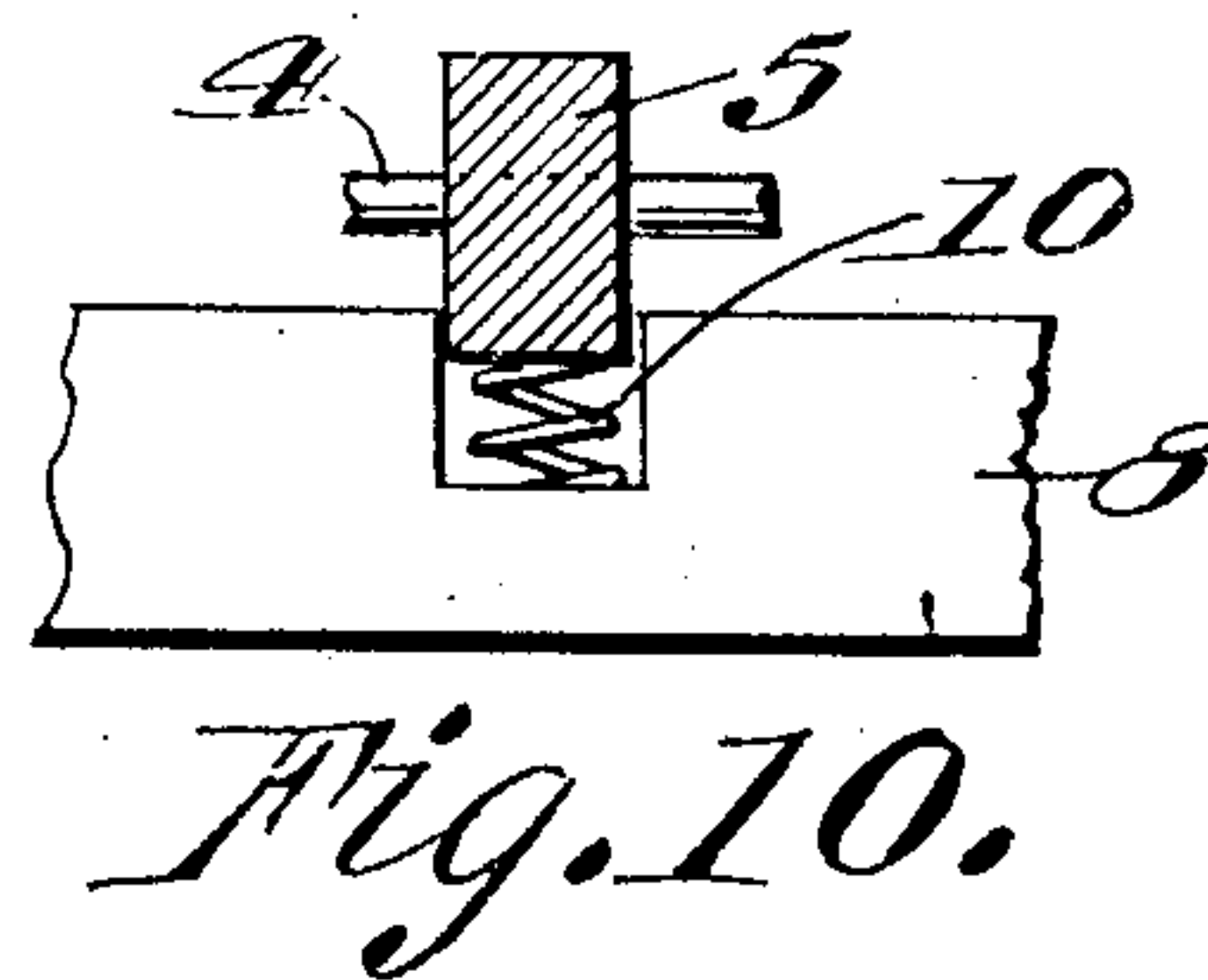
