

No. 669,175.

J. P. LEIN.
FOLDING BUNK.

(Application filed Dec. 28, 1899.)

(No Model.)

Patented Mar. 5, 1901.

2 Sheets—Sheet 1.

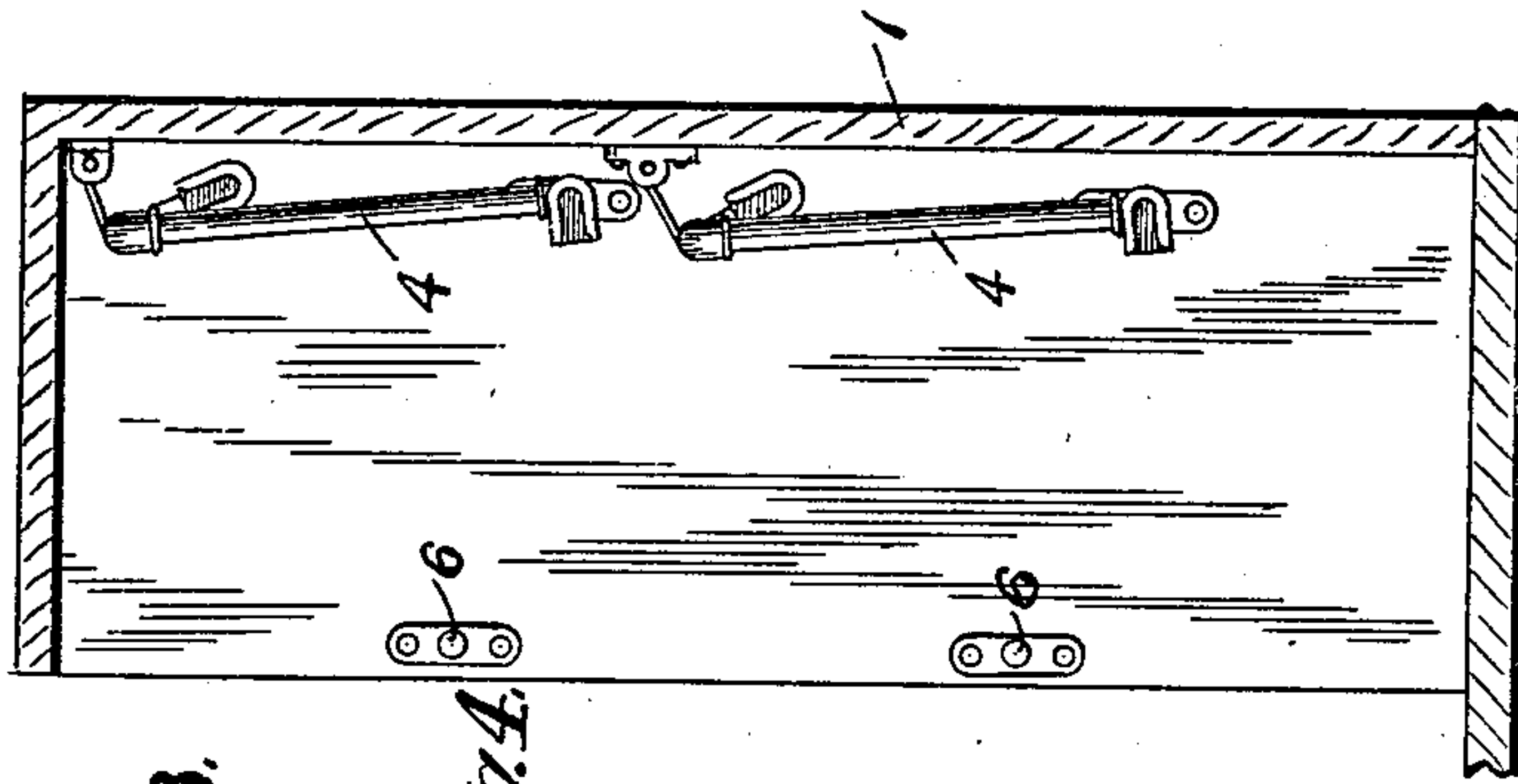


Fig. 3.

