

(No Model.)

2 Sheets—Sheet 1.

M. F. BLAKE.
DUMPING CAR.

No. 567,019.

Patented Sept. 1, 1896.

Fig. 1.

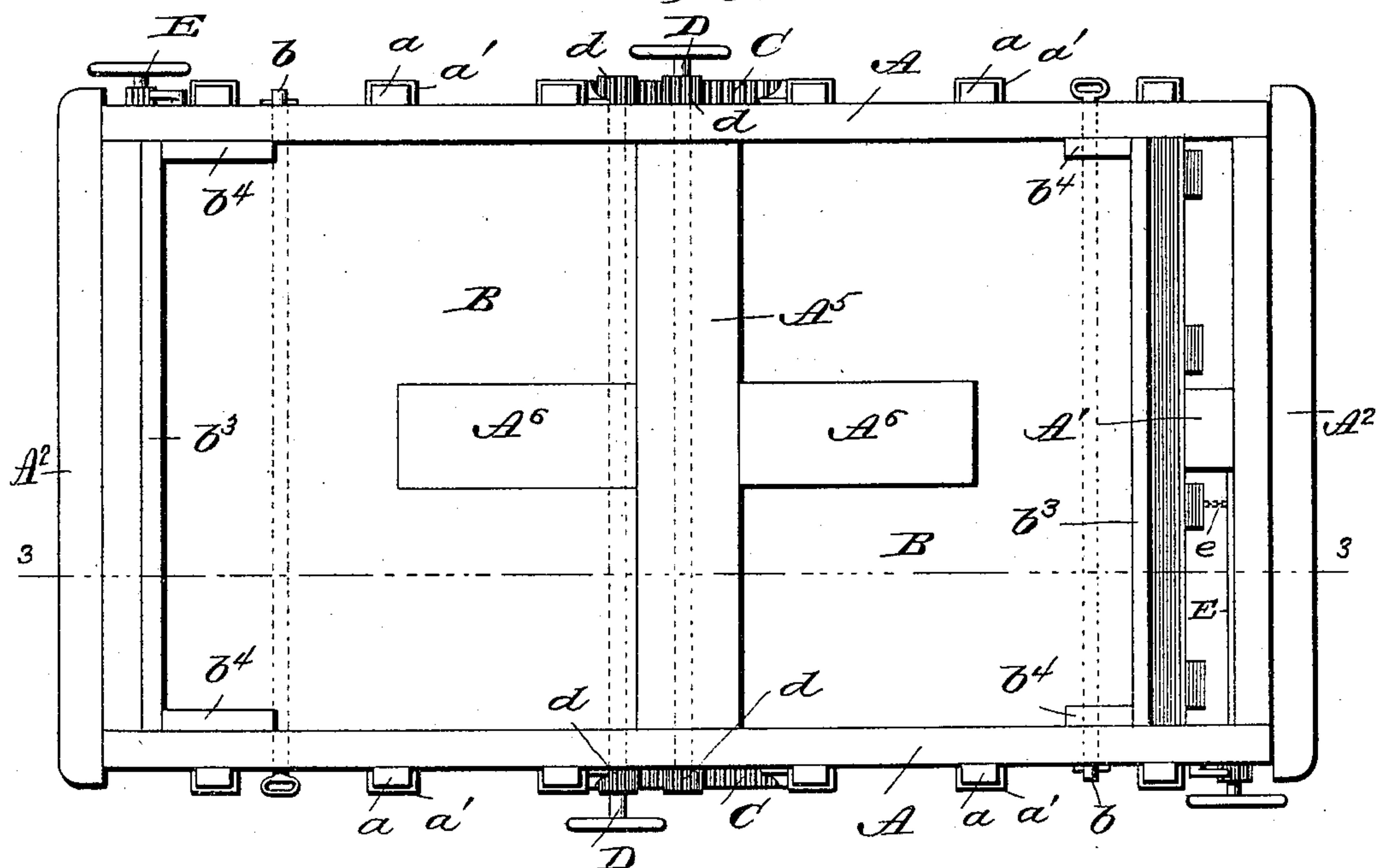
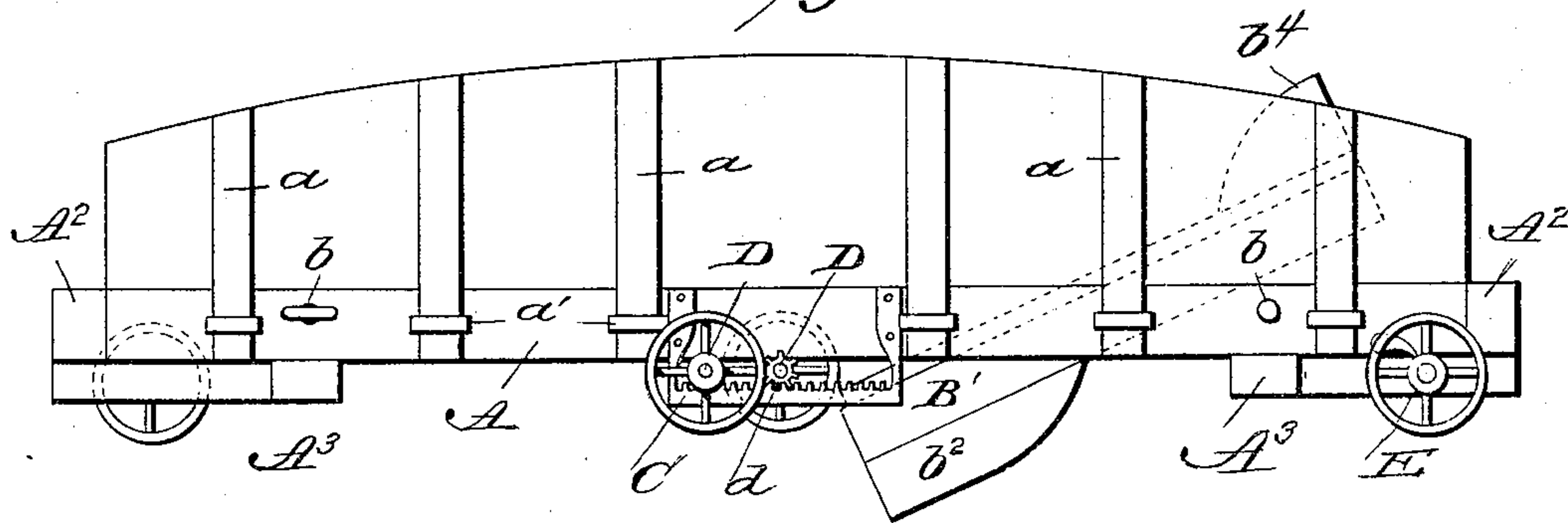