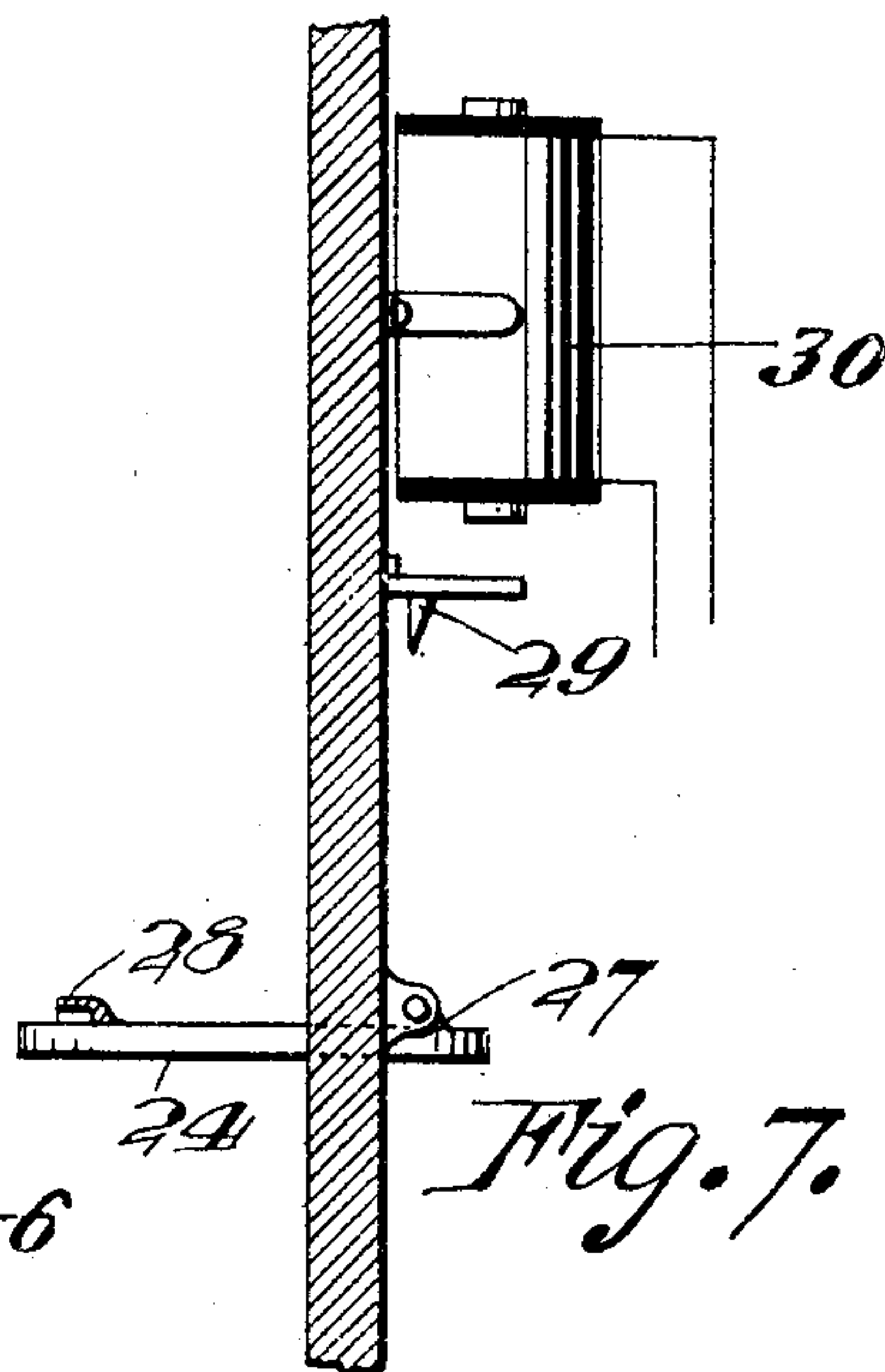
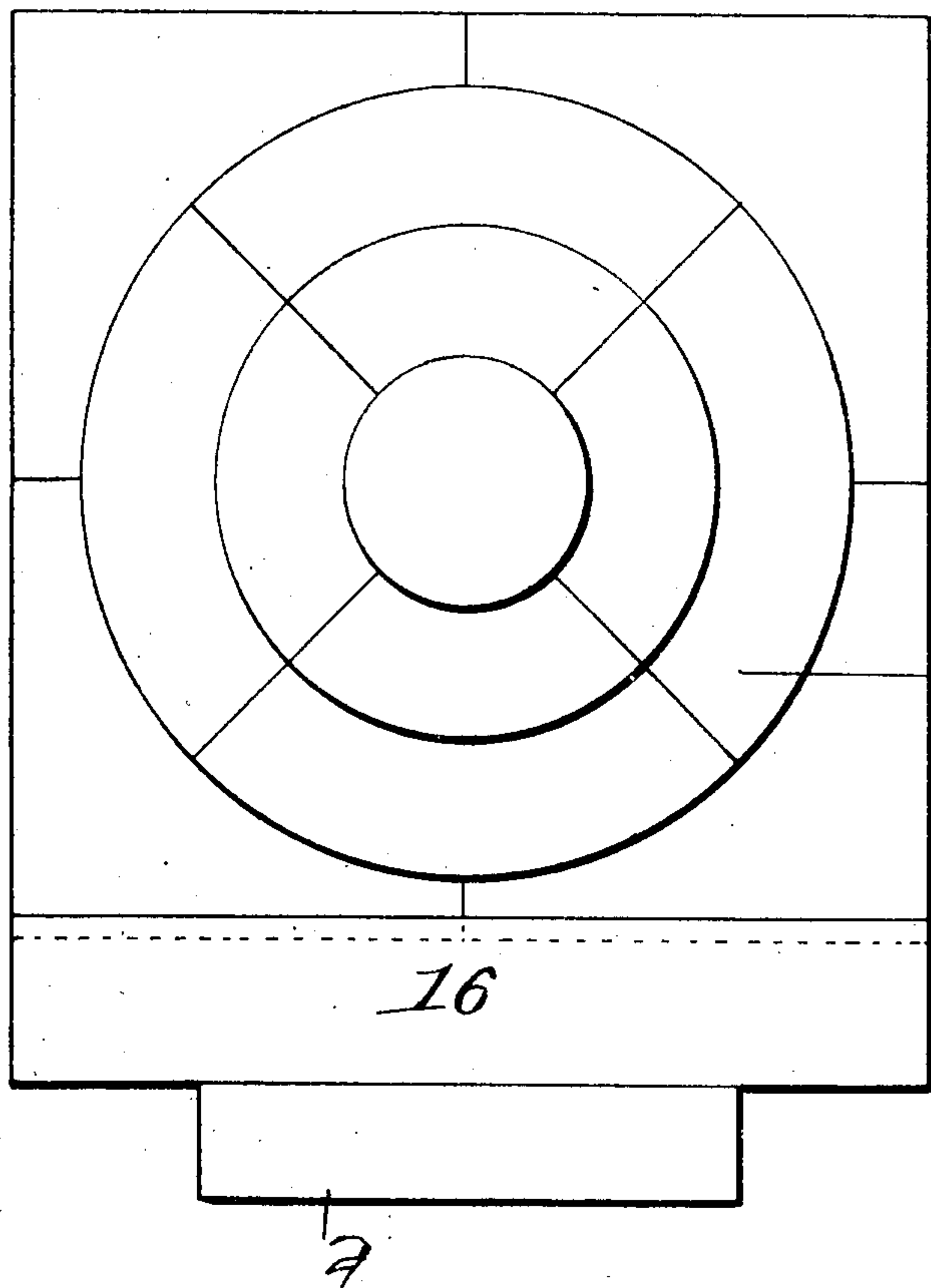
