

J. W. SHINE.

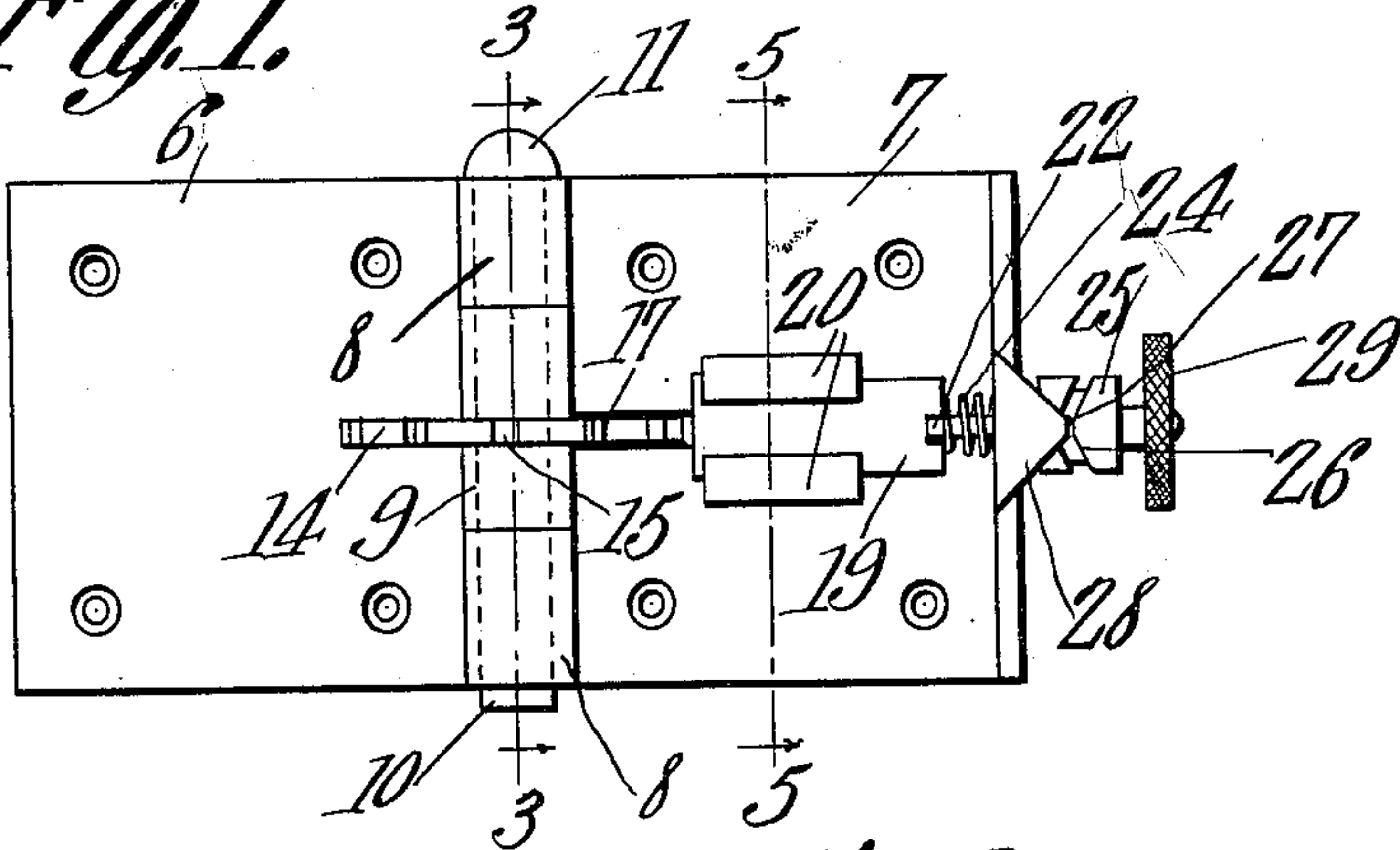
HINGE.

APPLICATION FILED APR. 13, 1910.

