

No. 741,201.

PATENTED OCT. 13, 1903.

F. J. WESTON.
COMBINED END GATE AND SHOVELING BOARD.

APPLICATION FILED MAY 21, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

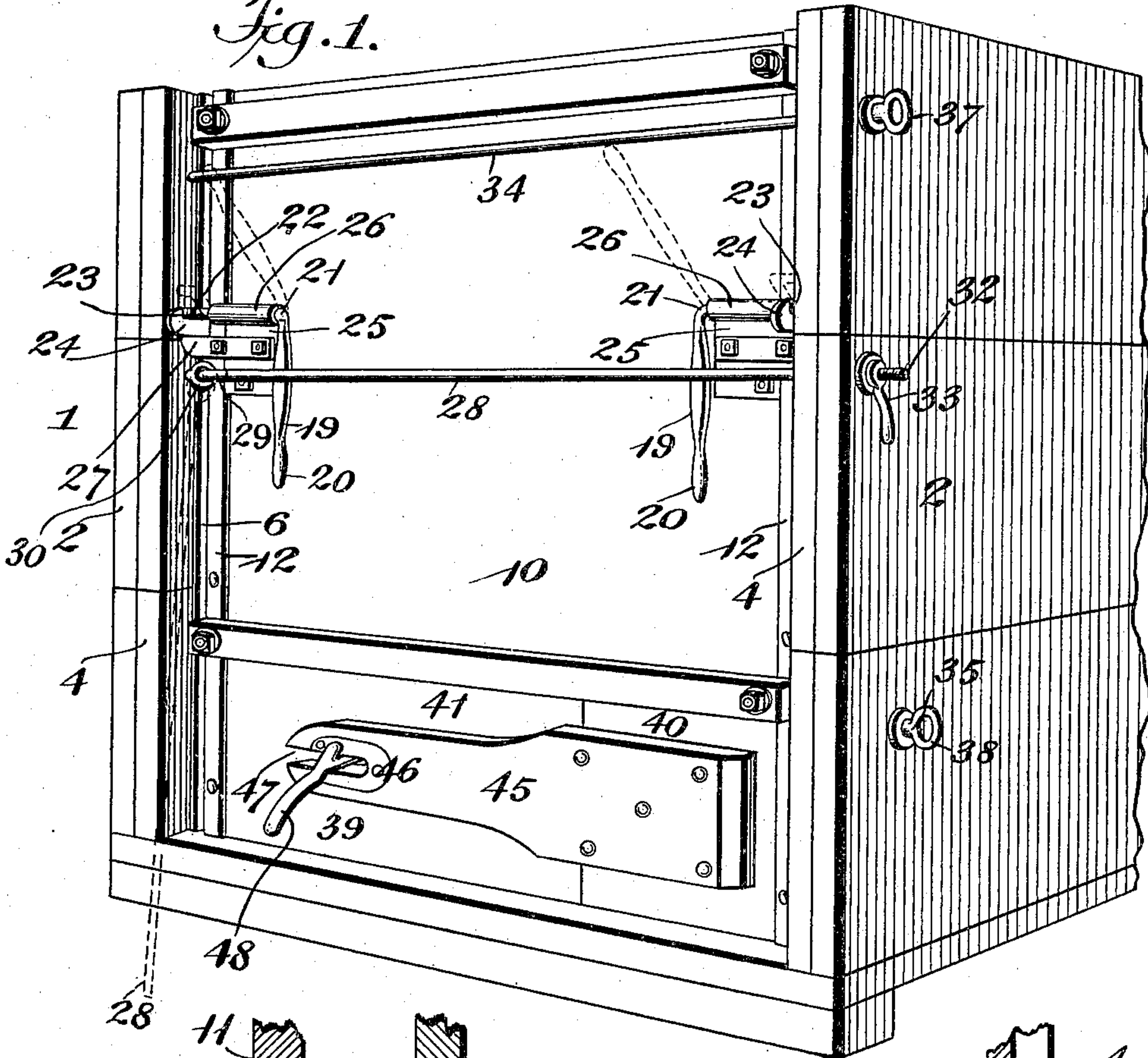


Fig. 3.

