

# UNITED STATES PATENT OFFICE.

FRANK R. MUSTILL, OF AKRON, OHIO.

## BANJO.

SPECIFICATION forming part of Letters Patent No. 350,693, dated October 12, 1886.

Application filed July 12, 1886. Serial No. 207,773. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK R. MUSTILL, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented a new and useful Improvement in Banjos, of which the following is a specification.

The objects of my invention are, generally, to increase the compass and volume of tone of the instrument; to adapt it to produce new effects, both in tone, volume, and variety; to reduce its size for packing and transportation, and specifically to preserve the hoop intact without cut or orifice; to provide new appliances for straining and retaining the skin upon the head, and to provide devices for readily releasing the tail-piece to enable the instrument to be folded.

My invention consists of the devices illustrated in the accompanying drawings, as hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 is a plan of my improved banjo. Fig. 2 is a side elevation of the same, and Fig. 3 a cross-section of the head and part of the neck through the center line thereof.

The head A consists of a metallic hoop, *a*, of sheet metal, without cut or orifice, a broad and thick hard-wood ring, B, provided with a channel in its upper face about two-thirds of the distance from its outer edge, in which the lower edge of the hoop *a* rests, and a broad metallic ring, C, of the same external diameter as the ring B, which surrounds the upper edge of the hoop *a* and strains the skin *c* thereon, the whole being connected by bolts *e*, which pass outside of and do not touch the hoop *a*, through corresponding holes in the rings C B, and are tightened by nuts beneath the latter. By this arrangement the skin is strained tighter than by any other device now in use for the purpose; the bolts are not liable to break, (a not infrequent accident in other appliances;) the hoop *a* is uncut and intact, thereby preserving all its sonorous qualities in the greatest degree, and the wood ring B, which projects inward beyond the hoop *a*, tends to retain and prolong the sound.

The inner end of the neck D conforms in shape to the periphery and thickness of the rings B C, against which it rests, and is connected with the former by a hinge, *d*. Opposite the space between said rings it is cut away

for a considerable distance forward, both for the purpose of lightness and to avoid interference with the resonant qualities of the hoop *a*.

In view of the extreme tension of the skin *c*, secured as hereinbefore described, the neck is provided with guitar-keys instead of the usual peg-key, whereby it can be readily tuned with great accuracy as a concert instrument.

The tail-piece G is connected with a post, *g*, attached to the ring B, by a double hook or open link, H.

In operation the tension of the strings holds the neck firmly against the head, as shown in Figs. 1 and 2.

When not in use, the strings can be relaxed, the open link H unhooked, and the head folded back upon the neck, thereby reducing the length of the instrument about one-third for packing and transportation.

I claim as my invention—

1. In a banjo-head, the combination, with a metallic hoop, of a wood ring having in its upper face an annular channel, in which the lower edge of said hoop rests, and a metallic ring surrounding its upper edge, said metallic and wood rings being united by a series of bolts outside of said hoop, substantially as shown, and for the purpose specified.

2. The combination, with a banjo-head, of a neck having its inner end conformed to fit the outer projecting portions of said head and united therewith by a hinge, substantially as and for the purpose hereinbefore set forth.

3. The combination, with a banjo-head consisting of a hoop retained between a lower and upper ring united by bolts outside of said hoop, of a neck having its inner end conformed to fit the outer edges of said rings, hinged to one of said rings, and cut away opposite the space between said rings for a portion of its length, substantially as shown, and for the purpose specified.

4. The combination, in the head A, with the tail-piece G and post *g*, of the open link H, all constructed and arranged substantially as shown, and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of June, A. D. 1886.

FRANK R. MUSTILL.

Witnesses:

E. W. STUART,  
C. P. HUMPHREY.

(No Model.)

