

No. 753,167.

PATENTED FEB. 23, 1904.

J. W. SCHIRMER.

END GATE.

APPLICATION FILED SEPT. 25, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

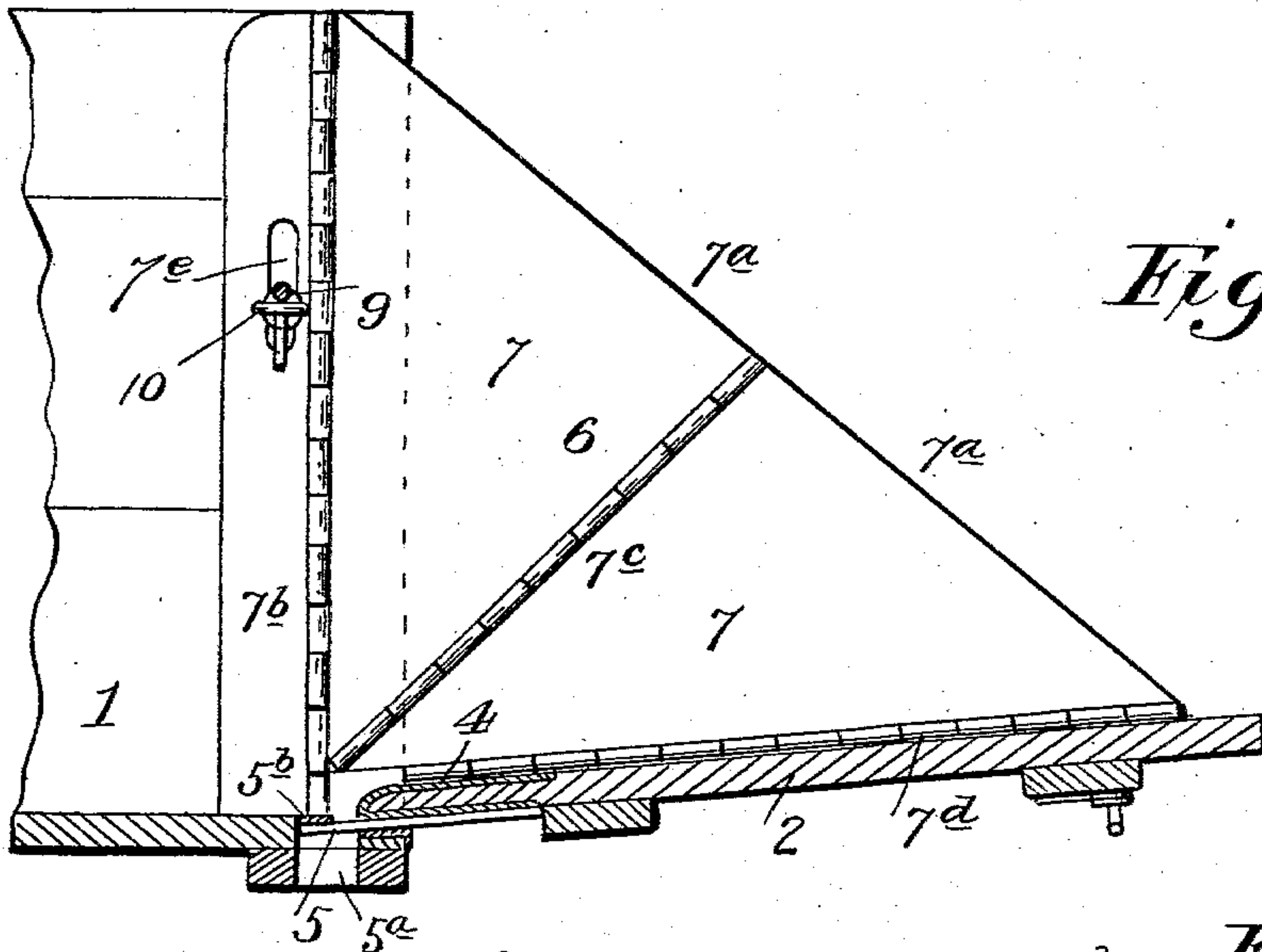


Fig. 1.