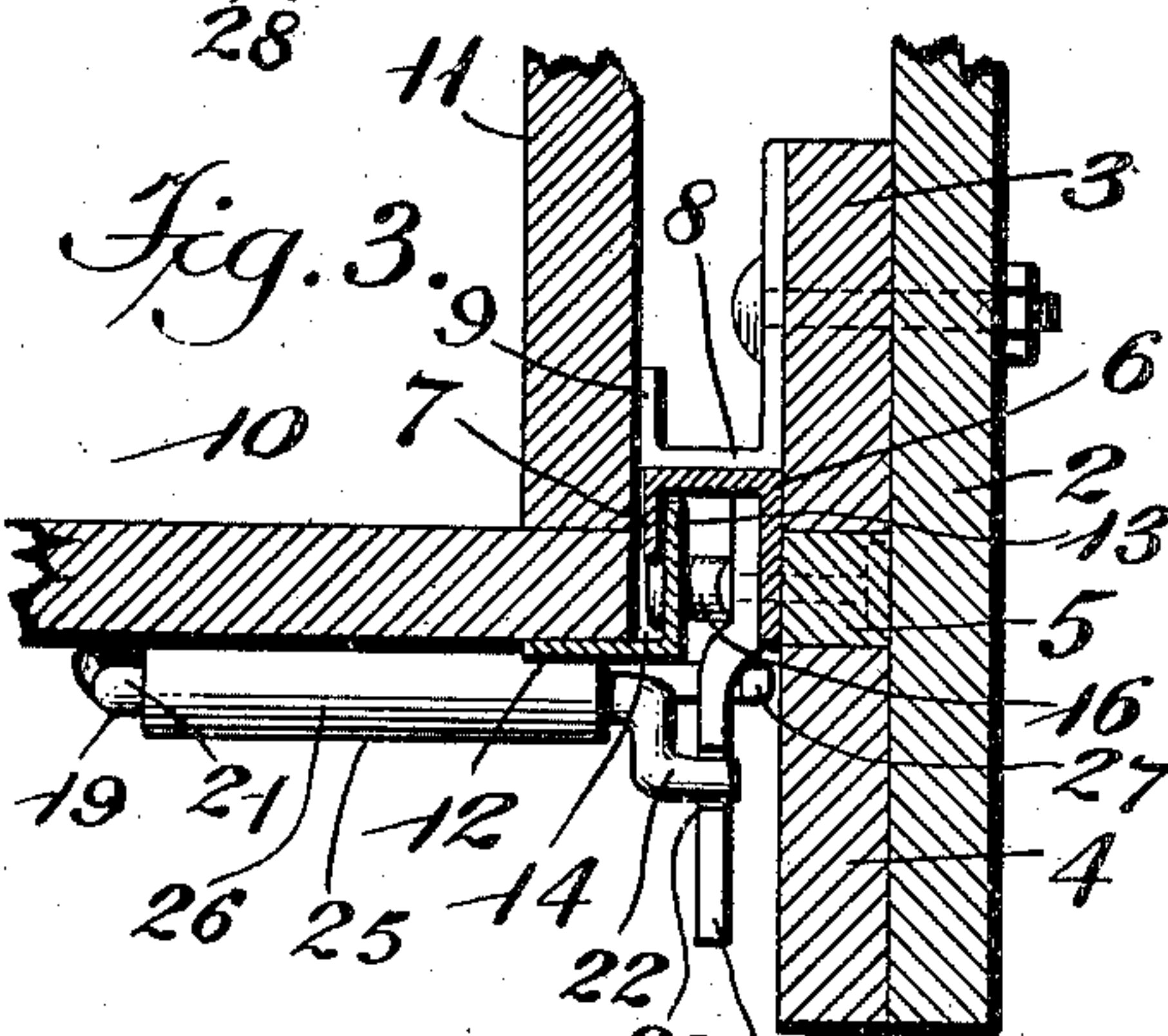


Fig. 5.

