

No. 864,692.

PATENTED AUG. 27, 1907.

A. ROBERTS.
END GATE.

APPLICATION FILED MAR. 25, 1907.

2 SHEETS—SHEET 1.

Fig. 1 B

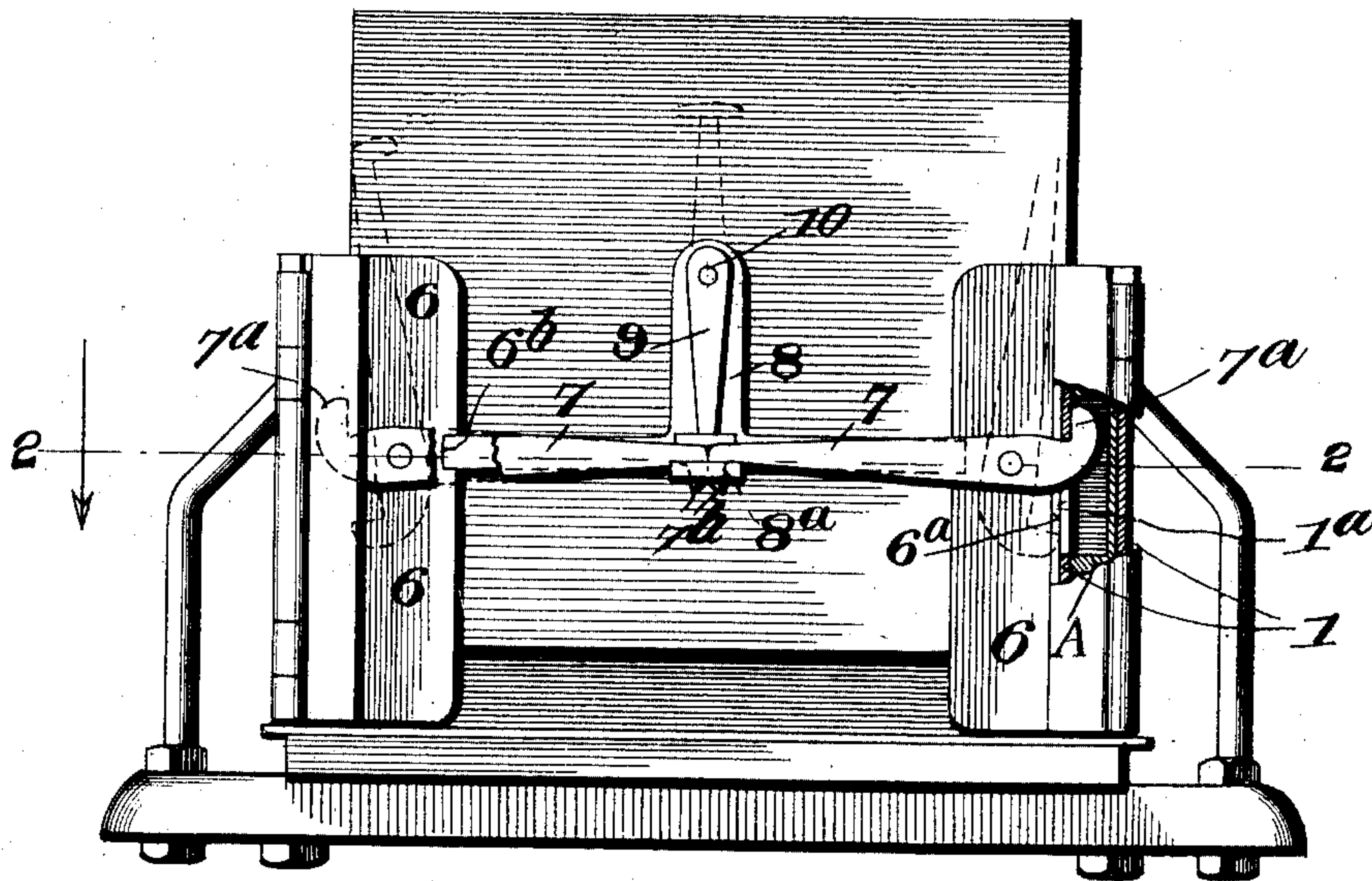


Fig. 2

