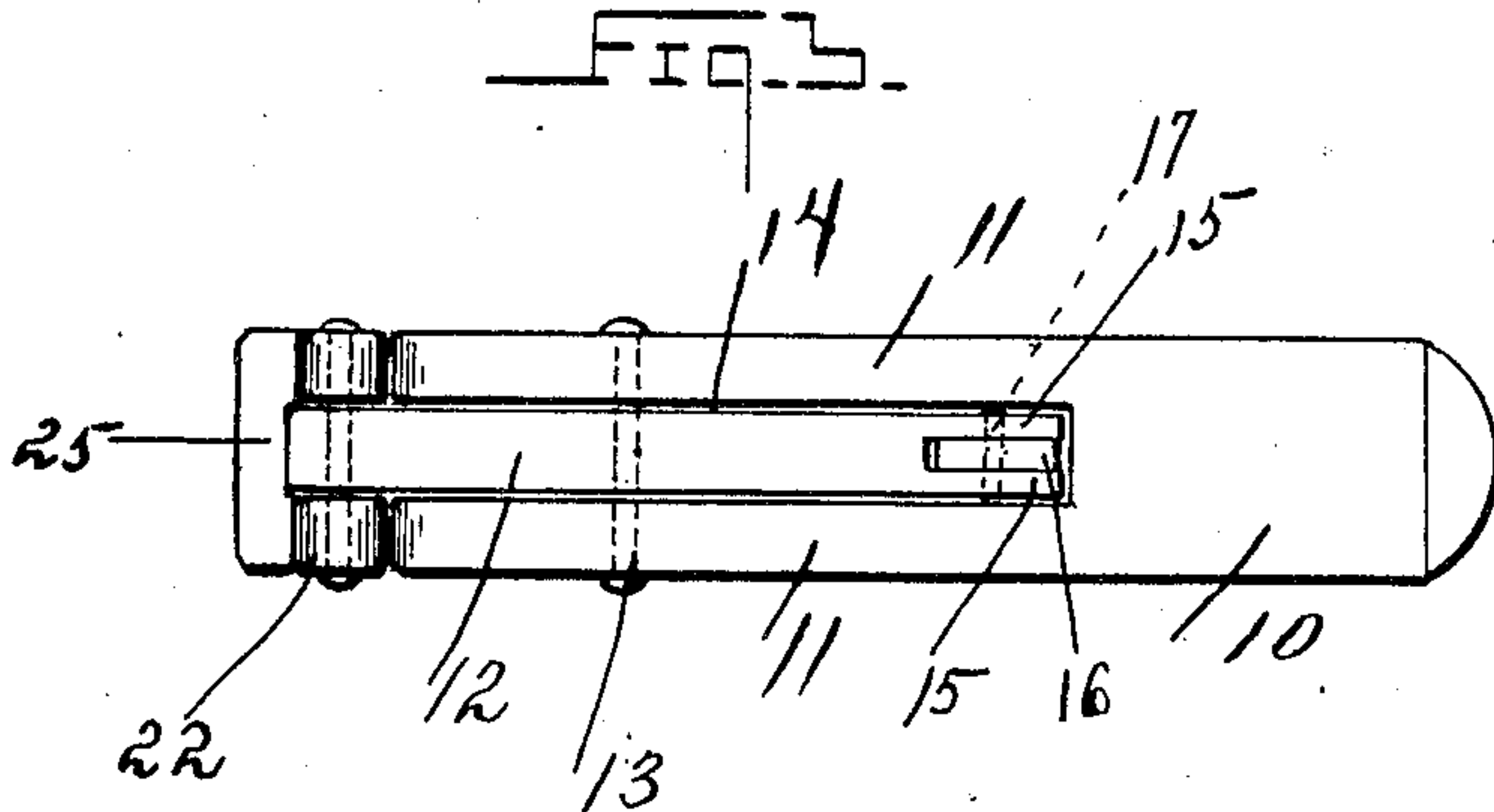


FIG. 5.