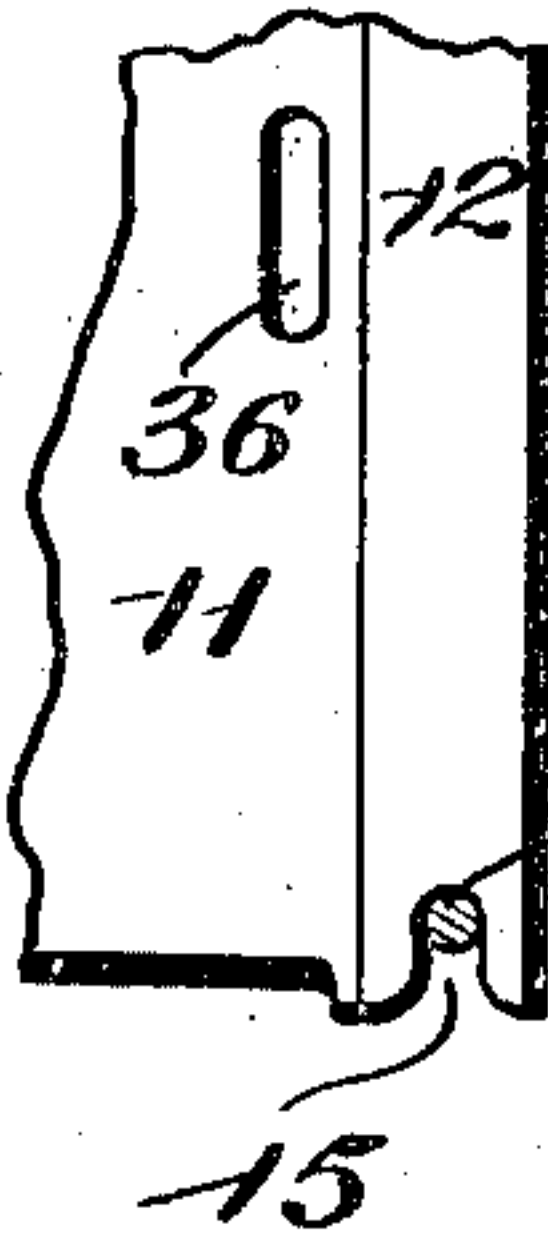


Fig. 7.