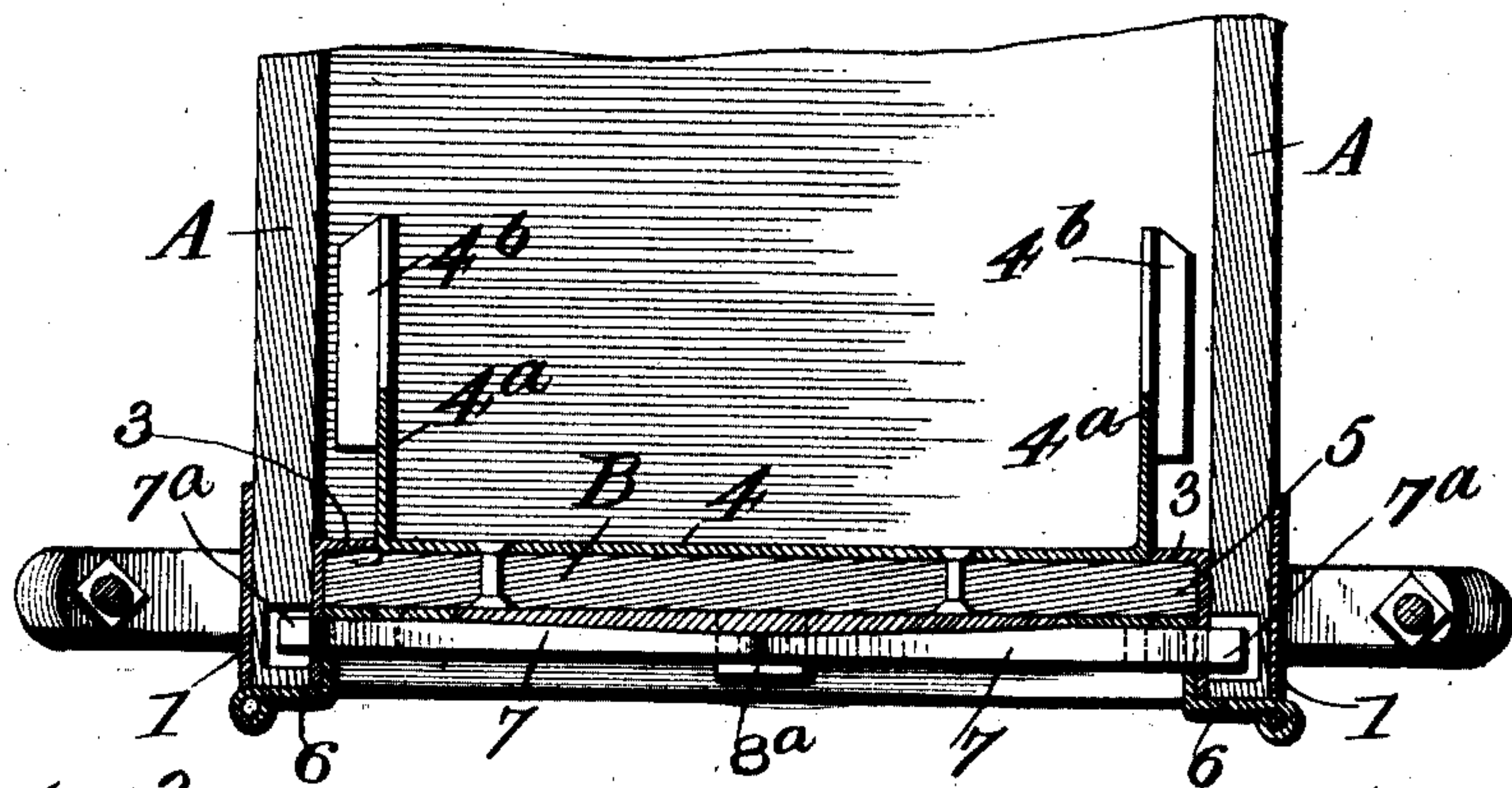
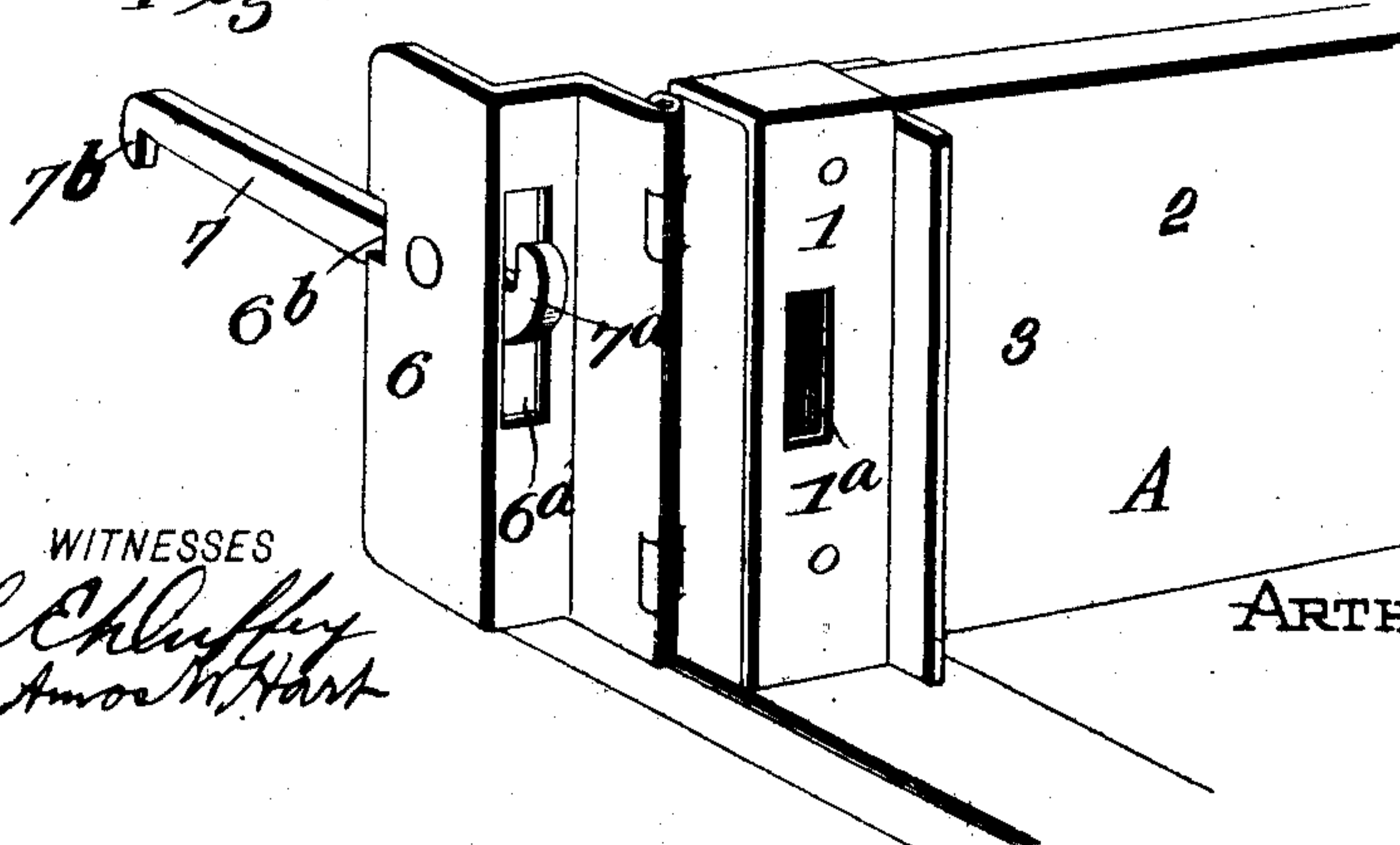


