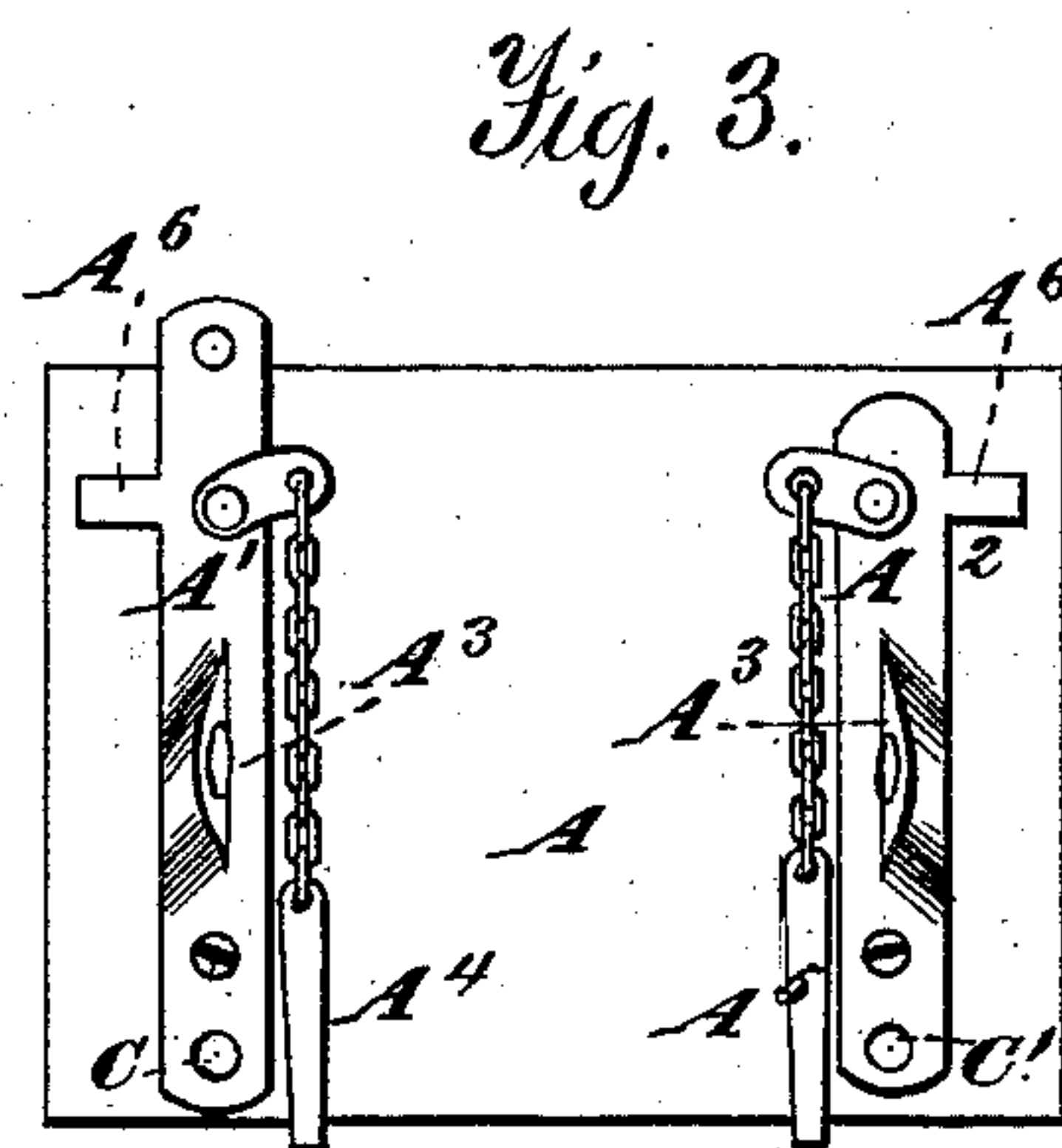
