

N. SEHNER.

SPRING-HINGE.

117691

PATENTED AUG 1 1871

Fig. 1.

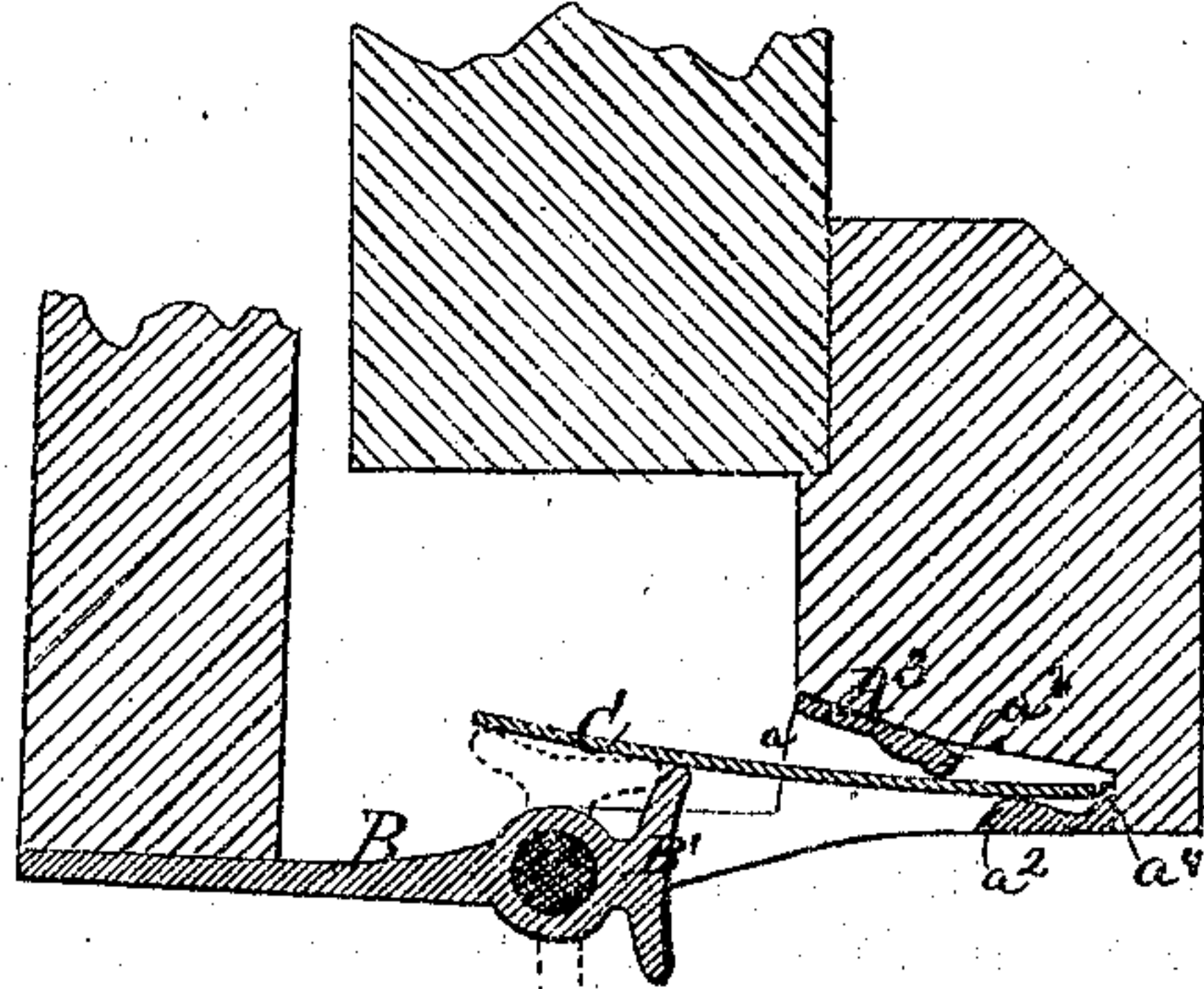
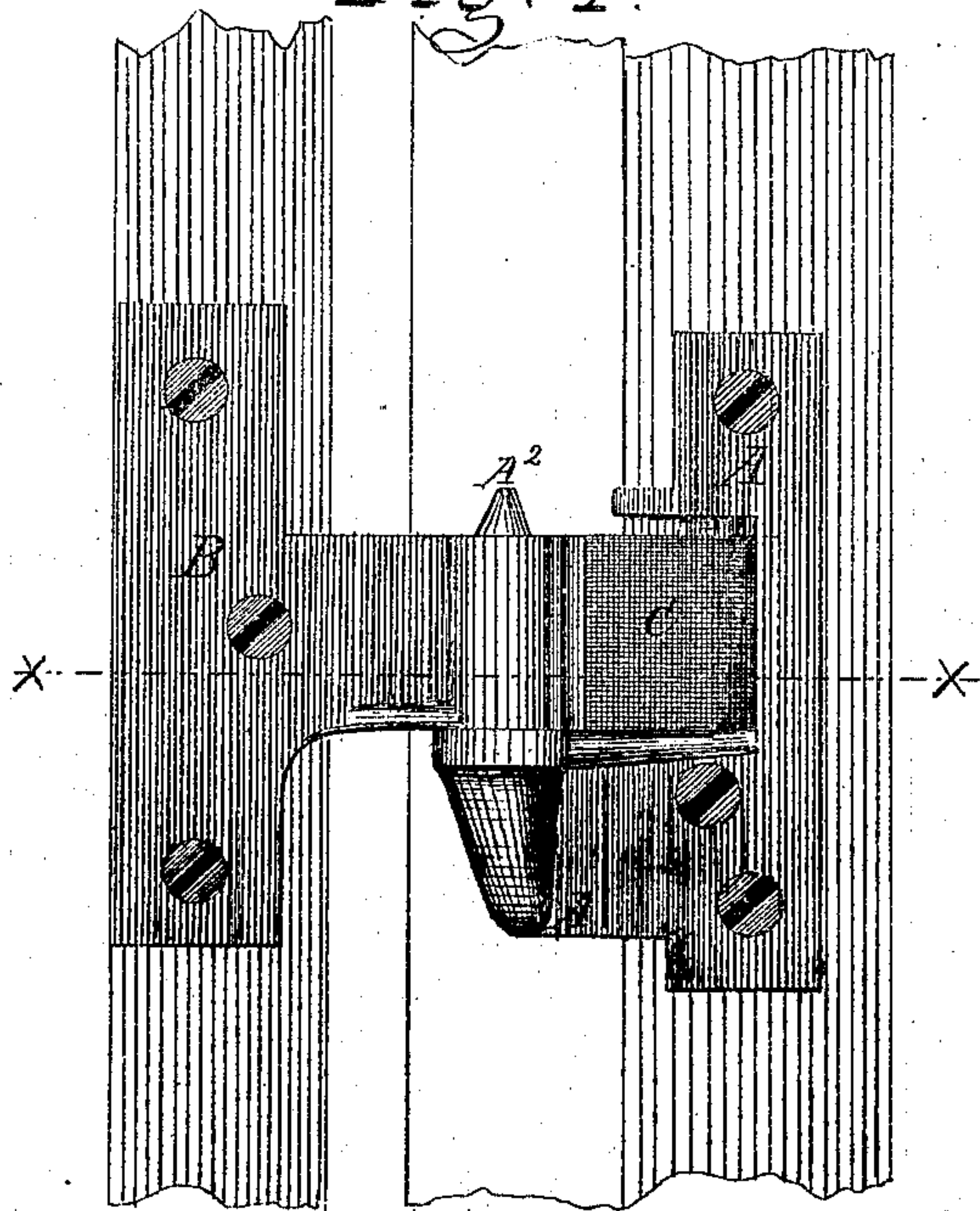