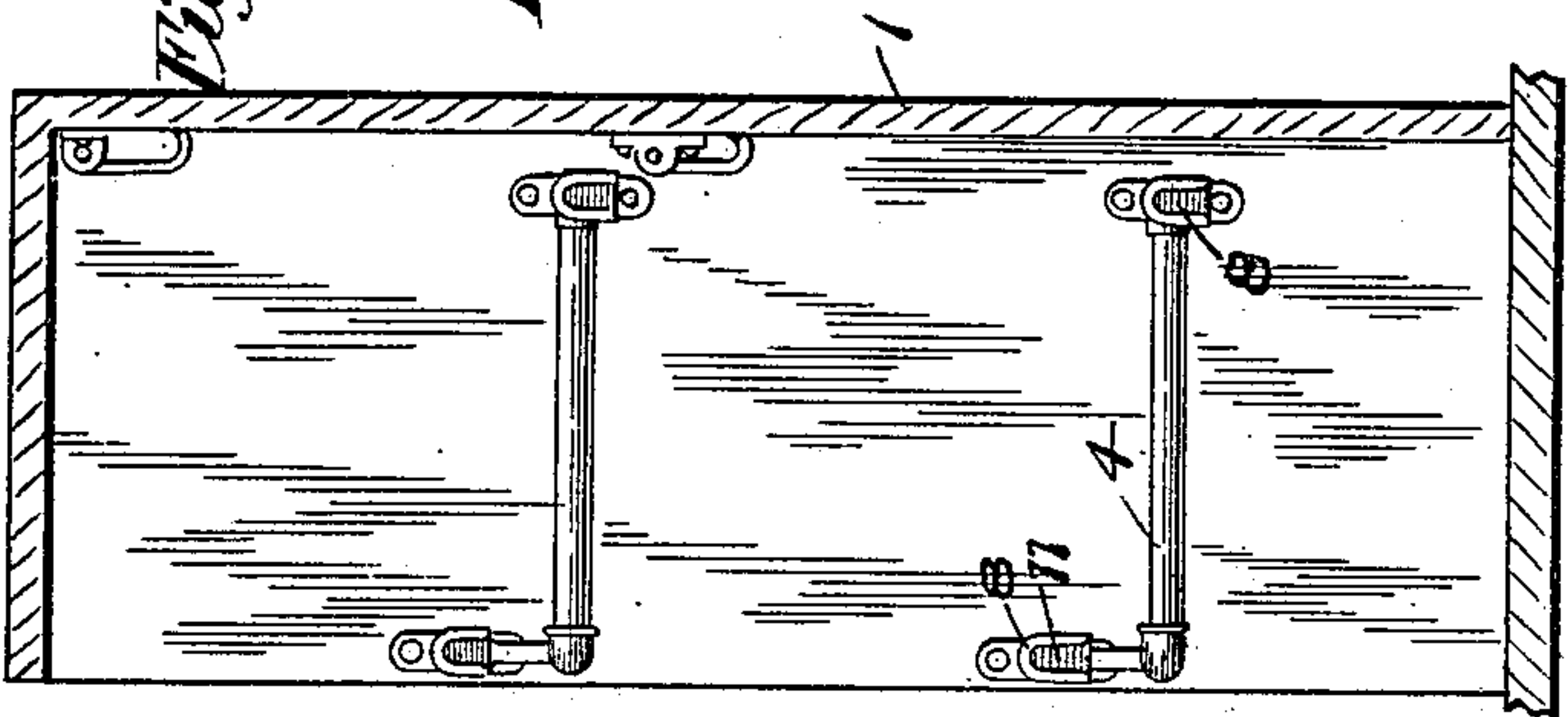
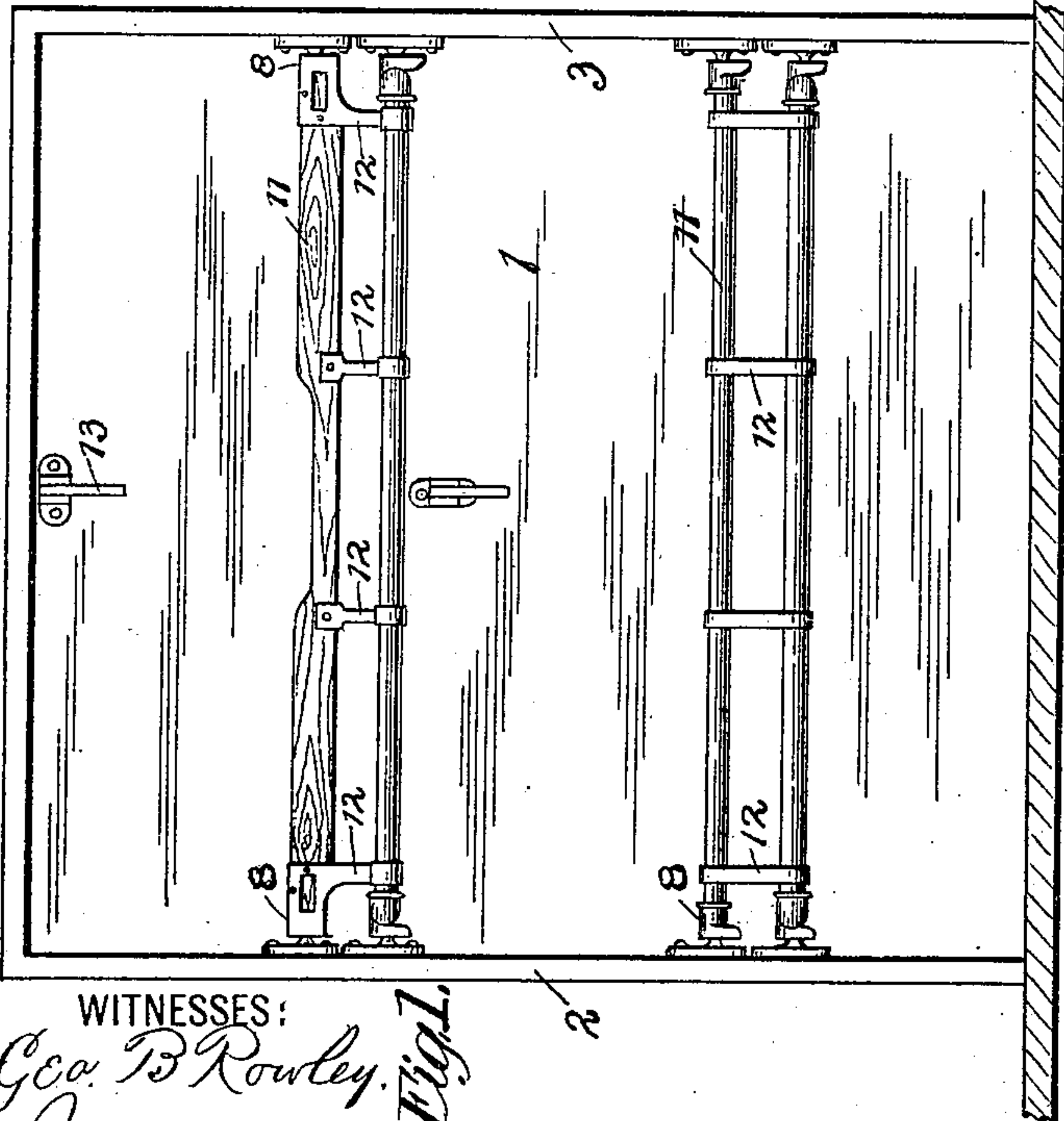


