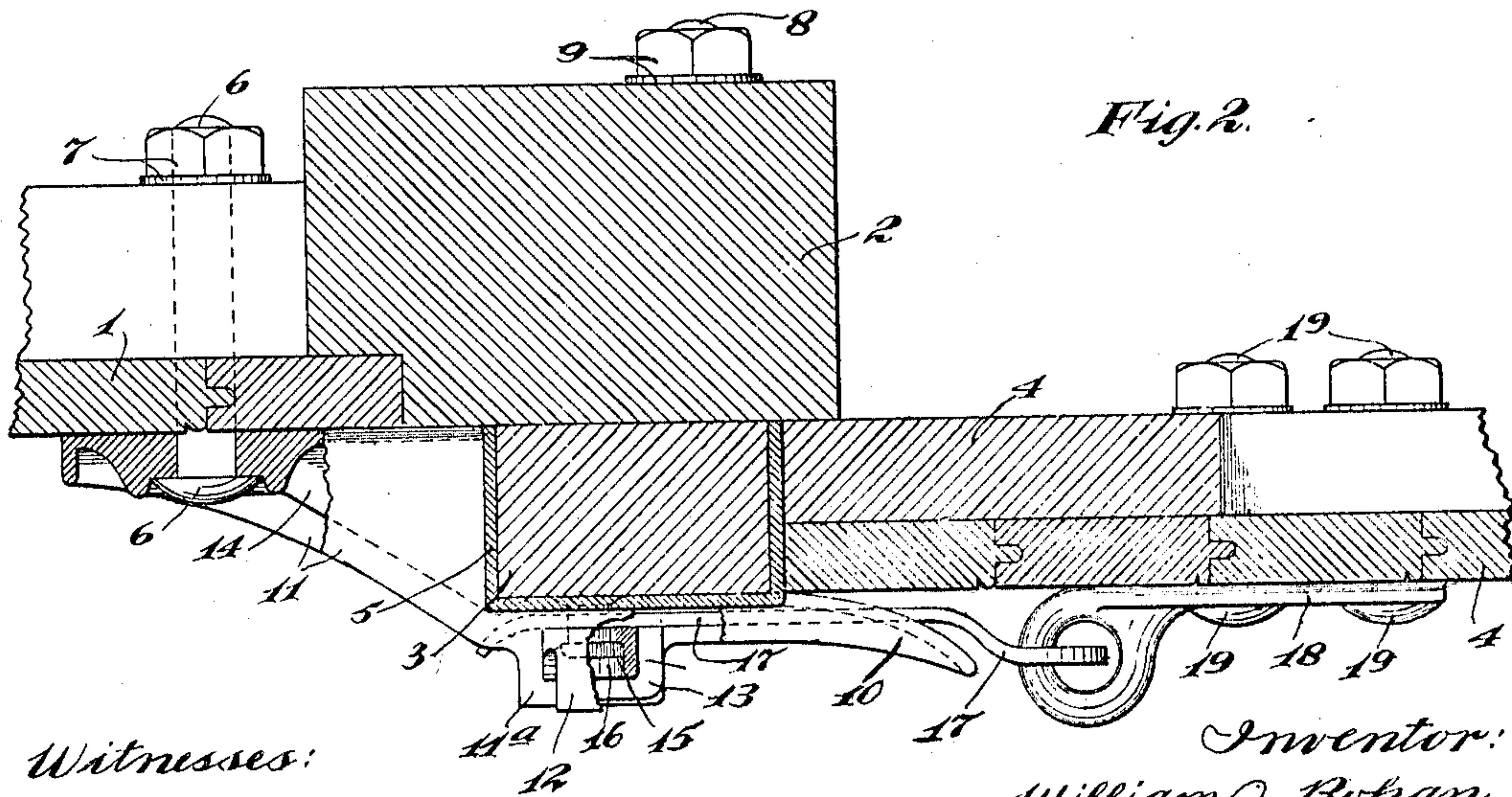