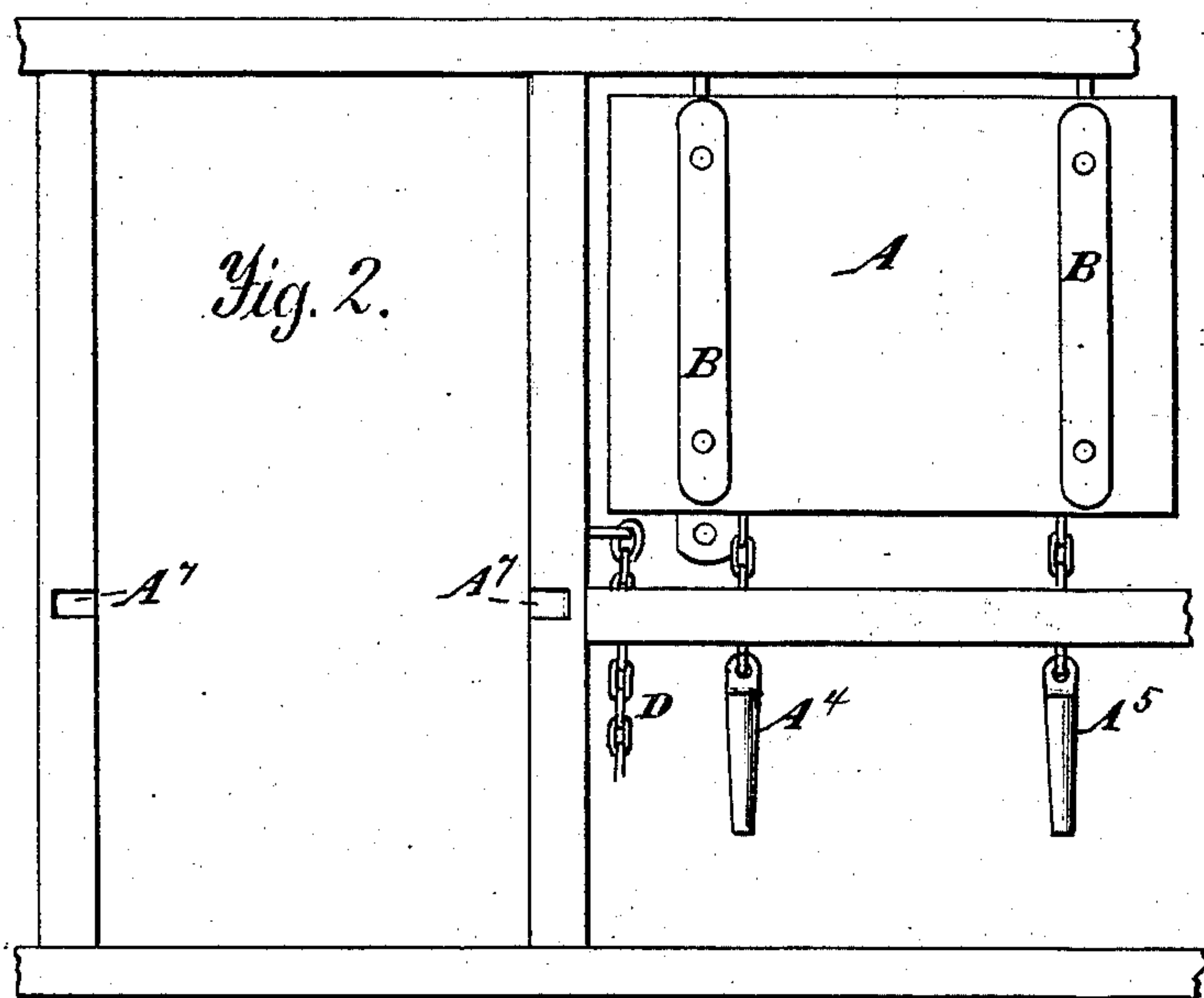