Fig. 4.



WITNESSES:

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Fig. 1.

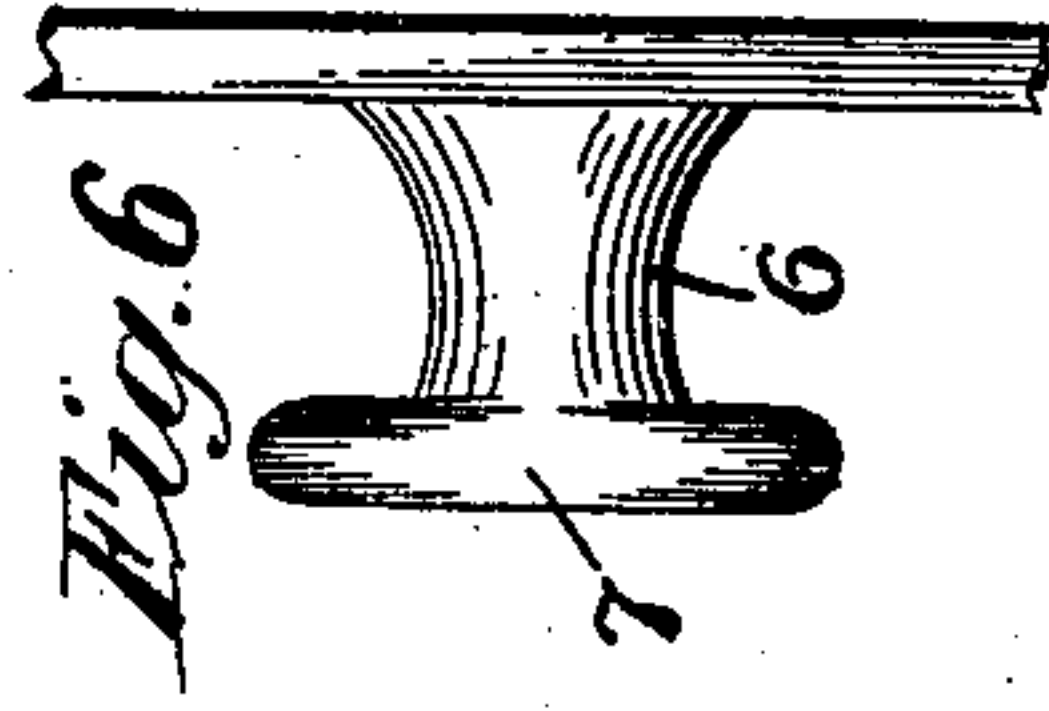


Fig. 6.