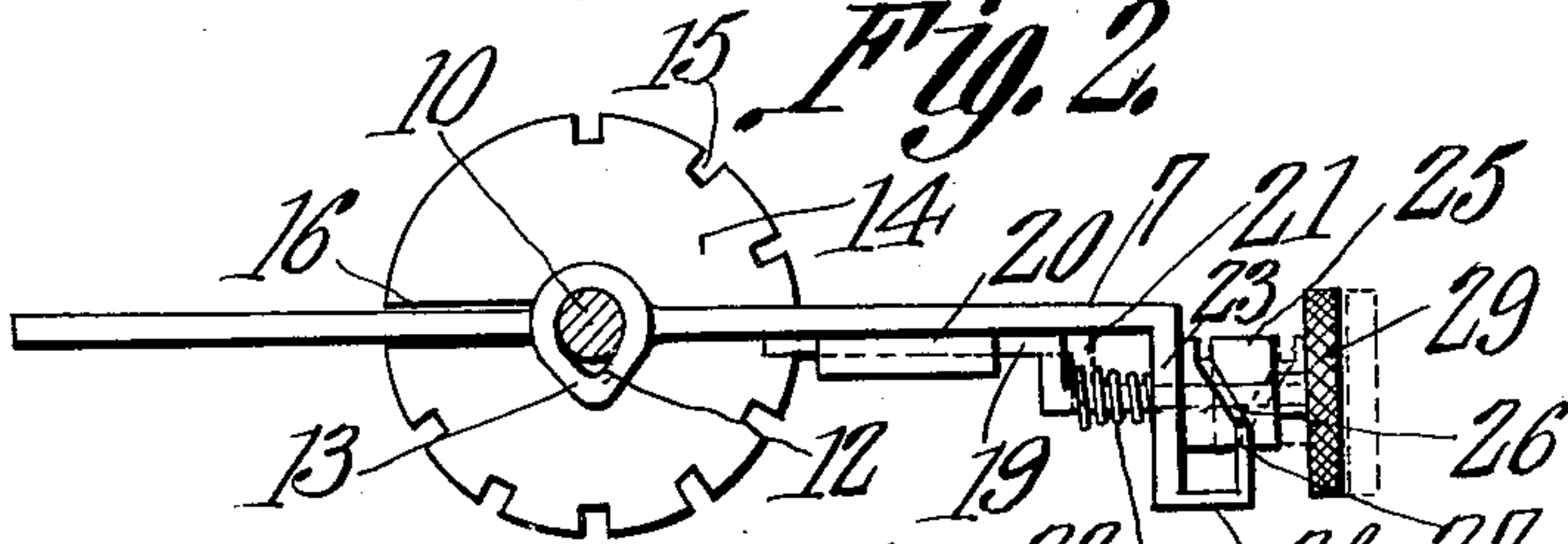
980,686.

Patented Jan. 3, 1911.

