

No. 754,546.

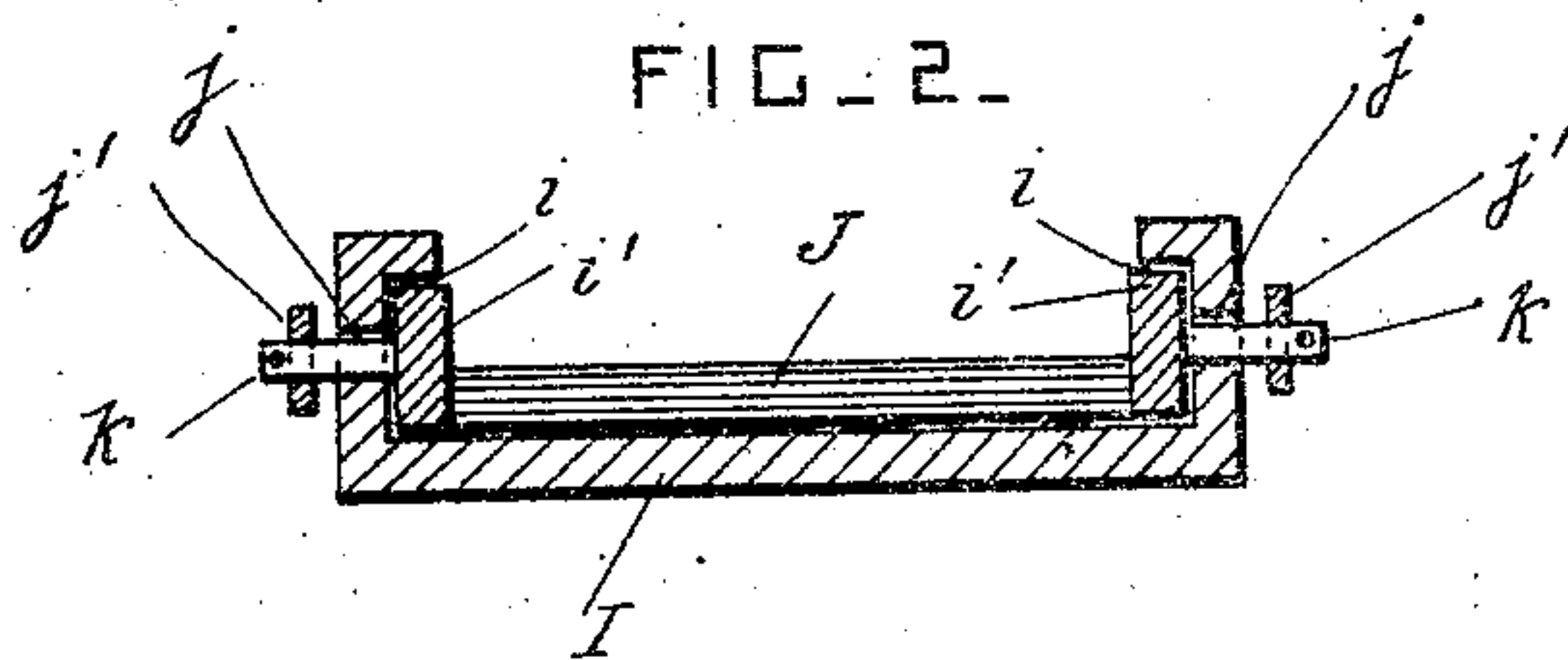
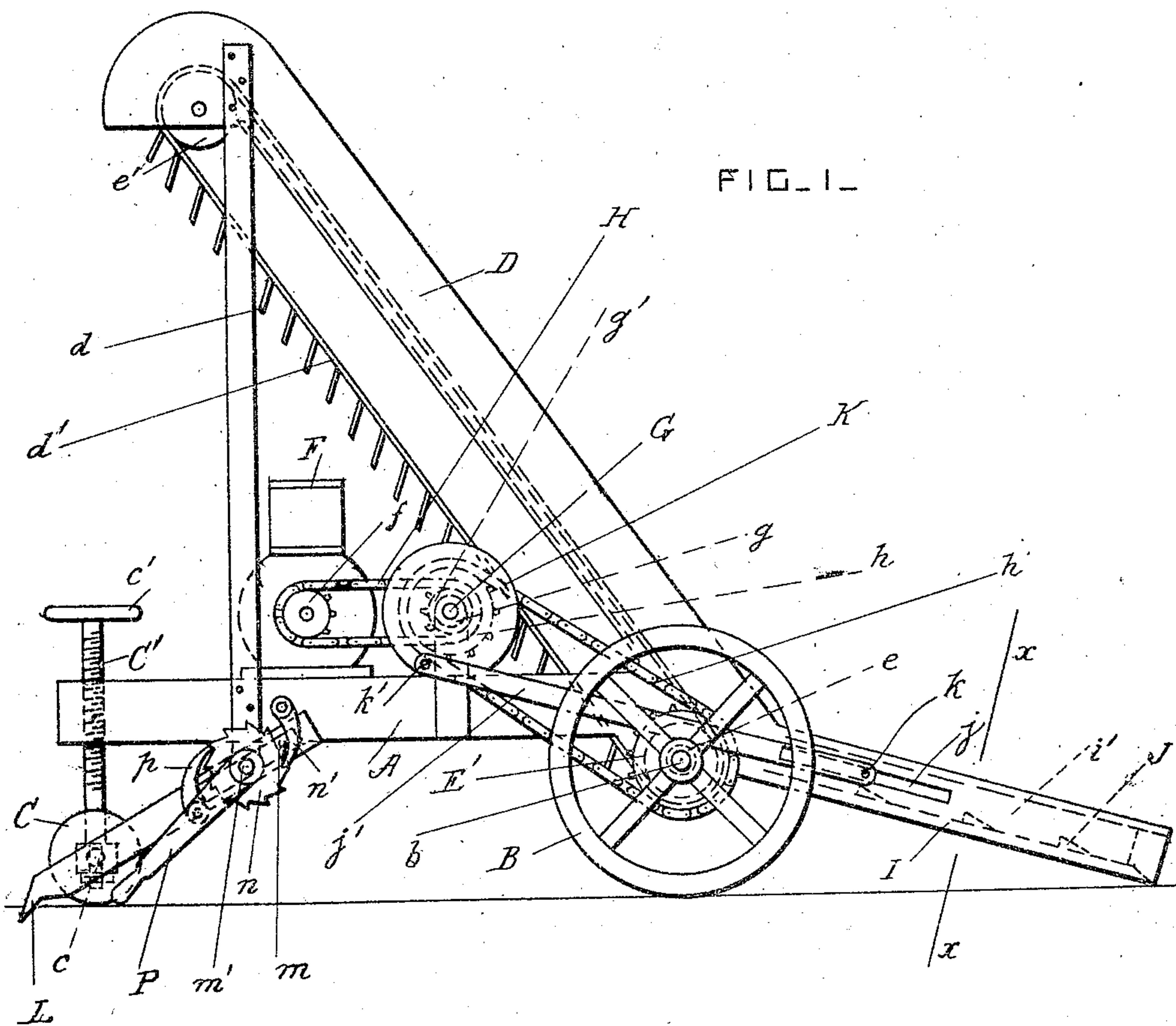
PATENTED MAR. 15, 1904.

