No. 868,236. PATENTED OCT. 15, 1907.

J. N. WATROUS.

COMBINED BLIND HINGE AND FASTENER.

APPLICATION FILED JULY 7, 1906.

Fig. 1.

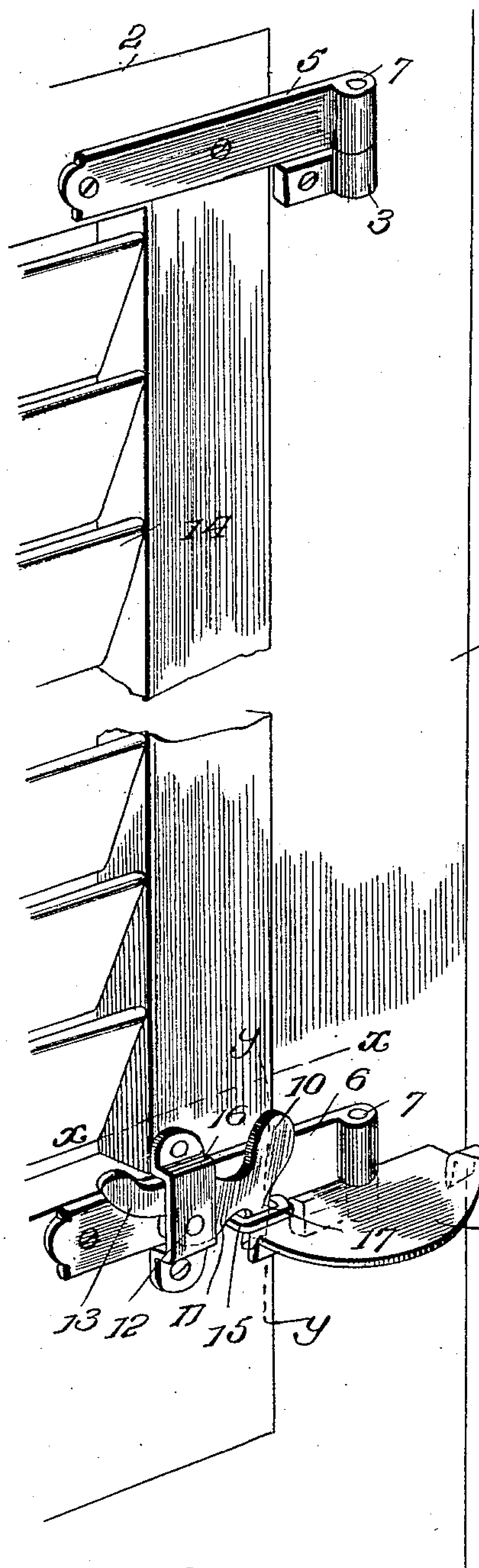


Fig. 2

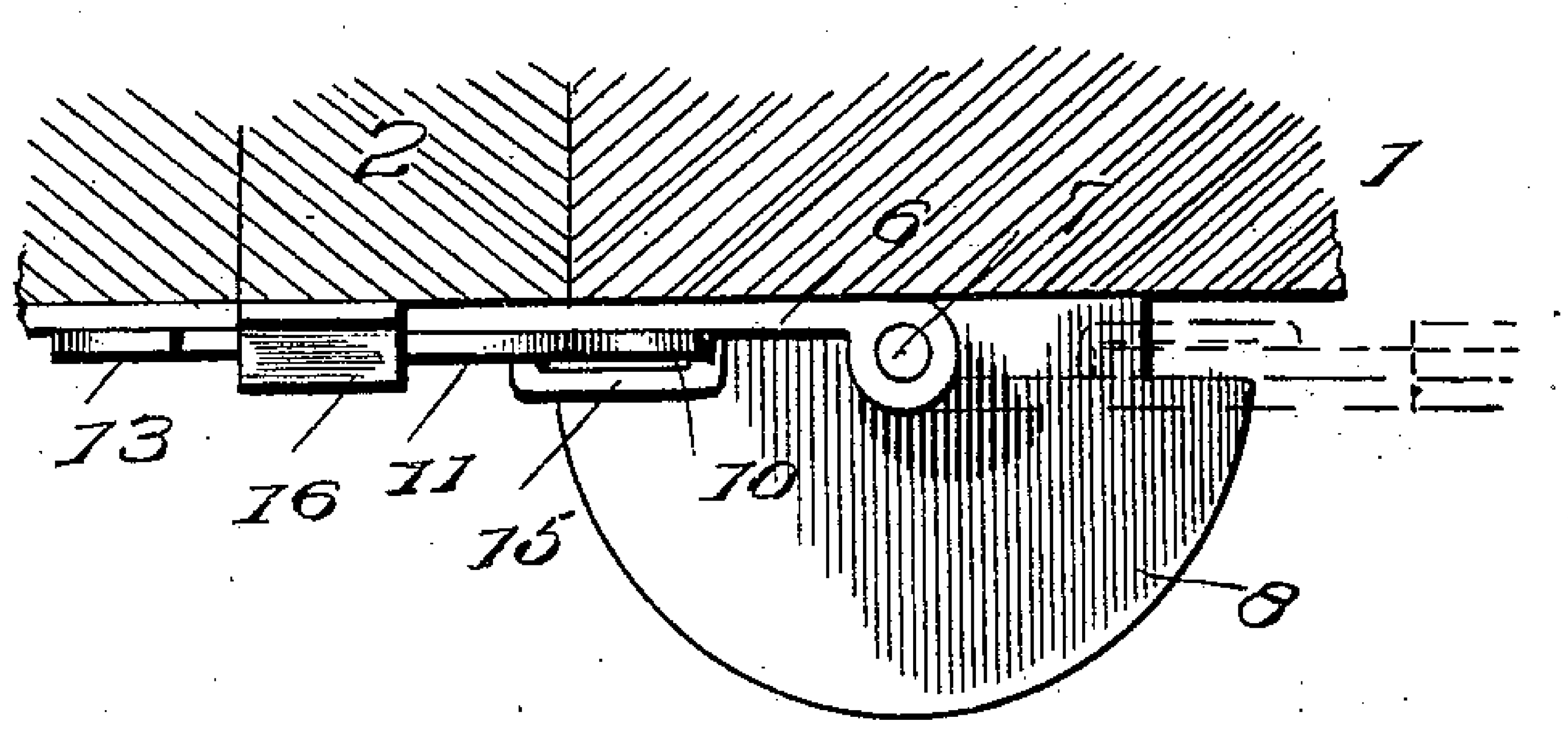