Fig. 3



WITNESSES

E. Chaffey
Amos W. Hart

INVENTOR

ARTHUR ROBERTS

BY *Wm. H. Co.*

ATTORNEYS

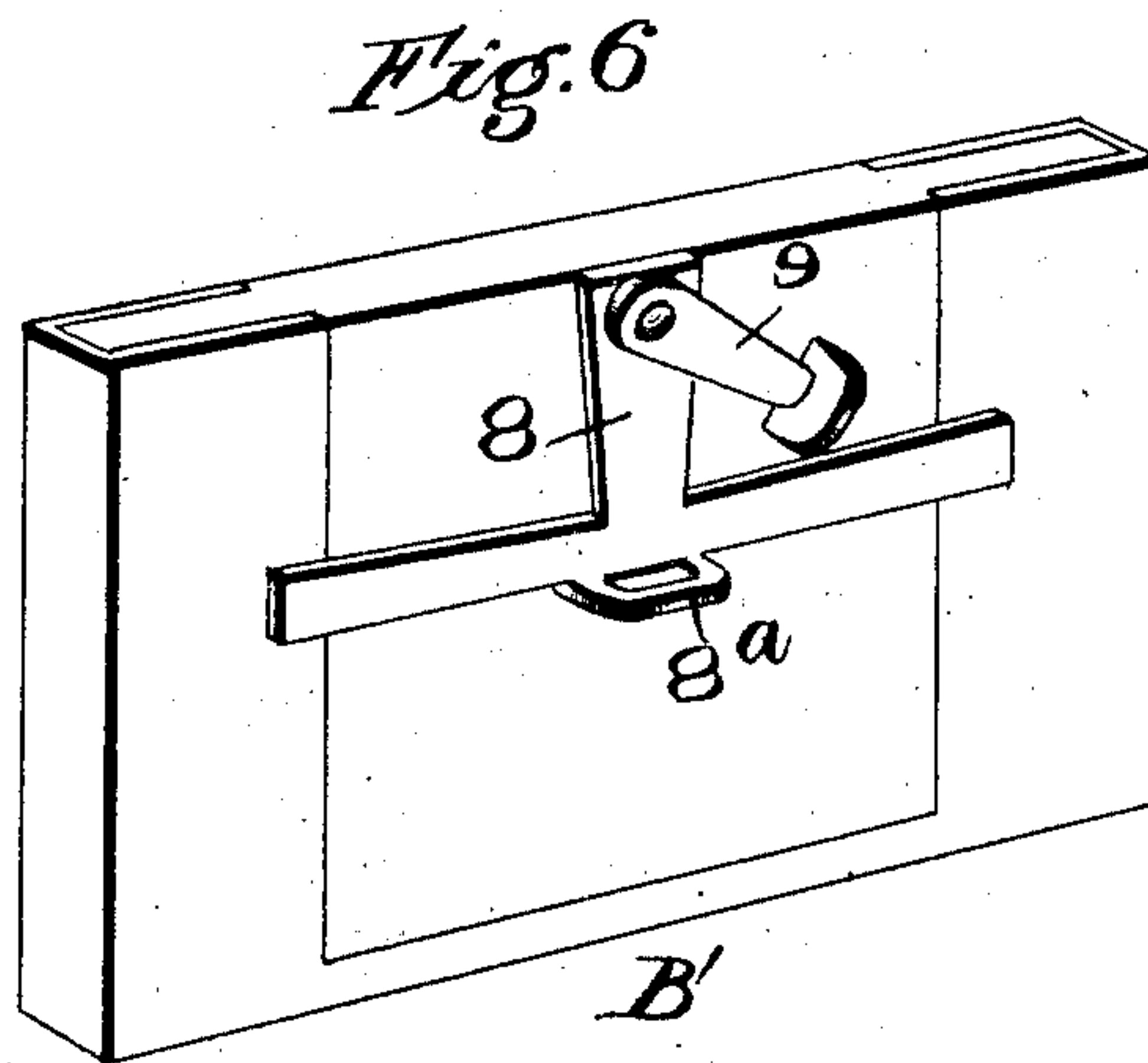