J. DEADY, JR.  
COAL ELEVATOR.

APPLICATION FILED SEPT. 30, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



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2 SHEETS--SHEET 2.

FIG. 3.

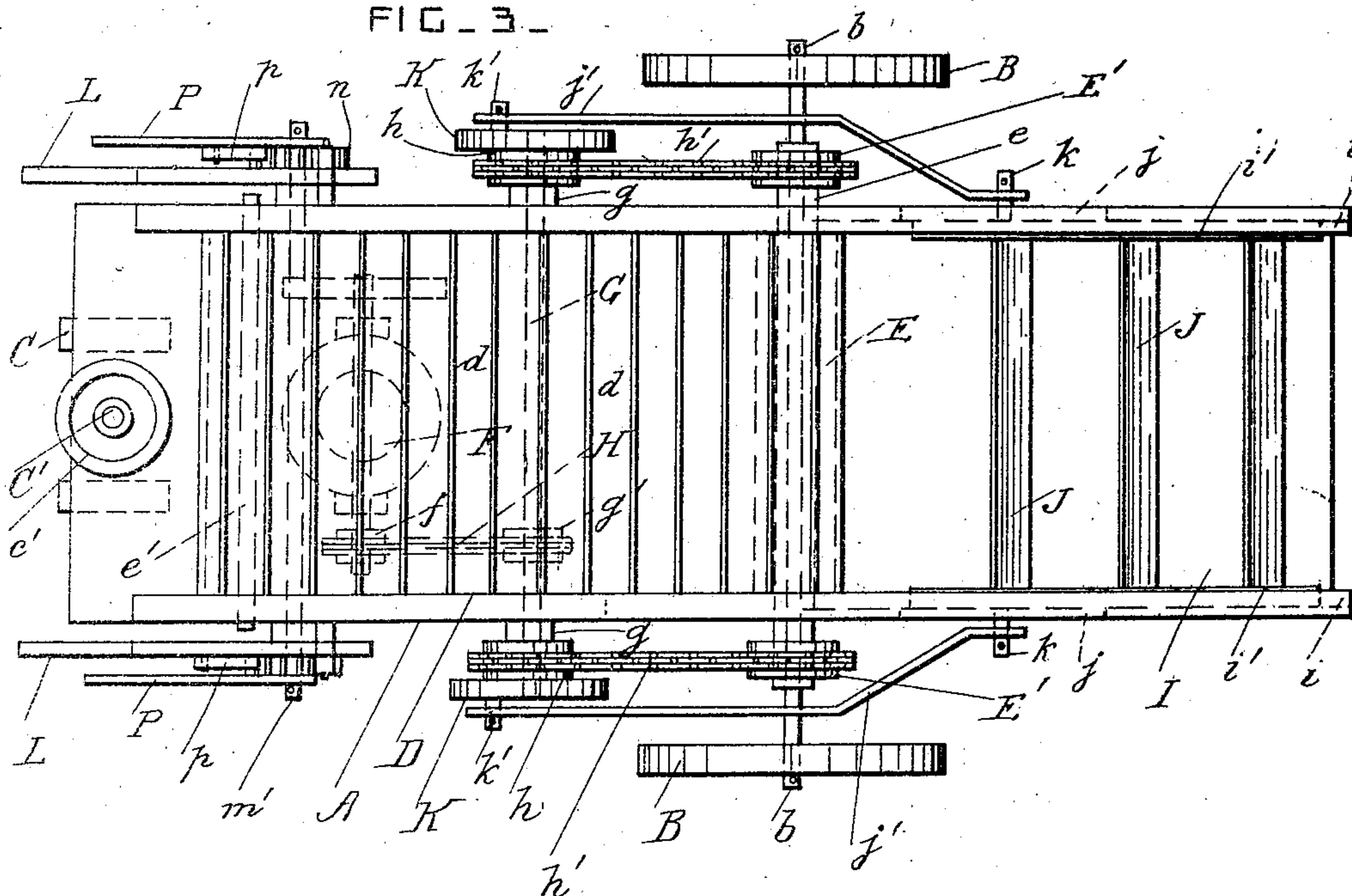
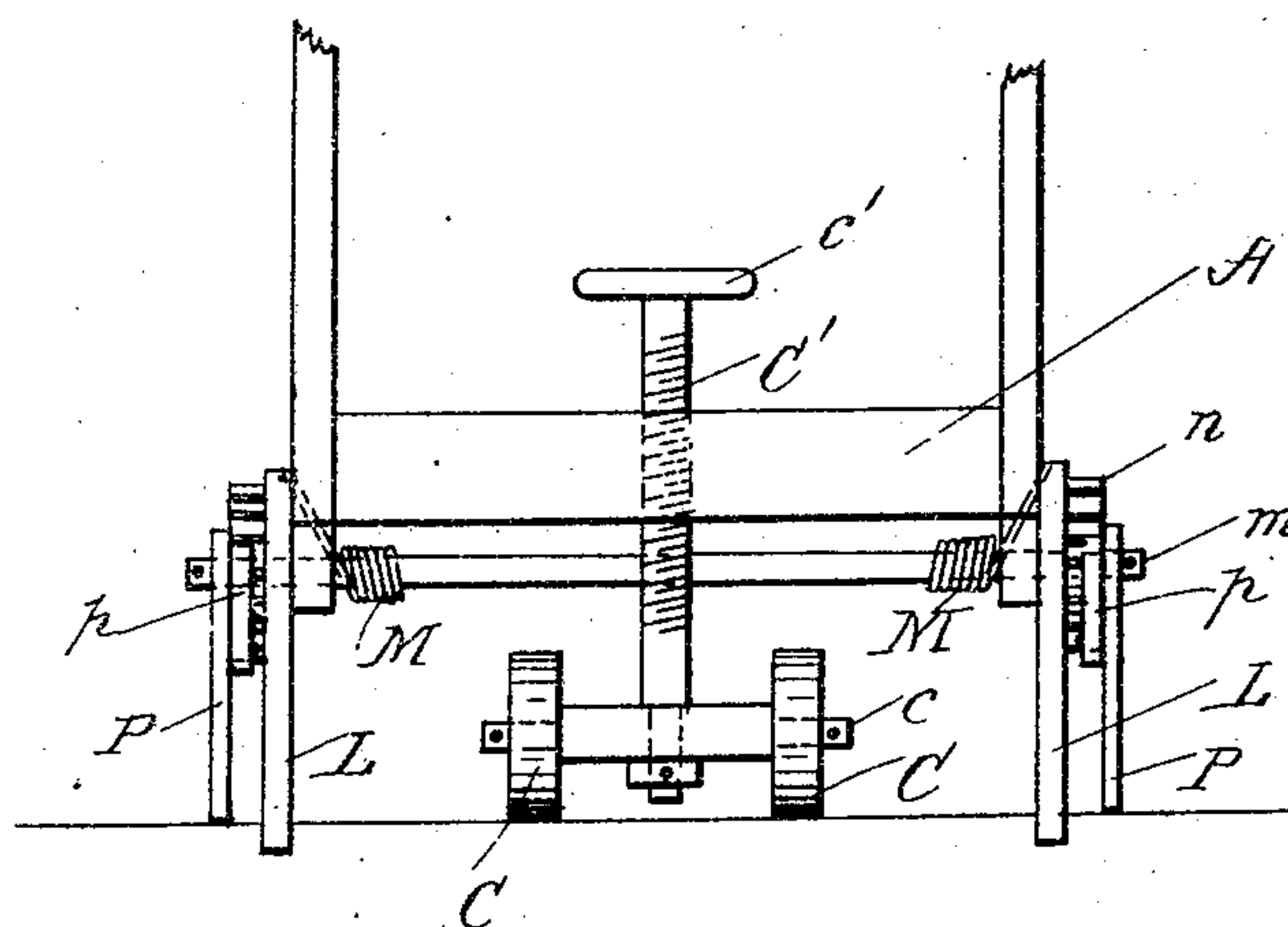


