

No. 804,152.

PATENTED NOV. 7, 1905.

A. H. MIX.  
SLIDE FOR EXTENSION SCREENS.

APPLICATION FILED FEB. 24, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

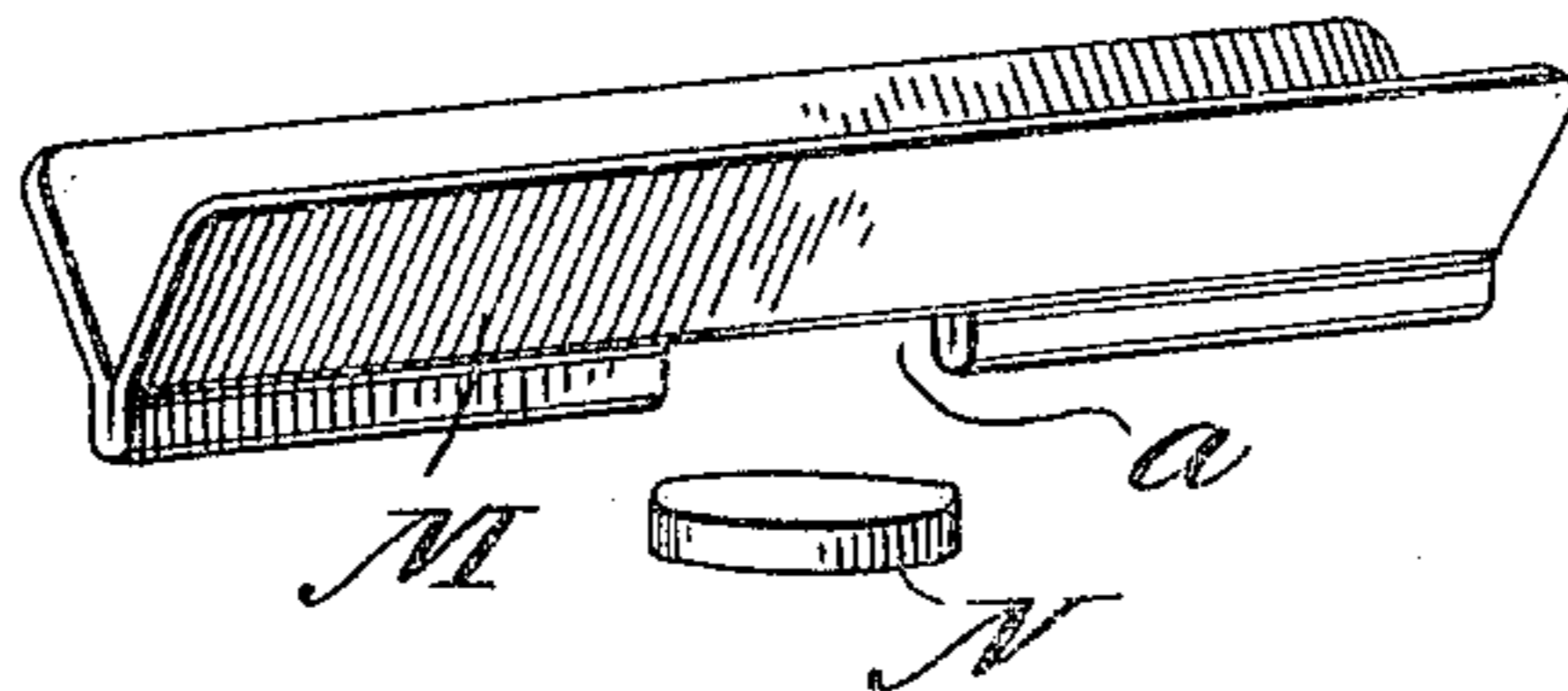


Fig. 2.

