

No. 659,826.

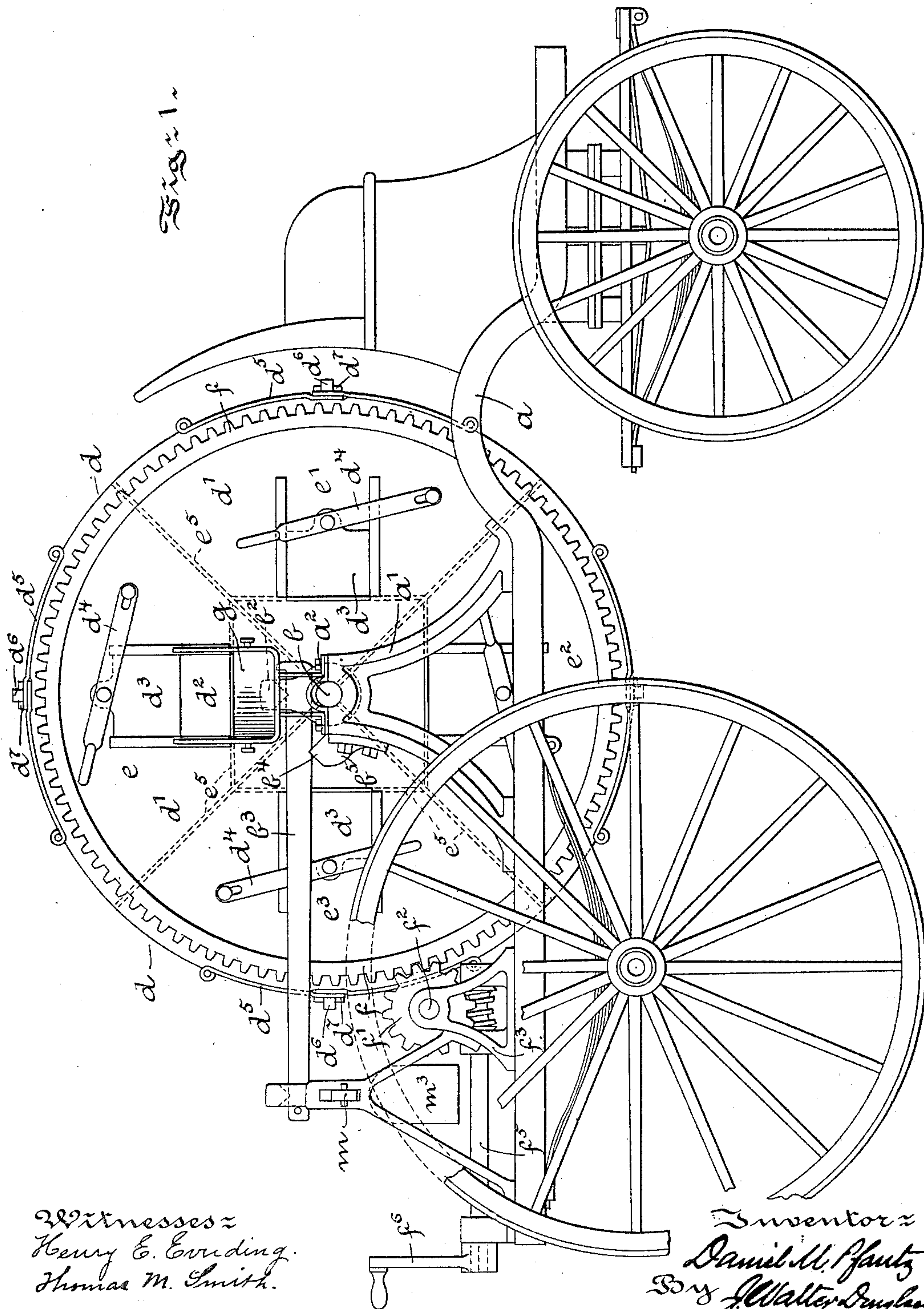
Patented Oct. 16, 1900.