FIG - 4 -



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## UNITED STATES PATENT OFFICE.

JOHN DEADY, JR., OF WARE, MASSACHUSETTS.

## COAL-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 754,546, dated March 15, 1904.

Application filed September 30, 1903. Serial No. 175,216. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN DEADY, JR., a citizen of the United States, residing at Ware, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Coal-Elevators; 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.

This invention relates to apparatus for loading coal into carts; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of the elevator. Fig. 2 is a cross-section taken on the line *x x* in Fig. 1. Fig. 3 is a plan view of the elevator. Fig. 4 is a front view of the anchoring and adjusting mechanism.

A is a frame which is provided with road-wheels B, mounted on axle-bearings *b*, projecting from the frame.

C represents small wheels at the front end of the frame which are mounted on a shaft *c*.

C' is a screw which engages with a nut in the frame and which supports the shaft *c* at different distances from the frame. The screw C' is provided with a hand-wheel *c'* for revolving it.

D is an inclined elevator-trough supported over the frame A, and *d* represents elevator-buckets secured upon endless flexible elevator bands or chains *d'*. The buckets work in the trough and the elevator-band passes over driving-wheels E, secured on a tubular shaft *e* at the lower part of the elevator-trough and over guide-wheels or a roller *e'* at the top of the trough. The shaft *e* also has chain-wheels E' secured on its end portions.

