

No. 627,262.

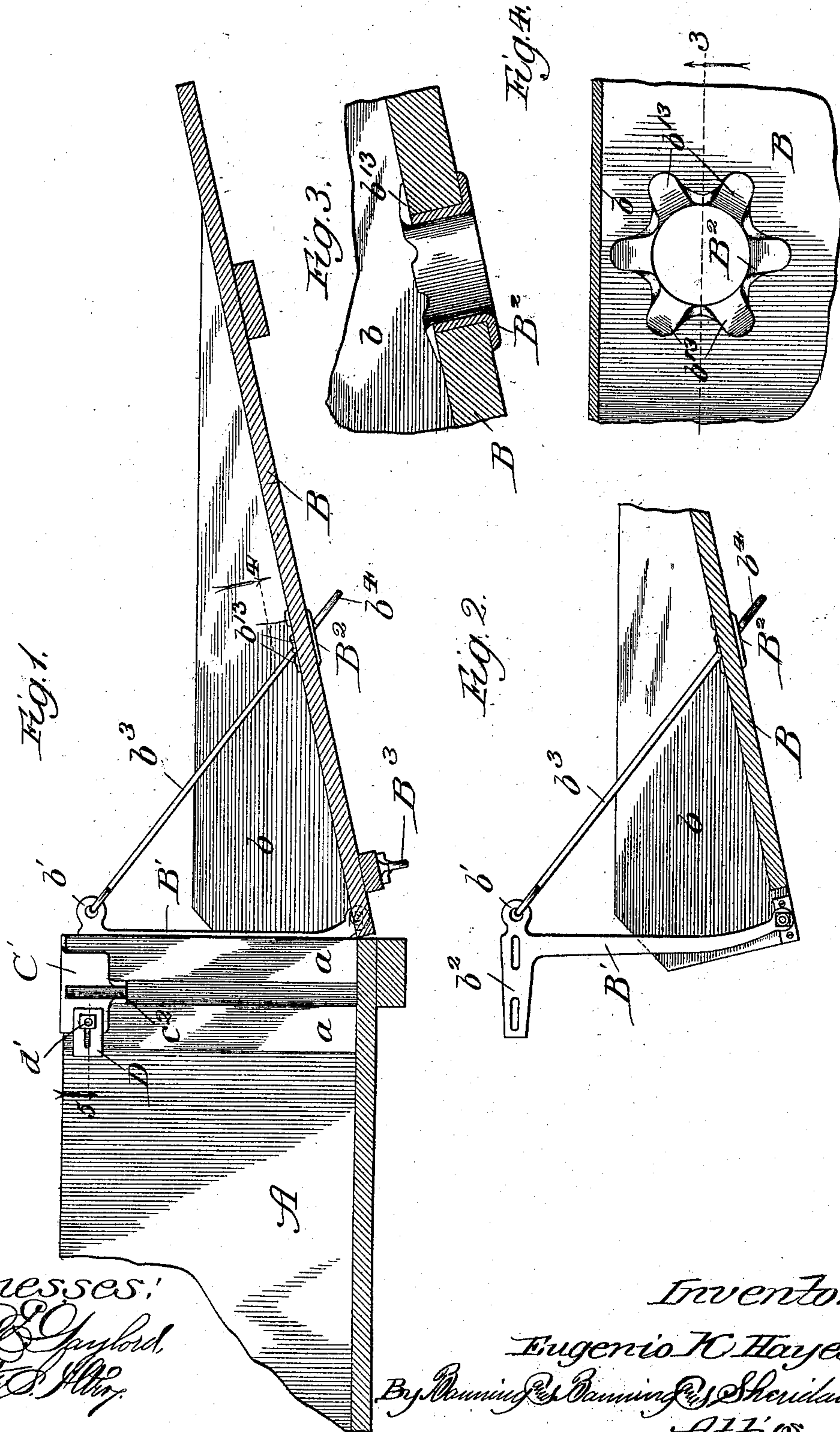
Patented June 20, 1899.

E. K. HAYES.
WAGON BOX.

(Application filed Sept. 24, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:
Chas. E. Payford,
Luk. S. May.

Inventor:
Eugenio K. Hayes,
By Manning & Manning, Attorneys.

No. 627,262.

Patented June 20, 1899.