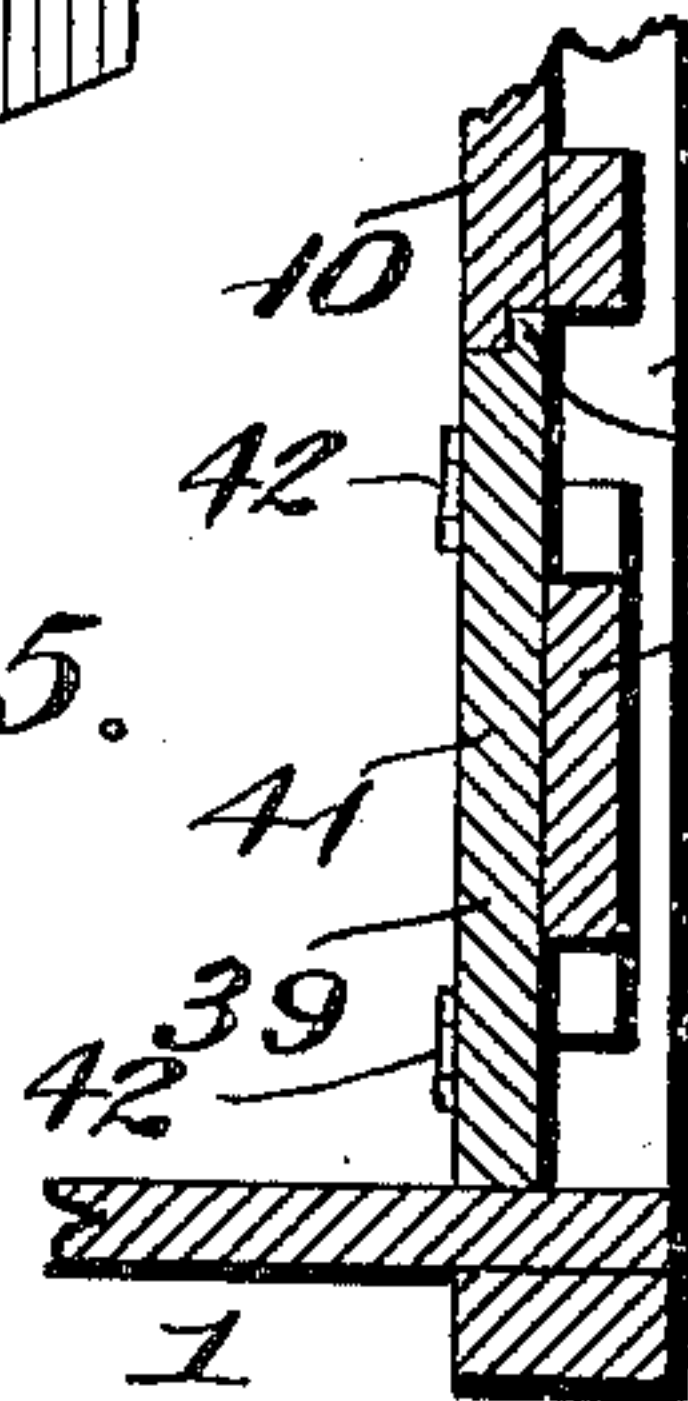
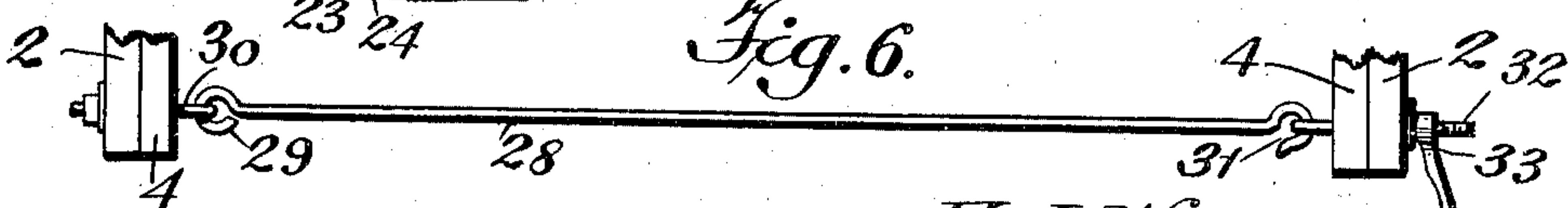


Fig. 6.



Witnesses

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2 SHEETS—SHEET 2.

