









No. 617,476.

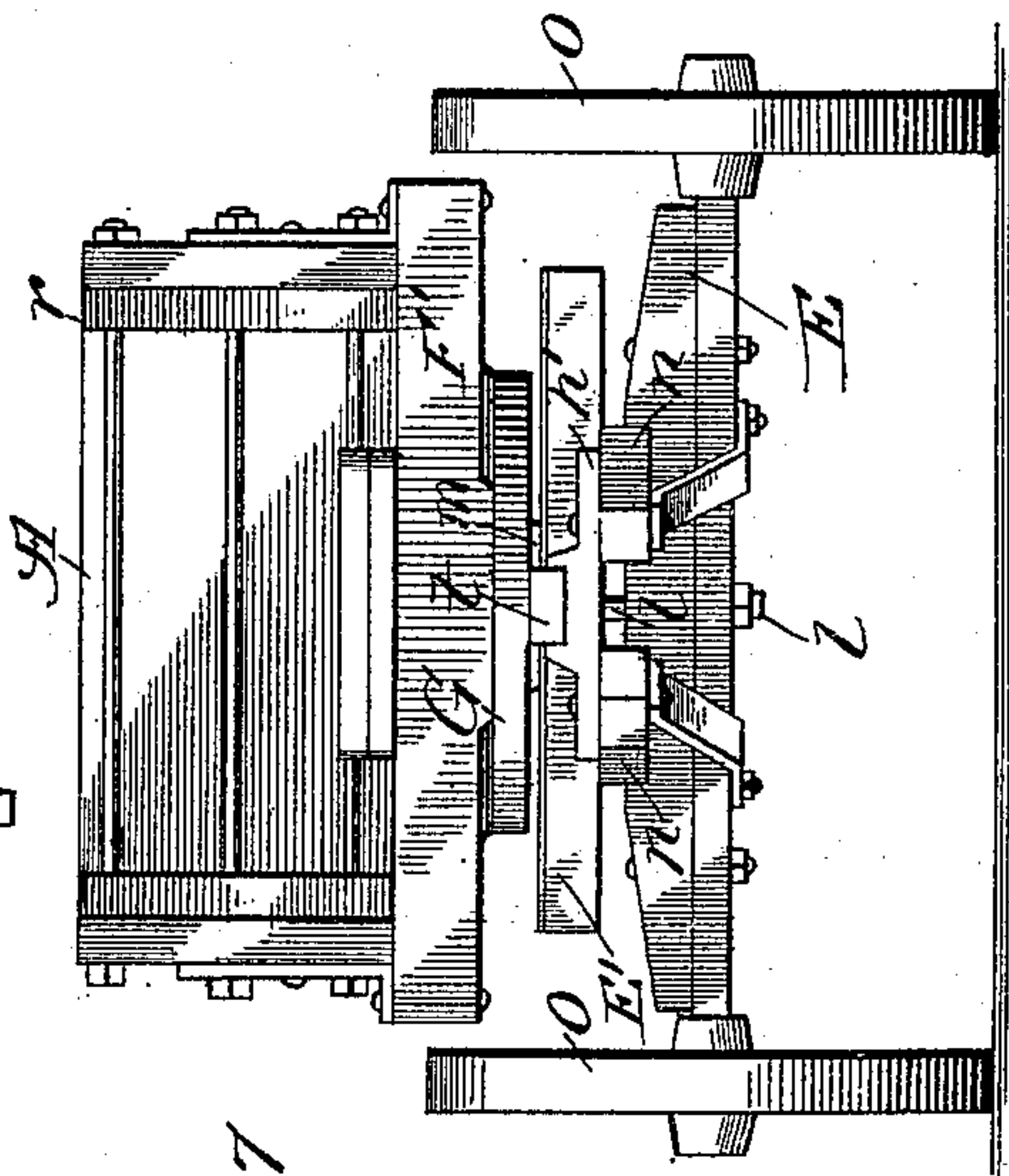