D. M. PFAUTZ.  
COAL DELIVERY WAGON.

(Application filed Aug. 31, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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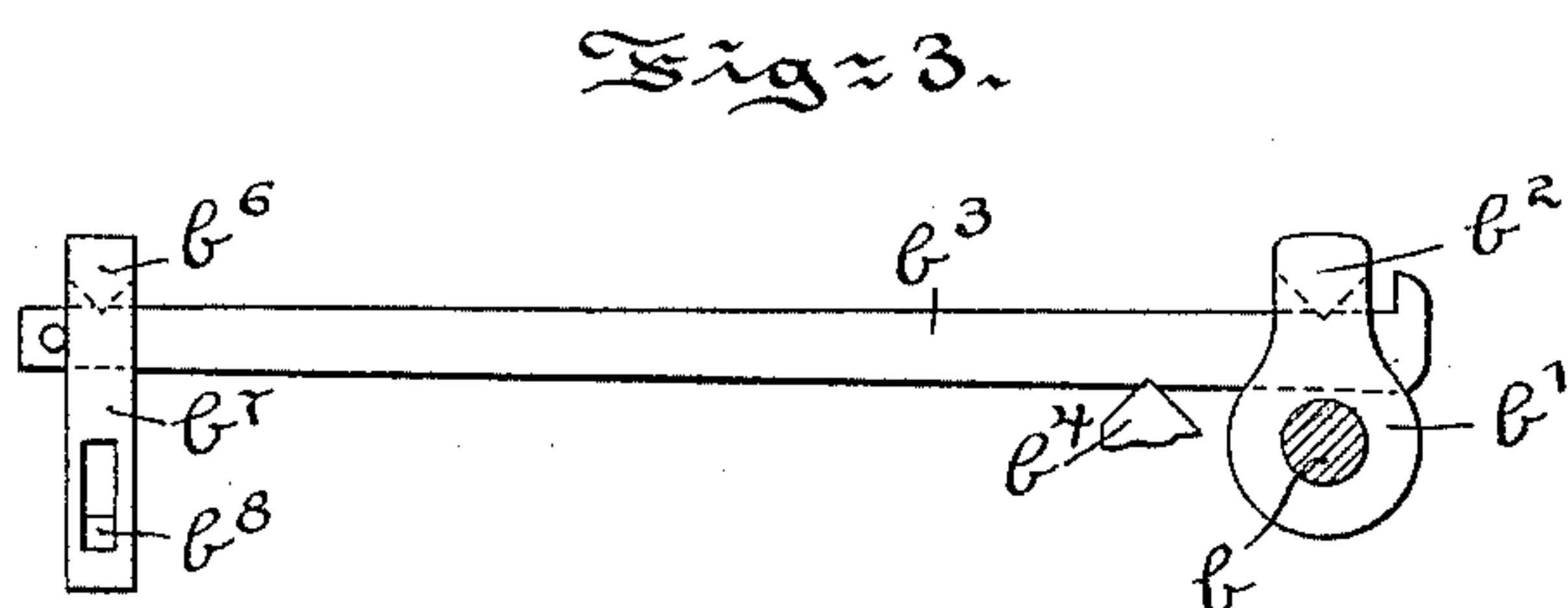
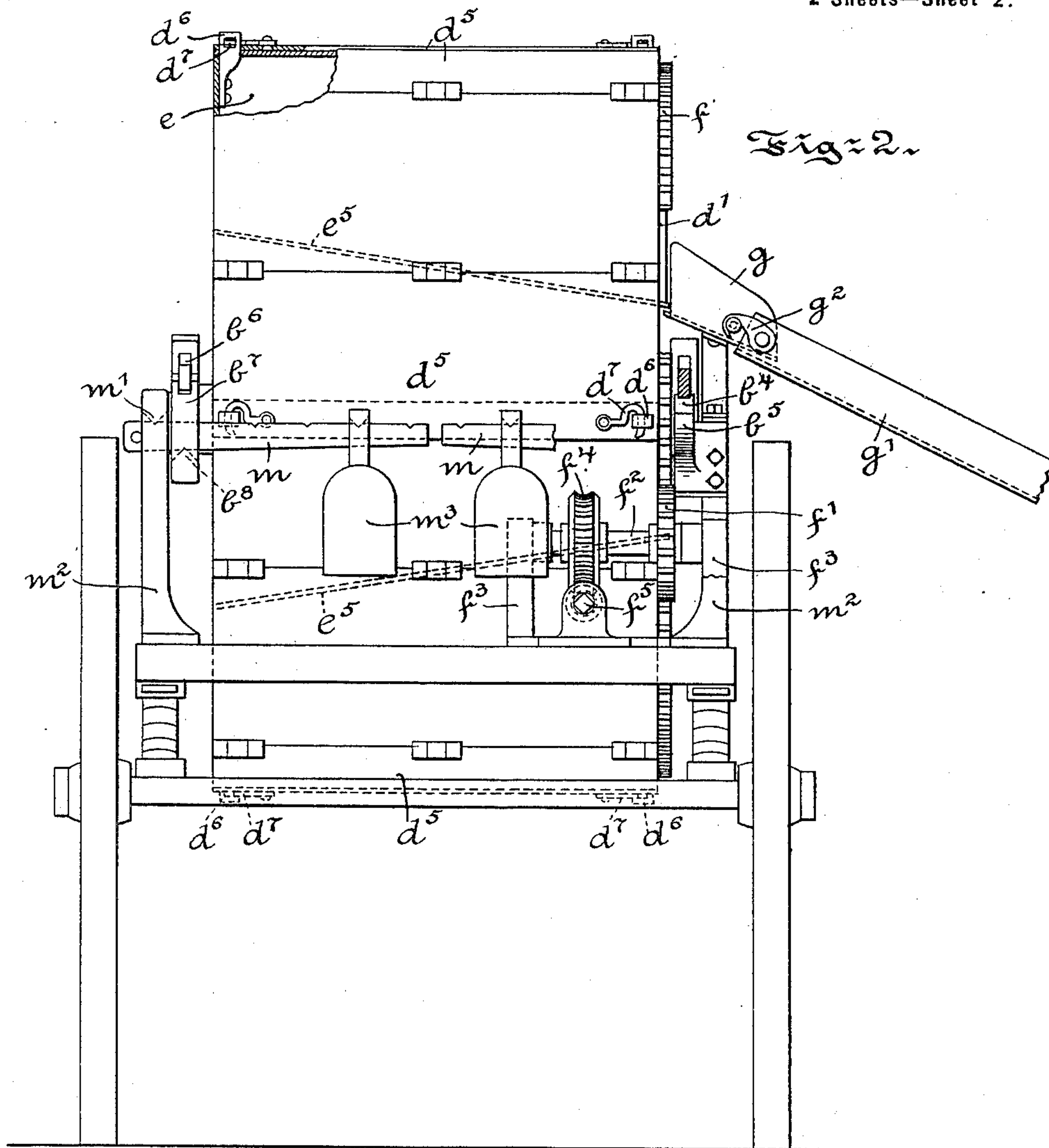
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**2 Sheets—Sheet 2.**