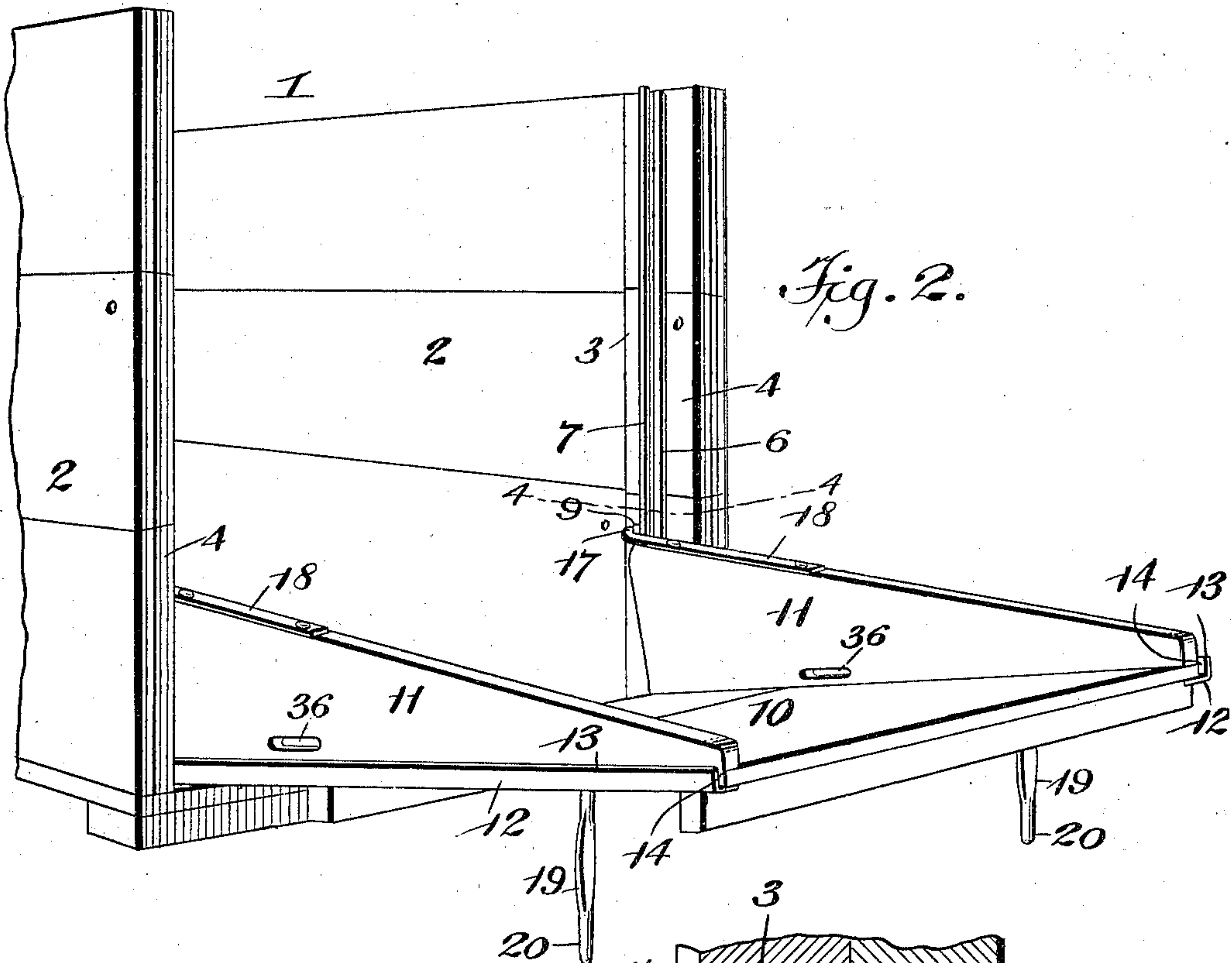
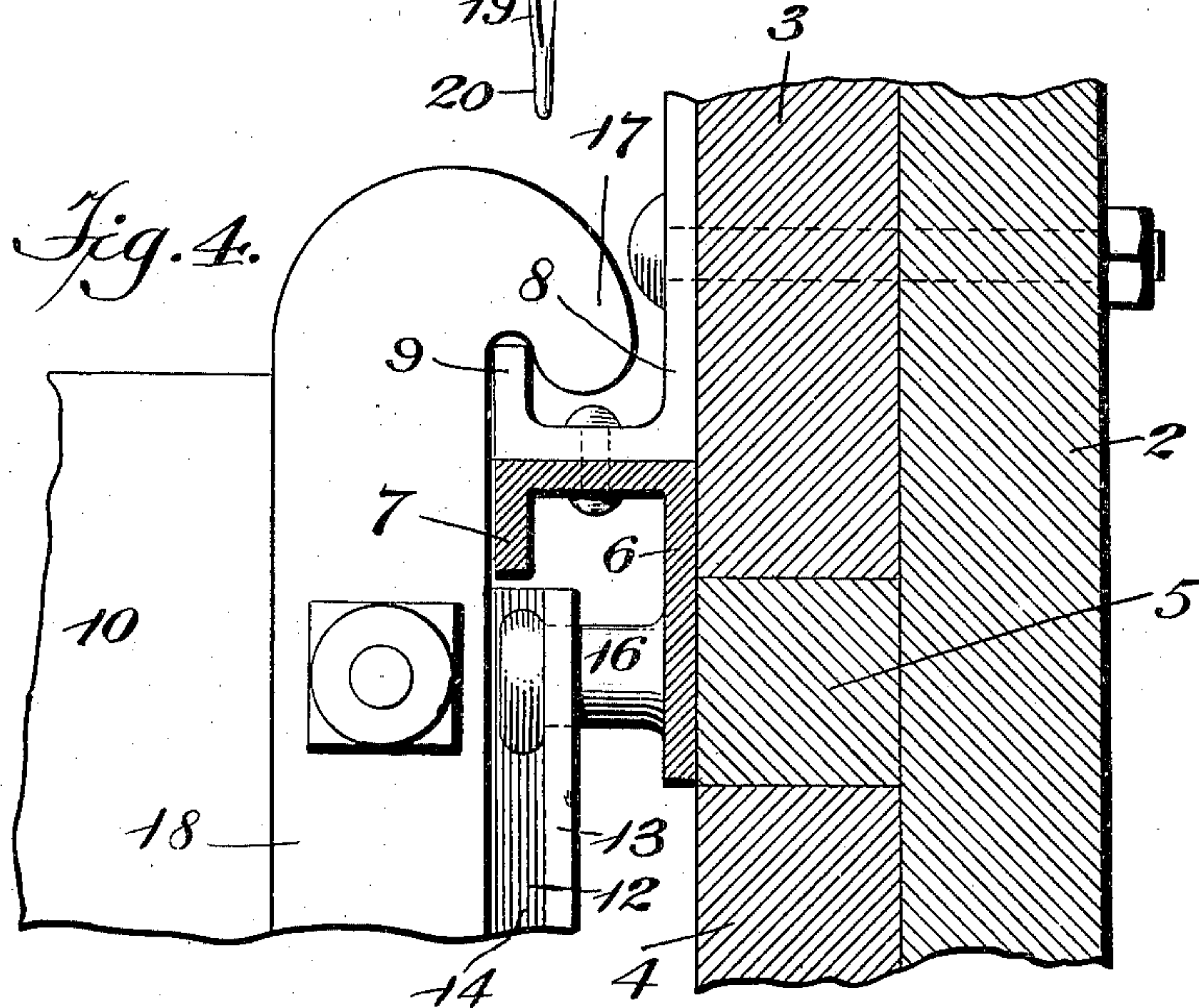