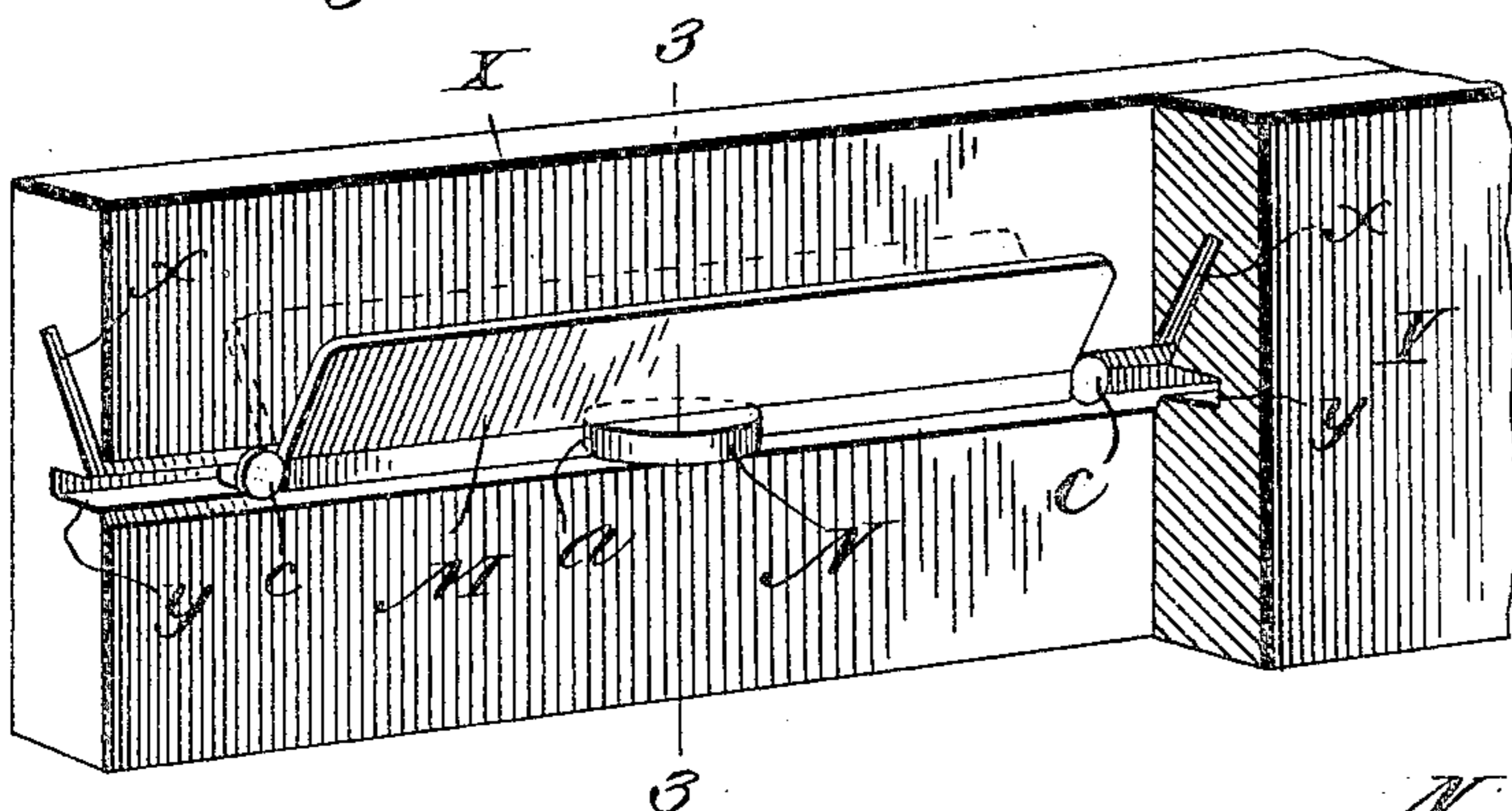


Fig. 3.