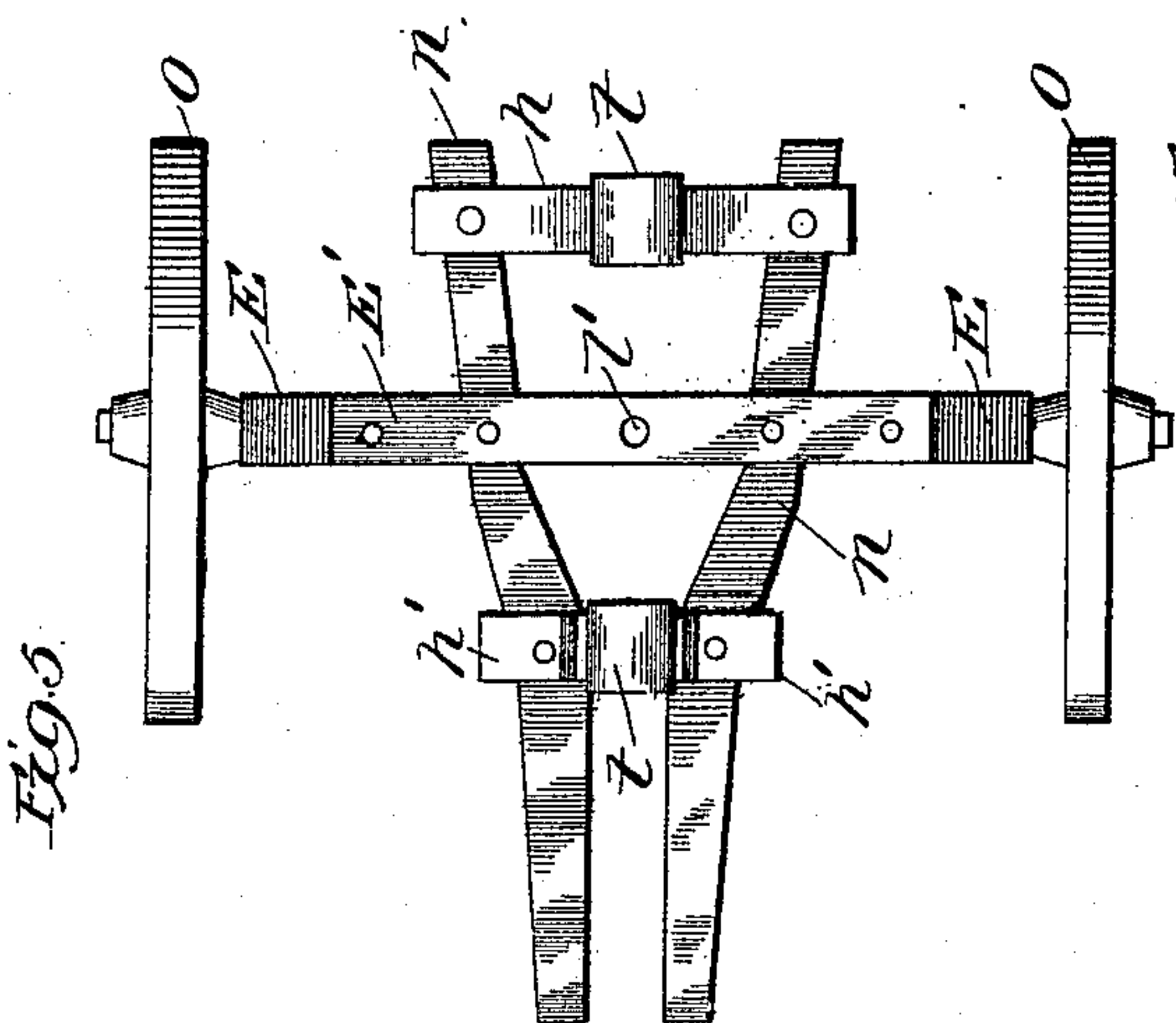
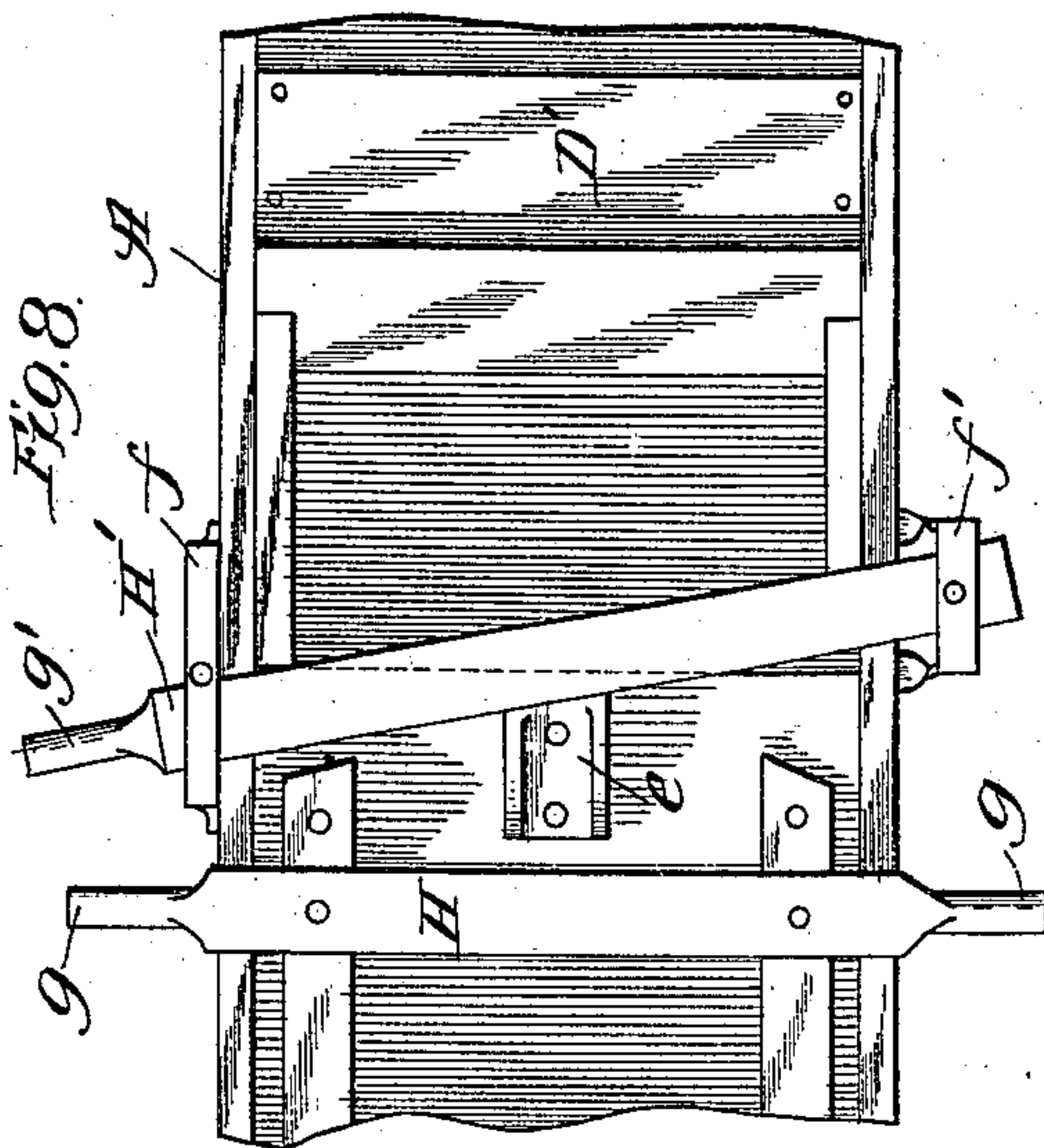