Fig. 4.



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UNITED STATES PATENT OFFICE.

FREDERICK J. WESTON, OF MONTGOMERY, IOWA.

COMBINED END-GATE AND SHOVELING-BOARD.

SPECIFICATION forming part of Letters Patent No. 741,201, dated October 13, 1903.

Application filed May 21, 1903. Serial No. 158,180. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK J. WESTON, a citizen of the United States, residing at Montgomery, in the county of Dickinson and State of Iowa, have invented a new and useful Improvement in End-Gates and Shovel-
ing-Boards, of which the following is a specification.

My invention relates to a combined end-gate and shoveling-board for wagons, and has for its objects to produce a device of this character of comparatively simple construction which will be securely locked in its closed position and may be readily released and swung to an open position when desired, one in which the gate will be firmly supported in its open position, and one in which the removable section may be readily removed when desired.

With these and other objects in view the invention comprises the novel details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of the rear end of a wagon-body, showing my improved end-gate applied thereto and locked in its closed position. Fig. 2 is a similar view showing the gate in its open position. Fig. 3 is a detail sectional plan taken just above the locking-lever and looking downward. Fig. 4 is a similar view taken on the line 4 4 of Fig. 2 and looking downward. Fig. 5 is a detail view of the slot-and-pin connection between the lower end of the gate and the vehicle-body. Fig. 6 is a similar view of the latching-rod. Fig. 7 is a detail sectional elevation of the removable section of the end-gate.