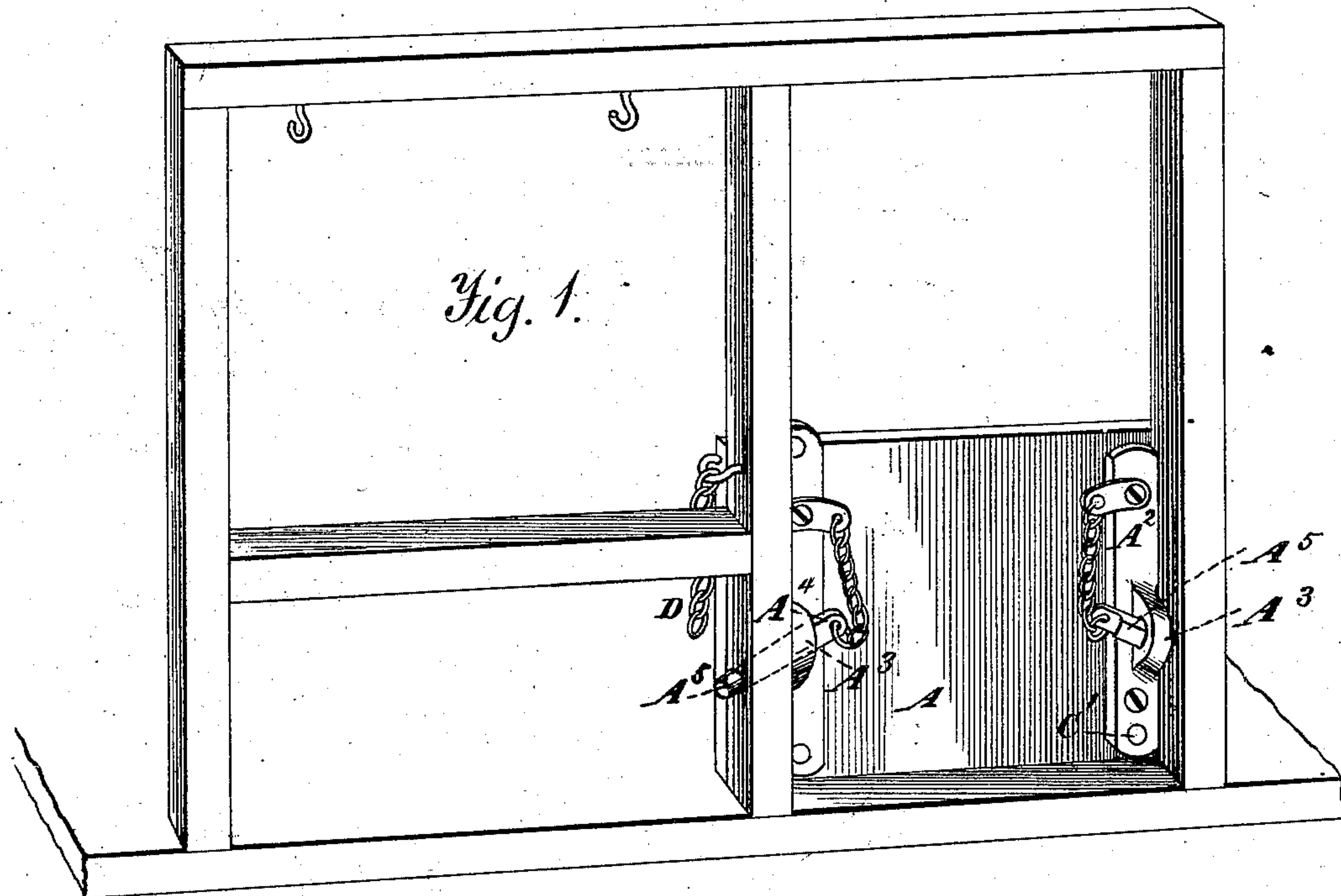