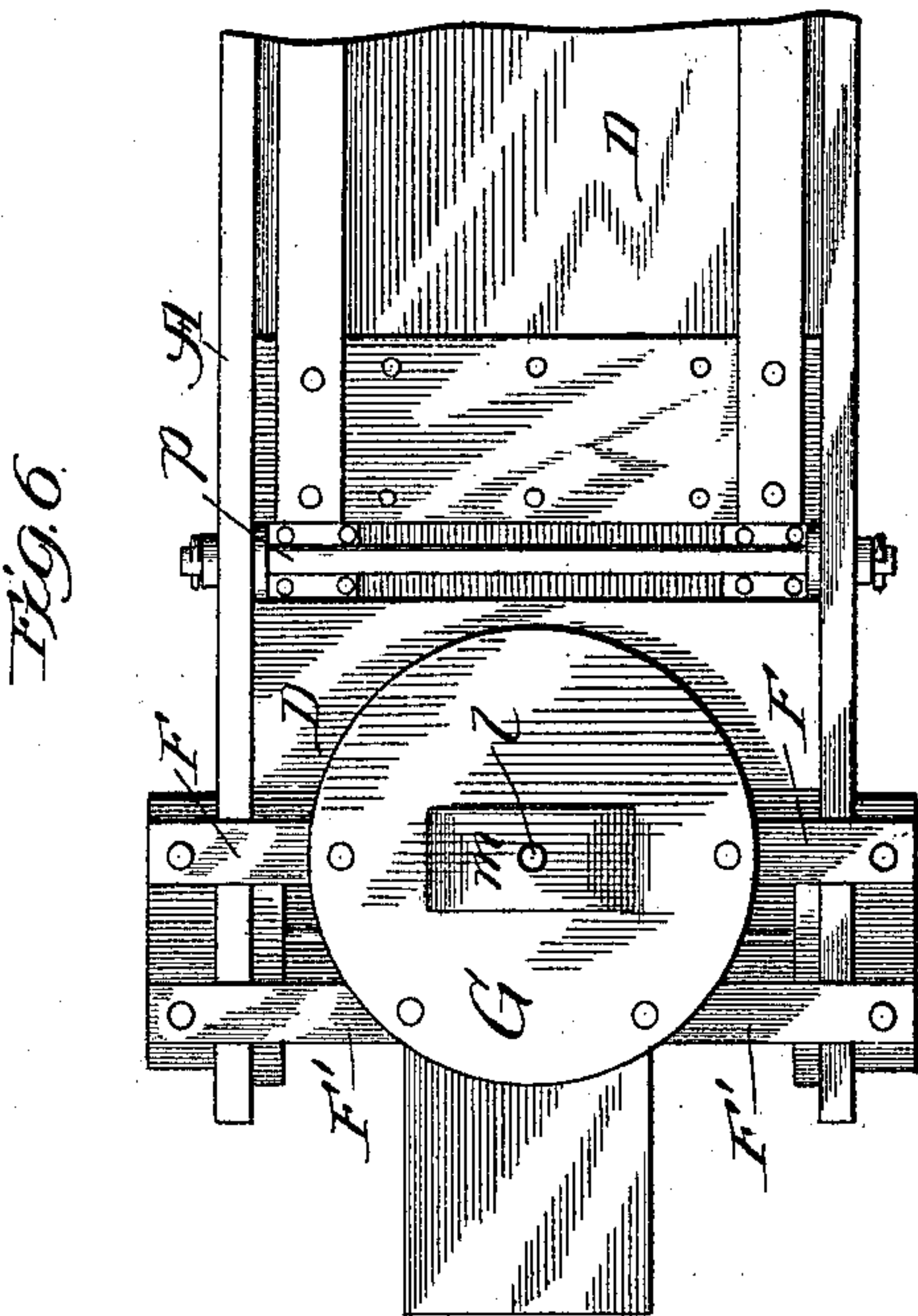
Patented Jan. 10, 1899.