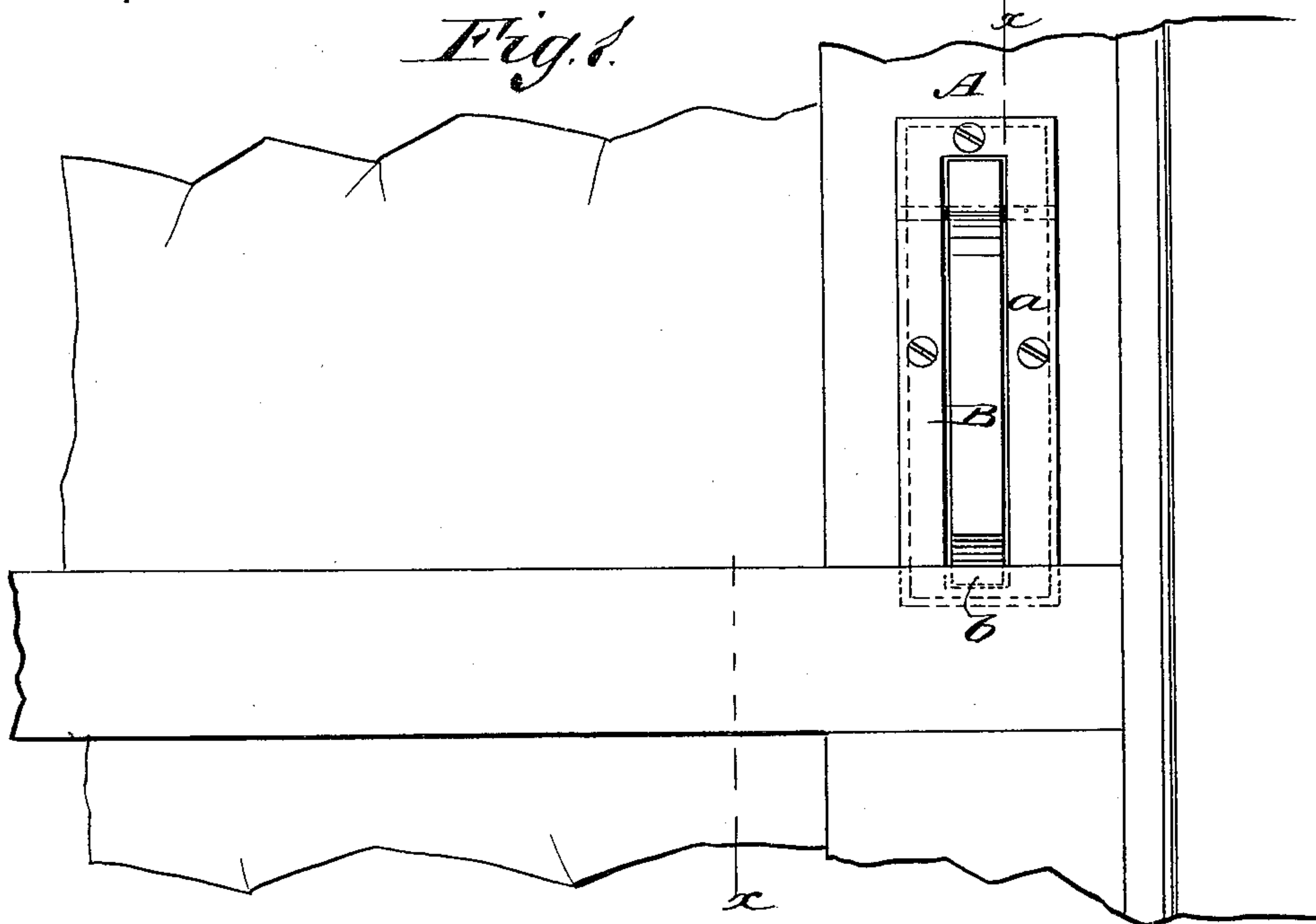
C. E. NICHOLAS.

SASH LOCK.