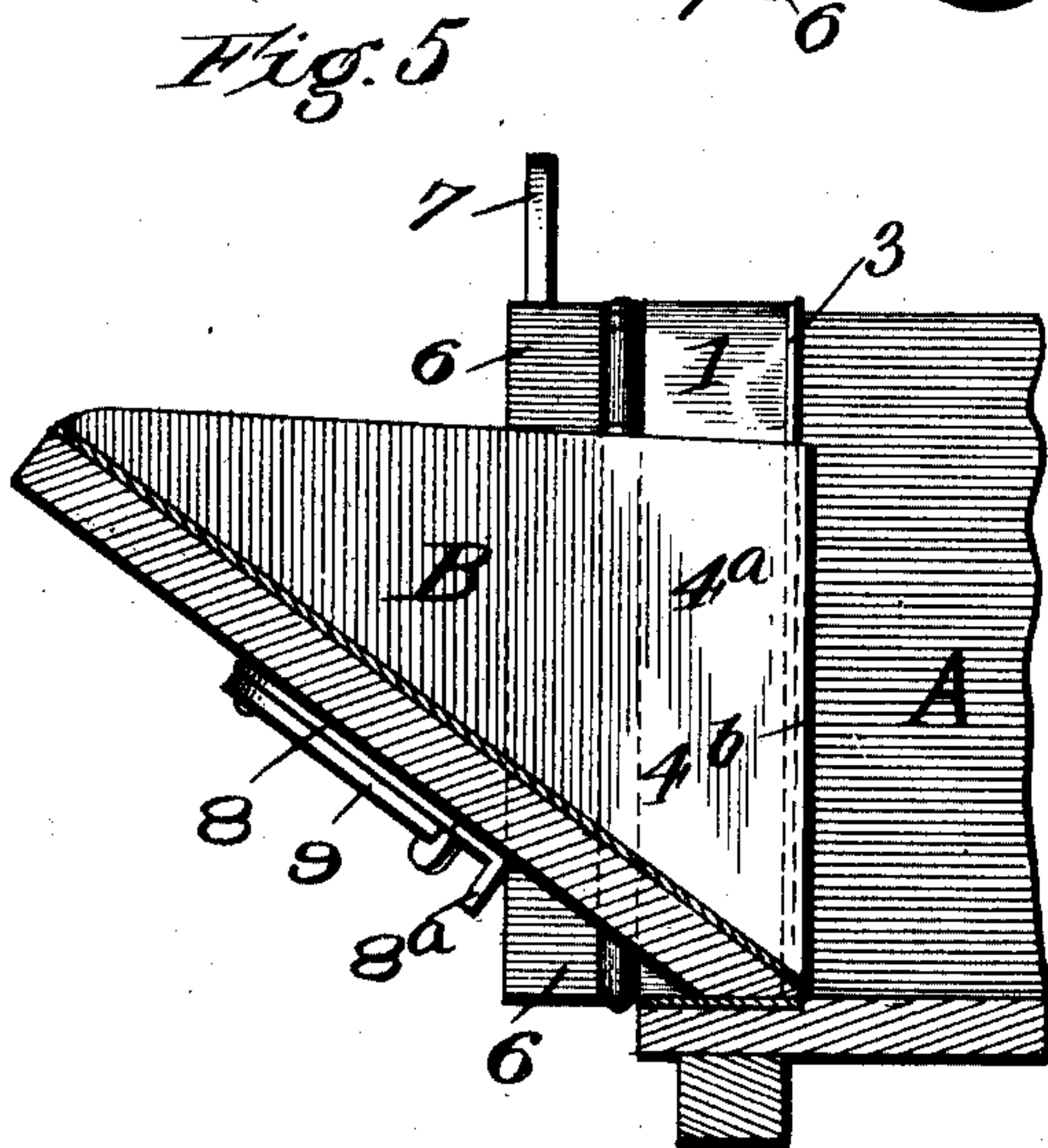
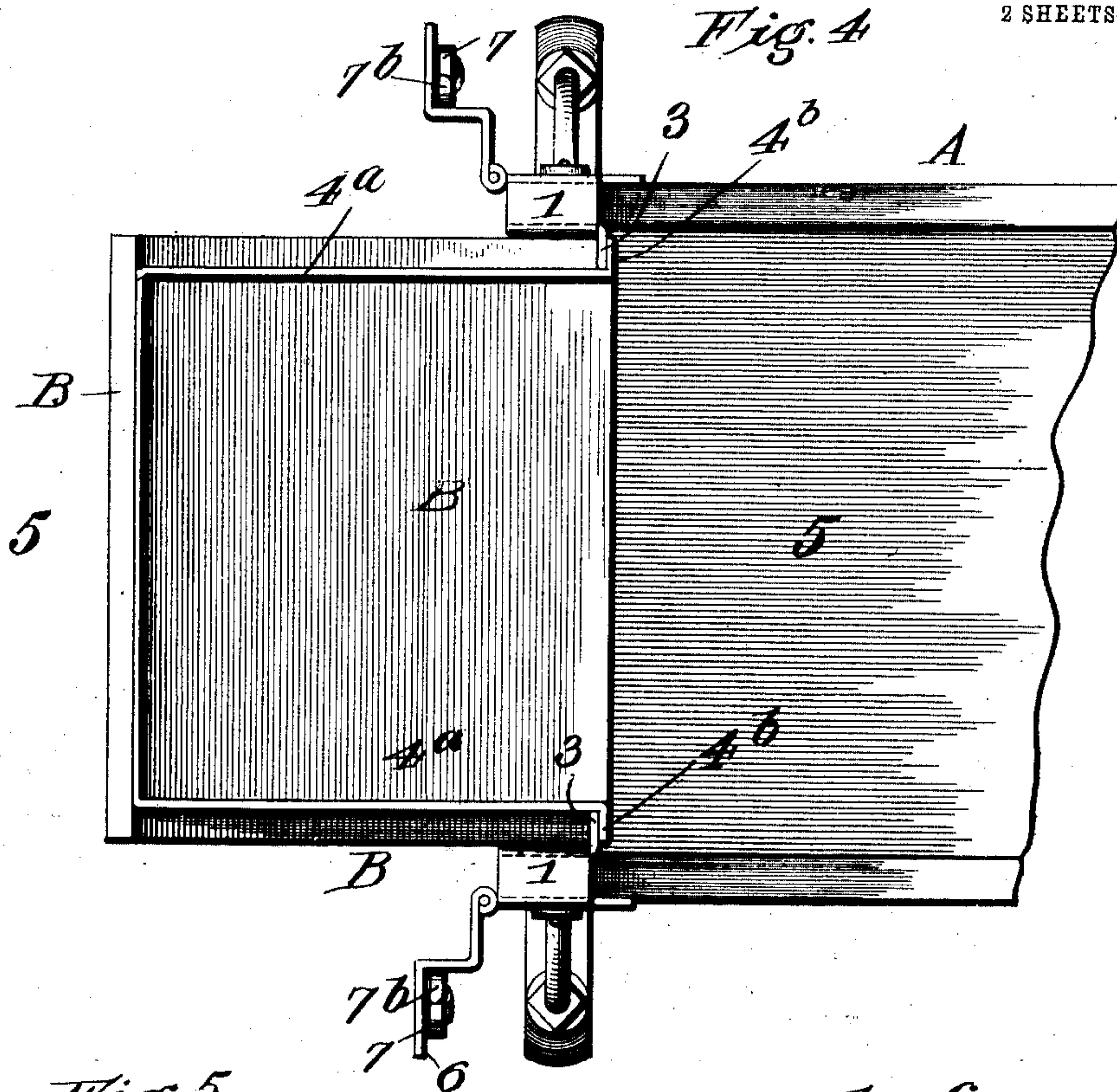
No. 864,692.