J. BLUM.  
DUMPING WAGON.

(Application filed Oct. 17, 1898.)

(No Model.)

3 Sheets—Sheet 3.



Witnesses:  
Eas. Gaylord.  
John S. Altier.

Inventor:  
Joseph Blum,  
By Dyrnforth & Dyrnforth,  
Attys



# UNITED STATES PATENT OFFICE.

JOSEPH BLUM, OF CHICAGO, ILLINOIS.

## DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 617,476, dated January 10, 1899.

Application filed October 17, 1898. Serial No. 693,770. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH BLUM, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have  
5 invented a new and useful Improvement in Dumping-Wagons, of which the following is a specification.

My invention relates to the class of dumping-wagons in which the bottom of the wagon-box is pivotally supported toward one end and propped toward its other end, whereby when the prop is withdrawn the bottom may be tilted on its pivotal support to dump the load. Such a dumping-wagon is shown and  
15 described in my United States Patent No. 450,822, dated April 21, 1891, though the construction therein set forth is applied to a wagon of the variety having its front and rear axles connected by a reach.

20 The primary object of my present improvement is to adapt the tilting bottom, referred to, to use with the variety of "turn-table" or "fifth-wheel" wagon; and my further object is to improve a dumping-wagon in the class mentioned in matters of detail to facilitate its operation and increase its usefulness.