Fig. 3

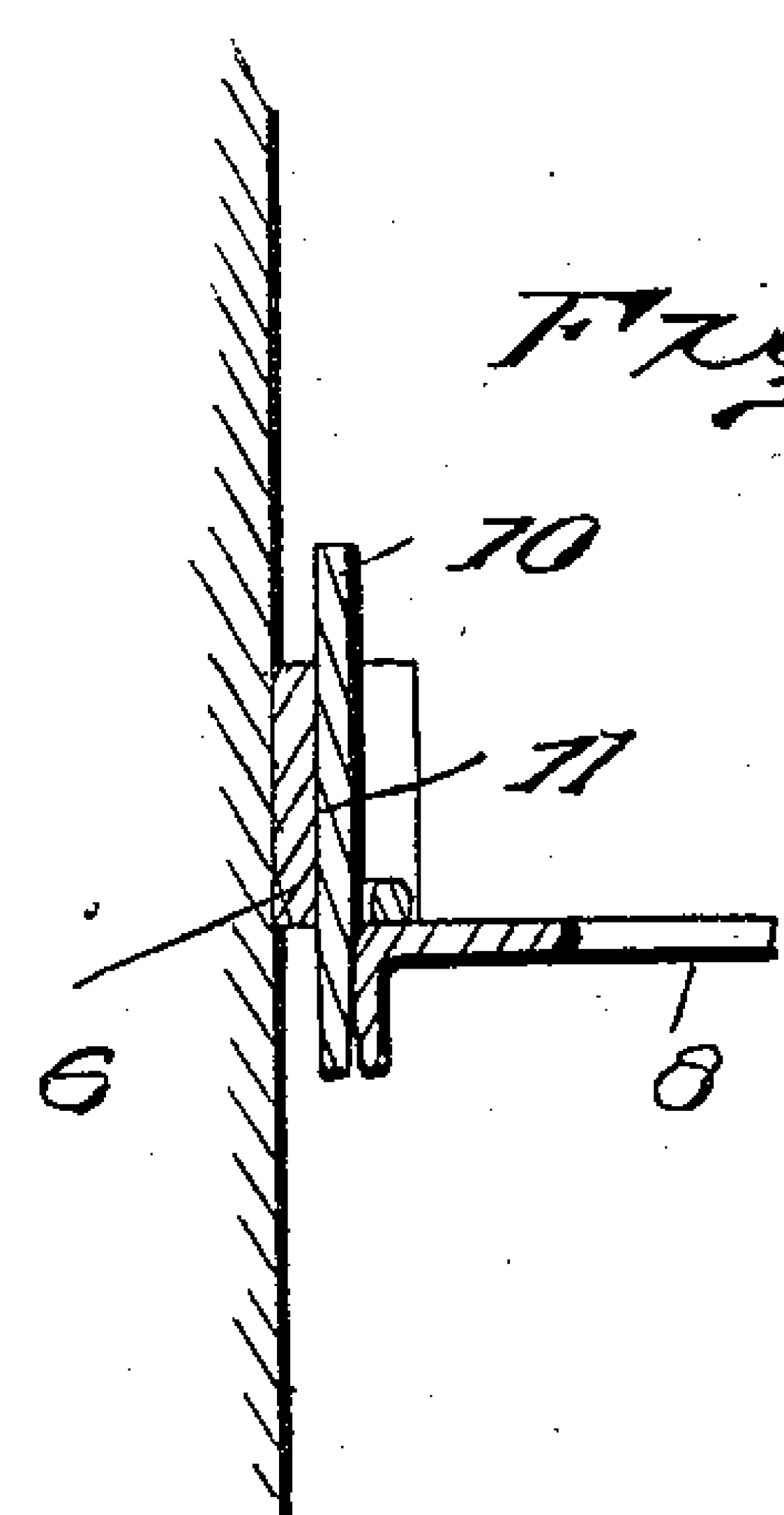
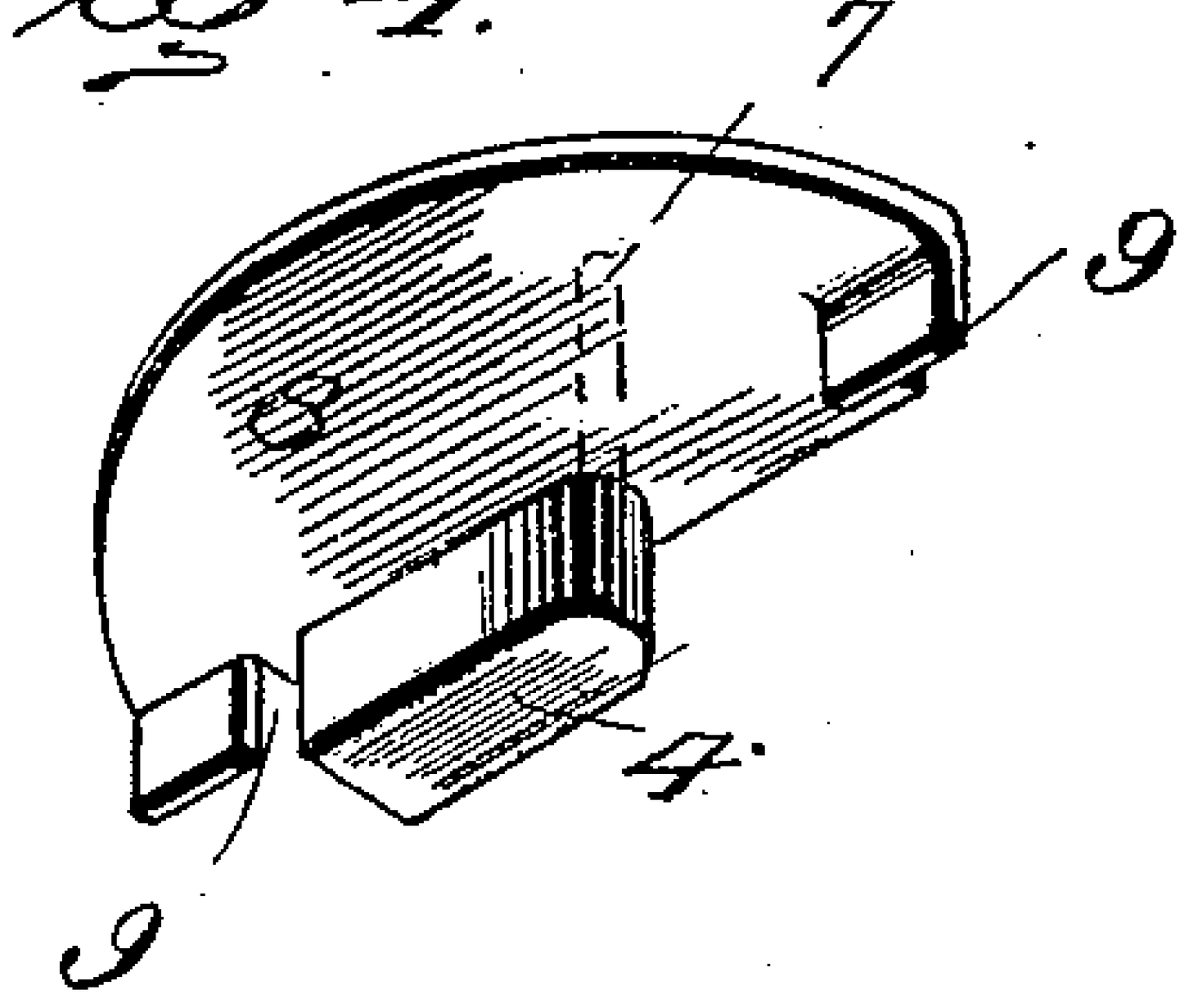