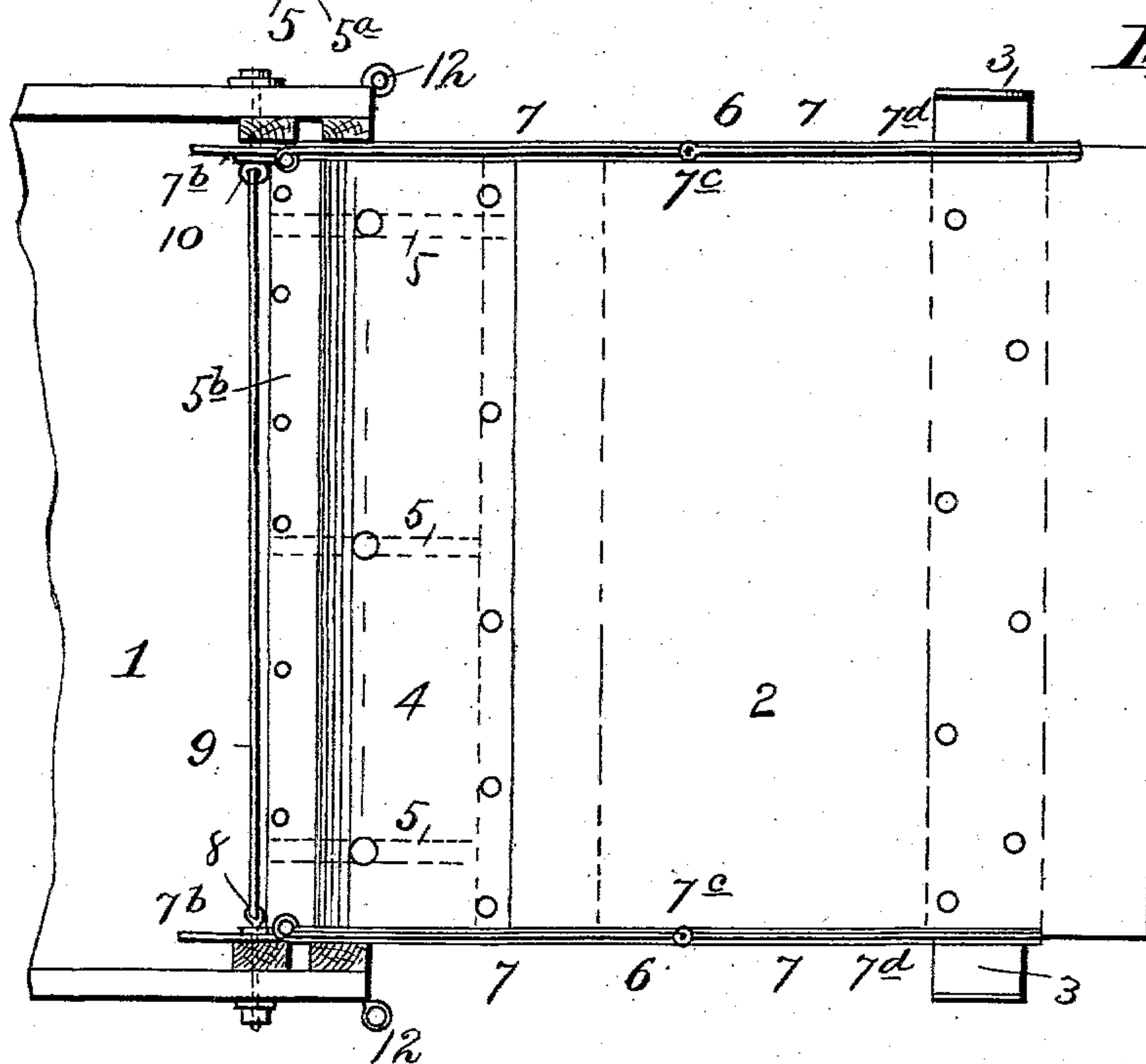


Fig. 2.

Witnesses:

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Inventor:

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2 SHEETS—SHEET 2.

Fig. 4.