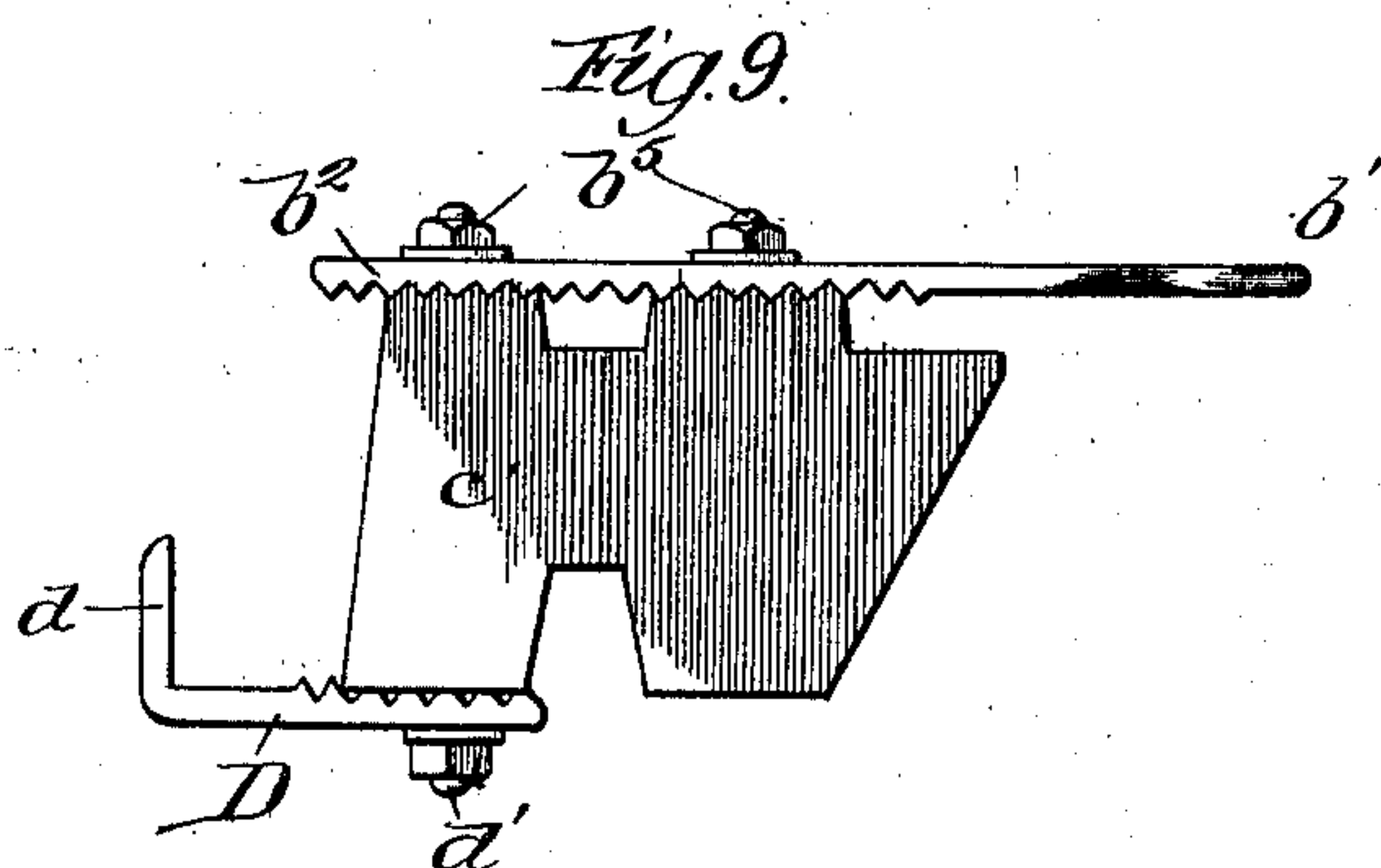