Referring to the drawings, 1 indicates a wagon-body which has bolted or otherwise secured to the inner face of each of its sides 2, adjacent to its rear end, spaced cleats 3 4, forming between them a vertical guideway, in which is seated a standard 5, to which is bolted a vertical angle bar or plate 6, coincident in length with the standard 5 and of substantially L form in cross-section, the base of the L being extended inward and bent outward at its inner end to form a flange 7, the purpose of which will hereinafter appear.

Each of the angle-bars 6 has riveted to it at a point between its lower end and center a cleat 8, composed, preferably, of angle-iron

of L form in cross-section, the base of the L being disposed against the like part of the bar 6 and having an inwardly-extending flange 9, the purpose of which will be presently described.

10 indicates the body portion of my improved end-gate, to which is bolted or otherwise secured inwardly-extending side plates or flanges 11. Riveted or otherwise secured to the outer face of the body portion of the gate at each of its longitudinal sides is an L-shaped angle-plate 12, which projects slightly beyond the side of the gate and has an inwardly-extending flange 13, between which and the body portion of the gate is a recess 14, which when the gate is in its closed position receives the flange 7 of the bars 6 to prevent spreading of the sides of the wagon-body. Formed at the lower end of each of the flanges 13 is a slot 15, which engages an inwardly-extending horizontal pintle 16, associated in any suitable manner with the side of the wagon-body, by which arrangement the end-gate is pivoted at its lower end and is adapted to swing bodily in a vertical plane from the position illustrated in Fig. 1 to that shown in Fig. 2. When in the latter position, the end-gate is rigidly sustained by means of a lateral finger 17, formed upon the inner end of a strap-iron member 18, bolted or otherwise secured to the inner lower edge of the side plate 11, engaging with the flange 9 of cleat 8, it being understood, of course, that as the end-gate swings downward upon its pivot the finger 17 moves automatically into engagement with the cleat and out of engagement therewith upon the upward movement of the gate.

The gate is locked in its closed position by means of a pair of locking-levers 19 19, each of which consists of a suitable length of rod-iron angularly bent to form an operating-handle 20, a right-angularly disposed cylindrical body portion 21, and an eccentric engaging finger 22, which when the lever is in locking position seats into or engages a socket 23, formed adjacent to the outer end of a keeper 24, consisting of a length of strap-iron bolted at its inner end to the angle-bar 6, the fastening-bolt being extended through the standard 5. Each lever is pivoted to the outer face of the body portion 10 of the gate

by means of a plate or casting 25, provided with a tubular portion 26, which receives the body portion 21 of the lever, and with a laterally and outwardly extending finger 27, which when the gate is closed engages beneath the keeper 24 to prevent upward displacement of the gate. When in locked position, the operating-handles 20 of the levers 19 extend downward and lie flush against the outer face of the gate and are secured in such position by means of a latching-rod 28, which extends transversely across the gate and overlies the operating-handles of both levers, as shown in Fig. 1. The rod 28 is provided at one end with an eye 29, which pivotally engages the eye of an eyebolt 30, extended through one of the sides 2 of the wagon-body, and at its other end with a hook 31, formed for engagement with the eye of a clamping-bolt 32, extended through the other side 2 of the wagon-body and engaged at its outer end by a lever-nut 33, which is operable for putting the rod 28 under tension and securely clamping its hooked end 31 against the inner face of the side 2, the rod when in this position serving the further function of exerting an inward pull or stress upon the sides 2 to prevent them from spreading relatively.

The end-gate is further sustained in its closed position by means of an upper transverse rod 34, extending through suitable aligned apertures in the sides 2 of the body and overlying the outer face of the gate adjacent to its upper end, and by means of a lower transverse rod 35, which likewise extends through apertures in the sides 2 adjacent to the lower end of the gate in engagement with slots 36, formed in the side plates 11 of the gate. The rods 34 35 are provided, respectively, with handpieces or rings 37 38, which may be grasped by the operator when it is desired to withdraw the said rods to permit opening of the gate.