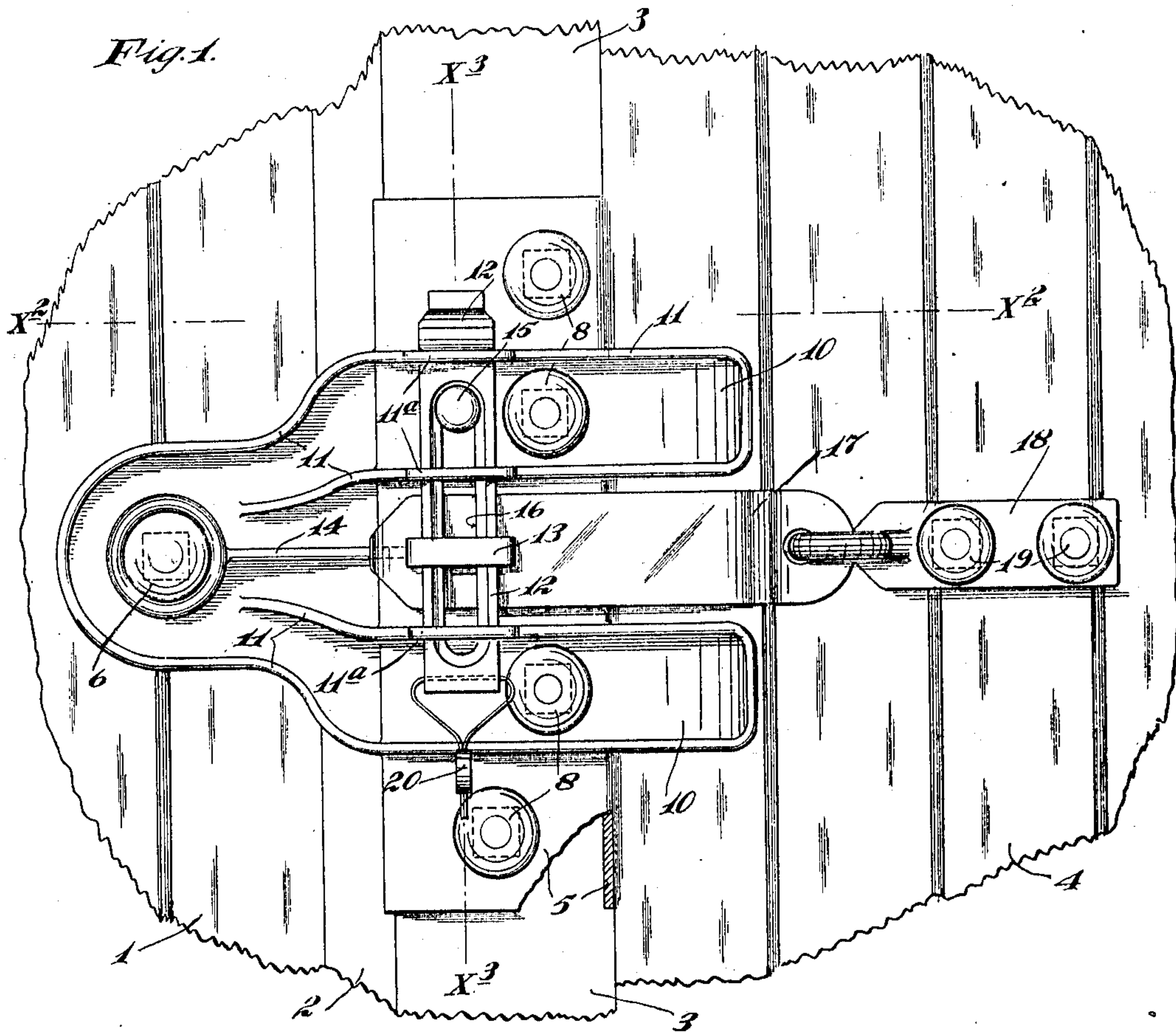