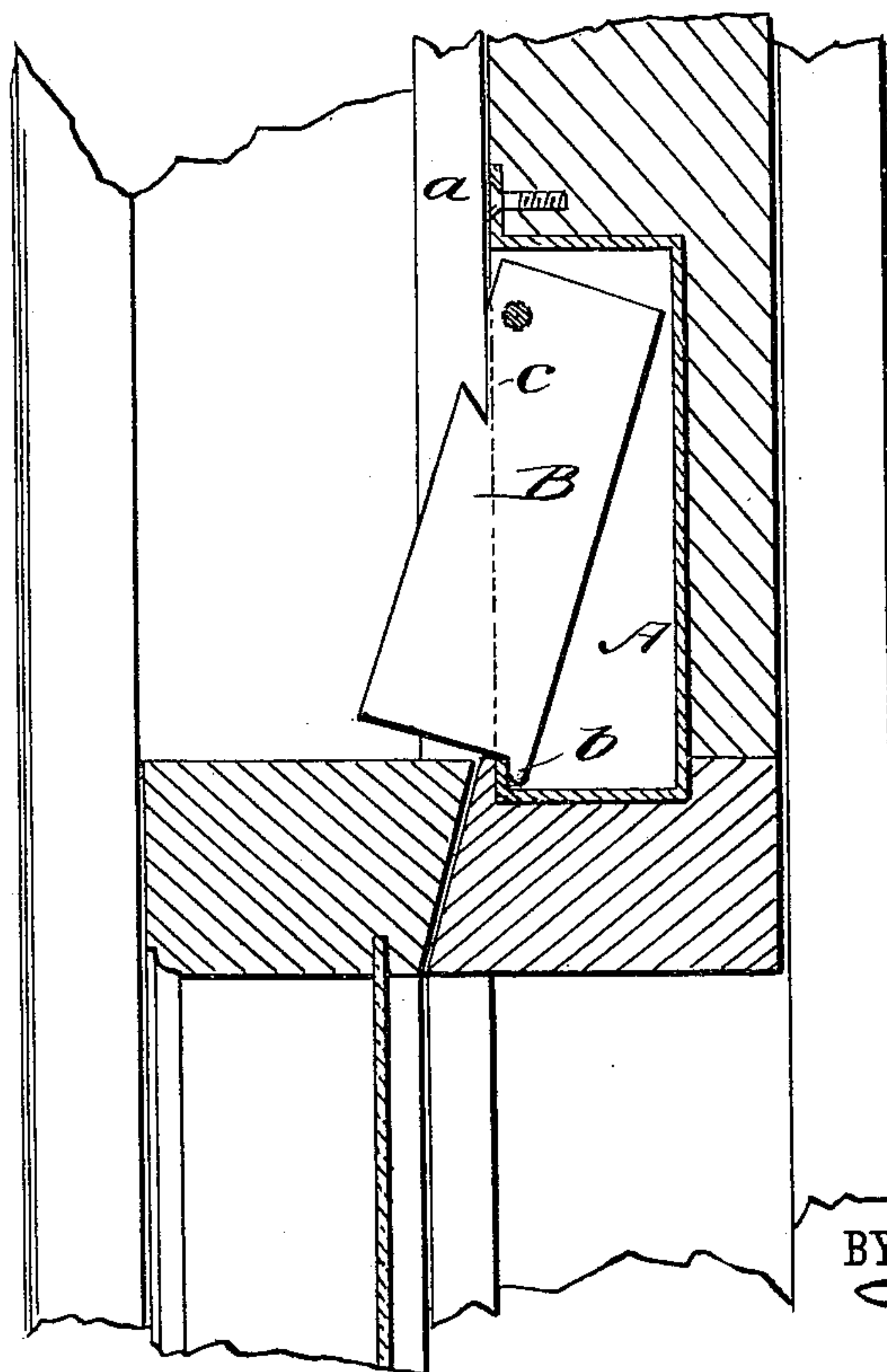
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*Fig. 1.*



*Fig. 2.*



WITNESSES:

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