PATENTED AUG. 27, 1907.

A. ROBERTS.
END GATE.

APPLICATION FILED MAR. 25, 1907.

2 SHEETS—SHEET 2.



WITNESSES
W. H. Haffey
Amos W. Hart

INVENTOR
ARTHUR ROBERTS
BY *Wm. H. Haffey*
ATTORNEYS

UNITED STATES PATENT OFFICE.

ARTHUR ROBERTS, OF DAMAR, KANSAS.

END-GATE.

No. 864,692.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed March 25, 1907. Serial No. 364,246.

To all whom it may concern:

Be it known that I, ARTHUR ROBERTS, a citizen of the United States, and a resident of Damar, in the county of Rooks and State of Kansas, have invented
5 an Improvement in End-Gates, of which the following is a specification.

My invention relates to an improvement in end-gates and particularly to means for securing the same in working position.

10 The details of construction, arrangement, and combination of parts embodying my invention are as hereinafter described and illustrated in the accompanying drawings, in which—

Figure 1 is a rear end elevation of a wagon-body and
15 end-gate constructed according to my invention—a portion being broken away to show interior construction. Fig. 2 is a horizontal section on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of one side of the wagon body showing a portion of the attachment em-
20 bodying my invention. Fig. 4 is a plan view of the wagon body and end-gate, the latter being in the extended position. Fig. 5 is a vertical longitudinal section of the end-gate and adjacent portion of the wagon body. Fig. 6 is a perspective view of an end-gate of
25 the usual form.

A indicates a wagon-body and B a combined end-gate and shovel-board; that is to say, the end-gate may be placed in vertical position as indicated in Figs. 1 and 2, when it performs the function of an ordinary
30 end-gate, or it may be supported in an inclined position, as indicated in Figs. 4 and 5, when it is adapted for use as a shovel-board in loading a wagon.

As shown best in Fig. 3, a metal plate 1 is applied to the rear end of each side 2 of the wagon body A and is
35 secured by rivets passing transversely through the same. On the inner side of the wagon-body each such plate is provided with a lateral projection or flange 3 against which the side edges of the end-gate B abut when the gate is in vertical position as indicated in
40 Figs. 1 and 2. The end-gate B is lined interiorly with plate metal 4 which is extended at right angles to form triangular sides 4^a. The inner ends of such sides 4^a are bent laterally outward to form flanges 4^b, which, when the end-gate is extended in the inclined position
45 indicated in Figs. 4 and 5, abut the flanges 3 before described.

As will be seen in Fig. 2, there is a space between the lateral flanges 4^b and the projecting side edges 5; see Fig. 2. This space is necessary to enable the end-gate
50 to be properly manipulated for placing it in the vertical or inclined position.

The means for fastening or securing the end-gate in vertical position are as follows. Angular metal plates 6 are hinged to the metal casing 1 of the sides of the
55 wagon-body and latches 7 are pivoted thereto. Each latch is in the nature of a bar having its ends formed