W. J. BOHAN.
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APPLICATION FILED MAR. 9, 1910.

970,602.

Patented Sept. 20, 1910.

2 SHEETS—SHEET 1.



Witnesses:

W. H. Bonbu.
A. H. Opsahl.

Inventor:

William J. Bohan.

By his Attorneys:

William M. Merchant.

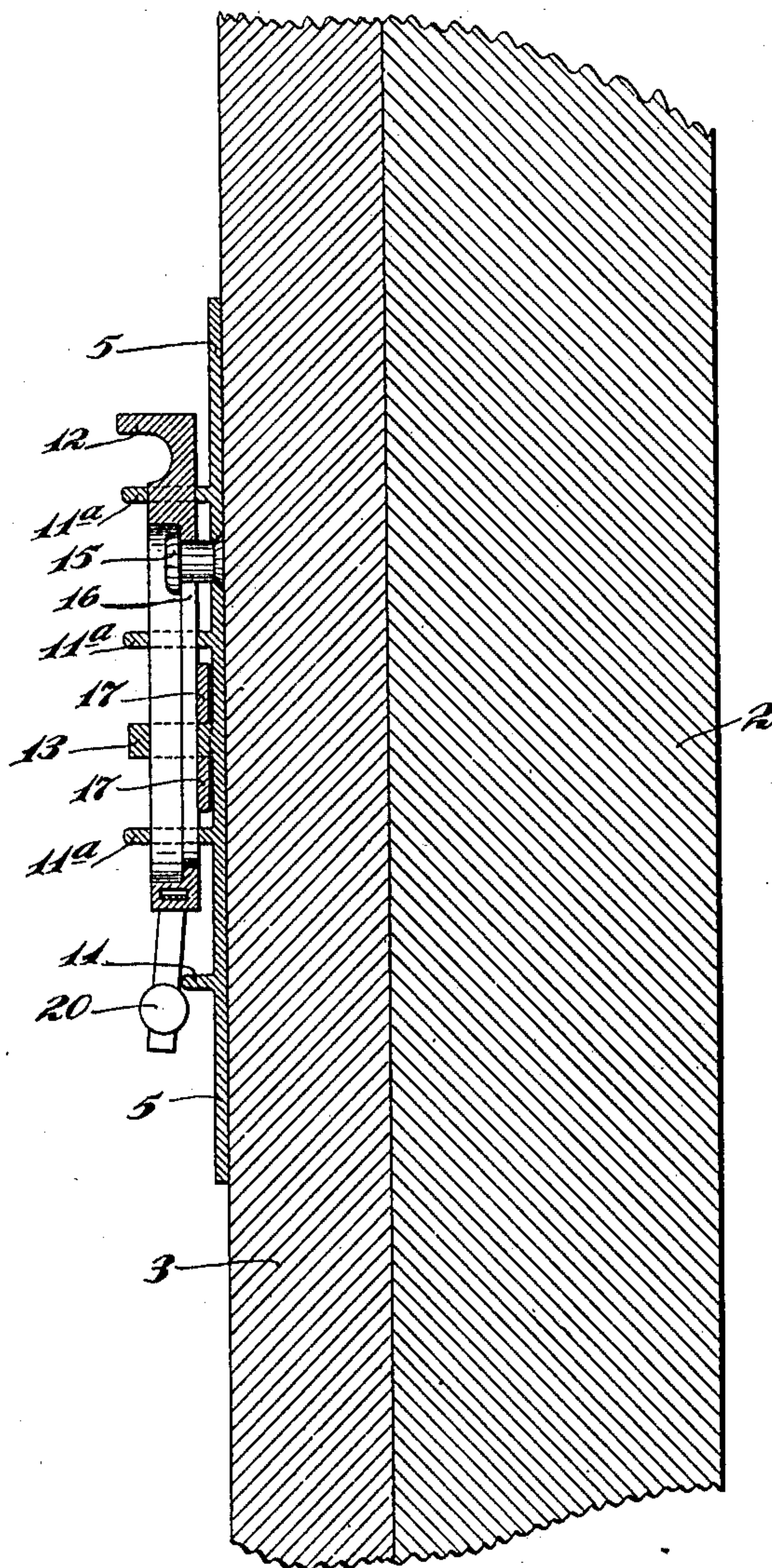
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Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM J. BOHAN, OF ST. PAUL, MINNESOTA.

COMBINED DOOR-STOP BRACE AND FASTENER.

970,602.

Specification of Letters Patent. Patented Sept. 20, 1910.

Application filed March 9, 1910. Serial No. 548,209.

To all whom it may concern:

Be it known that I, WILLIAM J. BOHAN, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Combined Door-Stop Braces and Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide an efficient combined door stop brace and fastener for freight car doors of simple construction.

As is well known, sliding doors on freight cars have, for many years, been arranged to move against the vertically extended stop, usually afforded by a heavy wooden cleat. In at least one instance, an attempt to improve this wooden stop has been made by cutting away the intermediate portion thereof and interposing in the gap a casting having a projecting guide lug and an outer foot and staple. The application of this device requires considerable carpentry work and, when it is applied, it weakens the wooden stop strip and it is, therefore, not a very satisfactory device.

My invention provides a casting which is adapted to be applied to an ordinary wooden stop cleat without severing the same and which, when applied, very greatly reinforces and strengthens the stop cleat, takes the main wear at the central portion thereof and carries the door guides and the staple.

The improved device, in its preferred form, is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view in side elevation, showing portions of the body and sliding door of a freight car, illustrating my invention applied thereto; Fig. 2 is a horizontal section taken on the line $x^2 x^2$ of Fig. 1; and Fig. 3 is a vertical section taken on the line $x^3 x^3$ of Fig. 1.

The car body, which is indicated by the numeral 1, is provided with the customary door post 2 and stop cleat 3, which latter affords a stop for the door 4. The stop cleat 3 is journaled to the door post 2 in the usual or any suitable way, not shown in the drawings.