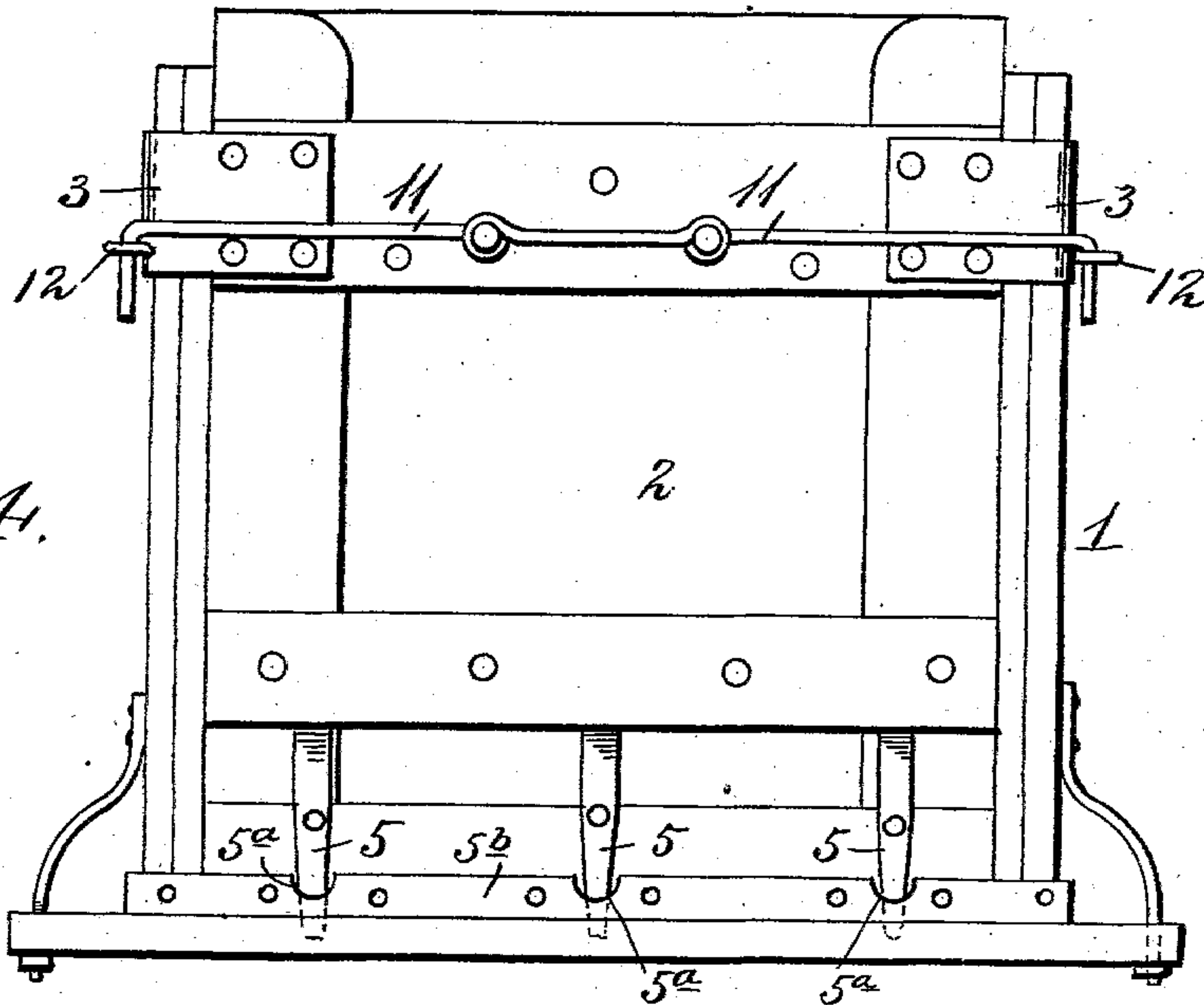


Fig. 3.