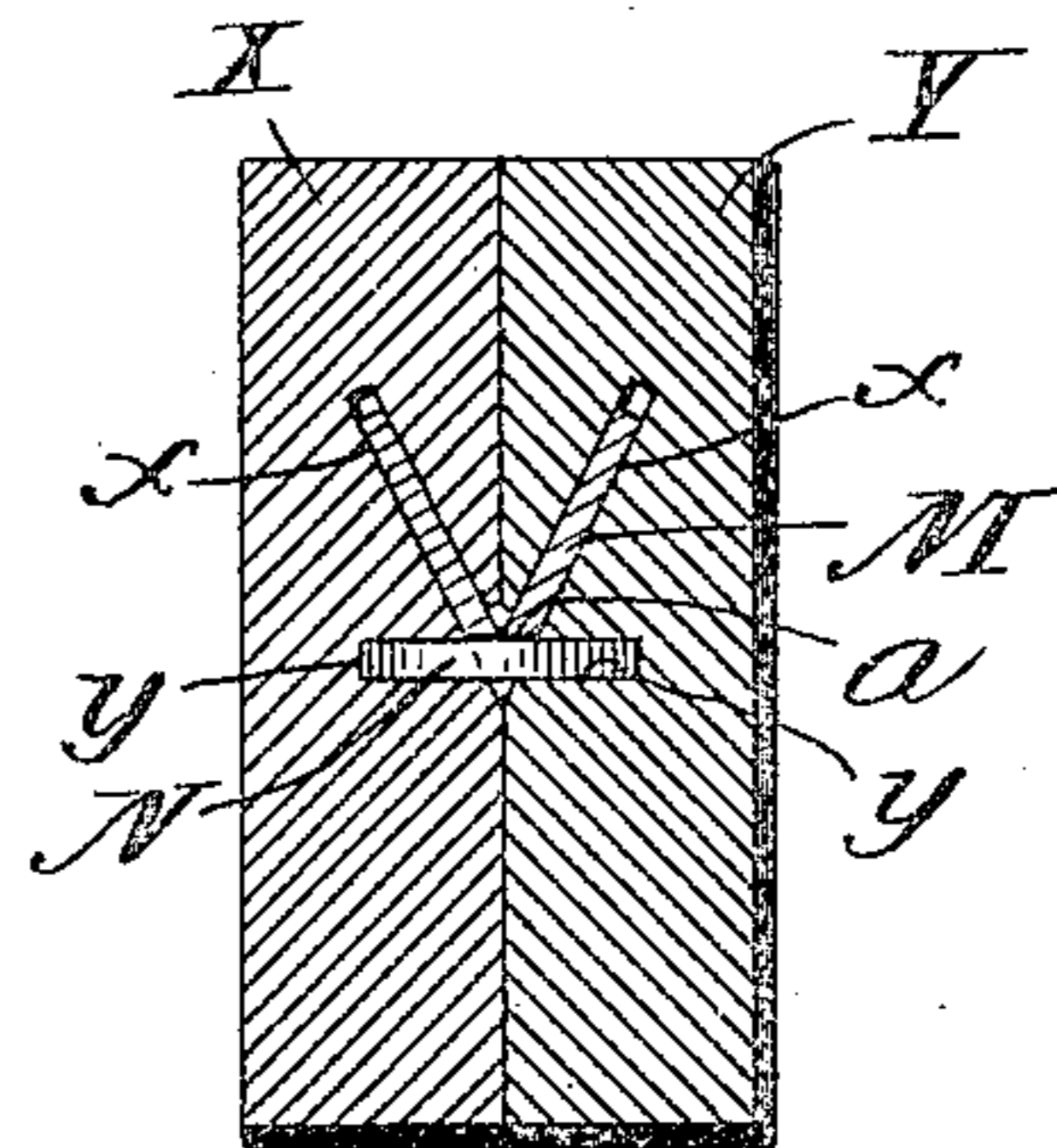


Fig. 4.