The body of the improved attachment is

preferably in the form of a malleable iron or steel casting, the vertical web 5 of which is angular in cross section and is made to completely embrace the outer face and sides of the stop cleat 3 and to bear flatwise against the side of the car body. Otherwise stated, this casting 5 is formed with a channel that embraces the stop cleat 3 and with a projecting foot portion that engages, and is secured to, the body of the car by a strong bolt 6, preferably of the carriage bolt type, having a rounded head at its outer end and a square shank engaging a square seat in the said casting and with its threaded end extended through the side of the car and provided with a nut and washer 7 located inside of the car. Also the channel portion of the casting is, in a like manner, secured to the car by longitudinal bolts 8, of the carriage bolt type, which are extended inward through said casting, through the said stop cleat 3 and through the door post 2, and are provided with nuts and washers 9 at their inner ends. These bolts 9 are located, one near the top and one near the bottom of the channel portion of the casting 5, and, in horizontal line therewith, the said casting is provided with projecting horns 10, which, when the door is closed, prevent the same from being forced laterally outward or away from the door post.

As shown, the casting 5 is reinforced by a laterally projecting rib 11, that starts from the foot of the casting, runs outward along the inner edges of the horns 10, turns backward along the outer edges of said horns and along the upper and lower edges of the casting and around the bearing foot thereof. This rib 11 affords what is, in effect, four ribs passing transversely across the channel portion of the casting and it serves, not only to strengthen the casting and to protect the outer heads of the bolts 8, but provides guides for a lock bolt 12. As shown, all but the lowermost run of said rib are provided with bulged or extended portions 11^a in which the said lock bolt 12 is seated. The lock bolt 12 is also passed through a staple 13, shown as cast integral with the casting 5 and with the intermediate reinforcing rib 14 thereof. The lock bolt 12 is permanently attached to the casting 5, as shown, by means of a rivet 15 secured to the upper portion of said casting and working in a groove 16 formed in the said lock

bolt. The slot 16 is of sufficient length to permit the lock bolt to be raised with its lower end considerably above the staple 13.

An ordinary hasp 17 is connected to a butt 5 18, which, in turn, is secured to the car door 4 in the customary way by carriage bolts 19. The free end of the hasp 17 is perforated so that it may be passed freely over the staple 13 and secured thereto when the 10 lock bolt 12 is dropped through the said lug outward of said staple. The lock bolt is then preferably secured, in its lower or working position, by applying an ordinary car seal 20 through a perforation on the 15 lower end thereof at a point below the lowermost rib extension 11^a.

The improved device above described is in every respect strong and it is practically impossible to get at the bolts from the out- 20 side of the car or to force the car door open when the door has once been closed and the lock bolt secured by the car seal. Of course, the car seal itself may be readily broken, but this gives immediate notice to any one in- 25 specting the same that the car has been tampered with.

What I claim is:

1. A combined door stop brace and fastener, comprising a body member having a 30 channel adapted to embrace a stop cleat and provided with a foot portion engageable with the side of the car and provided with bolt passages adapting bolts to be extended therethrough into the car.

35 2. In a combined door stop brace and fastener, the combination with a body casting having a channel, a bearing foot and projecting horns, and provided with bolt holes 40 adapting bolts to be passed therethrough into the car.

3. The combination with a car having a door and a cooperating stop cleat, of a casting having a channel-shaped portion embracing said cleat and provided with a foot 45 engaging the side of the car, bolts passed through said casting and the side of the car, having their heads at the exterior of the car and provided with nuts at the interior of the car, a lock bolt mounted to move through flanges on said casting, and a 50 hasp applied to the said door and arranged to be secured by said lock bolt, substantially as described.

4. The combination with a car body having a door and a cooperating stop cleat, of 55 a casting having a channel-shaped portion embracing said cleat and having at one side upper and lower horns and on its other side a foot portion engaging the side of the car, said casting having also a multiplicity of 60 approximately horizontal flanges and a perforated staple, a hasp on the car door having a perforated free end adapted to be passed over said staple, a lock bolt mounted for vertical movements in the flanges of said 65 casting and through the perforation of said hasp lug, a seal applied to and normally holding said lock bolt in an operative position, and nutted bolts passed through said 70 casting and the side of the car, having their heads protected by the flanges on said casting and having their nuts applied thereto at the inner side of the car, substantially as described.

In testimony whereof I affix my signature 75 in presence of two witnesses.

WILLIAM J. BOHAN.

Witnesses:

ALICE V. SWANSON,
HARRY D. KILGORE.