Fig. 2

Fig. 3

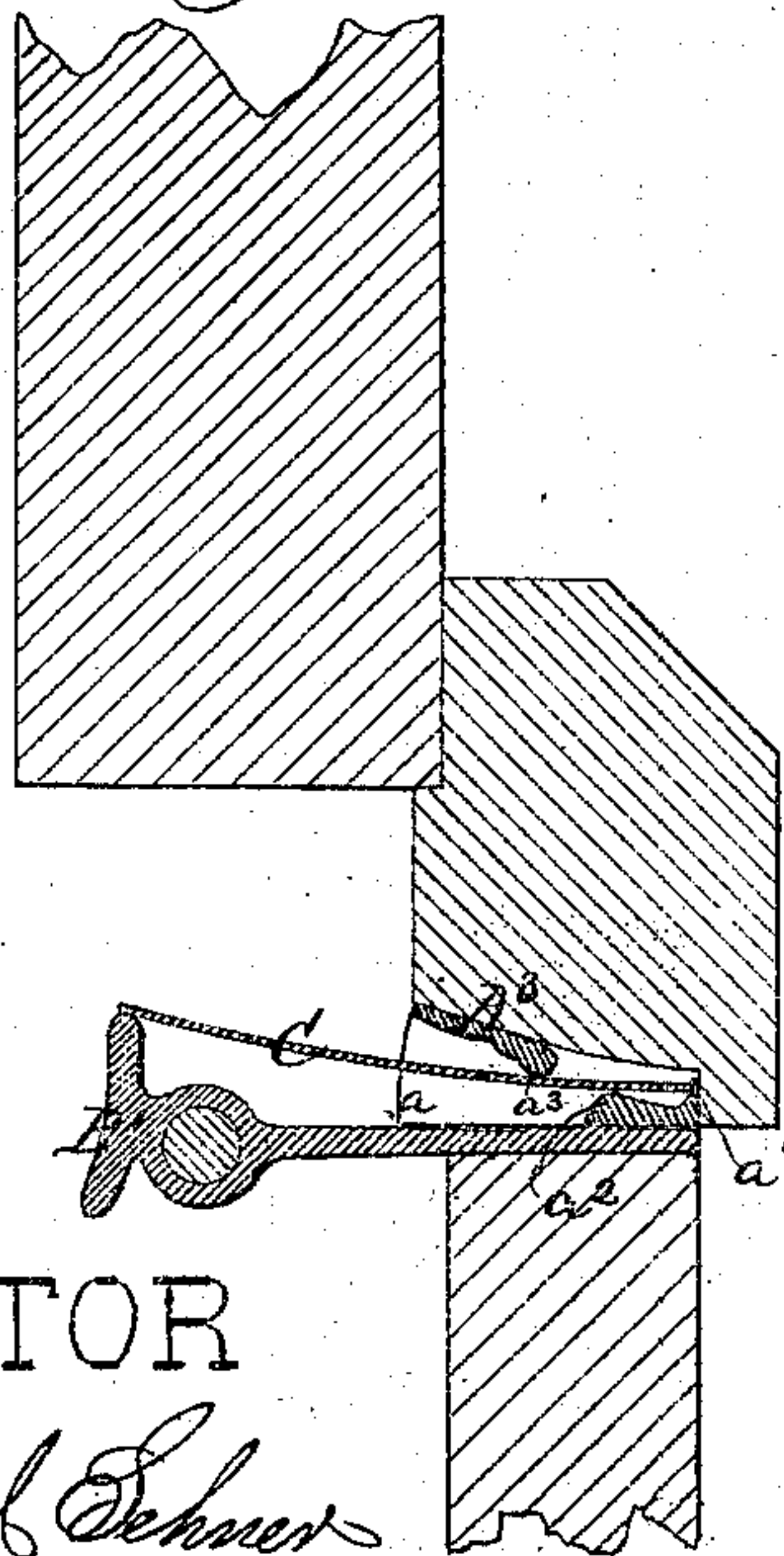


Fig. 4

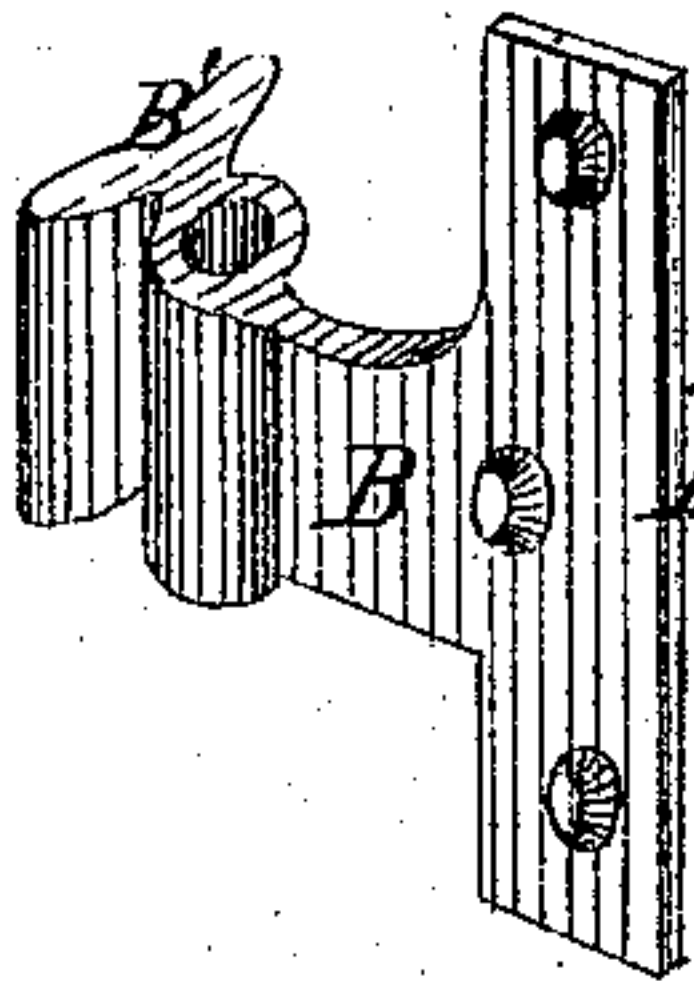
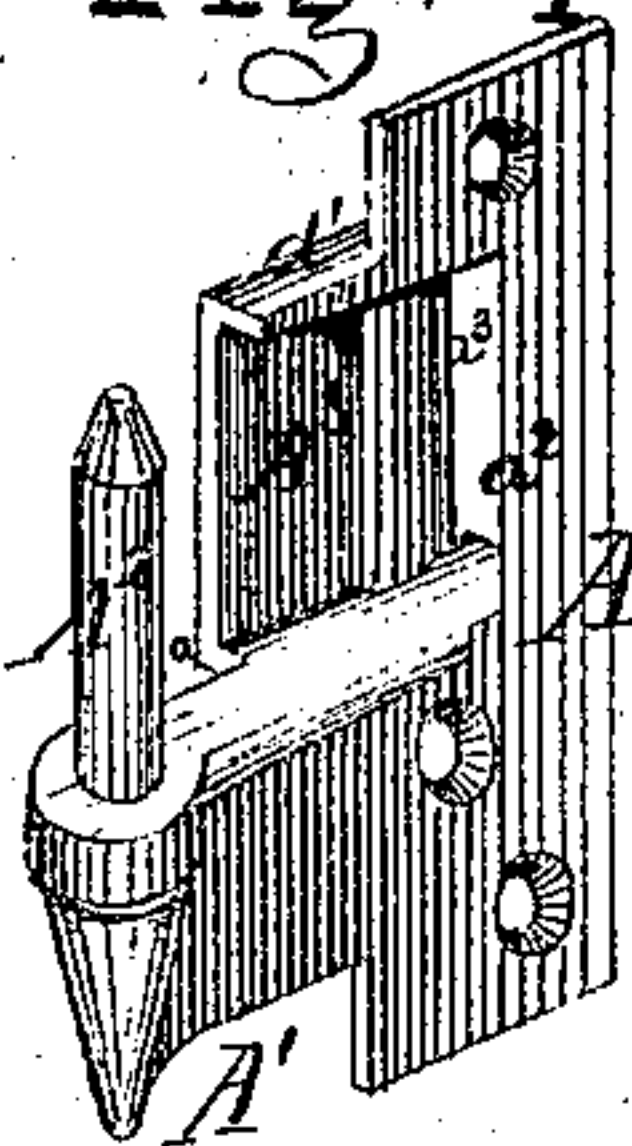


Fig. 5

ATTEST

INVENTOR

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# UNITED STATES PATENT OFFICE.