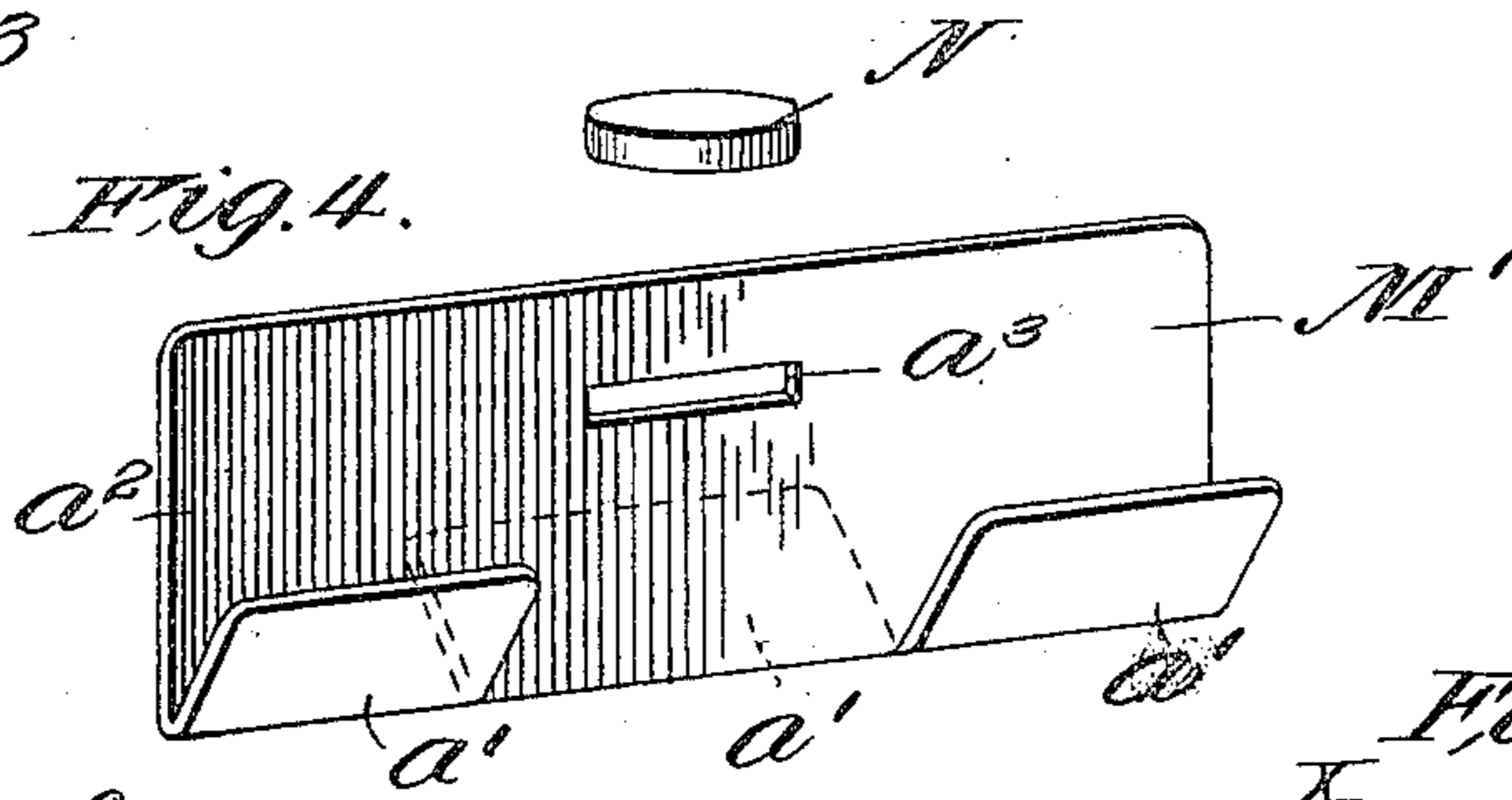


Fig. 5.