Fig. 4.



Witnesses

[illegible]

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COMBINED BLIND HINGE AND FASTENER.

No. 868,236. Specification of Letters Patent. Patented Oct. 15, 1907.

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To all whom it may concern:

Be it known that I, JOHN N. WATROUS, a citizen of the United States, residing at Thomaston, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in Combined Blind Hinges and Fasteners, of which the following is a specification.

The object of this invention is to provide a substitute for the common means utilized for suspending blinds on frames of windows, doors, or the like, and obviate the difficulty which is incident to the operation of the common forms of hangers used for this purpose. The invention involves also the provision of a peculiar form of fastener combined with the means for connecting or attaching the blind to the frame upon which it is mounted, the fastener being constructed so as to be conveniently operated both when the blind is open and when it is closed, and the arrangement of the fastener is such as to do away with the necessity of applying catch plates and the like to the blind and to the frame or support to which it is applied.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a front elevation showing a blind mounted on a support and secured in closed position by means of the invention. Fig. 2 is a section on the line X—X of Fig. 1 looking downwardly. Fig. 3 is a vertical section on the line Y—Y of Fig. 1. Fig. 4 is a detail perspective view of the pintle member with which the movable catch of the fastener coöperates.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In the drawings the numeral 1 designates the support to which the blind 2 is pivoted or hinged for movement in the customary way, the support having upper and lower pintle members 3 and 4 respectively, applied thereto to connect with the upper and lower hinge plates 5 and 6 attached to the blind and having openings or loops to receive pintles 7 of the pintle members 3 and 4. The arrangement of the pintle members so that they are located a short distance from the adjacent vertical edge of the blind 2, is advantageous for obvious reasons, affording greater leverage than would otherwise be obtained in opening and closing the blind. The lower pintle member 4 is of peculiar form, being provided with an enlargement in the form of a segment 8 of somewhat semicircular shape. The segment 8 is formed with notches 9 at opposite edge portions and these notches are adapted to receive the nose or head 10 of a catch 11 which is pivoted preferably to the blind 2 and directly to the lower hinge plate 6 secured to said blind. The catch 11 is pivoted between its ends, as shown at 12, the head or nose portion 10 being located at its outer end while its inner end is formed with a finger-piece 13 which projects in such a way as to be readily operable by the passage of the fingers of the hands through the slat opening of the blind 2. The slats 14 are movably mounted in the slat opening of the blind in the customary way, or as otherwise desired within the contemplation of the invention. In order to maintain the catch 11, in such a position that it does not have any play likely to loosen the same or interfere with its proper operation, it is preferred that the nose or head 10 of the catch 11, be movable through a guide loop 15 which extends laterally from the hinge plate 6.