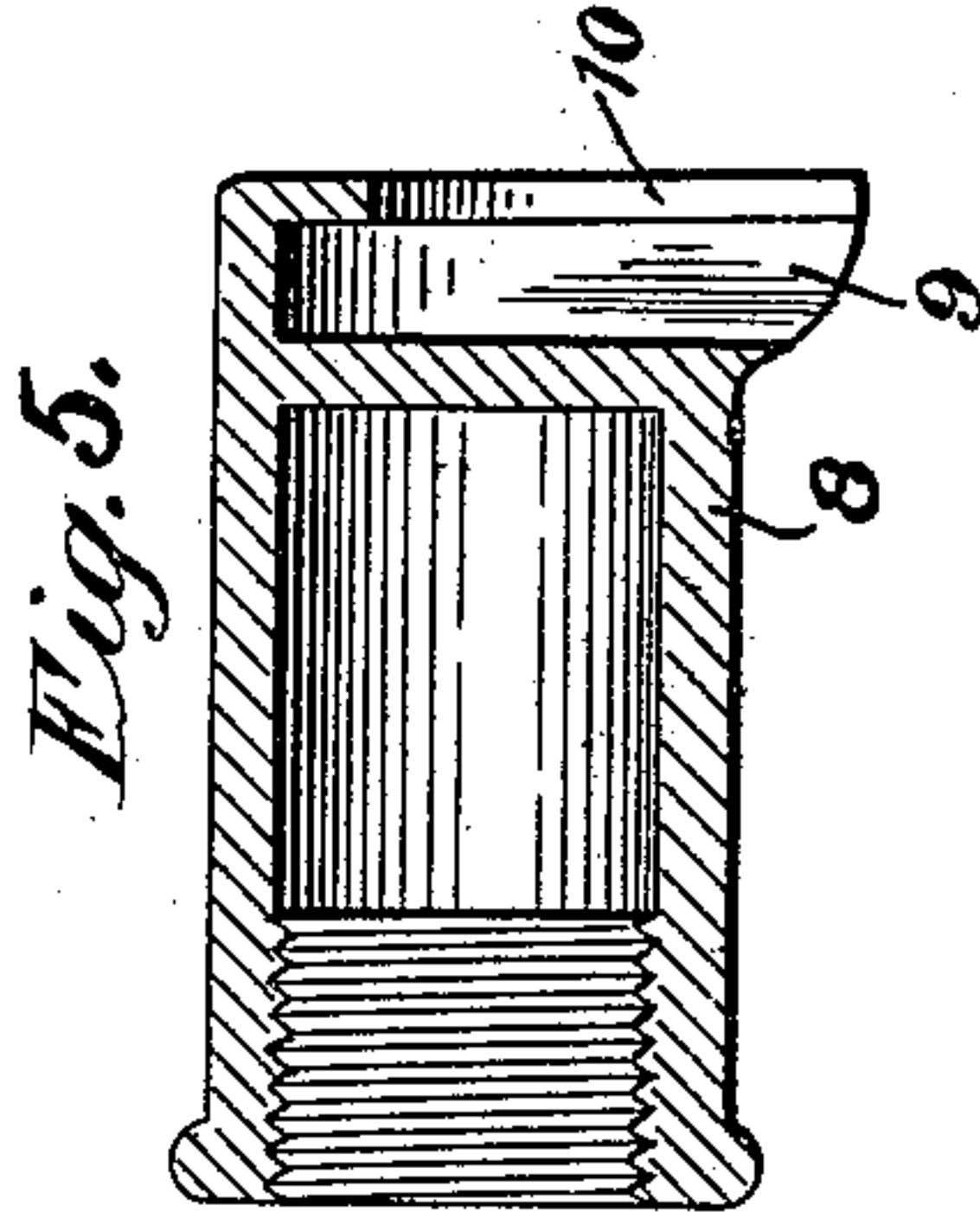


Fig. 5.

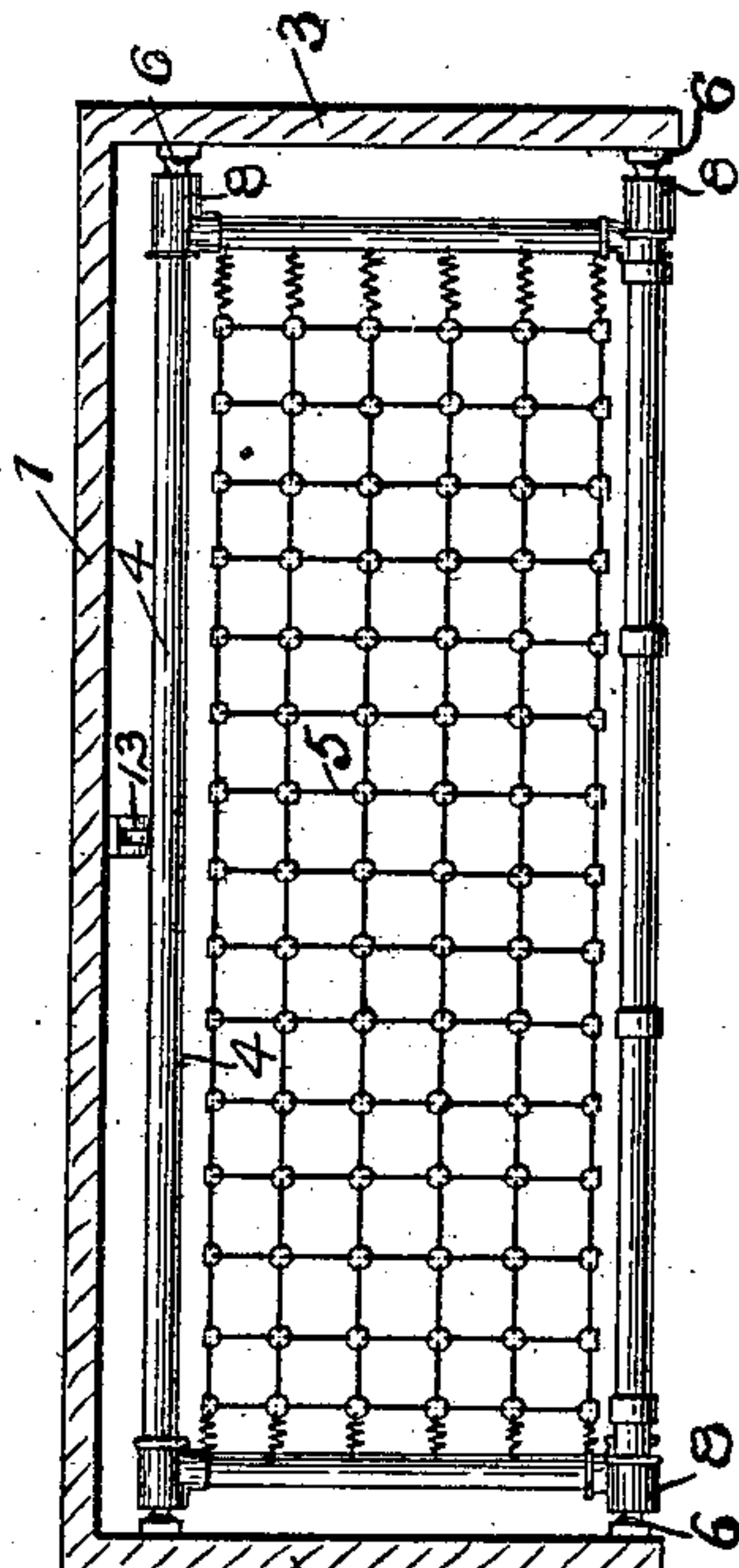


Fig. 2.