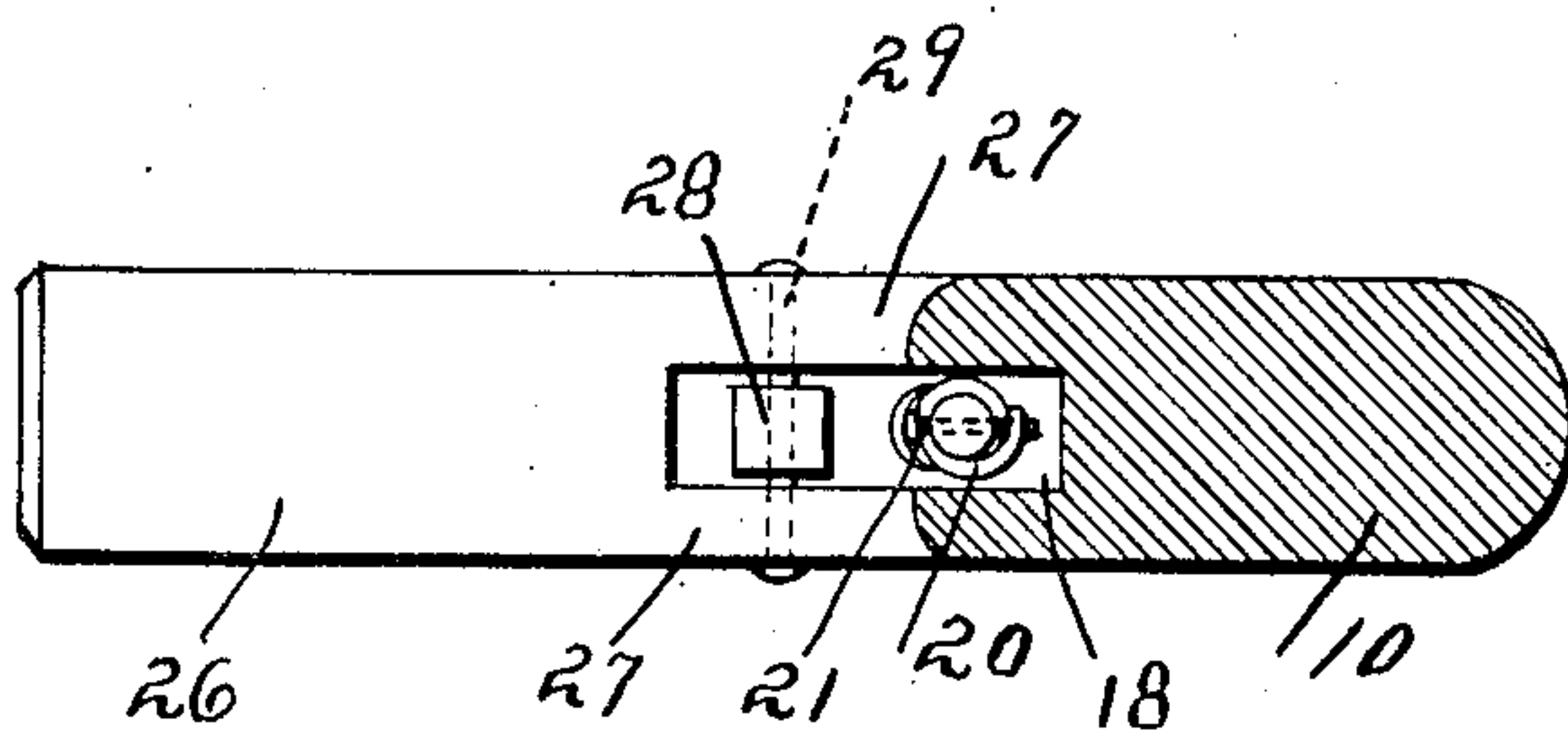