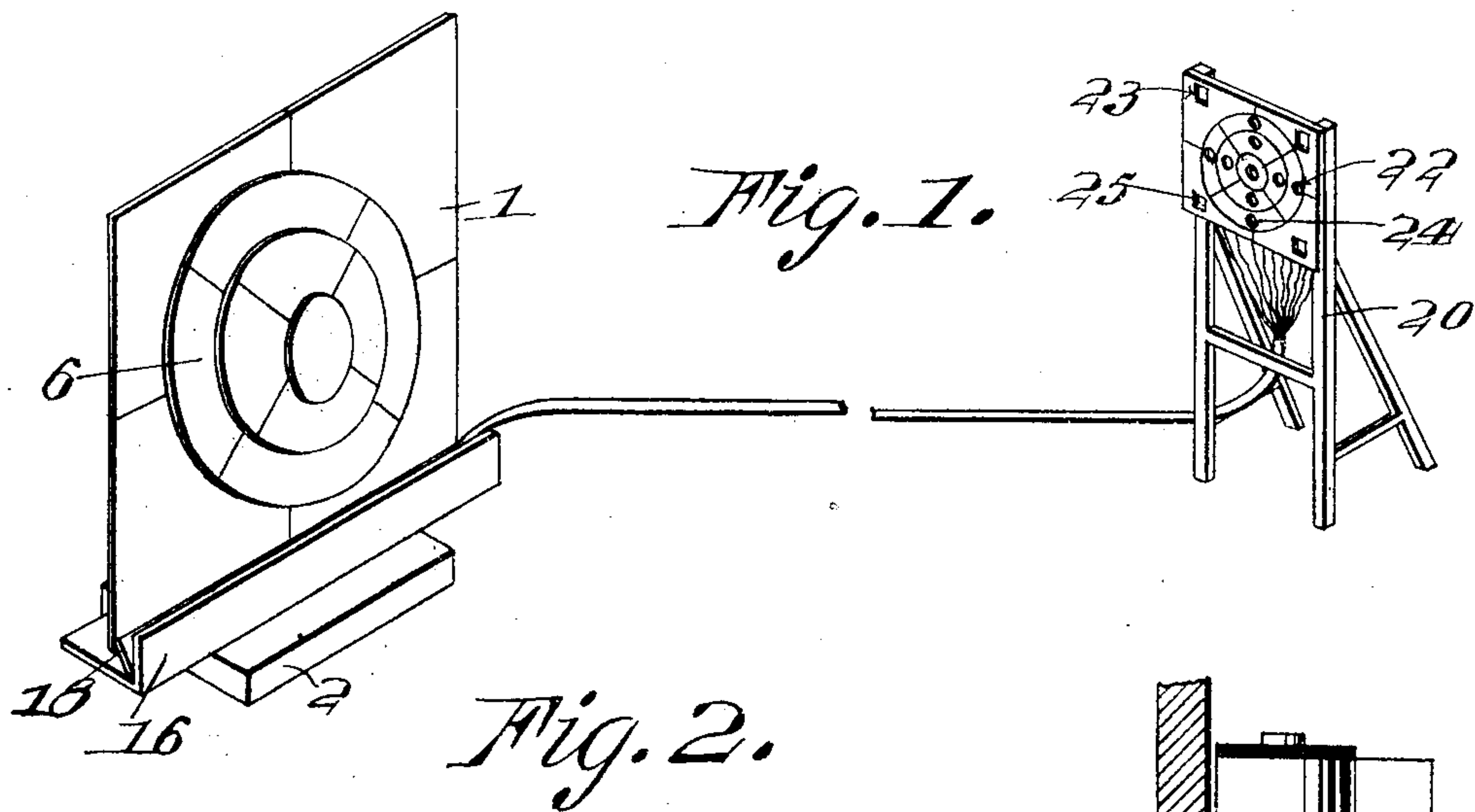