(No Model.)

L. H. WEBSTER.
Freight Car Door.

No. 232,578.

Patented Sept. 21, 1880.



Witnesses.
A. Ruppert.
D. P. Cowley

L. H. Webster
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Atty

UNITED STATES PATENT OFFICE.

LEWIS H. WEBSTER, OF SOUTH BEND, INDIANA.

FREIGHT-CAR DOOR.

SPECIFICATION forming part of Letters Patent No. 232,578, dated September 21, 1880.

Application filed June 1, 1880 (No model.)

To all whom it may concern:

Be it known that I, LEWIS H. WEBSTER, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Freight-Cars; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to doors for freight-cars which are to be used in converting an ordinary box-car into a grain-car; and the objects of my improvement are, first, to provide a door which, when the car is to be used for transporting grain, salt, and other similar kinds of freight in bulk, can be placed in the opening formed in the car for the usual sliding door, and thus be made to prevent waste of grain or other substances, and at the same time permit the closing and opening of said sliding doors, but when not required for such purpose can be removed and placed in some convenient position upon the walls of the car, so as to be ready for application when required; second, to provide the requisite means for holding the door in position for use and for suspending it in the car when not in use. I attain these objects by the devices shown in the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a car-body, showing my removable door as secured in its proper position for permitting the car to be loaded with grain, and also the devices for locking it in that position, as well as hooks for suspending it when not in use. Fig. 2 is a sectional elevation of a portion of the frame-work of a car-body, showing the removable door as suspended thereto; and Fig. 3 is an outside view of the removable door, showing the devices for locking it in position for use and for suspending it upon hooks when not in use.

Similar letters refer to similar parts throughout the several views.

In constructing doors of this character and for the purpose for which this is designed there is provided a sheet of metal or a piece of wood or a series of pieces, A, the length of which is

sufficient to cause them to extend across the opening or openings formed in the body of the car, which is covered by the ordinary sliding door, and bear upon the studs or timbers on each side thereof, so that when in position for use the pressure of the material upon its inner surface will aid in holding it in such position. The width of this door may be as great as desired, but it should be sufficient to cause its upper edge to extend somewhat above the surface of the grain in the car. Upon the outer surface of the door there are placed two strips or bars of metal, A' A², which extend across it in a vertical direction, and are secured thereto by rivets or bolts passing through them, through the door, and through strips B B placed upon the inside thereof, or in any other suitable manner. Upon the outer surface of the strips or bars A' A² projections A³ are formed, they being provided with an aperture for the reception of locking bolts or pins A⁴ A⁵. The strips or bars are also provided with projections A⁶, which, when the door is in position for use, enter recesses A⁷ formed in the post or stud to which the door is secured, and prevent said door from being raised up by accident or otherwise.

For the purpose of insuring the retention of the pins or bolts A⁴ A⁵ in their apertures in the plates or bars A' A² and in the apertures in the door-posts which they enter, the apertures in projections A' and A² and in the posts are made in such a manner as to give to the pins when inserted a downward direction, as shown in Fig. 1, so that the jar of the car in running shall tend to keep them in position and to effectually prevent their accidental removal.

When it is desirable to use the car for the transportation of barrels, boxes, lumber, or other kinds of freight which do not require the use of the door A, it is removed from its position between the parts to which it is secured, and may be hung up upon the interior of the car, as shown in Fig. 2, the strips or bars A' and A² having holes C C' formed in them for that purpose, at which time its lower edge may be secured to the wall of the car-body by a chain, D, if desired.

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

1. The removable door A, provided with

strips or bars A' A², having upon them projections A³ for holding them in position and lugs A⁶ for preventing them from being raised up when in use, and being provided with apertures for suspending the door within the car when not in position for use, substantially as described.

2. In combination with a removable car-door, the strips or bars A' A², provided with angularly-arranged apertures for the reception of pins or bolts for holding said door in position for use, and with projections A⁶ for entering recesses formed in the posts of the door.

3. The combination of the removable door

A, strips or bars A' A², having upon them the angularly-arranged projections A³ for the reception of locking-pins and projections A⁶ for preventing the door from being raised up when in position for use, the locking-pins A⁵, and the body of a freight-car, the parts being arranged for joint operation substantially as set forth.

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

LEWIS H. WEBSTER.

Witnesses:

CHARLES EASBY,
JOHN G. HAGEN.