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# UNITED STATES PATENT OFFICE.

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## COAL-DELIVERY WAGON.

SPECIFICATION forming part of Letters Patent No. 659,826, dated October 16, 1900.

Application filed August 31, 1900. Serial No. 28,634. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL M. PFAUTZ, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Coal-Delivery Wagons, of which the following is a specification.

My invention has relation to a wagon for delivering coal, and in such connection it relates more particularly to the construction and arrangement of such a wagon.

The principal objects of my invention are, first, to provide in a coal-delivery wagon a cylindrical or drum-like body or receptacle for the coal having a longitudinal central axis or bearing resting upon the truck or frame of the vehicle parallel to one of the axles of the vehicle, the said body or receptacle adapted to turn upon its axis and having its interior divided into a series of compartments, each having an inlet or door on the periphery and a discharge-outlet at one of the sides of the receptacle, and, second, to provide in such a wagon, in conjunction with the revoluble receptacle, a weighing mechanism whereby the amount of material entering the drum or receptacle may be accurately weighed.

The nature and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a side elevational view of a coal-delivery wagon embodying main features of my invention. Fig. 2 is a rear elevational view thereof with certain parts removed to more clearly illustrate the means for turning the receptacle, and Fig. 3 is a detail view of a portion of the weighing mechanism.

Referring to the drawings, *a* represents the truck or frame of the vehicle, having the standards *a'* *a'*, provided with the bearing-blocks *a''*, adapted to receive the shaft *b*. This shaft *b* forms the axis of a drum or cylindrical receptacle *d*, composed, preferably, of sheet-steel, having one side *d'* provided with a series of openings *d''*, controlled by the gates *d'''*, operated by hand-levers *d''''*. The periph-

ery of the drum *d* is also provided with a series of openings corresponding in number to the outlet-openings *d''*, and these openings are normally closed by doors *d''''*, which lap over the studs *d''''*, projecting from the sides of the drum and are provided with hooks *d''''*, fitting in said studs *d''''* to properly secure the doors *d''''*.

The interior of the drum *d* is divided longitudinally into a series of compartments *e*, *e'*, *e''*, and *e'''*, corresponding in number to the number of inlet or outlet openings. In the drawings the drum is illustrated as divided into four compartments, each having an inlet-opening at the periphery of the drum and an outlet-opening in one side of the drum. The partitions *e''*, which divide the interior of the drum into the separate compartments, are trough shape and inclined downward toward each outlet-opening *d''*, so as to lead or chute the coal toward the said opening.