954,997.

J. W. RICE.  
RECORDING TARGET.  
APPLICATION FILED MAR. 1, 1909.

Patented Apr. 12, 1910.

3 SHEETS—SHEET 1.



Witnesses  
E. D. Brown.  
C. H. Griesbauer.

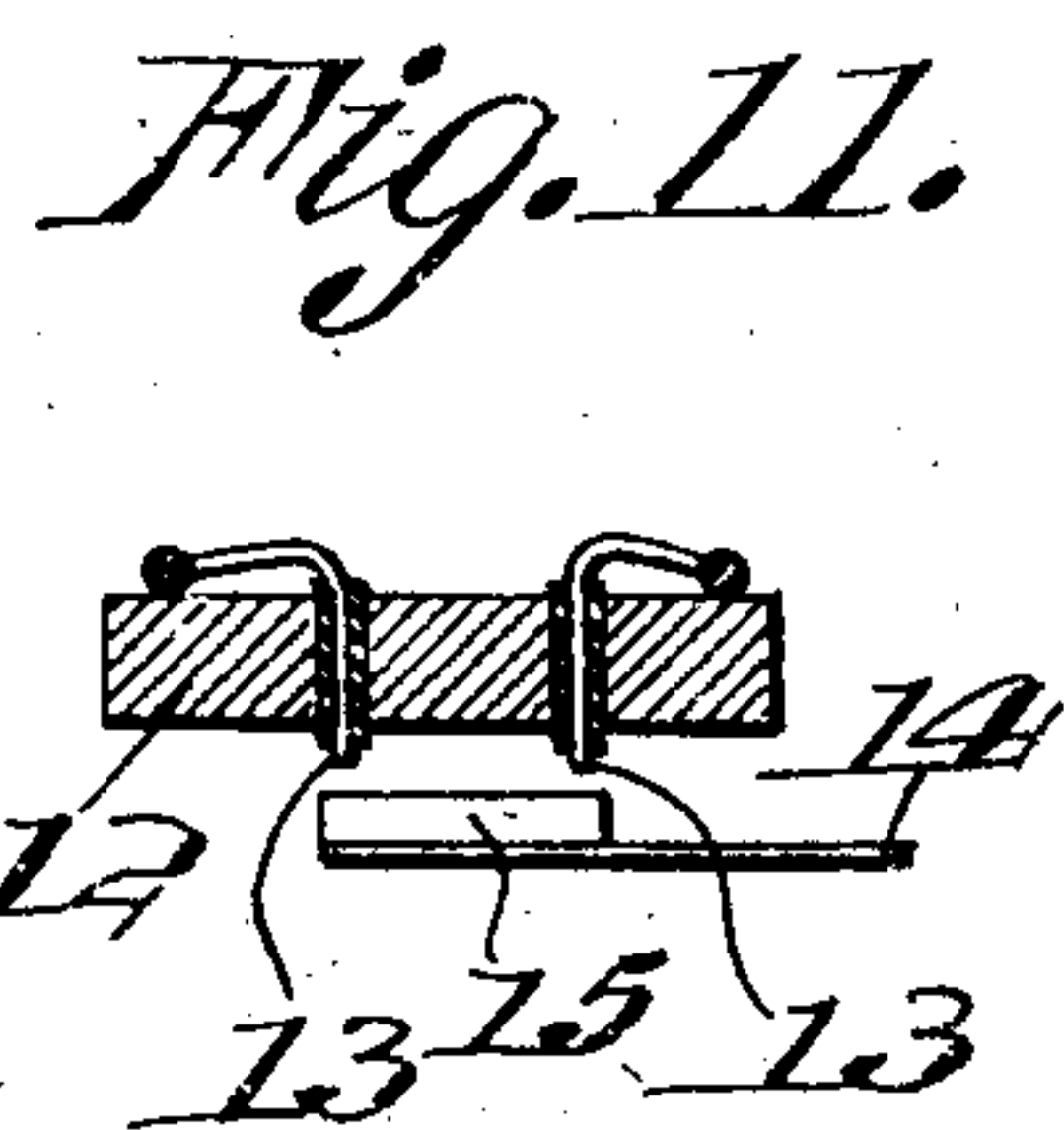
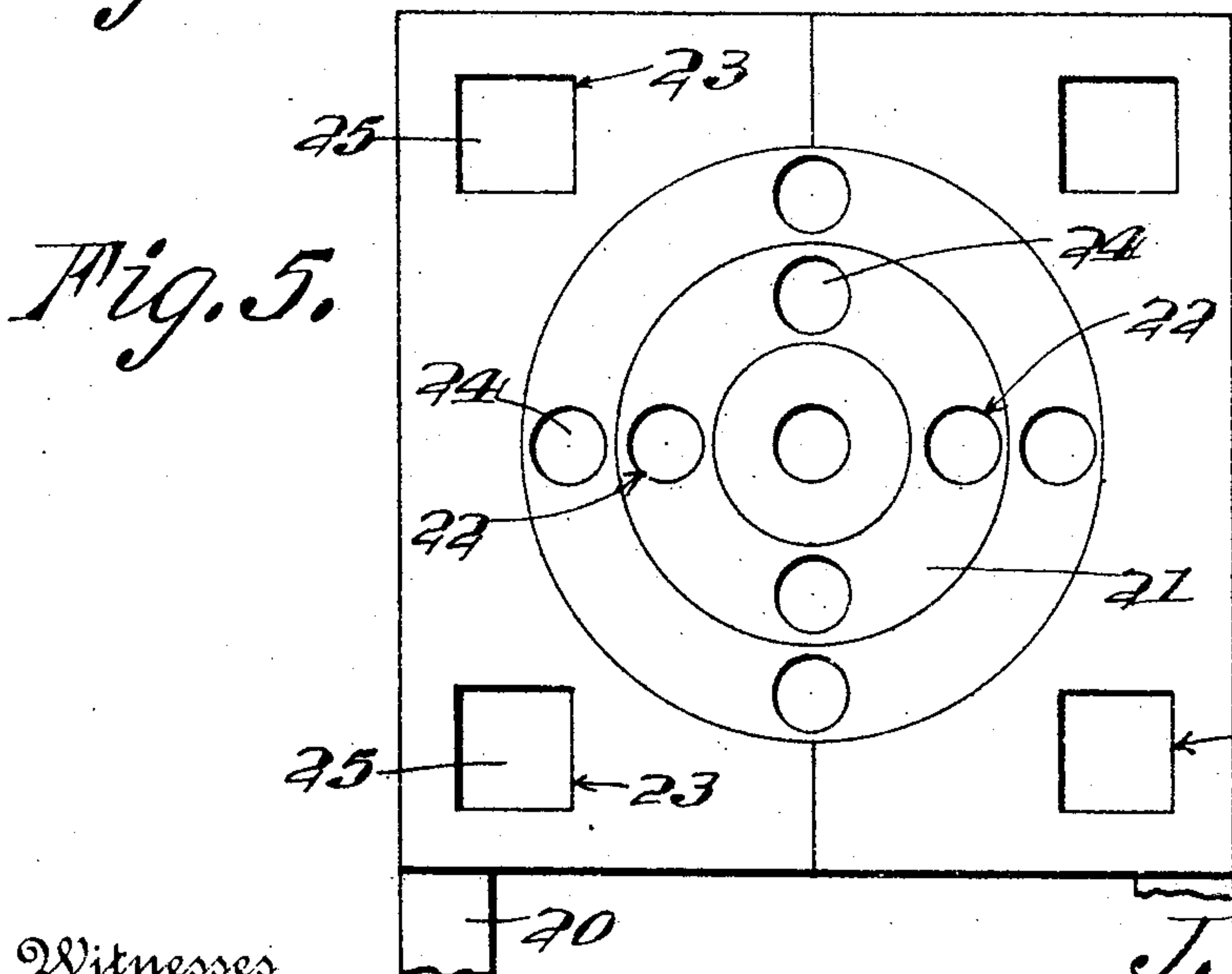
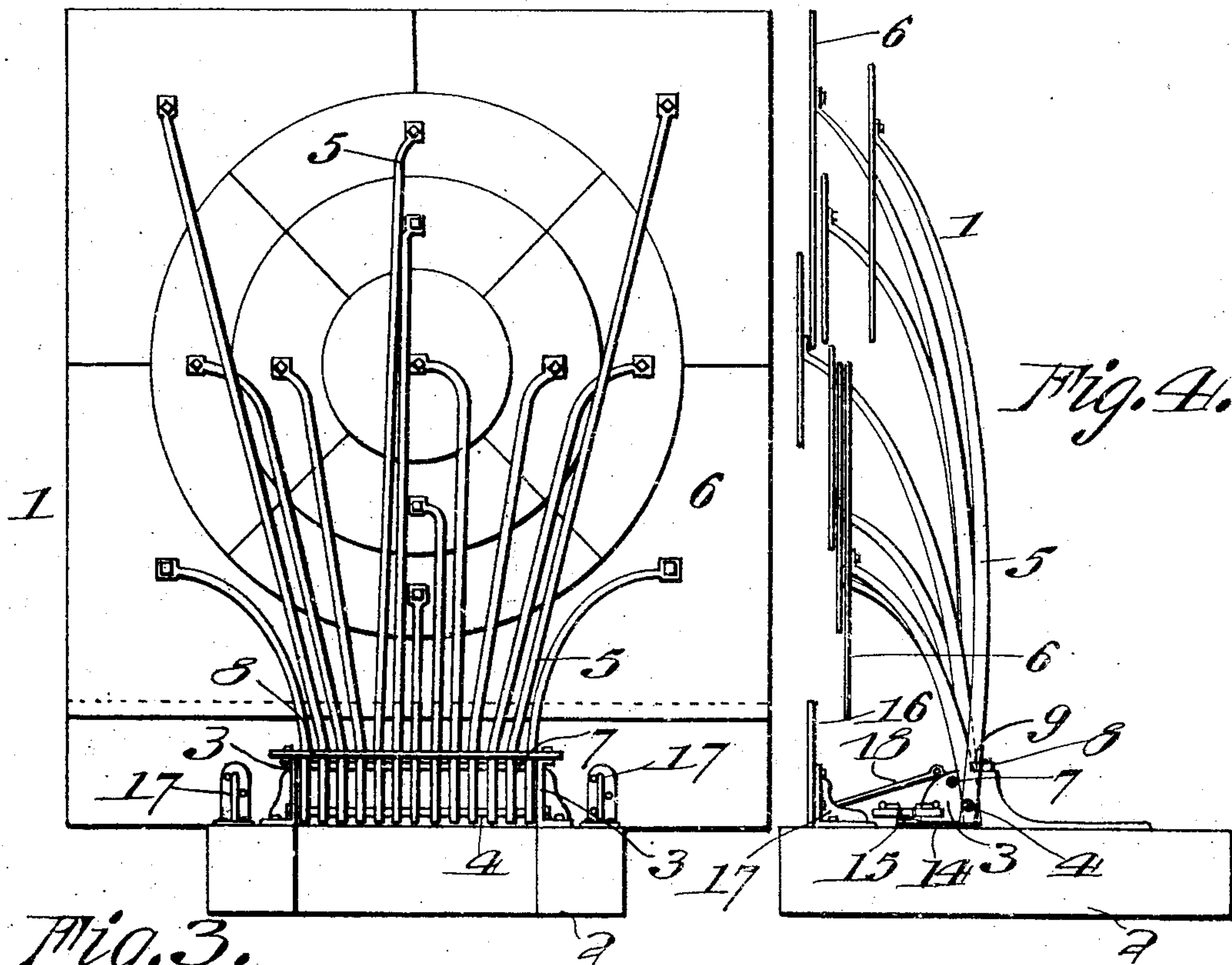
Inventor  
J. W. Rice,  
by *A. B. Wilson & Co.*  
Attorneys