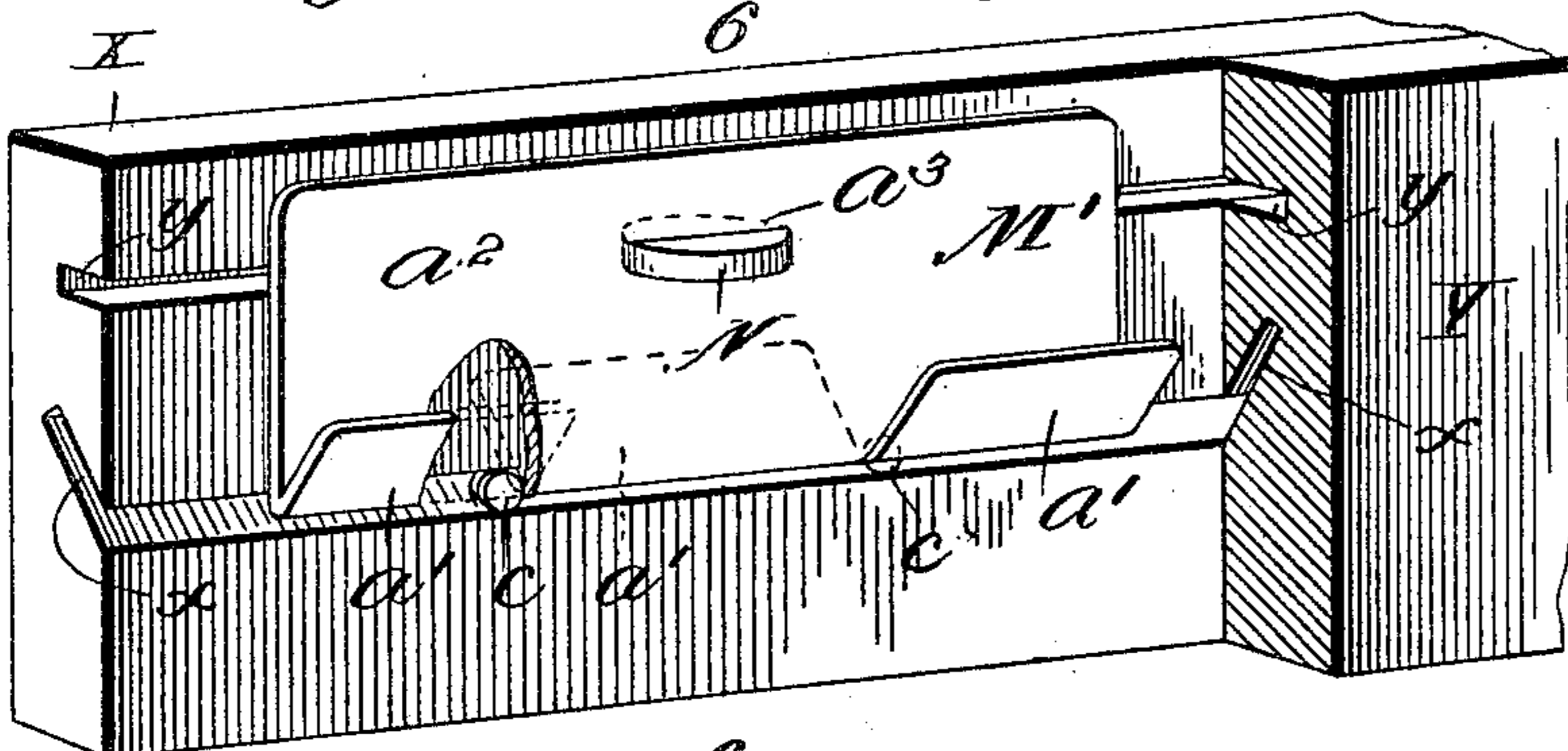