In the actual operation of the invention, when the blind 2 is closed, should it be desired to open the same, the operator can actuate the slats of the blind to open the same and permit him to readily pass his fingers through a slat opening of the blind 2 so as to depress the finger-piece 13 of the catch 11. This will disengage the nose or head 10 of the catch from the adjacent notch 9 of the segment extension 8 and permit the blind to be thrown outwardly into an open position. When the blind is fully open the nose or head 10 of the catch 11 will drop into the other notch 9 and positively lock or fasten the blind in its open position. When the blind is open, the hand or fingers of the hand may be passed through the lowermost slat opening of the blind to manipulate the finger piece 13 and retract the catch.

As shown best in Fig. 1, I provide a plate 16, which extends over and is spaced from the outer face of the hinge plate 6 and is provided with two angularly disposed ends, which extend over and in contact with the edges of said hinge plate, the extremities of said ends being turned outwardly and secured to the outer side of the blind. The pivot 12 of the catch 11 passes through this plate 16, and the said plate not only reinforces the pivot, but also assists in securely holding the hinge plate 6 pivotally adjusted to the blind.

A peculiar action of the catch 11 is secured by the formation of the nose or head 10. The outer edge of this nose or head is formed on a curved line which constitutes a cam portion 17 so that when the catch is in engagement with the segment 8, any vibration or jar of the blind which might ordinarily tend to loosen the catch with respect to the plate 8, only causes the nose or head of the catch to move down and effect greater binding of the cam portion 17 against the inner side of the notch 9 with which the catch is coöperating. In other words, the fastening means utilized is designed to so firmly position the blind, when closed or open, that rattling or noise due to vibration or jar will be eliminated effectively. It will be clear that in the practical adaptation of the invention, the catches and other parts usually employed to hold the blinds closed and open, are not necessary and this decreases the ex-

pense incident to the provision of the lock means for the blind and furthermore simplifies application of the lock mechanism for the simple reason that when the support and blind have the respective members embodied in this invention secured thereto, the blind is ready for use and need not be supplied with any other fastening means or parts.

Having thus described the invention, what is claimed as new is:

In a hinge of the character described, the combination of a pintle member formed with an outstanding segmental plate provided with notches in the periphery thereof, a hinge plate formed with an opening to receive the pintle and also at the lower edge thereof with a guide loop, a plate extending transversely across the hinge plate and spaced therefrom, the ends of the plate being extended inwardly into engagement with the hinge plate and fastened to the swinging member, and a catch pivoted at an intermediate point between the hinge plate and the second mentioned plate, one end of the catch being formed with a nose which is guided in its movement by the before mentioned guide loop and engages the notches in the segmental plate to lock the swinging member in a predetermined position, the said nose having a cam formation preventing looseness in the members, the opposite end of the catch constituting a finger piece.

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

JOHN N. WATROUS. [L. S.]

Witnesses:

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