as hooks which project vertically in opposite directions. The larger and outer hook 7^a is adapted to project through a slot 6^a formed in a swinging plate or latch-carrier, 6, and a corresponding slot 1^a is formed in the
60 inner portion of the metal casing 1 secured to the sides of the wagon-body. It will now be seen that when the end-gate is set in vertical position as in Figs. 1, 2, its side edges 5 abut the flanges 3 forming a part of the metal casing of the wagon-body sides 2. Then, the
65 latch-carriers 6 being swung to the closed position indicated in Figs. 1, 2, the latches may be turned into horizontal position and thus brought into alinement, whereby their outer hooked ends 7^a are caused to project through the slots 1^a in plates 1 and engage the lat-
70 ter as shown in Fig. 1. Thus, the end-gate is firmly secured in place; but it is requisite to lock the latches 6 in such position, and for this purpose I employ the following means. A metal plate 8 having the form of an inverted T is secured to the outer side of the end-
75 gate B, and a perforated lug 8^a is extended centrally from its lower edge. The hooks 7^b of the latches 7 enter the perforation in the lug 8^a and are held therein by a locking device 9 consisting of a metal bar or plate piv-
80 oted at 10 to the plate 8, and having its lower end projected outward so as to bear upon the upper sides of the hooks 7^b. The friction of the parts with each other suffices to hold the lock 9 in place. By such engage-
85 ment of the hooks 7^b with the lug 8^a, and the engagement of the hooks 7^a with the catches formed at the upper ends of the slots 1^a in plates 1, it is obvious that the lateral spreading of the sides of the wagon body is prevented. So far, however, as relates to holding the
90 latches in place, that is to say, in locking position for holding the end-board vertical, it would suffice to dis-
95 pense with the hooks 7^b and allow the adjacent inner ends of the hooks to simply rest on the plate 8^a. I desire it understood that any suitable device may be employed for holding the hooks in horizontal or locking position.

In order to unlatch or unfasten the end-gate B, the locking device 9 is swung up to vertical position indicated by dotted lines Fig. 1, and then the inner ends of the latches 7 are pressed upward whereby they are
100 disengaged from the lug 8^a and the latches, when in the vertical position indicated by dotted lines, are free from engagement with the metal casings 1. Then the latch-carriers 6 may be swung laterally as is shown in Figs. 3, 4, 5, and the end-gate B may be lowered to the
105 inclined position shown in Figs. 4, 5, or removed altogether, as conditions require. The function of the latches 7 is to prevent the end-gate swinging or moving backward. For preventing its vertical movement when the latches are closed, the swinging carriers 6 are provided in their outer edges with notches 6^b; see
110 Figs. 1 and 3. When the latch-carriers are closed as shown in Figs. 1 and 2, the notches 6^b engage with the

lateral ends of the inverted T-shaped plate 8; see Fig.

1. Thus vertical movement of the end-gate is prevented, and it cannot be effected until the latches 7 are released and the carriers 6 swung outward as indicated 5 in Figs. 3, 4, 5.

In place of employing an end-gate which is also adapted to serve as a shovel-board, I may employ an ordinary form of end-gate B', shown in Fig. 6, but it will be secured by the same fastenings shown in the 10 other figures and already described.

What I claim is—

1. The combination, with the wagon-body and end-gate, of means for securing the latter in vertical position, the same consisting of swinging plates 6 hinged to the sides 15 of the body, latches in the form of hooks pivoted to said plates, a metal plate secured to the back of the end-gate and having a projection upon which the inner ends of the latches rest when in locking position, and a swinging de-

vice pivoted to the back of the end-gate and adapted to engage said inner ends of the latches; the sides of the 20 body having slots and catches with which the latches engage, as shown and described.

2. The combination, with a wagon-body having inward shoulders adjacent to the rear ends of its sides and provided with slots and catches adjacent to said shoulders, 25 and an end-gate having on its rear side a plate provided with an apertured flange, of means for securing the end-gate and supporting the sides of the wagon-body against outward pressure, the same consisting of swinging latch-carriers 6 and latches proper pivoted thereto and constructed in the form of a double hook, the outer hooks en- 30 gaging catches in the wagon-body sides and the inner or down-turned hooks, engaging the aforesaid apertured plate, and means for holding them in such engagement, substantially as described.

ARTHUR ROBERTS.

Witnesses:

J. H. MALONE,

J. B. TROMBLAY.