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2 Sheets—Sheet 2.

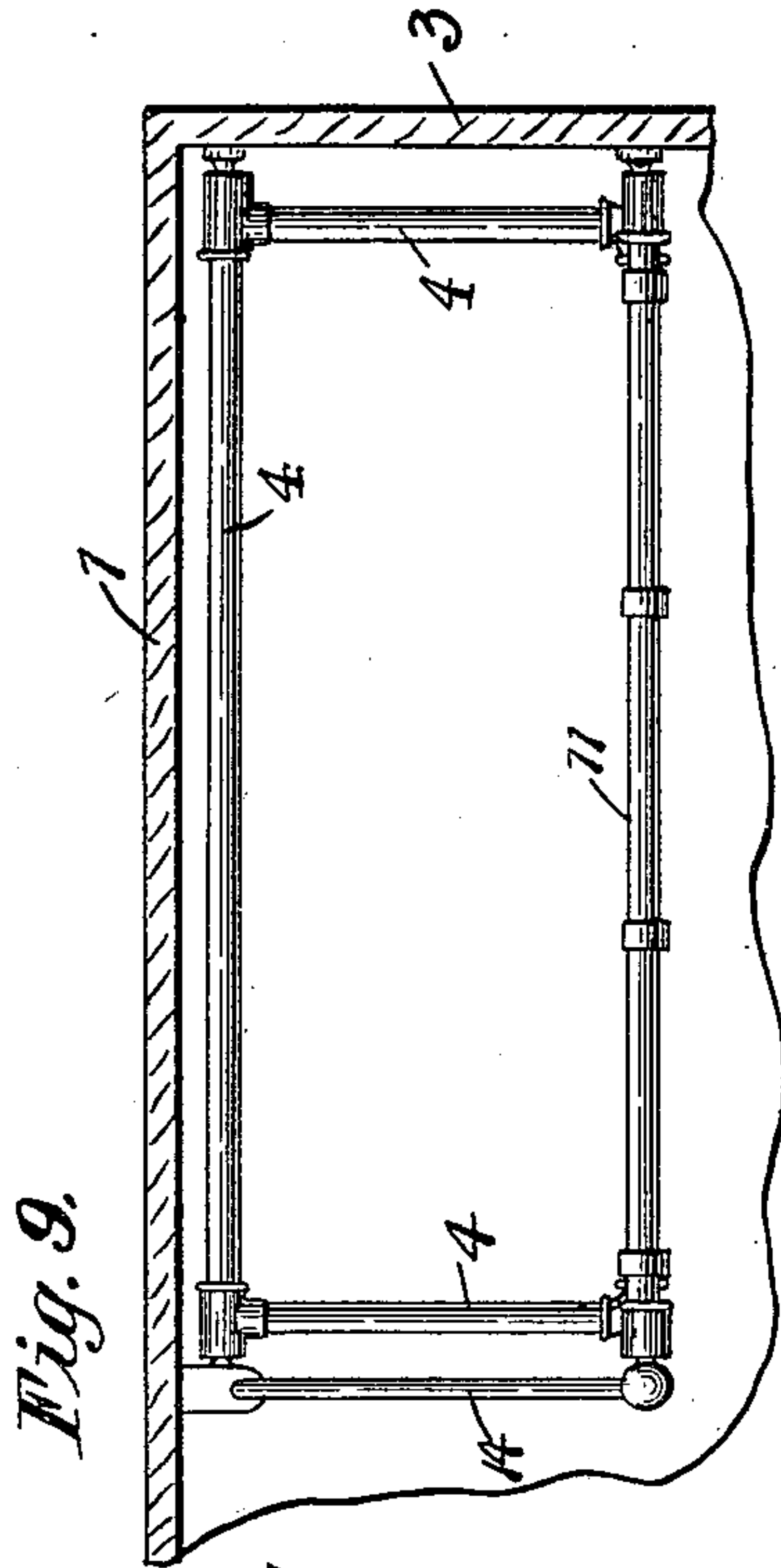


Fig. 10.