Referring to the accompanying drawings, Figure 1 is a view in side elevation of a dumping-wagon provided with my improvements;  
30 Fig. 2, a top plan view of the same; Fig. 3, a longitudinal section of the same, taken at the line 3 on Fig. 2 and viewed in the direction of the arrow; Fig. 4, a similar view taken at the line 4 on Fig. 2, but showing the bottoms of the two sections of the wagon in their tilted positions; Fig. 5, a section taken at the line 5 on Fig. 1 and viewed in the direction of the arrow; Fig. 6, a section taken at the line 6 on Fig. 1 and viewed in the direction of the arrow;  
40 Fig. 7, a view of the wagon in front end elevation, and Fig. 8 a bottom plan view of the middle portion of my improved dumping-wagon with the end portions broken away.

The drawings show my improvements applied to a dumping-wagon having the box A divided, as in my aforesaid patent, into two sections A' and A<sup>2</sup> by a transverse rigid partition B, having sloping front and rear sides and a sloping end-board *r* in the front end of the forward section A'. My several improvements, however, are all applied to the forward section and may, in fact, relate to a

dumping-wagon having only the one compartment A', and the rear section A<sup>2</sup> may be, as shown, in all particulars like that presented in my aforesaid patent and does not  
55 therefore require detailed description in the present connection. The box A is supported in any suitable manner by wheels *q q* toward the rear end of the dumping-section A<sup>2</sup>, having the pivotal tilting bottom D' and the removable end-board *r'*, provided with suitable fastening means, (shown at *v*.) The bottom D of the front section A' is pivoted near its forward end on a rod *p*, journaled to extend  
60 transversely across the base of the box A.

E is the forward axle, having the front wheels *o o*, journaled on its opposite ends and carrying rigidly the hounds *n n*, suitably braced transversely, as shown, and surmounted coincidently with the axle by the usual  
70 "sand-bar" E'.

F is a bolster fastened rigidly to the base of the box A near its forward end to extend transversely across the same, and to the bottom of this bolster is rigidly fastened a heavy circular metal plate G, preferably solid, and having on its under side a convex bearing *m*, extending across its center, at which is provided the opening *l* for the king-bolt *k*. The  
75 bolster F thus extends across the center of the plate, being confined between lugs *i i* thereon. A second bolster F' may be provided to extend rigidly across the base of the wagon-box in advance of the bolster F, and  
80 have the plate G likewise firmly fastened to it; but no bolster is provided in rear of the center of the plate G, the rear half of which is entirely free from obstruction of any kind, for a purpose hereinafter explained.  
90

The front wheels are pivotally fastened to the wagon-body by the king-bolt *k*, passing through the hole *l* in the center of the plate G, as also through the bar E' and axle E at the opening *l'*; Fig. 5. On the braces *h h'*  
95 of the hounds *n n* are provided metal bearings *t t* for the plate G, which owing to the convex bearing on its under side in contact with the sand-bar E' is adapted to rock thereon under the strain of the load and contact  
100 with the bearings *t t*.

Toward the free rear end of the tilting bottom D it carries rigidly on its under side a transverse bar H, terminating at its project-



ing ends in handles *g g*. From the opposite sides of the wagon-body *A*, adjacent to the rear end of the tilting bottom *A'*, there depend rigid loops *f* and *f'*, in the latter and narrower of which is fulcrumed at one end a lever *H*, extending transversely across the bottom of the wagon-box through the loop *f*, beyond which it projects in the form of a handle *g'*. Near its center the lever *H'* carries on its upper side a metal bearing *e'* to engage with a wedge-shaped metal bearing *e*, projecting forward from the center of the rear edge of the tilting bottom *D* on the under side thereof. On the opposite sides of the wagon-box are provided hooks *d d*, on which to suspend chains *cc*, terminating at their lower ends in holders *c' c'*, (shown as rings,) to pass over the handles *g* for a purpose hereinafter described, and adjacent to the hooks *d d* on the sides of the wagon-box are shown to be provided hooks *d' d'*, in which to suspend the rings or holders *c'* when out of use. Adjacent to the free end of the lever *H'* there is provided on the side of the wagon-box a bearing *b'* for a stop-pin *b*, suspended conveniently on a chain *b<sup>2</sup>* to be introduced at will into the bearing *b'* and through a hole alining with said bearing in the base of the loop *f* to afford a stop against accidental displacement of the lever *H'* when serving to prop the adjacent end of the tilting bottom *D*. This it does in the position in which it is represented clearly in Figs. 2 and 8 by being turned on its fulcrum to force the bearing *e'* upon the wedge-surface of the bottom bearing *e*, whereby a desirably stable support is afforded to the bottom *D* when loaded, and the inclined surface of the bearing *e* permits the separation from it of the lever *H'* by turning it backward on its fulcrum without great resistance, however heavy the load may be on the tilting bottom.