Fig. 2.



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Fig. 3.

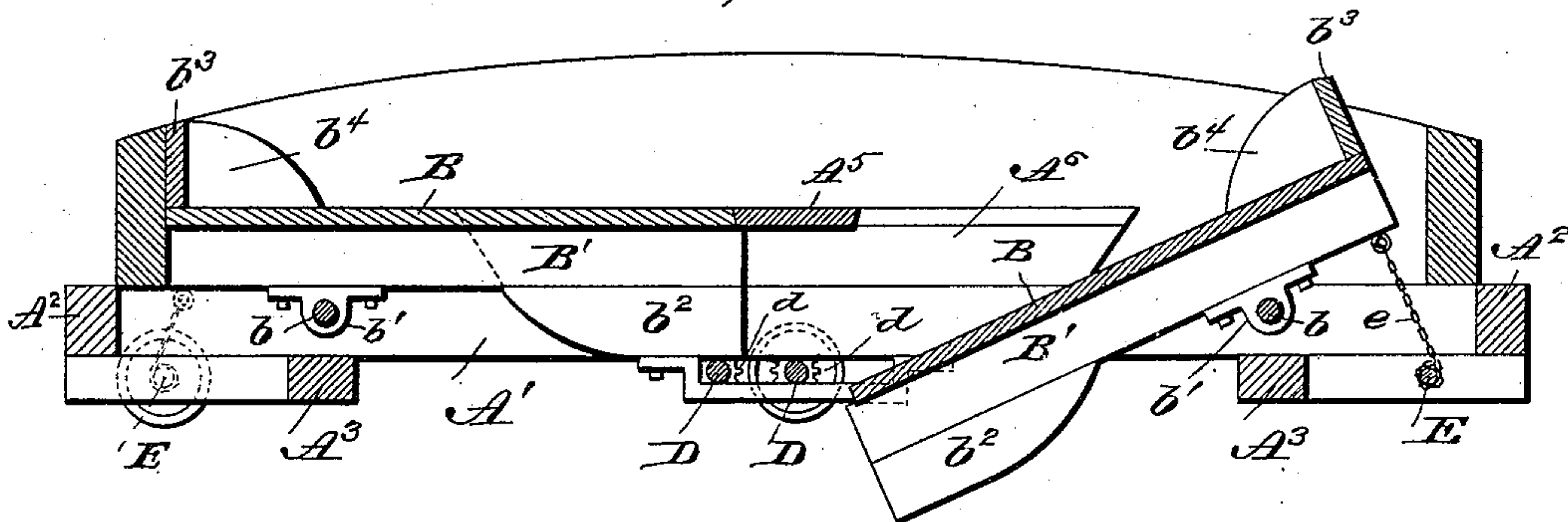
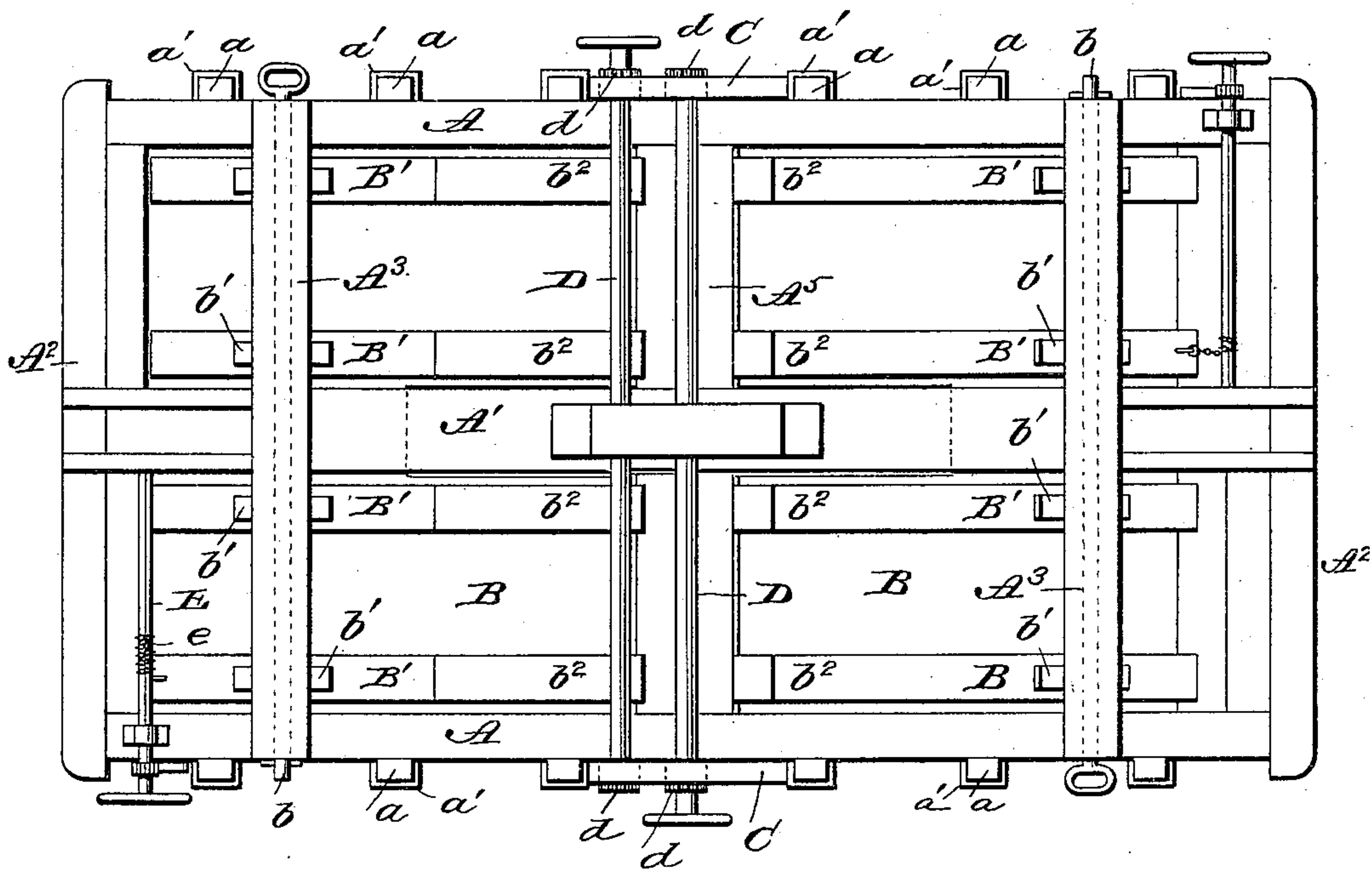


Fig. 4.



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UNITED STATES PATENT OFFICE

MILLARD F. BLAKE, OF MARTINSBURG, PENNSYLVANIA.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 567,019, dated September 1, 1896.

Application filed June 30, 1896. Serial No. 597,579. (No model.)

To all whom it may concern:

Be it known that I, MILLARD F. BLAKE, a citizen of the United States of America, residing at Martinsburg, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Dumping-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 of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a dumping-car having a bottom divided into two sections, the frame of the car presenting a central transverse beam and a central longitudinal beam which form a stationary part of the bottom of the car, the two sections being hinged or so hung upon the frame as to have a tilting movement, and means being provided for returning the sections to their normally horizontal position and for retaining them in such position, all as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of a dumping-car constructed in accordance with my invention. Fig. 2 is a side elevation showing one of the bottom-sections inclined. Fig. 3 is a longitudinal sectional view on the line 3 3 of Fig. 1. Fig. 4 is an inverted plan view.