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3 SHEETS—SHEET 2.



Witnesses  
E. D. Brown.  
C. H. Giesbauer.

Inventor  
J. W. Rice,  
by *A. B. Wilson & Co.*  
Attorneys.

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3 SHEETS—SHEET 3.

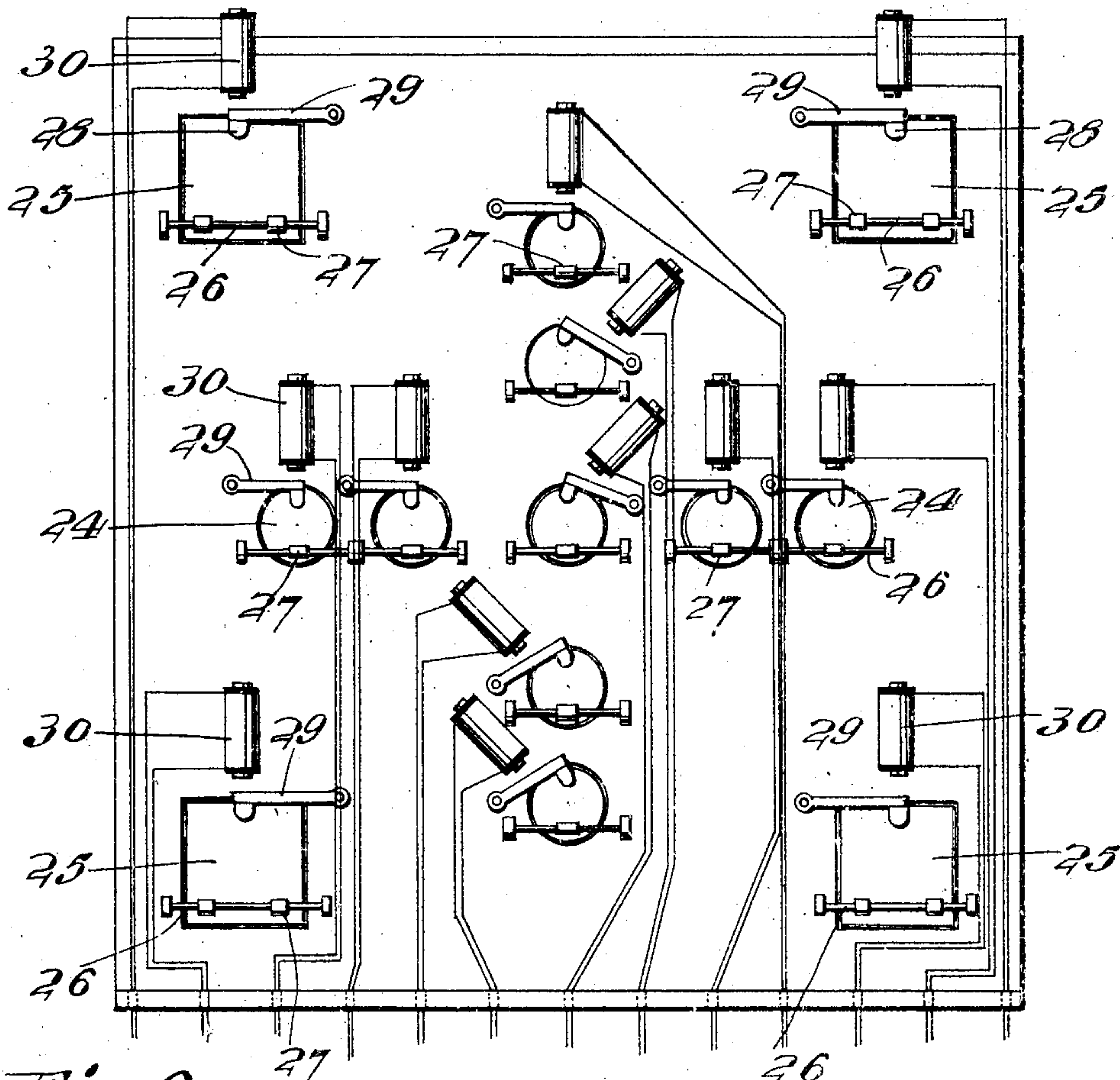


Fig. 6.

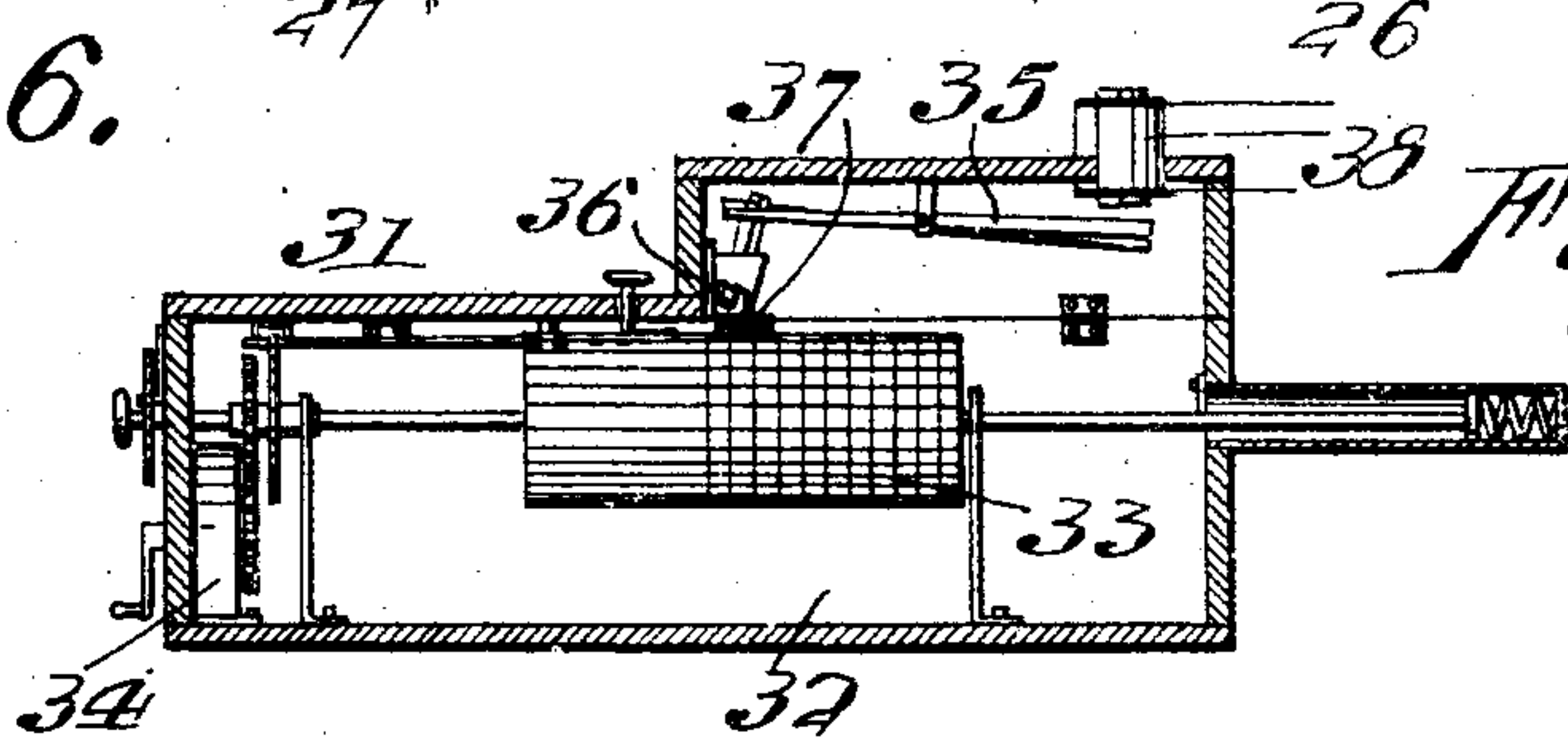


Fig. 8.