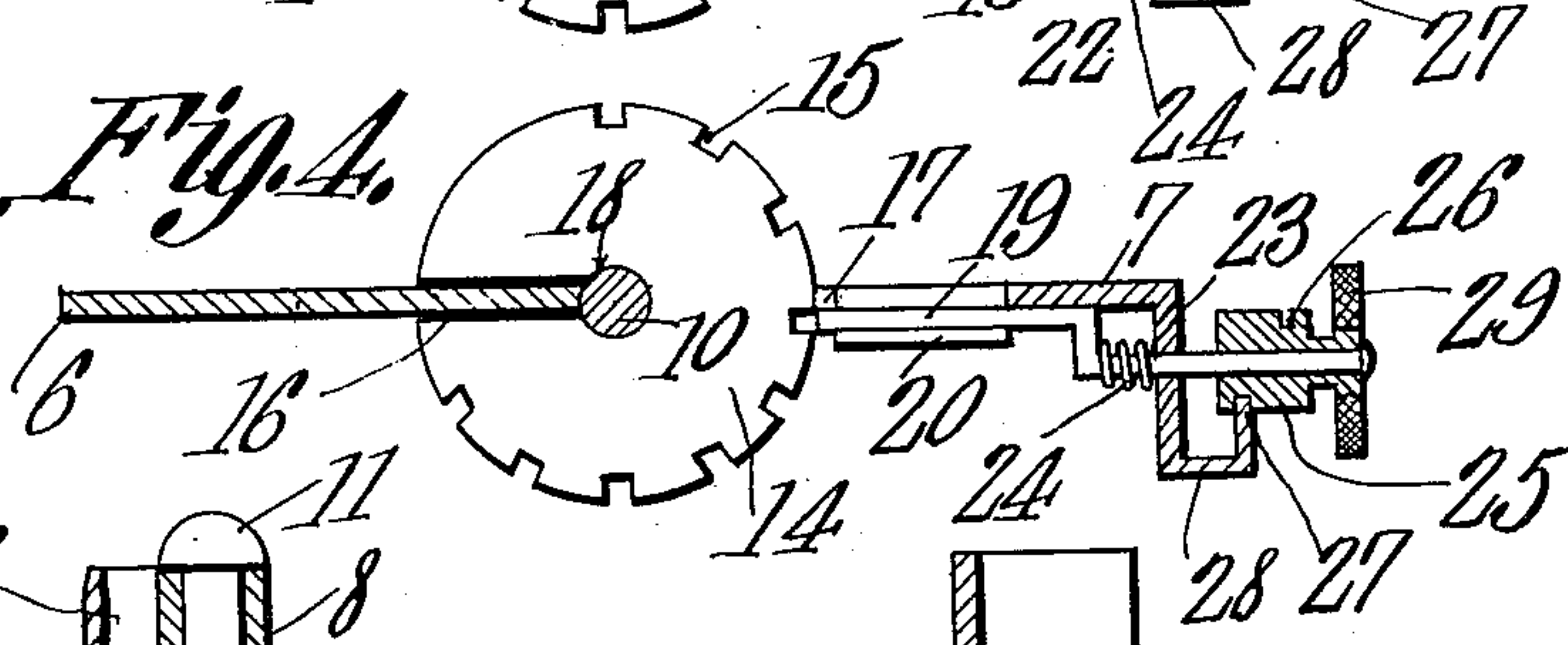
*Fig. 1.*



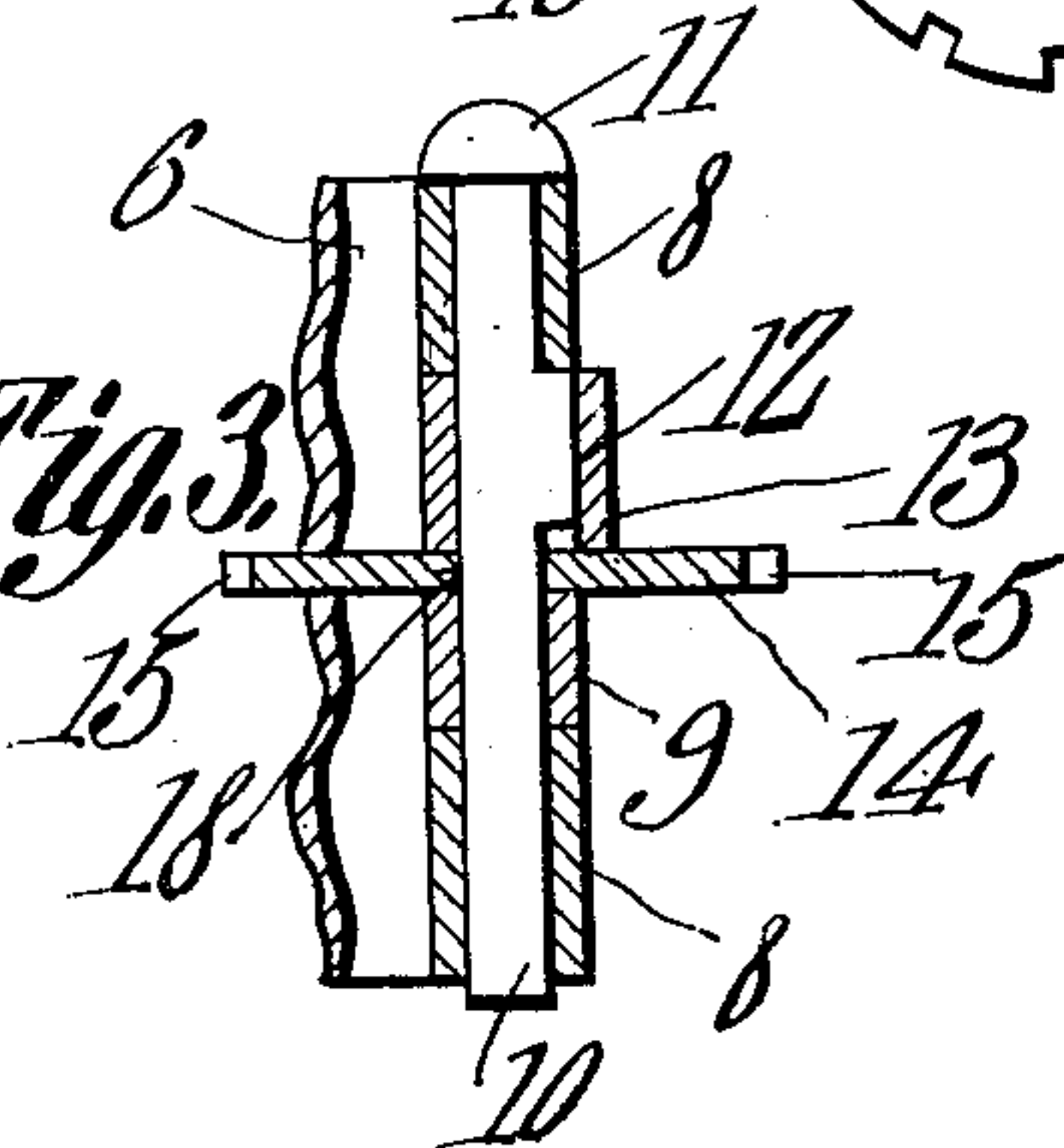
*Fig. 2.*



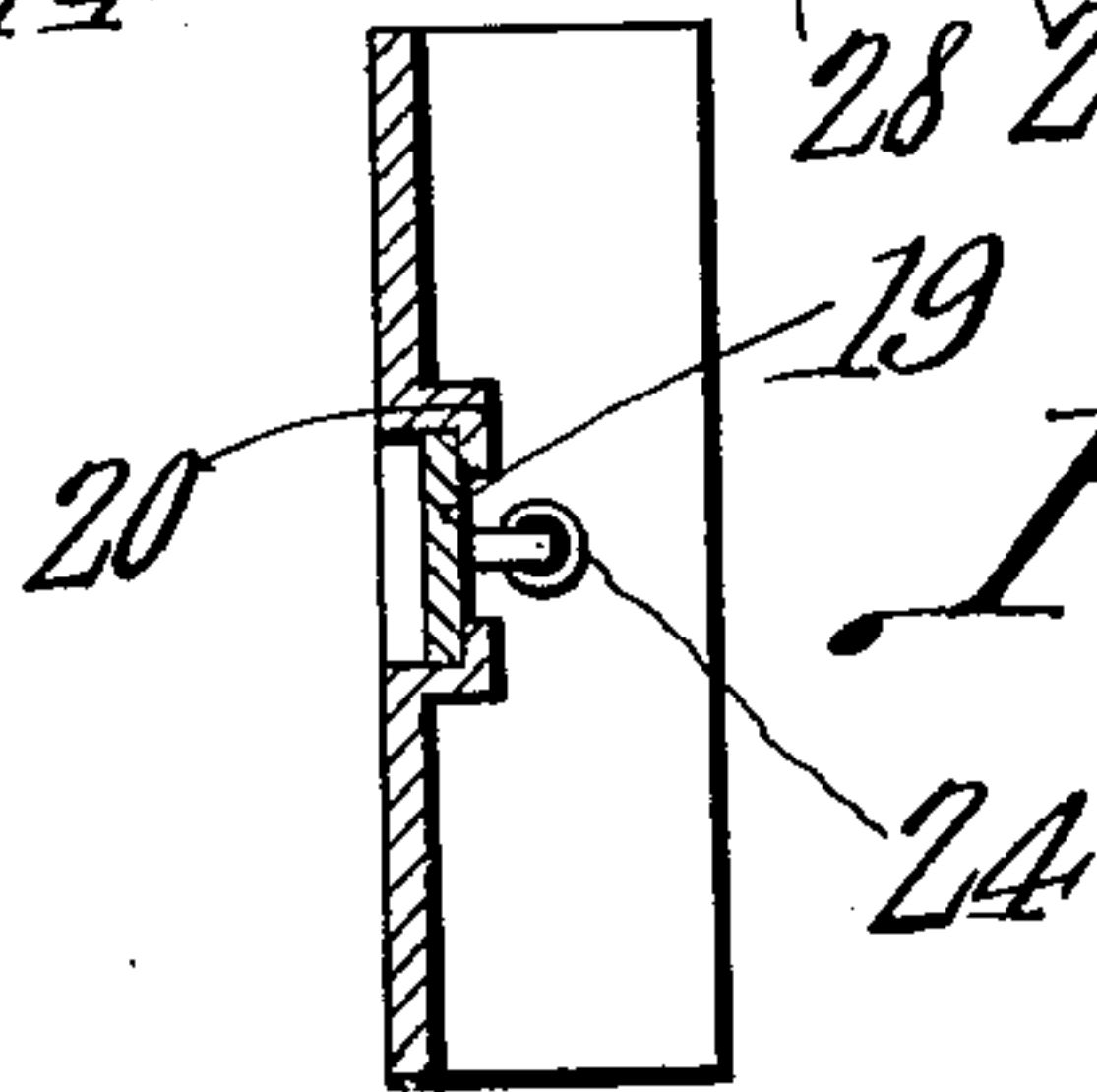
*Fig. 4.*



*Fig. 3.*



*Fig. 5.*



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES W. SHINE, OF MACON, GEORGIA.

## HINGE.

980,686.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed April 13, 1910. Serial No. 555,227.

*To all whom it may concern:*

Be it known that I, JAMES W. SHINE, a citizen of the United States, residing at Macon, in the county of Bibb and State of Georgia, have invented a new and useful Hinge, of which the following is a specification.

It is the object of the present invention to provide an improved hinge designed primarily for use in hanging window blinds, the object of the invention being to provide a hinge for this purpose which will securely hold the blind at any desired position between its open and closed positions and also in full closed position.

Another object of the invention is to so construct the hinge that the pintle of the hinge cannot be removed when the blind is in closed position and in view of this fact and the fact that the device for holding the blind at various positions between its open and closed positions is so located that it will be