The drum *d* is adapted to be revolved upon its axis *b* by means of the following preferred mechanism:

On one of the sides of the drum *d* and adjacent to the periphery is arranged a toothed ring *f*, which meshes with a pinion *f'*, fixed to a shaft *f''*, turning in suitable bearings in the bracket *f'''*, arranged back of the drum *d*. On the shaft *f''* is also secured a worm-gear *f''''*, meshing with a worm-shaft *f''''''*, arranged at right angles to the axis *b* of the drum and parallel with the sides of the vehicle. The worm-shaft *f''''''* has a squared end adapted to receive a handle *f''''''''*. When the handle is operated, the worm-shaft *f''''''* is turned and through the worm-gear *f''''* the shaft *f''*, pinion *f'*, and ring *f* the drum *d* may be turned to bring the compartments *e*, *e'*, *e''*, or *e'''* of the drum into the highest position with respect to the axis *b* of the said drum. In this position of the drum an outlet *d'* will register with a stationary mouth or pocket *g*, which projects upward from and is supported by one of the standards *a'*. To this mouth or pocket *g* the delivery-chute *g'* is adapted to be detachably connected by suitable catches *g''*. To fill the receptacle or drum *d*, each compartment *e*, *e'*, *e''*, or *e'''* is successively brought to the uppermost position, the doors *d''''* of each compartment successively opened,



and the coal discharged into the compartment until the drum  $d$ , or so much thereof as is required to receive the amount to be delivered, is filled. As each compartment is  
 5 filled its doors are closed and the drum  $d$  revolved to bring the next compartment into position to be filled. When the coal is to be delivered from the wagon, the driver brings the wagon sidewise into position, the delivery-  
 10 chute  $g'$  is fixed to the stationary mouth or pocket  $g$ , and the contents of each compartment is discharged by bringing each compartment successively uppermost, with the discharge-openings  $d^2$  into alinement with the  
 15 pocket  $g$ . When so alined, the gate  $d^3$  of each opening is elevated and the coal flows through the opening into the pocket  $g$ , and thence by the chute  $g'$  to the place of delivery.

20 In conjunction with the receptacle or drum  $d$  and the mechanism for revolving the same a weighing mechanism for ascertaining the weight of the coal in the drum may be used. This weighing mechanism consists, preferably,  
 25 ably, of the following parts:

The shaft or axis  $b$  has a vertical play in the bearing-blocks  $a^2$ , and at either end it is provided with a yoke  $b'$ . Each yoke has a knife-edge  $b^2$ , resting upon one end of a lever-arm  $b^3$ . Each arm  $b^3$  is pivoted, as at  $b^4$ , upon  
 30 an auxiliary bracket  $b^5$ , supported by the frame  $a$  adjacent to the standards  $a' a'$ . The other end of each arm  $b^3$  rests under a knife-edge  $b^6$  of a slotted link  $b^7$ , the arm  $b^3$  working in the upper slot of the link  $b^7$ . The lower  
 35 end of the link  $b^7$  is transversely slotted to receive the end of a scale-beam  $m$ . This beam  $m$  is supported upon two fulcral points, one,  $b^8$ , being formed in the link  $b^7$  and the  
 40 other,  $m'$ , being formed on an auxiliary bracket  $m^2$ , arranged to the rear of the bracket  $f^3$ . The fulcral points  $b^8$  and  $m^2$  engage the beam  $m$  on opposite edges. On the free end of each scale-beam  $m$  a weight  $m^3$  is adapted to slide.  
 45 Each beam  $m$  is graduated and the weights  $m^3$  rest in successive graduations until the drum  $d$  and its contents are balanced.

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

1. In a coal-delivery wagon, a cylindrical receptacle or drum, a truck in which said

receptacle is mounted, the longitudinal axis of said drum being arranged parallel to the axles of the vehicle, means for revolving said  
 55 drum in said truck and a series of compartments arranged longitudinally in the interior of the drum, each compartment having an inlet at the periphery of the drum and an outlet at one of the sides of the drum, substantially as and for the purposes described.

2. In a coal-delivery wagon, a cylindrical receptacle or drum, divided into a series of compartments by trough-shaped partitions inclined toward one side of the receptacle or  
 65 drum, a series of inlets arranged along the periphery of the receptacle and communicating respectively with each compartment, a series of outlet-openings arranged in one side of the receptacle at the base of each compartment, and means for revolving the receptacle  
 70 to bring each compartment successively uppermost, substantially as and for the purposes described.

3. In a coal-delivery wagon, a truck, a stationary mouth or pocket supported by said  
 75 truck at one side of the wagon, a drum mounted in the truck, the longitudinal axis of said drum being parallel to the axle of the vehicle, said drum having its interior divided  
 80 into a series of longitudinally-disposed compartments, each compartment having an outlet-opening in one of the sides of the drum adjacent to the mouth or pocket, and means for revolving the drum to bring the outlet-  
 85 opening of each compartment successively in alinement with the mouth or pocket, substantially as and for the purposes described.

4. In a coal-delivery wagon, a truck, a revoluble shaft having its ends supported by  
 90 said truck and having a vertical movement therein, a drum secured to said shaft and adapted to receive the coal, and a weighing mechanism adapted at one end to support the shaft and drum, substantially as and for  
 95 the purposes described.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

DANIEL M. PFAUTZ.

Witnesses:

J. WALTER DOUGLASS,  
 THOMAS M. SMITH.