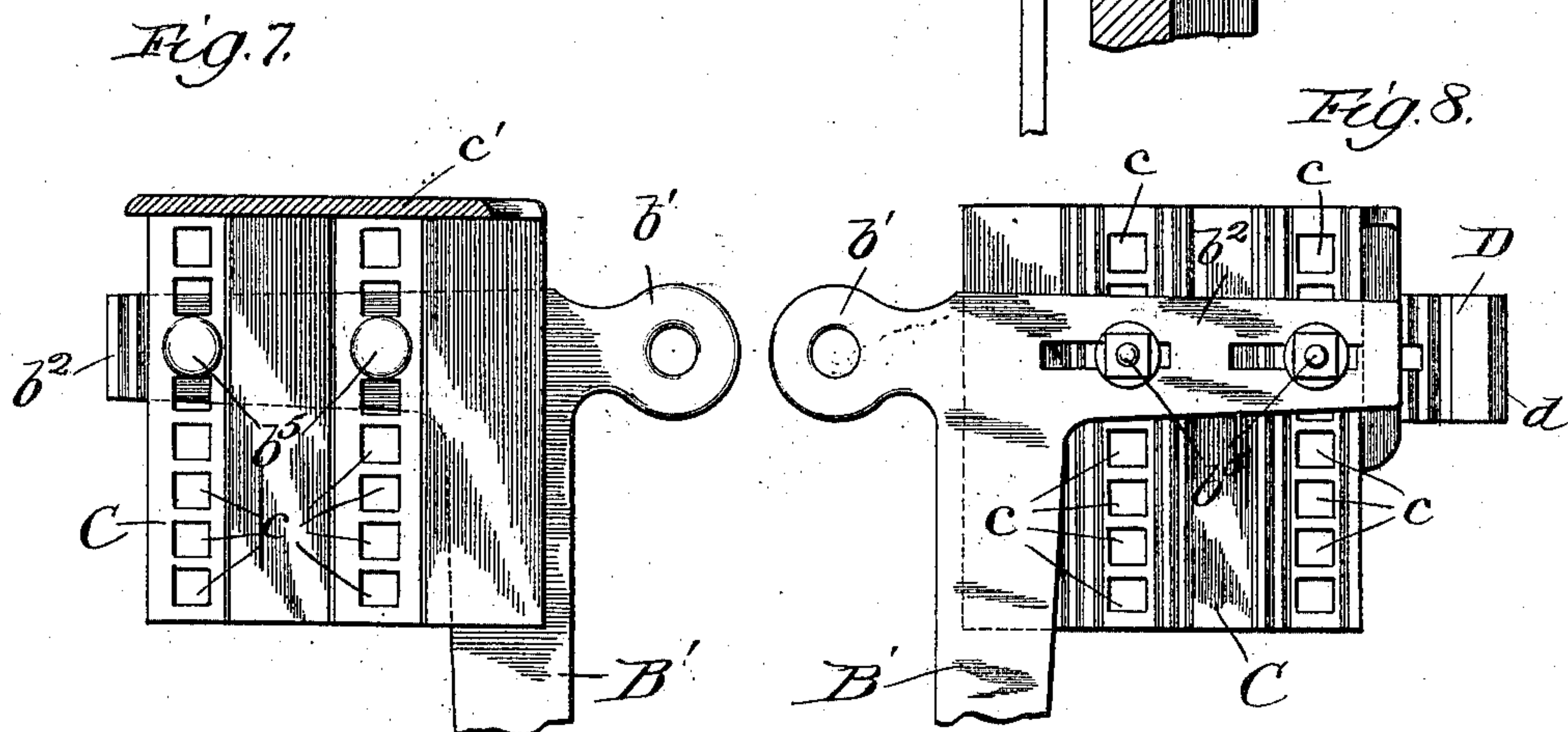
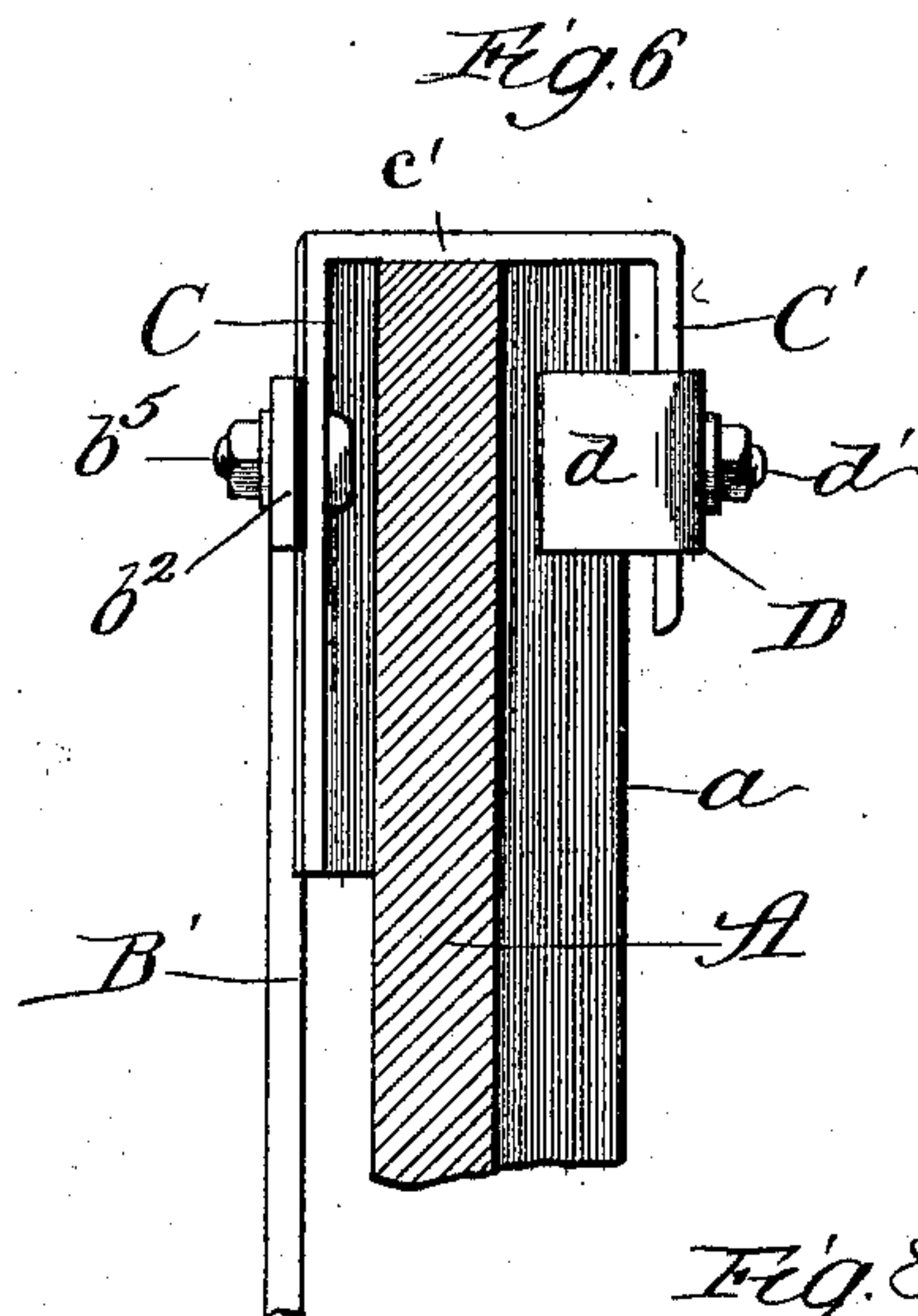