The frame of the car consists of longitudinal side beams A A and a central longitudinal beam A', said beams being connected to each other by end cross-beams A² A² and by the usual bolsters A³. The body of the car, consisting of side and end pieces, is mounted upon the longitudinal side beams A A and is provided with the ordinary stakes a, which engage loops a' therefor, attached to said longitudinal side beams.

B B designate the two sections which make up the bottom of the car-body, each section being supported upon a transverse bar b, which bears at its ends in the longitudinal side beams A A and passes through the cen-

tral longitudinal beam A', the bottom-sections B having castings or eyes b' attached thereto and in engagement with the transverse rods or bars to support said sections in swinging engagement with their supports. The bottom-sections B are each made up of four longitudinal beams B', to which the floor-boards are secured, said longitudinal beams being provided at their inner ends with depending portions b², for the purpose hereinafter set forth, and the rear ends of the sections have upright pieces or boards b³ and b⁴, which prevent the coal or other material carried by the car from falling beyond said sections when they are being dumped or tilted.

C C designate hangers, which are secured to the longitudinal side beams A on the outer sides thereof, said hangers being constructed to present a horizontal rack-bar on each side of the car, the teeth of the rack-bars projecting upwardly. In mesh with these rack-bars are pinions d at the ends of two transverse shafts D D, which extend across the car and are adapted to be moved in and out of engagement with the depending portions b² of the bottom-sections B, each transverse shaft being provided with a hand-wheel which is turned to move said shafts sidewise, such movement being caused by the pinions d engaging the teeth of the rack-bars. It will be noted that by providing the pinions and rack-bars the transverse shafts D are moved sidewise their full length by simply turning the hand-wheel at one end, and that when the said shafts are moved to engage the under side of the depending portions b² of the bottom-sections said sections will be positively retained in their normal horizontal position. When the shafts D are moved out of engagement with the bottom-sections or beneath the transverse board A⁵, the weight of the material will tilt said bottom-sections and will be dumped or deposited beneath the center of the car.

In order to provide for returning the bottom-sections to a horizontal position, I position at each end of the car a transverse shaft E, having a hand-wheel for operating the same, and these shafts are connected to the rear ends of the bottom-sections by chains or

flexible connections *e*. By this arrangement the turning of the shafts E will bring the bottom-sections to a horizontal position, and in order to retain them in this position to permit the operator to manipulate the transverse shafts D, I provide the said shafts E with the ordinary pawls and ratchets, as shown. It will be noted that the inner ends of the bottom-sections B are recessed centrally, so that their tilting movement will not be interfered with by the central longitudinal beam A', and in order to provide an unbroken or plain floor for the car when the sections B are in a horizontal position the beam A' is built up on each side of the transverse board A⁵ by pieces A⁶, the ends of which are beveled, as shown, to allow a tilting movement of the sections B, said movement being limited by the engagement of the sections with the longitudinal beam A'.

From the foregoing description, in connection with the accompanying drawings, the operation of my invention or improved dumping-car will be readily understood, and it will be noted that the stationary parts A⁵ and A⁶ of the floor or bottom of the car add materially to the safety of a car thus constructed, for should a person be upon the car when the sections B of the bottom are released ample standing space will be presented by said parts. These parts are also useful in providing a stand for the attendant, from which he can remove material that will be likely to clog or impede the operation of the tilting bottom-sections.

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

1. In a dumping-car provided with tilting bottom-sections, of hangers on each side of the car presenting horizontal rack-bars; transverse shafts D having pinions at their ends which engage or mesh with the rack-bars, substantially as shown, whereby said shafts can be moved under the inner ends of the bottom-sections by turning said shaft at one end.

2. In a dumping-car, the combination with the frame made up of longitudinal side beams A A, central longitudinal beam A', end cross-beams A² and bolsters A³, the beam A' being built up centrally and the frame having a central cross-piece, of transverse rods or bars *b* bearing in the beams A A and A'; bottom-sections B supported upon said rods or bars and cut away centrally at their inner ends; together with transverse shafts D having pinions; hangers attached to the car-frame and presenting rack-teeth with which said pinions mesh; and transverse shaft E connected to the rear ends of the bottom-sections by chains or flexible connections; the parts being constructed and organized substantially as shown and for the purpose set forth.

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

MILLARD F. BLAKE.

Witnesses:

R. T. ELDON,

HARRY S. BROWN.