concealed when the blind is closed, the removal of the blind by any one attempting to enter through the window with which it is associated will be rendered practically impossible unless indeed the blind is destroyed.

It is another object of the invention to so construct the means for holding the blind at various positions, that it may be rendered inoperative at will so that where it is not desired to lock the blind at any one position, the same will be free to swing back and forth upon its hinges.

With the above and other objects in view, the invention consists in the construction and arrangement of parts substantially as shown and described in the accompanying drawings, in which,—

Figure 1 is a view in elevation of a hinge constructed in accordance with the present invention. Fig. 2 is a top plan view thereof, the latch for the hinge leaves being shown in one position in full lines and in another position in dotted lines. Fig. 3 is a vertical sectional view on the line 3—3 of Fig. 1. Fig. 4 is a horizontal section on the line 4—4 of Fig. 1. Fig. 5 is a vertical section through the knuckles of the hinge.

In the drawings, one of the hinge leaves is indicated by the numeral 6 and the other by the numeral 7 and these leaves are formed respectively with knuckles 8 and 9. The hinge leaves are connected by a pintle pin 10 which is inserted through the knuckles

when the said knuckles are alined, and this pintle pin is formed at its upper end with a head 11 which limits its downward movement through the knuckles and is formed adjacent its said head with an outstanding boss which is indicated by the numeral 12, and in order to permit of the insertion of the pin through the openings of the knuckles or more specifically to accommodate the boss 12, the said knuckles are stamped out, as indicated by the numeral 13, so that their stamped-out portions will aline and afford a groove when the hinge leaves are in such relative position as they would assume were the blind to which they are to be applied, in open position. With the leaves in this relative position, the pin is inserted and, of course, when the leaves are swung upon the pintle pin and assume any position other than that just mentioned, the struck-out portions of the knuckles will be out of registration, and as a result, withdrawal of the pintle pin from the knuckles will be effectually prevented. Consequently, when the blind which the hinge supports, is in open position, the pintle pin may be removed for the purpose of dismounting the blind.