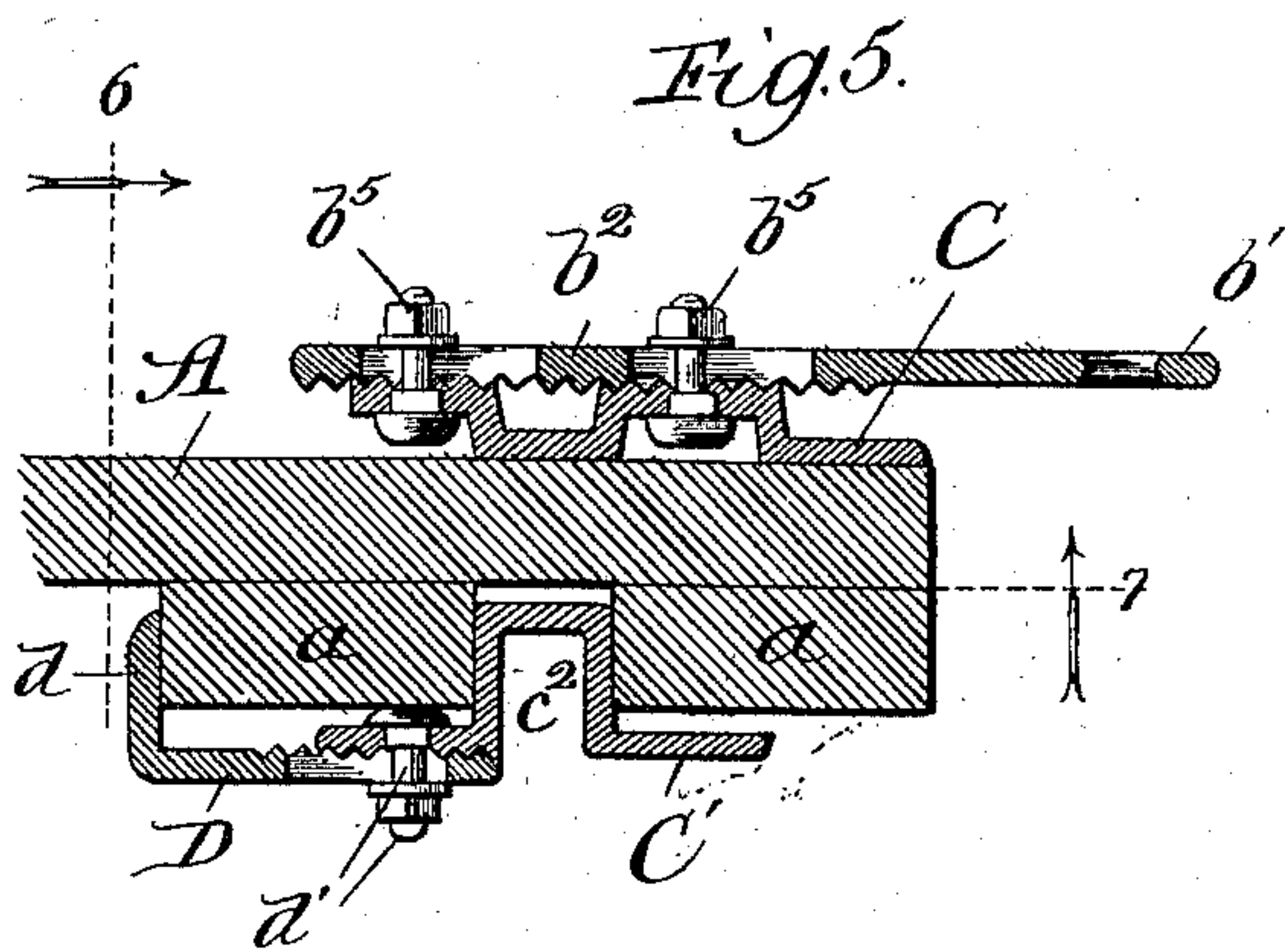
E. K. HAYES.