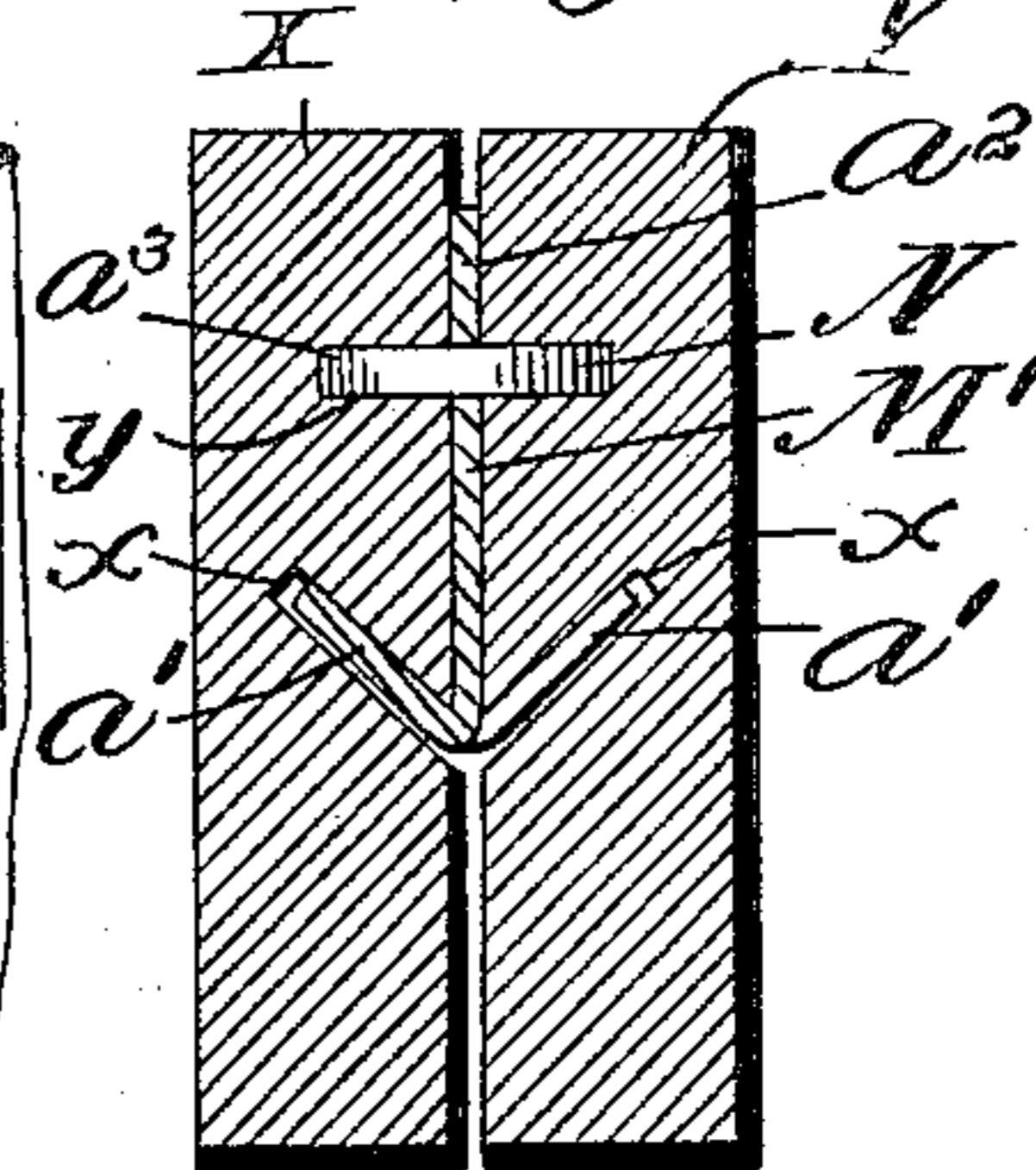