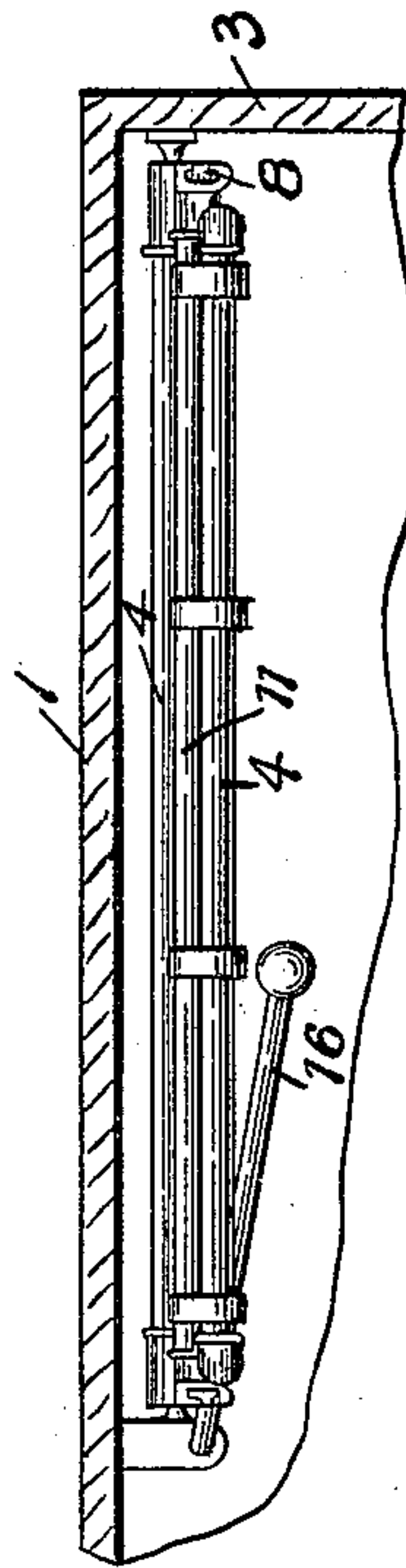


Fig. 8.