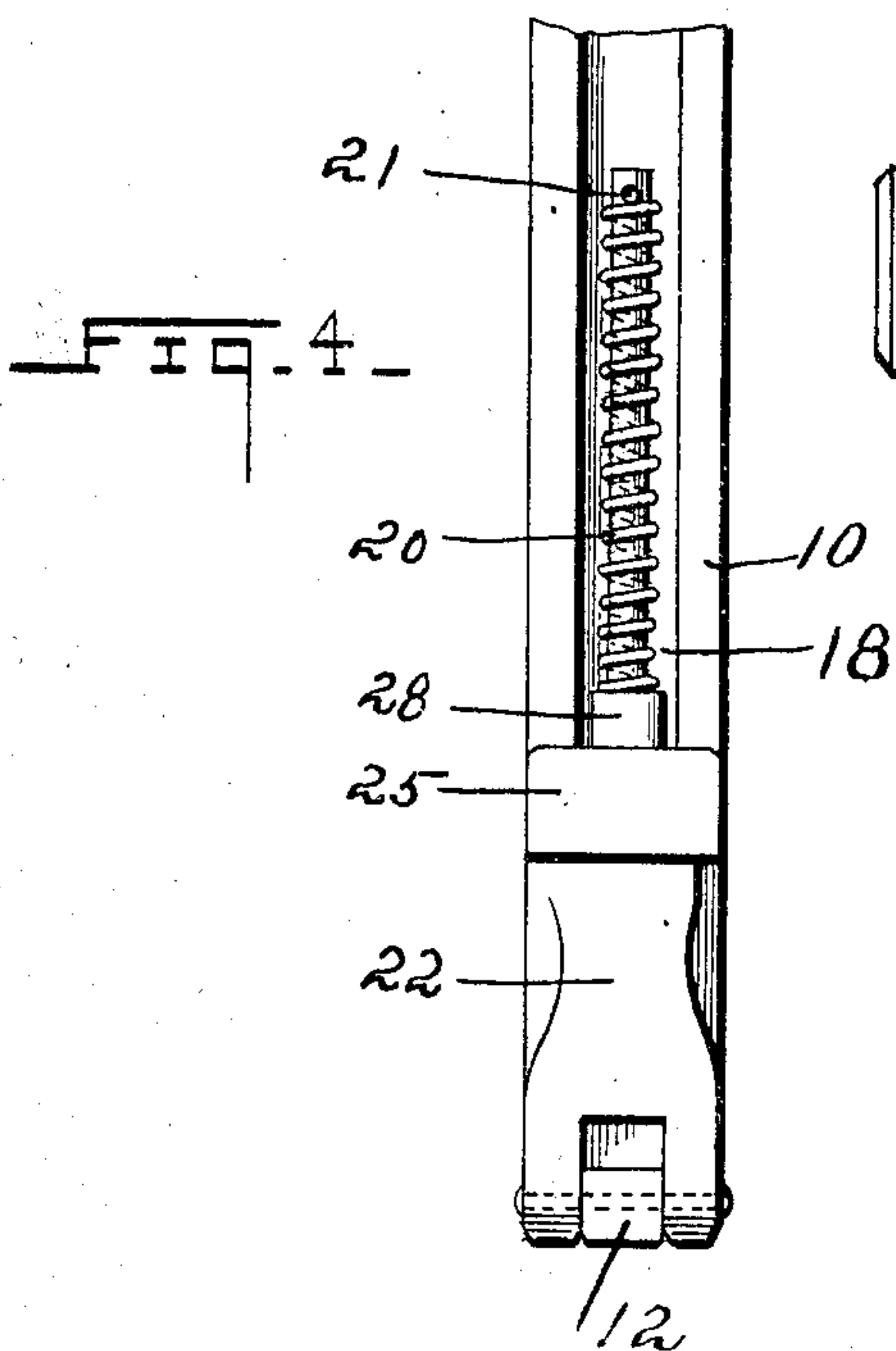