To dump my improved wagon, or at least the section *A'* thereof, (the section *A<sup>2</sup>*, if provided, being dumped by loosening the fastening *v* and permitting the bottom *D'* to drop by gravity,) the stop-pin *b* is withdrawn and the lever *H'* turned off the wedge-bearing *e* to permit the bottom *D* to drop or tilt backward under the gravity of the load upon it. Sometimes, as in filling a number of holes in a road, it is desired not to dump the entire load of sand, dirt, or other matter in the section *A'* on one spot, but to fill the holes in succession by moving the wagon from one to the other, each with a portion of the load. Then the holders *c'* are brought into requisition by suspending the desired length of each chain *c* from a hook *d*, according to the angle at which it may be desired to tilt the bottom *D*, and passing the rings *c'*, after undoing them from the hooks *d'*, over the handles *g*, thereby to suspend the tilting bottom at the desired angle of inclination to facilitate shoveling off it the required proportion of the load.

The advantages afforded by the construc-

tion herein shown and described of the fifth-wheel device at the forward end of the wagon are that it enables the wagon-box to be supported strongly as far back toward the center as need be without presenting, as would be the case were a bolster provided behind the central bolster *F*, any additional bolster or other obstruction on the plate *G* for the lodging of sand or dirt composing the load on the wagon, which drops through at the forward end of the bottom *D* when tilted and which if so lodging would be difficult to remove and would tend to work its way against and wear the king-bolt, besides hampering the free turning action thereon of the parts.

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

1. In a dumping-wagon, the combination with the box having a tilting bottom *D*, and the forward axle, of a plate *G* rigidly fastened on a bolster *F* extending across the base of the box near its forward end and across said plate near its center, said plate being free from obstruction on its upper side back of said bolster, and the wagon-box and forward axle being connected by a bolt at said plate and axle, substantially as and for the purpose set forth.

2. In a dumping-wagon, the combination with the box having a tilting bottom *D*, and the forward axle, of a plate *G* having a convex bearing *m* on its under side and rigidly fastened across its upper side, near the center, to a bolster *F* extending across the base of the box near its forward end, and a bar *E'* on the axle and on which said plate rests at its said bearing, said plate being free from obstruction on its upper side back of said bolster, and the wagon-box and forward axle being connected by a bolt at said plate, bar and axle, substantially as and for the purpose set forth.

3. In a dumping-wagon, the combination with the box having a tilting bottom *D*, of bolsters *F* and *F'* extending across the base of said box near its forward end, a plate *G* fastened to said bolsters with the rearmost one extending across it near its center, leaving the upper side of the plate free from obstruction back of said center bolster, and the front axle carrying hounds provided with bearings for said plate and a bar *E'* and connected with the wagon-body by a bolt connecting said plate, bar and axle, substantially as and for the purpose set forth.

4. In a dumping-wagon, the combination with the box having a tilting bottom *D*, of a wedge-bearing *e* on the under side of said bottom near its rear end, and a lever *H'* fulcrumed at one end to said box and extended into a handle projecting beyond a side of the box and by which to engage the lever with and tighten it against the inclined surface of said bearing to prop said bottom, substantially as described.

5. In a dumping-wagon, the combination with the box having a tilting bottom *D*, of a wedge-bearing *e* on the under side of said bot-



tom near its rear end, loops  $f$  and  $f'$  depending from the opposite sides of the box, and a lever  $H'$  fulcrumed at one end in the loop  $f'$  and supported toward its opposite end in the  
5 loop  $f$  and having a handle  $g'$  by which to engage it with and tighten it against the inclined surface of said bearing, substantially as described.

6. In a dumping-wagon, the combination  
10 with the box having a tilting bottom  $D$  provided with an adjustable prop for supporting it near its rear end in horizontal position, of

handles  $g$  projecting beyond opposite sides of said bottom, and holders  $c' c'$  on chains  $c$  adjustably suspended from opposite sides of the  
15 box to permit said holders to be engaged with said handles for supporting the bottom in tilted position at different angles, substantially as described.

JOSEPH BLUM.

In presence of—

R. T. SPENCER,  
D. W. LEE.