WAGON BOX.

(Application filed Sept. 24, 1898.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses:
Chas. J. Hayford,
Lute S. Hillyer

Inventor:
Eugenio K. Hayes,
By Manning & Manning Attys.

UNITED STATES PATENT OFFICE.

EUGENIO K. HAYES, OF GALVA, ILLINOIS.

WAGON-BOX.

SPECIFICATION forming part of Letters Patent No. 627,262, dated June 20, 1899.

Application filed September 24, 1898. Serial No. 691,751. (No model.)

To all whom it may concern:

Be it known that I, EUGENIO K. HAYES, a citizen of the United States, residing at Galva, Illinois, have invented certain new and useful Improvements in Wagon-Boxes, of which the following is a specification.

In the drawings, Figure 1 is a sectional view of a part of the rear portion of a wagon-box, showing a shoveling-board in connection therewith; Fig. 2, a detail view of a portion of the shoveling-board; Fig. 3, a sectional view taken on line 3 of Fig. 4; Fig. 4, an enlarged plan sectional view taken on line 4 of Fig. 1; Fig. 5, an enlarged plan sectional view taken on line 5 of Fig. 1; Figs. 6 and 7, sectional views taken on lines 6 and 7, respectively, of Fig. 5; Fig. 8, a side elevation of the parts shown in Fig. 7, and Fig. 9 a plan view of the clip or fastening for the shoveling-board.

In making my improvement in wagon-boxes I make a box having a bottom and side-boards A in the usual manner. At the rear end of the side-boards I arrange cleats *a a*, between which an end-gate may be inserted when it is desired to use such piece. As my improvement, however, relates more particularly to what is termed a "shovel-board"—a board to facilitate the shoveling of the contents from the wagon-box—I will confine my explanations more particularly to such feature, with its associated parts. The shovel-board B is provided with side pieces *b*, as shown in Figs. 1 and 2. It is provided with and supported at its inner end on supporting-arms B', which are intended to pass up on the outside of the side-boards of the wagon-box, as shown in Fig. 1. The upper ends of the supporting-arms are provided with heads having at the rear side a piece *b'*, provided with an eye, and at the front side a piece *b''*, provided with elongated holes, as shown in Fig. 2. From the eye a rod *b'''* extends down to the shovel-board and passes through a hole in the same provided with a bushing B². This bushing is provided with a flanged head at one end and with projections *b¹³* at the other, so that when inserted in place the projections may be turned down to form a head, as shown in the drawings. This rod is provided on its outer end with means for preventing its withdrawal through the hole, preferably a turn