The means for holding the hinge leaves at various relative positions between the position they assume when the blind is open or closed, includes a notched disk, which is indicated by the numeral 14, the notches being indicated by the numeral 15. This disk is formed with a slot 16 which is clearly shown in the horizontal sectional view of the drawings, which slot receives or engages with the hinge leaf 6, and on the other hand, the hinge leaf 7 is formed with a slot which is indicated by the numeral 17 and which receives, movably, the said disk 14, the knuckles 9 of the said hinge leaf 7 being spaced apart a distance only sufficient to receive between them the disk. Also, the disk is formed axially with an opening 18 for the passage of the pintle pin 10. With the parts so formed, after the hinge leaves 6 and 7 have been assembled with their knuckles alined the disk 14 is inserted into place, as illustrated in the horizontal sectional view of the drawings, and the pintle pin 10 is then fitted through the openings of the knuckles and the opening in the disk 14. With the parts thus assembled, as will be readily understood, the hinge leaf 7 may be swung about the pintle pin 10 whereas the disk 14



will be held fixed with respect to the hinge leaf 6, which hinge leaf, it is intended, shall be applied to the window frame.

A spring latch coöperates with the notches 5 of the disk 14 whereby to hold the hinge leaf at adjustment, as heretofore stated, and this hinge latch has its body portion indicated by the numeral 19 in the drawings and slidably held between stamped-up guides 20 10 constituting a part of the hinge leaf 7, one end of this body being designed to engage in the notches 15 interchangeably and the other end being formed with a stem portion which is bent to extend outwardly at right angles, 15 as at 21, and thence laterally at right angles, as at 22, and through a flange 23 formed by bending up at right angles the outer portion of the hinge leaf 7. A spring 24 is fitted upon the portion 22 of the stem of the 20 latch and bears against the portion 21 and against the flange 23, the function of this spring being to hold that end of the latch body opposite the end from which the stem projects, in engagement with the notches in 25 the periphery of the disk 14. The portion 22 of the stem is rounded and fitted rotatably thereon is a collar 25 which is formed with a cam groove 26 into which groove projects the extremity 27 of an over-turned 30 projection 28 upon the edge of the flange 23. A disk-like head 29 is integral with the collar 25 at its outer end and the extremity of the stem 22 is headed and retains the said collar and head thereon. It will be readily 35 understood that by rotating the head 29, the stem 22 will be drawn to the right in Fig. 2 of the drawings, or be allowed to move to the left under the action of the spring 24, depending of course upon the direction of 40 rotation of the said head.

From the foregoing description of the invention it will be readily understood that while the hinge leaf 6 is to be secured to the window frame, the leaf 7 is to be secured to 45 the blind and that whereas the head 29 may

be rotated so as to retract the latch 19, or in other words move it out of position for engagement in the notches in the disk 14, and thereby permit of the blind being swung 50 below upon its hinge, the said head may be rotated so as to allow the spring 24 to hold the latch end in engagement with any one of the notches for the purpose of holding the blind at any desired position between its 55 open and closed positions. It will further be understood from inspection of Fig. 5 of the drawings that the hinge may be used upon either a right or a left hand blind by merely inverting the same and correspondingly reversing the insertion of the pintle 60 pin through the alined openings of the knuckles.

What is claimed is:—

In a hinge, connected leaves, a notched disk rigid with respect to one of the leaves 65 and a latch carried by the other hinge leaf and engageable with the notches in the said disk, the last mentioned hinge leaf having a flange and the latch having a stem fitting slidably through the flange, the stem being 70 formed with a shoulder, a spring disposed upon the stem and bearing at one end against the shoulder thereon and at its other end against the flange, a collar rotatably fitted upon the stem and formed with a cam 75 groove, the said hinge leaf upon which the latch is mounted being formed with an overturned portion upon its flange riding in said groove, and means whereby the collar may be rotated to withdraw the latch from 80 engagement in the notches against the tension of the said spring.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES W. SHINE.

Witnesses:

C. L. SLOON,  
F. B. FLENNES.