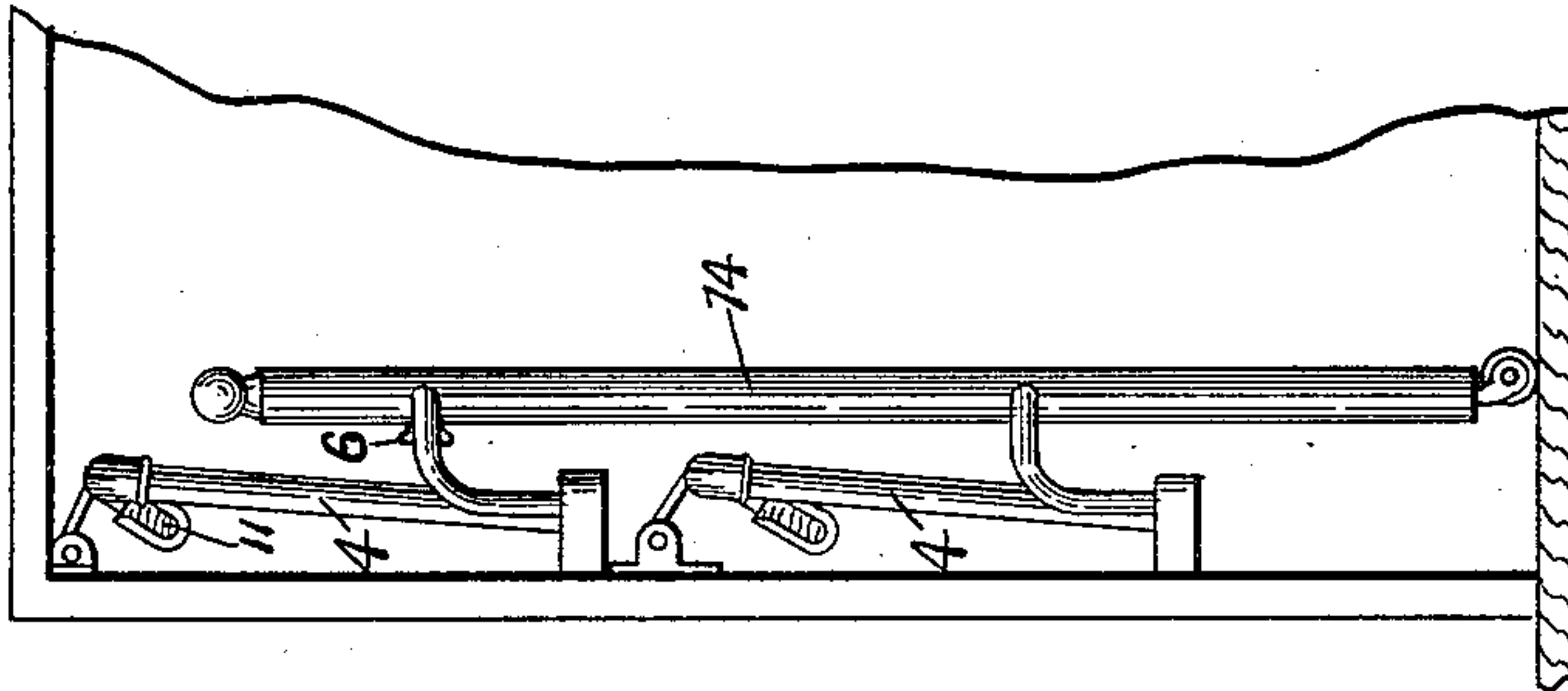
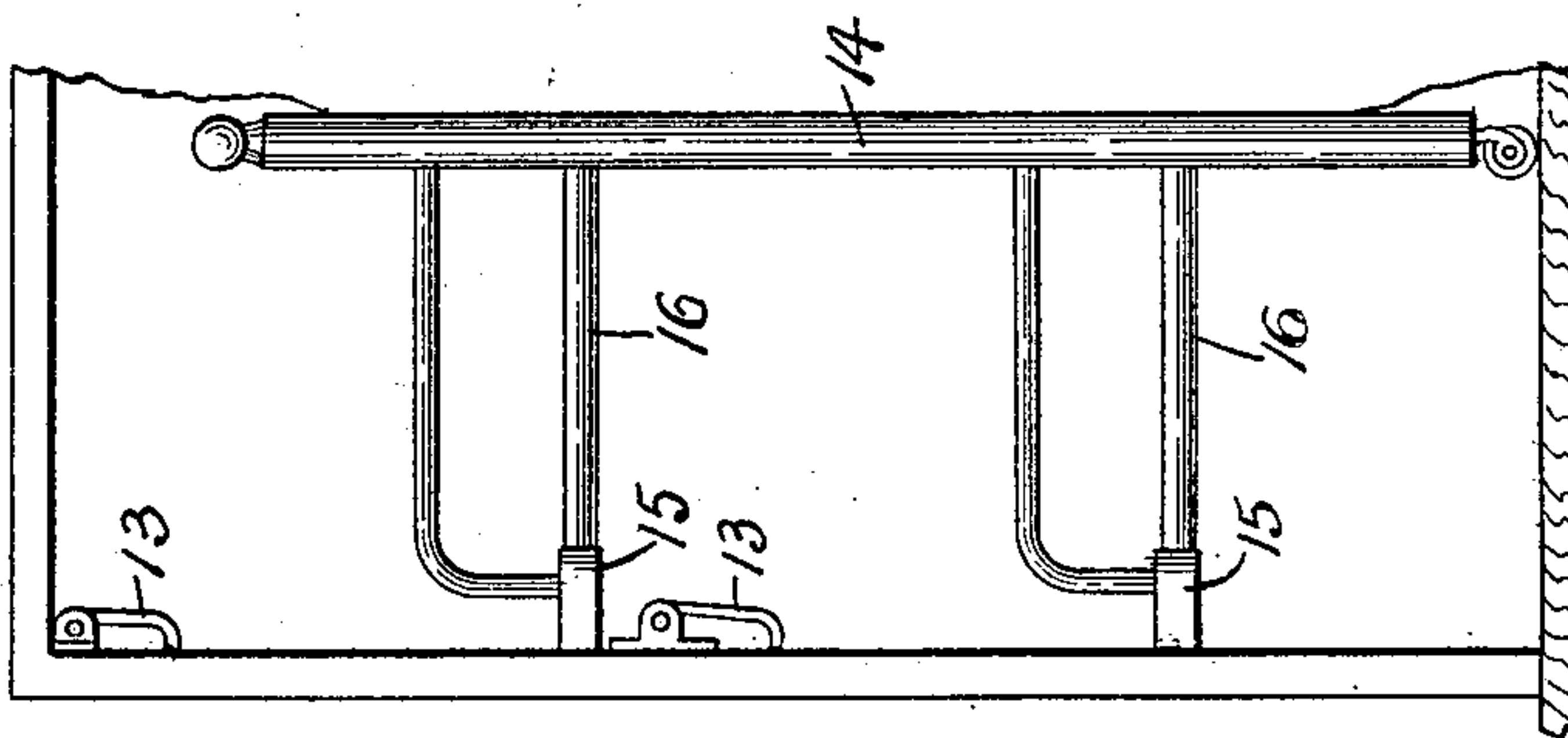