b⁴ on the end of the rod, as shown in Figs. 1 and 2. The bushing is large enough to permit the rod to move freely through it and also to receive the piece *b'* through it when the shovel-board is raised or swung up into a vertical position. When in such position, the rod may be turned down and caught into a hook B³, which serves to secure the shovel-board in its up position, closing the end of the wagon-box and serving the purpose when up of a tail-board. For the effectual support of the shovel-board there should be two holes in the board provided with bushings and two rods arranged as described above.

The upper ends of the supporting-arms B', through means of the elongated holes in the pieces *b''*, are secured by bolts and nuts *b⁵* to brackets C. These brackets are preferably corrugated, as shown in the drawings, and provided with a number of holes *c*, as shown in Figs. 7 and 8. This enables the brackets to be adjusted up and down on the pieces *b''* of the supporting-arms B', so as to regulate their height to suit the varying heights of the side-boards of different wagon-boxes. In Fig. 8 we see the brackets C and pieces *b''* as they appear from the outside of the wagon. The brackets C have horizontal pieces *c'*, extending inward above the side-boards of the wagon-box, and depending pieces C', extending downward into the wagon-box, as shown in Fig. 6. The depending pieces C' are provided with U-shaped portions *c''*, that fit in between the cleats *a a*, as shown in Fig. 5. This enables the brackets C to be attached to the wagon-box and to sustain the weight of the shovel-board and a man when standing therein to shovel out the contents of the wagon-box; but in order to still further strengthen and secure the brackets projecting pieces D are attached to the depending portions C' of the brackets C and extended forward enough to permit a clip *d*, formed by turning the ends of the pieces D outward, to rest against the inner sides of the inner cleats *a*, as shown in Fig. 5. The pieces D are provided with elongated holes and attached through them to the depending pieces C' by means of bolts *d'*, and the surfaces of the two pieces where they contact are preferably serrated or grooved, as shown in Fig. 5, so that when the nut is turned up on the bolt *d'* they will be held tightly to-

gether and without the slipping of the one surface on the other. The elongated holes in the pieces D, through which the bolts d' pass, permit them to be adjusted backward and forward by loosening the bolts, so that the clips d can be clasped properly against the inner edges of the inner cleats a , even though such cleats be of different widths in different wagon-boxes. The pieces b^2 of the supporting-arms B' are also provided with teeth or grooves on their inner surfaces to engage with corresponding teeth or grooves on the outer surfaces of the brackets C, as shown in Fig. 5, so that when the parts are together they will be prevented from slipping the one on the other.

As already intimated, the shovel-board when used takes the place of the ordinary end-gate. It is intended to be attachable to and detachable from ordinary wagon-boxes. To attach it to a wagon-box, all that is necessary is to remove the end-gate and place the brackets C over the side-boards of the wagon-box, so that the U-shaped portions c^2 fit into the groove between the cleats left by the removal of the end-gate and adjust the pieces D so that the clips d will properly bear against the inner sides of the inner cleats. The shovel-board is then in place and ready for use. To remove it, all that is necessary is to reverse the operation already described in applying it in place. When on a wagon-box, the shovel-board may be turned up to serve the purpose of the end-gate, as already explained, and turned down to permit a man to stand in it and readily and easily shovel out the contents of the wagon-box.

What I regard as new, and desire to secure by Letters Patent, is—

1. The combination of a shovel-board, brackets adapted to be detachably secured to the rear end of a wagon-box and provided with vertical series of holes, and supporting-arms provided with a forwardly-extending portion having slotted holes adapted to be detachably secured, through such slotted holes, to the brackets, through desired ones of the vertical holes, and pivotally secured to the inner end of the shovel-board, substantially as described.