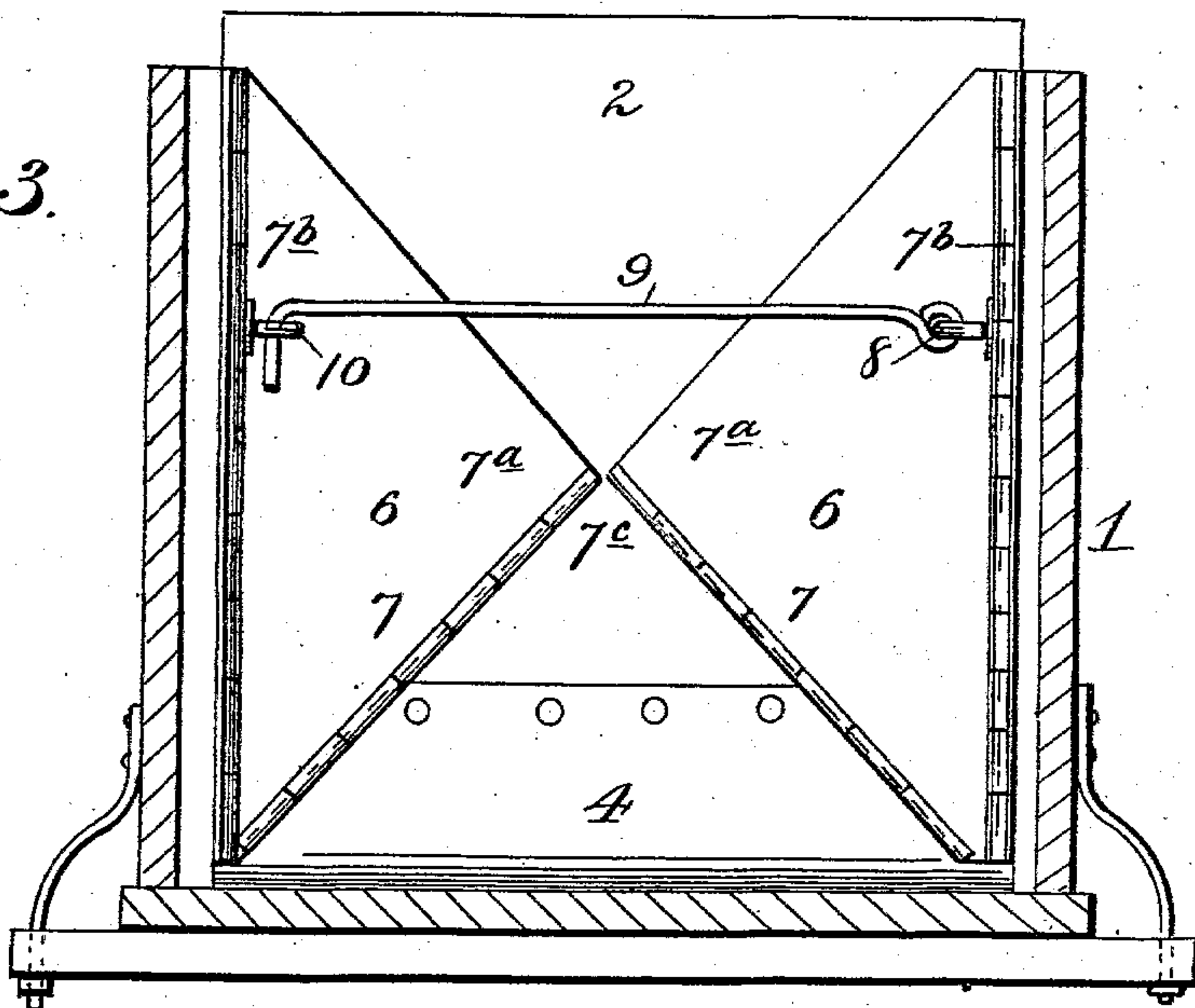
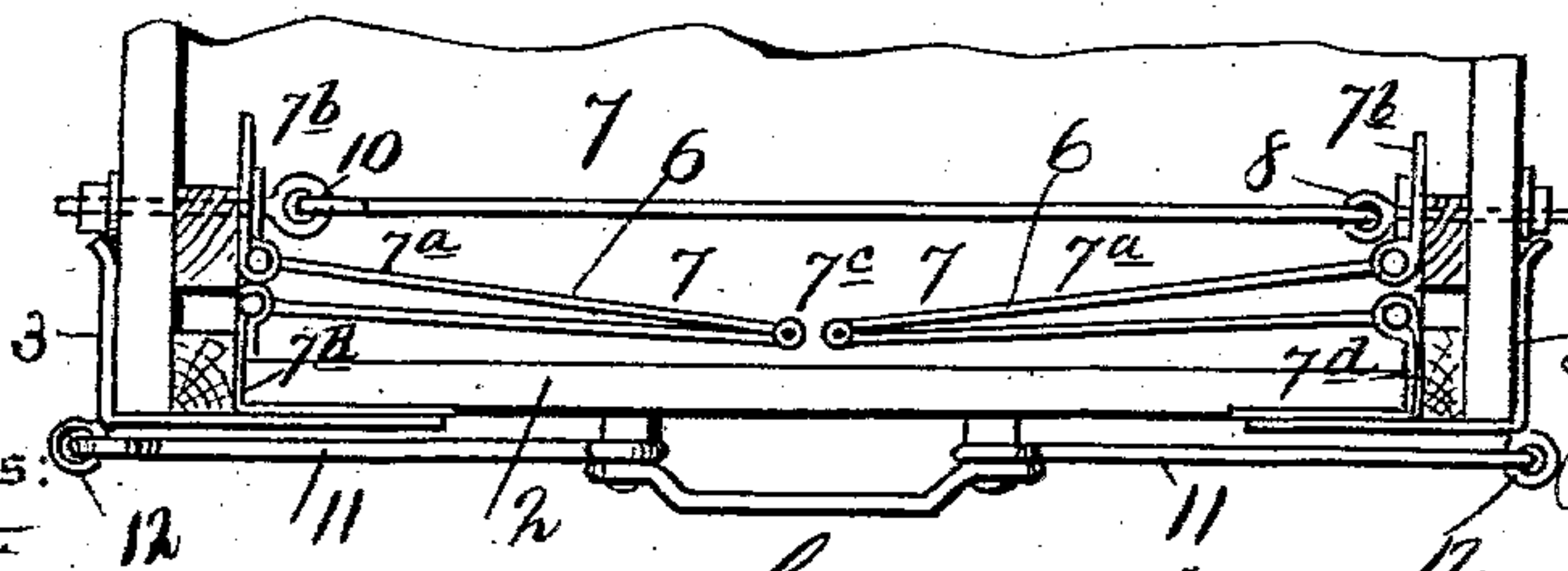