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOHN P. LEIN, OF NEW YORK, N. Y.

FOLDING BUNK.

SPECIFICATION forming part of Letters Patent No. 669,175, dated March 5, 1901.

Application filed December 28, 1899. Serial No. 741,784. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. LEIN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Folding Bunks, of which the following is a full, clear, and exact specification.

This invention relates to folding bunks; and its object is to construct a simple and efficient bunk which shall be capable of being readily folded in a convenient and compact manner.

The invention will be found to be particularly advantageous for the construction of bunks or berths to be placed on board ships, where it is desirable that the berths shall be capable of being readily folded into a very small space and at the same time shall be so constructed that the various parts of the bunk may be removed and stored.

In the accompanying drawings, Figure 1 is a front view of two bunks embodying the principles of my invention. Fig. 2 is a plan view of the lower bunk shown in Fig. 1. Figs. 3 and 4 are sectional side views of the bunk shown in open and closed positions relatively. Figs. 5 and 6 are detail views of the couplings utilized to hold the parts together. Figs. 7 and 8 are side views illustrating a modified form of support, the bunk being shown open and closed, respectively; and Figs. 9 and 10 are top views of the same bunk in open and closed position.

Referring more particularly to the drawings, 1 represents a suitable wall, bulkhead, or partition against which the bunks are to be placed, and 2 and 3 represent suitable partitions located between the respective bunks. A suitable frame 4 is arranged to support the bed-bottom 5 in any convenient manner. In the drawings I have illustrated the frame as consisting of a rectangular frame of piping supporting a woven-wire mattress-spring stretched between the sides of the frame; but it will be understood, of course, that any suitable frame or bed-bottom may be used instead. The inner side of the frame 4 is hinged at its respective corners to the partitions 3 3 or, if preferred, to the partition 1. The form of hinge adopted is unimportant, but is preferably such that the frame may be easily lifted from the hinges. A convenient form of coup-

ling is shown in detail in Figs. 5 and 6, wherein Fig. 6 represents a suitable knob 6, having an enlarged head 7 and being adapted to be screwed or otherwise suitably attached to the partitions. The frame is provided with a corner-piece, such as shown in detail in Fig. 5, wherein 8 is a head having a chamber 9, adapted to receive the enlarged head 7, and a slot 10, adapted to fit from the knob 6. These parts may of course be reversed, if desired, and the knob located upon the frame and the slotted head located upon the partitions. Such arrangement is not as desirable as the one described, for the reason that vermin are less likely to gather in the slotted heads when located on the bunks and opening upward, as above indicated. Upon the outer or swinging side of the frame 4 is a suitable side bar 11, which is hinged to the side bar of frame 4 by suitable links or braces 12 12 12, &c., the latter being arranged to swing loosely upon the side bar of frame 4, whereby the side bar 11 may be readily folded down upon the top of the frame 4. At the outer ends of the side bar 11 are located slide-heads 8, which are adapted to engage knobs 6, located upon the partition 1. A hook or other suitable device 13 is arranged immediately over each bunk and adapted to engage with and hold the side bar of the frame when the latter is swung to its vertical position.

Instead of using rigid partitions 3 3, as above described, one or both of the rigid partitions may be dispensed with and the swinging support 14 utilized. The latter construction may comprise an upright 14, pivoted to suitable supports 15 15 by suitable links or braces 16 16. The supports 15 15 may be located on partition 1 or any other suitable place. In this instance the knobs 6 6, which are to be engaged by the swinging side rail 11, are located upon the uprights 14.

In the operation of the devices above described, assuming that the partitions 3 3 have been suitably placed, the slotted heads upon the inner side of the frame 4 are hooked upon the enlarged heads 6 and the heads upon the side bar 11 are hooked upon the corresponding knobs 6. In such position the bunk is ready for use. In folding the bunk its outer side is lifted enough to disengage the slotted heads of the side bar 11 from the knobs 6,

and the side bar 11 is then swung downward inwardly, which serves to clamp the bedding against the bottom of the frame. The frame is then swung upward upon the inner slotted heads and knobs as a hinge until the outer bar of frame 4 is engaged by the hook 13. When the swinging side supports 14 are employed, they are swung inwardly, as indicated in Figs. 8 and 10, when the bunks are folded up. The latter construction enables the entire bunk and its supports to be so folded that they will only occupy a small space along the partition 1, leaving no outwardly projecting side supports 3. This effectually provides a clear space.

It will be observed that when the bunks are in position for occupancy, as illustrated in the drawings, the outer side of the bunk is supported by the side rails. This gives a very firm and solid support for the bunk and is of great advantage in withstanding the strain which is usually put upon this part of the bunk by reason of the occupant entering the bunk or sitting upon the side thereof.

When the bunks are to be removed and stored, it is only necessary to lift them from their supports, and as the side rail 11 readily swings down upon the frame 4 the entire bunk is easily transported and stored.

The construction which utilizes the swinging side supports will be found to be of great advantage in erecting the bunks in places where the conformation of the room or the erection of other pieces of furniture renders the stationary support objectionable.

Having thus described my invention, I declare that what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a support, of a frame having its inner side hinged thereto, a side bar of substantially the same length as the frame, a link or links attached to said side bar and pivoted to the outer side of the frame whereby said side bar is free to swing upon and parallel with the side of said frame, one or more additional supports, and coupling members carried by said last-named supports and the side bar respectively and adapted to engage each other, substantially as described.

2. The combination with a support, of a frame having its inner side hinged thereto, a side bar of substantially the same length as the frame, a link or links attached to said side bar and pivoted to the outer side of the frame whereby said side bar is free to swing

upon and parallel with the side of said frame, end supports at the ends of said frame, one or more of said end supports being hinged to said first-named support and being arranged to be folded inwardly toward the same, and coupling members carried by said end supports and the respective ends of said side bars and adapted to engage each other, substantially as described.

3. The combination with a support, of a frame having its inner side hinged thereto, a side bar of substantially the same length as the frame, a link or links attached to said side bar and pivoted to the outer side of the frame whereby said side bar is free to swing upon and parallel with the side of said frame, end supports at the ends of said frame, coupling members carried by said end supports and the respective ends of said side bar and adapted to engage each other, substantially as described.

4. The combination of a support, a rectangular frame having slotted heads upon its corners on one side thereof, knobs carried by said supports and adapted to engage said slotted heads, a side bar of substantially the same length as the frame, and link or links attached to said side bar and pivoted to the outer side of the frame whereby said side bar is free to swing upon and parallel with the said outer side of the frame, one or more additional supports at the respective ends of said frame, slotted heads upon the ends of said side bar and knobs upon said supports adapted to engage said slotted heads, substantially as described.

5. The combination with a support, of a frame having its inner side hinged thereto, a side bar of substantially the same length as the frame, a link or links attached to said side bar and pivoted to the outer side of the frame whereby said side bar is free to swing upon and parallel with the side of said frame, one or more additional supports, coupling members carried by said last-named supports and the said side bar respectively and adapted to engage each other, and means for holding said side bar in engagement with said first-named support, substantially as described.

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

JOHN P. LEIN.

Witnesses:

A. C. BAUM,
WM. J. LEIN.