2. The combination of a shovel-board, brackets adapted to be detachably secured to the rear end of a wagon-box and provided with vertical series of holes, and supporting-arms provided with a forwardly-extending portion, having slotted holes, adapted to be detachably secured, through such slotted holes, to the brackets, through desired ones of the vertical holes, and pivotally secured to the inner end of the shovel-board, and with a rearwardly-extending portion having an eye, and a rod connecting the eye and the shovel-board at a point intermediate its ends, substantially as described.

3. The combination of a shovel-board, brackets adapted to be detachably secured to the rear end of a wagon-box and provided

with downwardly-depending pieces within the box having portions adapted to fit between cleats affixed to the side-boards, forwardly-projecting pieces attached to the depending pieces and provided with clips adapted to bear against the inner sides of the inner cleats, and supporting-arms adjustably secured to the brackets at their upper ends and pivotally secured to the inner end of the shovel-board, substantially as described.

4. The combination of a shovel-board, brackets adapted to be detachably secured to the rear end of a wagon-box and provided with vertical series of holes and with downwardly-depending pieces within the box having portions adapted to fit between cleats affixed to the side-boards, and supporting-arms provided with a forwardly-extending portion having slotted holes adapted to be detachably secured, through such slotted holes, to the brackets, through desired ones of the vertical holes, and pivotally secured to the inner ends of the shovel-board, substantially as described.

5. The combination of a shovel-board, brackets adapted to be detachably secured to the rear end of a wagon-box and provided with vertical series of holes and with downwardly-depending pieces within the box having portions adapted to fit between cleats affixed to the side-boards, forwardly-projecting pieces attached to the depending pieces and provided with clips adapted to bear against the inner sides of the inner cleats, and supporting-arms provided with a forwardly-extending portion, having slotted holes adapted to be detachably secured, through such slotted holes, to the brackets, through desired ones of the vertical holes, and pivotally secured to the inner end of the shovel-board, substantially as described.

6. The combination of a shovel-board, brackets adapted to be detachably secured to the rear end of a wagon-box and provided with vertical series of holes and with downwardly-depending pieces within the box having portions adapted to fit between cleats affixed to the side-boards, and supporting-arms provided with a forwardly-extending portion, having slotted holes, adapted to be detachably secured, through such slotted holes, to the brackets, through desired ones of the vertical holes, and pivotally secured to the inner end of the shovel-board, and with a rearwardly-extending portion having an eye, and a rod connecting the eye and the shovel-board at a point intermediate its ends, substantially as described.

7. The combination of a shovel-board, brackets adapted to be detachably secured to the rear end of a wagon-box and provided with vertical series of holes and with downwardly-depending pieces within the box having portions adapted to fit between cleats affixed to the side-boards, forwardly-projecting pieces attached to the depending pieces and provided with clips adapted to bear against the inner

sides of the inner cleats, and supporting-arms provided with a forwardly-extending portion, having slotted holes, adapted to be detachably secured, through such slotted holes, to the
5 brackets, through desired ones of the vertical holes, and pivotally secured to the inner end of the shovel-board, and with a rearwardly-extending portion having an eye, and a rod connecting the eye and the shovel-board at a
10 point intermediate its ends, substantially as described.

8. The combination of a shovel-board, supporting-arms on which it is pivotally mounted at its inner end, heads on the sup-
15 porting-arms terminating in forwardly-projecting pieces provided with slotted holes and rearwardly-projecting pieces provided with eyes, bushed holes through the bottom of the shovel-board, rods extending from the eyes
20 through the bushed holes, hooks on the outer side of the shovel-board adapted to receive the rods when the board is turned into an up or vertical position, brackets embracing the side-boards of the wagon-box provided on the
25 outer side with holes arranged in vertical rows, bolts attaching the forwardly-projecting

portions of the supporting-arms through their slotted holes with holes in the brackets, whereby the brackets may be adjusted forward or backward or up or down, depending portions
30 of the brackets arranged on the inside of the side-boards provided with pieces resting between the cleats, whereby the brackets are attached and secured to the side-boards, and forwardly-extending pieces provided with
35 outwardly-projecting clips to contact against the inner sides of the inner cleats, substantially as described.

9. The combination of a shovel-board provided with holes intermediate its ends, bush-
40 ings lining such holes provided with flanged heads at one side and with projections adapted to be turned outwardly and downwardly to form a head at the other, whereby they are
45 secured in place, and rods connecting the shovel-board through such bushings to the rear end of a wagon-box, substantially as described.

EUGENIO K. HAYES.

Witnesses:

THOMAS B. MCGREGOR,
SAML. N. BANNING.