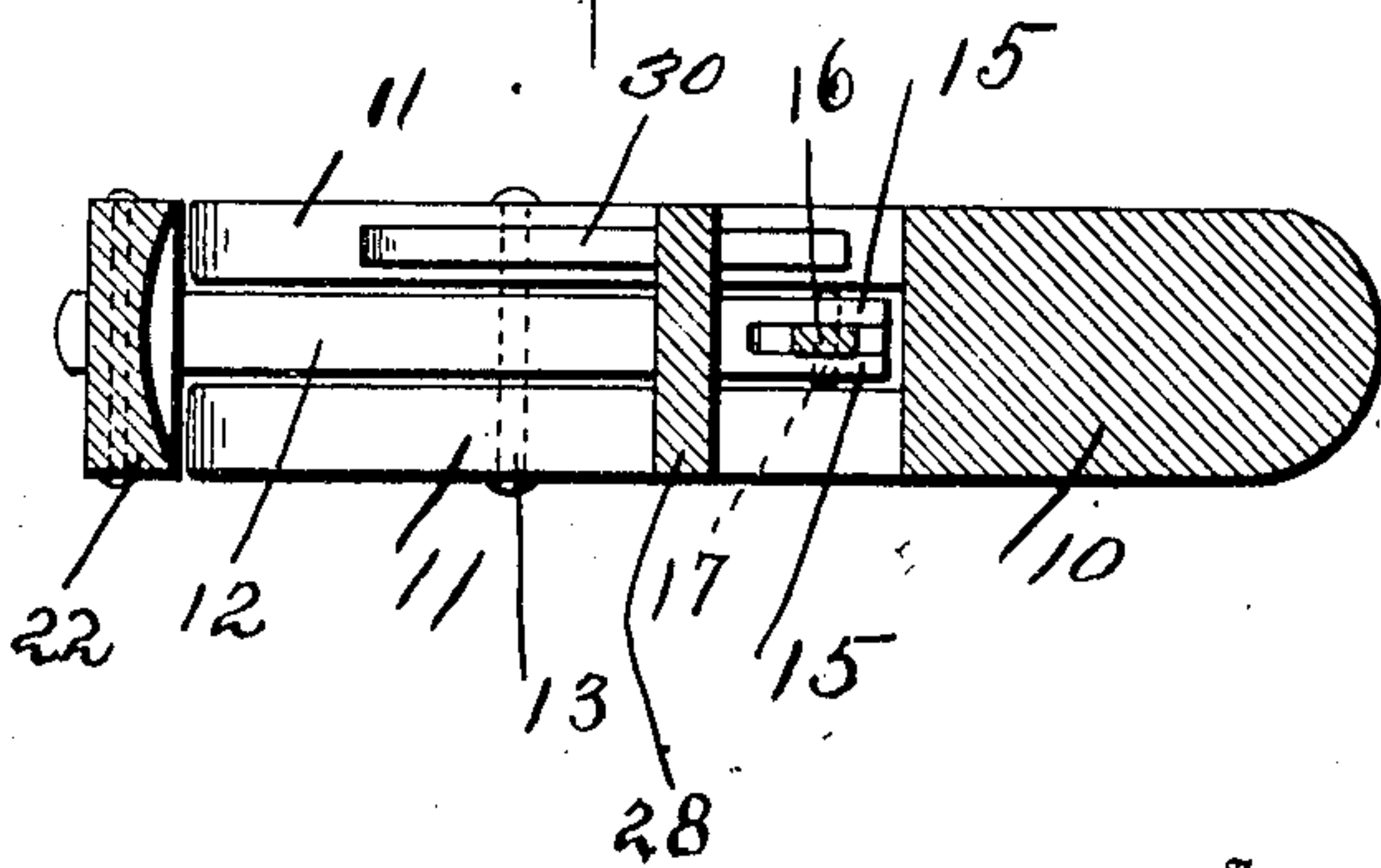