Fig. 5.



Witnesses:

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By his Attorney

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UNITED STATES PATENT OFFICE.

JAMES W. SCHIRMER, OF WESTCHESTER, IOWA.

END-GATE.

SPECIFICATION forming part of Letters Patent No. 753,167, dated February 23, 1904.

Application filed September 25, 1903. Serial No. 174,658. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. SCHIRMER, a citizen of the United States, residing at Westchester, in the county of Washington and State of Iowa, have invented new and useful Improvements in Shoveling-Boards for Wagons, of which the following is a specification.

My invention relates to certain improvements in wagons, more particularly end-gates therefor. It has for its object to adapt the ordinary tail or end gate to serve in the capacity of what may be termed a "shoveling-board," as in the operation of unloading the wagon or vehicle, to provide for the ready and compact folding or disposing of the parts in closing the end-gate, and to facilitate the actuation of the gate or board, as well as in the opening of the latter.

Said invention consists of the construction and arrangement of the several parts constituting the same, substantially as hereinafter more fully disclosed, and specifically pointed out by the claims.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a longitudinal vertical section thereof with the end-gate open. Fig. 2 is a plan view. Fig. 3 is an enlarged folded sectional view. Fig. 4 is a rear elevation with the gate closed. Fig. 5 is a plan view showing the gate folded.

In the carrying out of my invention I provide the wagon 1 with an end-gate 2, which is adapted to serve in the capacity of what may for a more convenient name be termed a "shoveling-board," the suggestiveness of which will presently appear. Said end-gate may be generally constructed in any well-known way—as, for instance, as shown—the same being provided upon its outside near the upper end with lateral angular or bent plates or keepers 3, adapted to engage the rear edge of the wagon-body and lap the latter laterally, thus while serving to effectively prevent lateral movement or displacement of said gate aiding the bracing of the wagon-body at those points as against spreading under the stress of its contents or load, as will be readily appreciated. Said end gate or board has its bottom edge or end, which is tapered or beveled,

preferably clad or reinforced with sheet-iron, as at 4, said reinforcement or sheet-iron being let into said gate flush with its general surface, the greater portion of said reinforcement being arranged upon the inner side of the gate and conforming to the level or taper of said edge, while a lesser portion thereof is secured to the outer side of the gate. Said end-gate has also secured to its outside at the bottom end or edge fingers or bars 5, disposed at suitable intervals apart and projecting beyond said end or edge to engage or enter registering rear end opening slots or sockets 5^a, formed in the rear edge of the floor of the wagon-body, which edge is also preferably clad or reinforced with sheet-iron, as at 5^b. Said sockets or slots also extend at their inner or forward ends well in under the reinforcing or covering sheet-iron plate 5^b to prevent the upward displacement or rising out of the same of the fingers or bars 5 when the end-gate is in its lowered or approximately horizontal position, as when shoveling out or removing the contents of the wagon, and whereby the end gate or board is sustained in such position and the principal weight is taken off said end gate or board arising from such shoveling of the contents out of the wagon along said end-gate, as will be readily apparent. Said arrangement also limits the inward movement of the end gate or board at its bottom edge as it is moved inwardly into place in "closing" said gate.