NATHANIEL SEHNER, OF HAGERSTOWN, MARYLAND.

## IMPROVEMENT IN SPRING-HINGES.

Specification forming part of Letters Patent No. 117,691, dated August 1, 1871.

*To all whom it may concern:*

Be it known that I, NATHANIEL SEHNER, of Hagerstown, in the county of Washington and State of Maryland, have invented a certain Improvement in Spring-Hinges; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making part of this specification, in which—

Figure 1 is a front elevation of the hinge as it appears when the shutter or gate turning on it is thrown open all the way. Fig 2. is a horizontal section on line *x x* of Fig. 1. Fig. 3 is a similar section, showing the hinge in its closed position. Fig. 4 is a perspective view of that part of the hinge which is screwed to the post or window-frame and carries the spring. Fig. 5 is a perspective view of the part which is screwed to the door or shutter.

The same letters of reference are used in all the figures in the designation of identical parts.

This invention relates to an improvement in that class of hinges which is more especially designed for use in connection with window-shutters, and in which a spring carried by the stationary part acts upon a cam of the oscillating part to hold the shutter firmly in any one of several positions without other fastenings. The improvement consists in a novel construction, to be hereinafter more specifically pointed out, of the stationary part of the hinge to provide for the use of a straight-plate spring, which, when inserted, is held in position solely by its own tension, so that it can be applied by any person, whether skilled or not, and a new one substituted with ease and the least possible expense.

The stationary part of the hinge consists of a plate, A, with an arm, A<sup>1</sup>, upon the outer enlarged end of which the pintle A<sup>2</sup> is formed, as usual. Directly above the arm a recess is formed in the edge of the plate nearest the pintle, in height about equal to the length of the latter. Along the horizontal edges of this recess run flanges *a* and *a'*, across the back of the plate, extending some distance beyond its inner edges.

A vertical bar or plate, A<sup>3</sup>, connects these flanges, as best seen in Fig. 4, so as to form a pocket for the reception of the spring C. The thickened inner edge *a*<sup>3</sup> of this plate is slightly in advance of the edge *a*<sup>2</sup> of the recess in the plate A, and standing back of the latter a narrow throat is formed at that point for the passage of the end of the spring behind the plate A. The edge *a*<sup>2</sup> is beveled, as shown, to guide the spring to the throat, and the edge *a*<sup>3</sup> may be rounded, as indicated. To prevent the spring from entering the wood of the frame or post, either on driving it into place, or afterward by the action of the cam on it, a vertical bead, *a*<sup>4</sup>, is cast upon the back of the plate A to form an abutment for the end of the spring, uniting at the ends with the flanges *a* *a*<sup>1</sup>. The socket of the part B of the hinge has a double-winged cam, B', standing transverse to the plate, and projecting so far that when its flat side comes in contact with the spring the latter will remain sufficiently bent to be firmly braced between the edges *a*<sup>2</sup> and *a*<sup>3</sup>, and prevent any endwise movement by the action of the cam on it in opening and closing the shutter. The spring C is a straight plate cut to proper length to bear against the cam in every position of the shutter. No rivets or bolts being used to fasten it any person is enabled to apply it, and should one be injured or broken accidentally a new one can be substituted without the aid of a mechanic.

What I claim as my invention, and desire to secure by Letters Patent, is—

The plate A, when constructed with a bar, A<sup>3</sup>, the beveled edge *a*<sup>3</sup> of which forms a throat with the beveled edge *a*<sup>2</sup> of the plate, and a vertical bead, *a*<sup>4</sup>, all substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have hereunto set my name this 10th day of March, A. D. 1871, in presence of two subscribing witnesses.

Witnesses: NATHANIEL SEHNER.

J. W. MISTER,  
JOS. R. EDSON.