The end-gate is provided with a lower removable section 39, which may be readily removed to permit dumping of the contents of the wagon as circumstances may require. This removable section is preferably in the form of a board composed of two parts or sections 40 41, pivotally associated by means of hinges 42, the leaves of which are countersunk into the normally inner face of the board, whereby the surface of the same is preserved smooth and unobstructed in the use of the device as a shoveling-board. The removable section 39 is provided upon its upper edge with a flange 43, which engages a similar flange formed on the adjacent edge of the end-gate, while the ends and lower edge of the said section bear, respectively, upon the outer flanges of the angle-plate 12 and the bottom board of the wagon-body when the parts are in normal position.

45 is a keeper in the form of a board riveted to the outer face of section 40 of the board 39 and provided with an arm 46, which extends over the outer face of section 41 and is longi-

tudinally slotted, as at 47, for engagement by a locking-lever 48, which is pivotally associated with said section 41. When the lever 48 is locked in engagement with arm 46, the board 39 is maintained in rigid condition and disconnection of its ends with the angle-plates 12 is prevented; but when the lever 48 is operated to release arm 46 the section may be readily withdrawn, due to its component parts breaking joint at their pivotal points, as will be readily understood.

In practice when it is desired to open the gate the rods 34 35 are first withdrawn, the rod 28 is released and permitted to hang downward, as in dotted lines in Fig. 1, and levers 19 are turned to the position also indicated by dotted lines in said figure. The gate is then swung downward to the position shown in Fig. 2, and the finger 17 engages flange 9 of the cleat 8 for sustaining the gate in said position, as above described. When the parts are in this position, the device is adaptable for use as a shoveling-board and when in their closed position serve to effectually close the end of the wagon-body and prevent the escape of any of its contents. Should it be desired to dump the contents of the wagon without opening the end-gate, the section 39 may be removed, as above described.

From the foregoing it will be seen that I produce a device of simple construction which in practice will efficiently perform its functions and one which I believe to be admirably adapted for the attainment of the ends in view; but it is to be understood that I do not limit or confine myself to the details of construction herein shown and described, inasmuch as minor changes may be made therein without departing from the spirit of my invention. For example, short lengths of a bar similar to bar 6 may be employed as a cleat instead of the cleat 4, thus permitting changing of the end-gate and shoveling-board to the ordinary end-gate.

Having thus described my invention, what I claim is—

1. In a device of the class described, the combination with a vehicle-body, of an end-gate pivotally associated therewith, angle-bars connected one with each side of the wagon-body and provided with outwardly-extending flanges, and angle-plates attached to the end-gate and provided with inwardly-extending flanges adapted for interengagement with the first-named flanges when the gate is closed.

2. In a device of the class described, the combination with a vehicle-body, of angle-bars associated one with each side of the wagon-body and provided with outwardly-extending flanges, an inwardly-extending pintle carried by each side of the body, an end-gate having angle-plates associated therewith and provided with inwardly-extending flanges slotted at their lower ends for engagement with the pintles, said flanges adapted for interengagement with the first-named flanges

when the gate is closed, and means for locking the gate in its closed position.

3. In a device of the class described, the combination with a wagon-body, of cleats associated with the sides thereof, an end-gate 5 pivotally connected with the body and members carried by the end-gate and provided with fingers for engaging the cleats when the gate is in open position.

10 4. In a device of the class described, the combination with a vehicle-body, of keepers associated therewith, an end-gate pivotally connected therewith, locking-levers pivotally associated with the end-gate and operable for 15 engagement with the keepers, and a latch-rod for engaging the levers to maintain the same in locking position.

5. In a device of the class described, the combination with a vehicle-body, of keepers associated therewith, a pivoted end-gate carried by the body, locking-levers pivotally associated with the end-gate and each comprising 20 an operating-lever, a body portion and an eccentric engaging finger operable for engagement with the keepers, and a latch-rod engaging the operating-handles of the levers to 25 maintain the latter in locking position.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FREDERICK J. WESTON.

Witnesses:

HOMER G. TAGGART,
HARRY M. PECK.