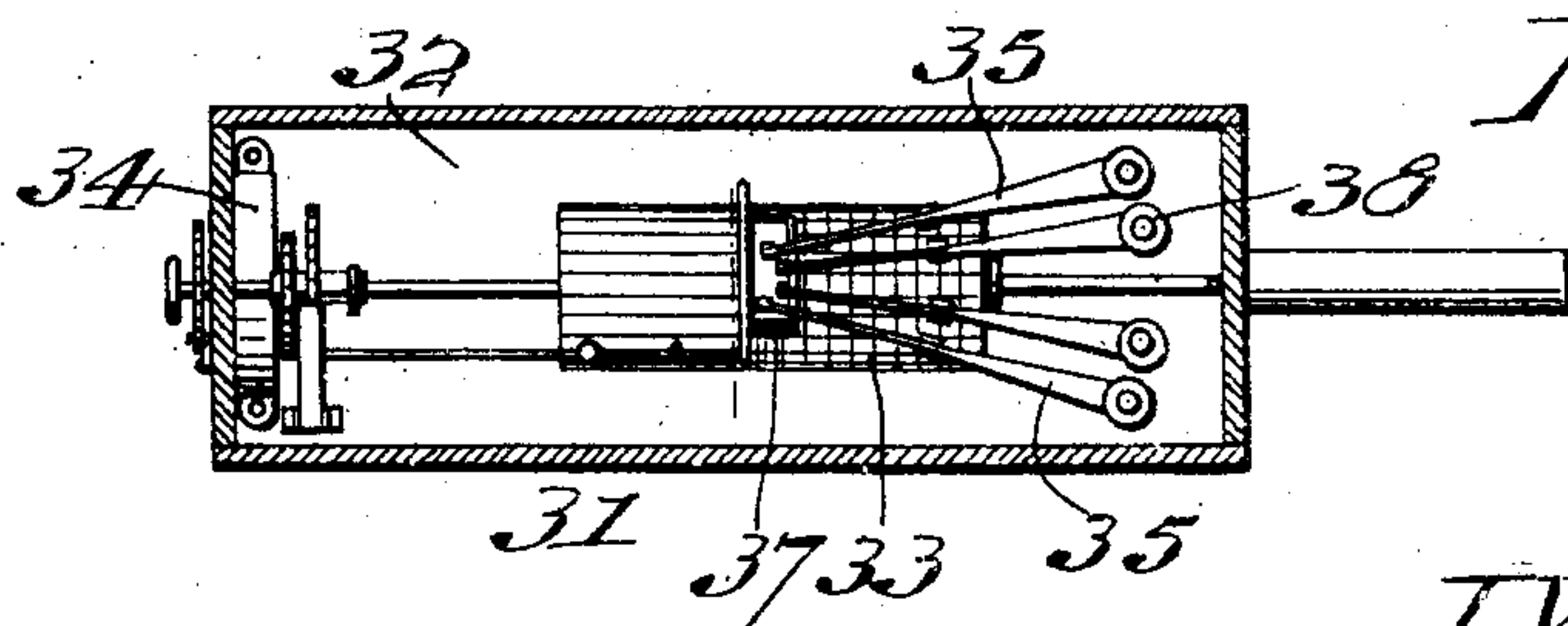


Fig. 9.

Witnesses  
E. D. Brown  
C. H. Griebauer.

Inventor  
J. W. Rice,  
by *A. B. Wilson & Co.*  
Attorneys



# UNITED STATES PATENT OFFICE.

JAMES W. RICE, OF WELLSVILLE, OHIO.

## RECORDING-TARGET.

954,997.

Specification of Letters Patent.

Patented Apr. 12, 1910.

Application filed March 1, 1909. Serial No. 480,582.

*To all whom it may concern:*

Be it known that I, JAMES W. RICE, a citizen of the United States, residing at Wellsville, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Recording-Targets; and I do 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.

This invention relates to improvements in recording targets.

The object of the invention is to provide a target constructed in such a manner that the point where the same is struck will be recorded or indicated by an annunciator which is in electrical connection with the target whereby the person shooting may know immediately the point where each shot strikes the target.

A further object is to provide a target of this character which will be simple, strong and durable in construction, efficient, reliable and accurate in operation and well adapted for the purpose for which it is designed.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of the target and annunciator as arranged for use; Fig. 2 is a front view of the target; Fig. 3 is a rear view; Fig. 4 is a side view of the same, partly in section and showing one of the target sections swung back as when struck by a shot; Fig. 5 is a front view of the recorder or annunciator; Fig. 6 is a rear view of the same; Fig. 7 is a detail vertical sectional view through a portion of the annunciator dial showing the latch arrangement and the releasing mechanism of one of the pivoted indicating plates; Fig. 8 is a side view of the recording device or score marker employed in connection with the target; Fig. 9 is a plan view of the same; Fig. 10 is a detail sectional view through the inner end of one of the target section supporting arms, showing the arrangement of the recoil spring for returning the section to its normal position after being struck by a shot; Fig. 11 is a detail sectional view through the terminal holding board showing the manner in which

the electric circuit is completed by the closing contact on the lower ends of the section supporting arms of the target.

Referring more particularly to the drawings, 1 denotes the target which consists of a suitable base portion 2 on which, adjacent to each side, is secured bearing brackets 3 in the lower portion of which is arranged a shaft 4 which extends entirely across the space between the brackets and has pivotally mounted thereon a series of supporting arms 5 which project upwardly and curve forwardly as shown, and have secured to their upper ends, the sections 6 of the target. The brackets 3 have also connected thereto, the opposite ends of a transversely disposed stop rod or bar 7 with which the arms 5 are engaged and which hold said arms and target sections in their normal operative position. The brackets 3 are connected together in rear of the lower portion of the arms 5 by a stop or recoil bar 8 in the front edge of which is preferably formed a series of notches 9, each of which is engaged by one of the arms 5. Between each of the arms 5 and to the rear wall of the recess 9 is arranged a recoil or buffer spring 10 whereby when any of the sections of the target are struck by a shot, said section and its supporting arm will be swung back against the pressure of the recoil spring 10 which will provide a cushion for the arm as well as serving to assist in swinging the arms and sections of the target back to their normal position.

Arranged on the base 2, immediately in front of the lower ends of the arms 5, is a terminal holding bar 12, said bar being spaced a suitable distance above the base 2, as shown. In the bar 12 opposite each of the arms 5 is arranged the terminals 13 of the conducting wires of an electrical circuit. The terminals 13 are insulated from the bar 12 in any suitable manner. Secured to the lower end of each of the arms 5, below the pivotal connection with the shaft 4, is a forwardly projecting contact supporting bar 14 on the outer end of which is secured a circuit closing contact 15 which is adapted to be swung upwardly into engagement with its terminals 13 when its arm 5 and target section are swung back from the effect of the shot, thereby completing the electric circuit of this section of the target.