F is an engine or motor of any approved construction, mounted at the front end of the frame and having a chain-wheel *f* on its driving-shaft.

G is a counter-shaft journaled in bearings *g*, secured to the frame A and provided with a chain-wheel *g'*.

H is a drive-chain which passes over the wheels *g'* and *f*.

The counter-shaft G has also two chain-

wheels *h* secured on it, and *h'* represents drive-chains which pass over the wheels *h'* and E', so that the elevator is driven from the engine.

I is a rearwardly and downwardly inclined trough at the lower end of the elevator-trough. The trough I has grooves *i* in its sides, and *i'* represents bars which are slidable in the said grooves.

J represents wedge-shaped cross-bars which extend between the bars *i'* in contact with the bottom of the trough I.

The trough I has slots *j* in its sides, and *j'* represents connecting-rods pivoted to pins *k*, which project from the bars *i* through the said slots. The front ends of the connecting-rods engage with crank-pins *k'*, which project from crank-plates K, secured upon the counter-shaft G.

L represents anchor-bars at the front end of the machine. These anchor-bars have points for engaging with the ground, and slots *m*, which slide over the end portions of a shaft *m'*, which is journaled in the frame A. M represents flexible connections which are secured to the anchor-bars and wound upon the said shaft. A ratchet-wheel *n* is also secured on the shaft *m'* and is provided with a pivoted stop-pawl *n'*. P is an operating-lever pivoted on the said shaft and provided with a pawl *p* for engaging with the ratchet-wheel.

In operation the machine is backed against any place from which coal is to be removed and the screw C' is revolved so as to adjust the machine and press the rear end of the trough I into contact with the ground. The machine is then anchored by means of the bars L, which are pressed into the ground by working the lever P back and forth. The coal is allowed to fall upon the trough I and the cross-bars *i'* are reciprocated. The cross-bars *i'* slide under the coal, which rests on the bottom of the trough when the said bars are pushed down the trough, and the cross-bars move the coal upward in the trough when moved in the reverse direction. In this manner the coal is moved step by step and is fed into the elevator, which raises it and discharges it into a cart or other vehicle which is in readiness to receive it.



What I claim is—

1. In a coal-elevator, the combination, with a wheeled frame, of an elevator supported in an inclined position by said frame, an inclined trough secured to the frame at the lower end of the elevator, bars slidable at the sides of the trough, wedge-shaped cross-bars extending between the said bars, and driving mechanism which reciprocates the said bars and  
10 operates the elevator.

2. In a coal-elevator, the combination, with a wheeled frame, of an inclined trough at the rear end of the said frame, adjusting devices at the front end of the frame for pressing the  
15 lower end of the said trough against the ground, bars slidable in the sides of the said trough, wedge-shaped cross-bars extending between the said bars, an elevator supported in an inclined position and receiving the coal  
20 from the said trough, and driving mechanism which reciprocates the said bars, and operates the elevator.

3. In a coal-elevator, the combination, with a wheeled frame, of an inclined trough at the  
25 rear end of the said frame, a shaft journaled at the front part of the said frame, anchor-bars provided with slots which slide over the said shaft, flexible connections secured to the anchor-bars and wound on the said shaft,  
30 driving devices for revolving and holding the

said shaft, bars slidable at the sides of the said trough, wedge-shaped cross-bars extending between the said bars, an elevator arranged in an inclined position and receiving the coal from the said trough, and driving  
35 mechanism which reciprocates the said bars and operates the elevator.

4. In a coal-elevator, the combination, with a wheeled frame, of a driving-shaft journaled in the frame and provided with two chain-  
40 wheels and two crank-plates, an elevator extending in an inclined position over the said shaft and provided with two chain-wheels at its lower end for driving it, drive-chains connecting the said chain-wheels in pairs at each  
45 side of the elevator, an inclined trough secured to the said frame and having slots in its sides, bars slidable at the sides of the said trough, wedge-shaped cross-pieces extending between the said bars, pins which project  
50 from the said bars through the said slots, and connecting-rods between the said pins and crank-plates.

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

JOHN DEADY, JR.

Witnesses:

ALICE J. MURRAY,  
FREDERICK K. DAGGETT.