Fig. 6.



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No. 804,152.

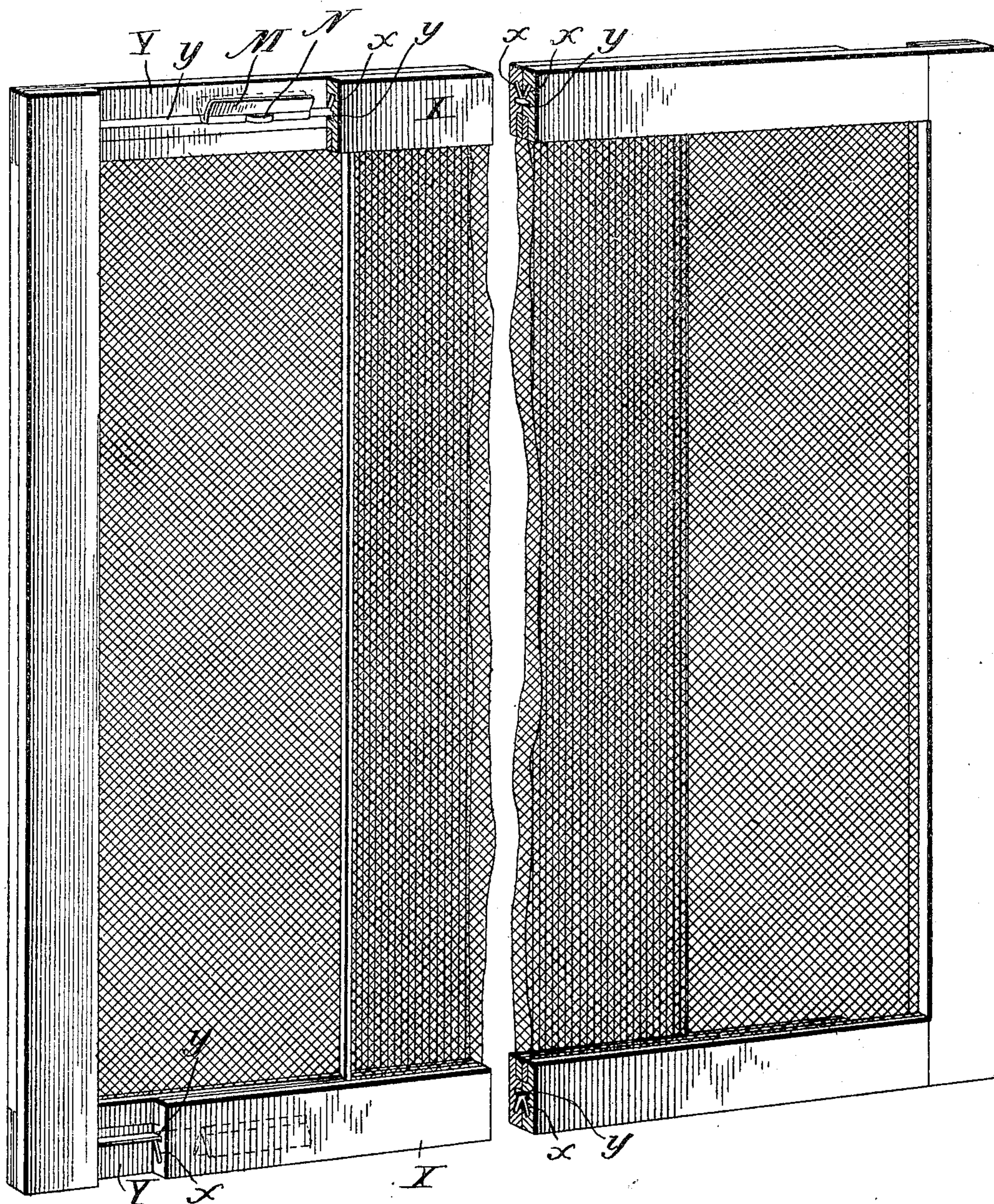
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2 SHEETS—SHEET 2.

*Fig. 7.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALLEN H. MIX, OF BURLINGTON, VERMONT.

## SLIDE FOR EXTENSION-SCREENS.

No. 804,152.

Specification of Letters Patent.

Patented Nov. 7, 1905.

Application filed February 24, 1905. Serial No. 247,182.

*To all whom it may concern:*

Be it known that I, ALLEN H. MIX, of Burlington, in the State of Vermont, have invented a new and useful Improvement in Slides for Extensible Screens, Tables, and other Articles, of which the following is a specification.

My invention relates to that class of extensible frames in which two overlapping sections slidably connected together have registering longitudinal grooves in the interior opposite faces of their overlapping parts in combination with rollers loosely arranged in said grooves, each roller being restrained from material longitudinal movement in one of the sections while free to move lengthwise of the other in the groove therein.

Under my improvement the roller engages and is held in place by the clip or retainer with which it coöperates and is loose, so that it may be inserted in and removed from the retainer at will. The retainer projects from the inner face of the section to which it is held at an inclination to the face of that section and enters a correspondingly-inclined longitudinal groove in the contiguous face of the opposite section, in which groove it can slide. The loose roller when once in place locks the retainer in the section which it slidably engages—that is to say, it prevents the retainer from being withdrawn from that groove while not interfering with, but rather facilitating, its longitudinal movement therein.

In the accompanying drawings, to which I shall now refer for a better understanding of my improvement, Figure 1 is a perspective view of the retainer and roller in one form in which they may be conveniently used. Fig. 2 is a like view, divested, as far as possible, of details, of two sections connected together by the retainer and roller, one of the sections being broken away, so as to expose the connecting devices. Fig. 3 is a cross-section on line 3 3, Fig. 2, with the roller in edge elevation. Fig. 4 is a view of a modified form of retainer. Fig. 5 is a perspective view of two sections connected together by this form of retainer, portions of the sections being broken away. Fig. 6 is a cross-section on line 6 6, Fig. 5. Fig. 7 is a view representing the application of the device of Figs. 1 to 3 to an extension-screen.