Guards or wings 6, provided to prevent the lateral displacement or falling out of any portion of the contents of the wagon as the end gate or board is lowered, comprise plate-sections 7⁷, preferably of sheet metal, adapted to laterally guard the end gate or board and similarly the rear end of the wagon when said gate is in such position, as shown. Each wing or guard thus formed consists of two principal sections 7^a and a third section 7^b, the sections 7^a being each triangular and hinged or articulated together, as at 7^c, along diagonal lines, while the normally outer or lower section or triangle is articulated or hinged, preferably, to strips 7^d, fastened to the lateral edges of the end gate or board, and the upper section is similarly articulated or hinged to one

edge of the section 7^b. Said last-referred-to section, preferably rectangular, has formed therein near its upper end an elongated vertical slot 7^e, through which projects, preferably, 5 an eye-ended bolt 8, suitably secured to the wagon-body. By this arrangement the connection between said wagon-body and each wing or guard is so effected that the requisite rising-and-falling movement for the latter is 10 provided for as necessary to accommodate the infolding and outward movement of the principal sections of said guard in raising and lowering the end-gate, as will be readily seen. Also by this arrangement the end-gate can 15 be axially swung upward and be disposed out of the way upon the top edges of the wagon-body, as when required in loading the wagon.

An eye-ended and hook-ended rod 9, with its eye-ended portion interconnected with the 20 eye of the bolt 8 and its hook engaging an eye-ended bolt 10, secured in the opposite side of the wagon-body, is used to aid the holding of the sides of the last named against spreading under lateral stress from the load.

25 Suitable hooks 11 are pivoted to the end-gate upon its outside and engage loops or staples 12, suitably formed and secured laterally to the wagon-body at its rear end to hold said end-gate in place at its upper ends when the 30 wagon is loaded or the end-gate closed.

It will be understood that I do not limit myself to the details herein, as they may be changed as circumstances suggest without departing from the spirit of my invention and 35 said invention yet be protected.

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

40 1. An end-gate or "shoveling-board" for wagons or vehicles, having lateral sectional wings or guards, with the sections of each guard or wing adapted to fold one upon the other.

45 2. An end-gate or "shoveling-board" for vehicles, having lateral sectional wings or guards, the sections of each guard or wing

being triangular and articulate or hinged together along diagonal lines, and adapted to fold one upon the other.

3. An end-gate or "shoveling-board" for 50 vehicles, having lateral sectional guards or wings, each guard comprising two triangular hinged-together sections, and a third articulated or hinged section vertically movable upon its pivot or support. 55

4. An end-gate or "shoveling-board" for wagons or vehicles, having lateral sectional wings or guards, each guard comprising two articulated or hinged-together sections, one of which is also hinged to said gate, and a third 60 hinged section having an elongated slot receiving a pivot or support from the wagon-body.

5. An end-gate or "shoveling-board" for vehicles, means for connecting said end-gate 65 to the vehicle-body, and means for the retention in position of said end-gate, formed of fingers or bars secured to the latter, at its lower end portion engaging rear end opening-slots provided in the floor of the wagon-body 70 at its rear end, and with their forward ends extending in under a reinforcing-piece applied to said floor.

6. An end-gate or "shoveling-board" for vehicles, having, at its bottom end, fingers or 75 bars engaging rear end opening-slots in the floor or bottom of the wagon-body adapted to receive said fingers for sustaining said end-gate in position for shoveling out the contents of said wagon-body, said end-gate also having 80 sectional lateral wings or guards, each section comprising hinged-together sections and a third section axially pivoted or connected to said wagon-body and hinged to one of the 85 aforesaid sections.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES W. SCHIRMER.

Witnesses:

A. S. FOLGER,

G. O. BEIRLEY.