Arranged across the front of the base 2 below the target sections is a rigid or sta-



tionary shield plate 16, said plate being preferably supported by brackets 17, as shown. Hingedly connected at its rear edge to the brackets 3 is a shield plate 18 which is adapted to cover the terminal holding bar 12 thus protecting the electric terminals and circuit wires arranged on said bar. By hingedly connecting the shield plate 18 with the brackets 3, said plate may be readily swung upwardly to permit access to be had to the circuit wires and terminals on the bar 12.

The sections of the target may be constructed in any suitable manner but are preferably formed as herein shown, wherein the outer sections form a rectangular back ground, each plate of which forms one corner or quarter thereof. The intermediate sections of the target are preferably in the form of segmental plates, the edges of which overlap to prevent the passage of a bullet between the sections. The outer edges of the sections form the rings or circles of the target and the sections are of such length that each forms one quarter of its respective circle.

In connection with the target, I employ an annunciator 19 which consists of a dial plate here shown as being arranged upon a suitable supporting frame 20. On the dial plate are inscribed circles 21 corresponding to the circles on the target and the dial plate is also divided by diagonally arranged lines to indicate the quarter sections corresponding to the quarter section plates which form the target. In the center circle or bull's eye of the dial plate and in each of the quarter sections of the circles indicated on the dial is formed an opening 22 and in each corner of the outer square back ground of the dial plate is also formed an opening 23. The openings in the segmental spaces indicating the inner sections of the target are preferably circular in form while the openings in the outer corners of the target are preferably rectangular in form. The circular openings 22 are normally closed by circular indicating plates 24 while the openings 23 are closed by rectangular plates 25. The plates 24 and 25 are hingedly connected to the back of the dial of the annunciator by means of a pivot rod 26 which engages apertured bearing lugs 27 formed on the rear side of the dial plate, as shown. On the rear side of each of the plates 24 and 25 is formed a socket or keeper 28 which is adapted to be engaged by the outer hook-shaped end of a latch 29, which is pivotally mounted at its opposite end on the rear side of the plate, as shown. The latches 29 are in the form of armatures which are adapted to be engaged by electro-magnets 30 secured to the rear side of the dial plate in any suitable manner. Each armature latch 29 is provided with its own individual magnet

and said magnet is arranged in the circuit conducting wires which run to the target. It will thus be understood that each section of the target is in electrical connection with one of the indicating dial plates so that when said section of the dial is struck and swung back, the electrical circuit between said section and the magnet of its indicating plate will be closed, thus energizing said magnet which will retract its armature latch out of engagement with the indicating plate allowing said plate to fall forward by gravity thereby indicating which quarter section of the target was struck.

In connection with the target, and annunciator, I employ a registering mechanism or score marker 31 which may be of any suitable construction and is directly connected with the target and annunciator circuits whereby the scores will be automatically registered. The score marker may be of any suitable construction and is here shown as consisting of a frame 32 having revolubly mounted therein a suitably prepared registering cylinder 33. The cylinder 33 is operated by any suitable power, said power being shown in the present instance in the form of a spring motor 34. Arranged in the frame 32 to co-act with the registering cylinder 33 is a plurality of type bars 35 having on one end score marking type 36 which are adapted to be brought into engagement with the cylinder and to mark the same by means of a recording ribbon 37. The outer or opposite ends of the type bars are in the form of armatures and are adapted to be operated by electro-magnets 38 which are in electrical connection with the current conducting wires of the annunciator whereby when one of the circuits from the annunciator to the target is completed, this circuit will also be completed to the magnet 38 of the score marker thereby marking the proper score on the cylinder.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention, what I claim is:

1. In a device of the character described, a target formed of a plurality of sections, means to pivotally support said sections in operative position whereby when struck they will swing back, an annunciator having an electrical connection with said target sections, and circuit closers operated by the movement of said sections to complete the



electric circuits between said target and annunciator whereby the section struck will be indicated on the annunciator, and a recorder or score marker in electrical connection with the wires of the annunciator.

2. In a device of the character described, a target comprising a base, a plurality of supporting arms pivotally mounted on said base, means to yieldingly hold said arms in operative position, a plurality of target sections supported by said arms in an operative position to form the target, a circuit closer carried by each of said arms, an electric terminal bar arranged on said base, a series of electric terminals arranged in said bar in position to be engaged by the circuit closers carried by said arms whereby when any of said sections are struck, one of said circuits will be closed, a stationary guard plate arranged on said base below the target, a hinged shield plate arranged above said terminal supporting bar, an annunciator having a dial corresponding with the face of the target, and a series of pivoted indicating devices arranged in the dial of said annunciator and in electrical connection with the terminals on said target base whereby when any of the sections of the target is struck, the same will be designated by one of the indicating devices on the annunciator dial.

3. In a device of the character described, a target formed of a plurality of sections, means to pivotally support said sections in

operative position, an annunciator having an electrical connection with said target sections, a score marker also having an electrical connection with said annunciator and target, and a plurality of circuit closers operated by said sections of the target whereby when said sections are struck, the same will be indicated on the annunciator and registered by the score marker.

4. In a device of the character described, a target formed of a plurality of sections, means to pivotally support said sections in operative position, whereby when struck they will swing back, an annunciator having an electrical connection with said target sections, circuit closing devices operated by the movement of said sections to complete the electric circuits between said target and annunciator, whereby the sections struck will be indicated on the annunciator and a recorder or score marker in electrical connection with the circuit wires of the annunciator, said marker comprising a recording cylinder, and a plurality of electromagnetically controlled type bars corresponding with the sections of the target.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES W. RICE.

Witnesses:

BENJAMIN L. BENNETT,  
SIDNEY M. SMITH.