FIG. 6.



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# UNITED STATES PATENT OFFICE.

WILLIAM O. H. BERGMAN, OF BOTTINEAU, NORTH DAKOTA.

WHIFFLETREE-HOOK.

No. 916,830.

Specification of Letters Patent.

Patented March 30, 1909.

Application filed May 20, 1908. Serial No. 433,921.

*To all whom it may concern:*

Be it known that I, WILLIAM O. H. BERGMAN, a citizen of the United States, residing at Bottineau, in the county of Bottineau and State of North Dakota, have invented certain new and useful Improvements in Whiffletree-Hooks, of which the following is a specification.

This invention relates to whiffletree hooks and especially to an automatic releasing mechanism to be applied thereto.

An object of the invention is the provision of a positive locking means so that the trace secured in the hook will be securely held with no possibility of it being accidentally released.

Another object of the invention is the application of a mechanism to automatically open the hook when the trip is thrown so that the trace will be positively released when desired.

A further object is to provide a device of this character that will form a part of the whiffletree thus insuring strength and rigidity which are essential to the perfect operation of a hook of this nature.

The invention has for a still further object the production of the above results with the simplest possible mechanism and to so construct such mechanism that it will be simple of operation and in the number of its parts.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view of the hook in a closed position showing a portion of the whiffletree, Fig. 2 is a view of the same, the hook being opened, Fig. 3 is an outer end view of the device closed, Fig. 4 is a front view of the device closed, Fig. 5 is an inner end view showing the whiffletree in cross section, Fig. 6 is a longitudinal cross section of the hook.

Referring to the drawings, 10 designates the outer extremity of a whiffletree on the end of which there is a forwardly projecting arm 11. The arm 11 is longitudinally recessed at its outer end as at 14 and pivotally supports intermediately of its length a lever 12 secured in position by the pin 13 in the recess 14 of the arm 11. The lever 12 is forked at its inner end 15 in which is carried the extremity of a rod 16 upon the pivot pin 17. The rod 16 extends backwardly and is embedded in a recess 18 formed in the front face of the whiffletree 10. Intermediately of

the length of said rod a shoulder 19 is formed in the recess again which is impinged one end of a spring 20 carried upon the inner end of the rod 16, the spring 20 being held against the shoulder 19 by the engagement of a pin 21 upon the inner end of the rod 16 and engaging the inner end of the spring 20. The tension of the spring 20 tends to draw the rod 16 centrally on the whiffletree 10.

Upon the outer extremity of the lever 12 is pivoted the hook member 22 which is adapted to pass through the eye 23 carried upon the rear end of the trace 24. The free end of the hook member 22 engages the inner side of a partly depressed shoulder 25 formed upon the extremity of an arm 26 protruding forwardly in parallel with the arm 11 from the whiffletree 10. The inner end of the arm 26 is forked as at 27 receiving therebetween a trip lever 28 carried upon the pivot 29. The trip lever 28 extends between the arms 11 and 26 and engages the inner edges of the arms 11 and of the lever 12. A leaf spring 30 is disposed upon the inner edge of the arm 11 extending longitudinally thereof being raised at its outer end and engaging the outer edge of the trip lever 28.

In operation, the device is used as follows: The eye 23 is engaged over the hook member 22. The member 22 is swung backwardly and at the same time the lever 12 is pressed inwardly against the tension of the spring 20. The trip lever 28 is now pressed backwardly over the spring 30 into engagement with the inner end of the lever 12 to hold the lever in the same plane with the arm 11 and thereby prevent the hook member 22 from passing from behind the shoulder 25. The spring 30 holds the trip lever 28 in the above position and the tension of the spring 30 will have to be overcome to throw the trip lever 28 out of operative position. When the trace 24 is to be released the trip lever 28 is thrown forward and the tension of the spring 20 causes the retracting of the rod 16 which throws the outer end of the lever 12 outwardly and withdraws the hook member 22 from the shoulder 25 permitting the eye 23 to slide off the free end of the member 22 and to disengage the trace.

What is claimed is:

1. A device of the character described comprising an arm, a lever pivoted in a recess in said arm, a hook-member pivoted to said lever, a second arm, a shoulder on said sec-

ond arm, said hook member adapted to engage said shoulder, a rod pivoted in the opposite forked ends of said lever, a spring on said rod, said spring adapted to operate  
5 said rod, a trip lever carried by said second arm, said trip lever adapted to hold said rod in inoperative position and a leaf spring adapted to hold said trip lever in operative position.

10 2. A whiffletree hook comprising a hook member, a spring adapted to actuate said hook member for disengagement of a trace

therefrom, a lever and rod, said lever and rod adapted to connect said hook member to said spring, a trip lever adapted to hold 15 said spring normally in an inoperative position and a leaf spring adapted to hold said trip lever when in operative position.

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

WILLIAM O. H. BERGMAN.

Witnesses:

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GEO. B. EVERSON.