In Figs. 1 to 3 the retainer M is of sheet metal and of V form in cross-section, the apex of the V being slightly pinched, so as to

form a rib in which is cut a nick or slot *a* lengthwise of the retainer a little longer than the diameter of the roller N, (in this instance a flat circular metallic disk,) which loosely fits in the slot *a*.

X and Y are typical of the two overlapping sections to be connected. In the meeting faces of the sections are formed two longitudinal grooves *x y*, the former inclined to take one leg of the retainer M and the latter horizontal to take its half of the roller B. When the two sections are fitted together, the two grooves *x* form a single contiguous groove of V cross-section and the two grooves *y* register to form a single groove which lies in both sections.

The leg of the retainer is held against material lengthwise movement in the inclined groove *x* of one section—section X in the present instance—for which purpose it may be held between two stops *c*, one at each end of it, in the groove *x* of that section. In this position it can be lifted out of its groove *x*; but when the roller N is dropped into place in its slot *a* in the retainer, in which position it will enter and engage the horizontal groove *y* in section X, it will be seen that it locks the retainer against withdrawal from the section X, while at the same time it itself is locked against material longitudinal movement in the slot *y* by the retainer. When the opposite section Y is slid onto the leg of the retainer M and the portion of the horizontal roller N, which projects from the face of section X, it will be seen that the two sections are locked closely and securely together, while at the same time, if desired, the one section may slide lengthwise on the other.

In the modification shown in Figs. 4 to 6 the two grooves *x y* in each section X and Y are non-communicating and are separated from each other by a solid portion of the body of the section, and the retainer shown at M' consists of a vertical plate from one of the longitudinal edges of which extend oppositely-inclined members or legs *a'*, which are designed to engage the grooves *x x* in the meeting faces of the sections, while in the vertical member *a<sup>2</sup>* of the retainer is a horizontal slot *a<sup>3</sup>* of suitable dimensions to receive the roller N, which projects from each side of the plate into the registering horizontal slots *y* of the two sections. In this modification the vertical member of the retainer is interposed between the meeting faces of the sections. The stops *c c* in this modifica-

tion serve the same purpose as the like-designated stops in Fig. 2.

The application of the device to the sliding sections of an extensible screen will be readily understood by reference to Fig. 7. The longitudinal grooves  $x$  and  $y$  are formed in the meeting faces of the overlapping top and bottom rails of the two screen-sections, and in the inner end of each rail is secured the device consisting of the retainer and roller, which engage and are free to move in the inclined and horizontal grooves of the opposite rail, as hereinbefore described with reference to the sections X Y, Figs. 1 to 3.

The rollers N may be of disk form, as shown, or of other suitable form, and I desire to be understood as including any such modification in my claims.

Having described my improvement and the manner in which the same is or may be carried into effect, I state in conclusion that I do not limit myself to the structural details hereinbefore set forth and represented in illustration of the improvement, since manifestly the same can be varied considerably without departure from the spirit of the invention; but

What I claim, and desire to secure by Letters Patent, is as follows:

1. The combination of two overlapping rails, having registering inclined and horizontal grooves formed in their opposed meeting faces, a retainer provided with limbs engaging the inclined grooves, and held against longitudinal movement in one of the rails, and a roller loosely engaging the retainer and

projecting from opposite sides thereof into the registering horizontal grooves in the rails, substantially as and for the purposes hereinbefore set forth.

2. In an extension-screen, two screen-sections having in the meeting faces of their overlapping rails longitudinal registering inclined grooves  $x$  and horizontal grooves  $y$ , a retainer of substantially V form in cross-section which is secured to the inner end of each rail against lengthwise movement therein and engages the inclined grooves in the meeting faces of the opposed rails, and a roller which loosely engages and is held by the retainer and projects therefrom into the registering horizontal grooves of said rails—the combination being and acting substantially as hereinbefore set forth.

3. The two overlapping sections having registering inclined and horizontal grooves  $x$ ,  $y$  in their meeting faces, in combination with a retainer of V cross-section, engaging the inclined grooves  $x$ , and held against lengthwise movement in one of the sections, and a roller loosely seated in a slot in the head of the retainer and projecting from opposite sides thereof into the horizontal grooves  $y$ , substantially as and for the purposes hereinbefore set forth.

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

ALLEN H. MIX.

Witnesses:

L. R. STINSON,  
F. E. ROBINSON.