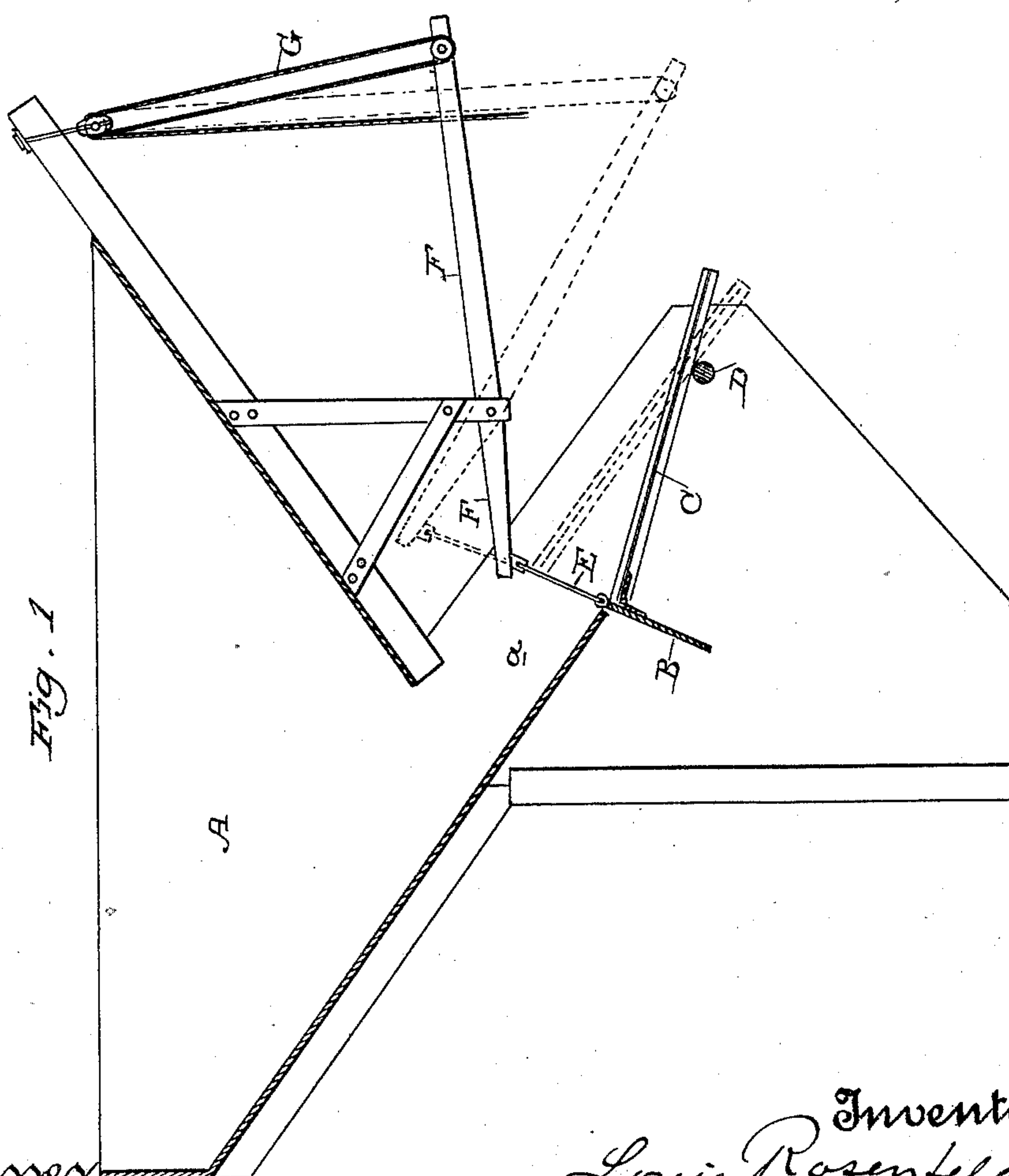
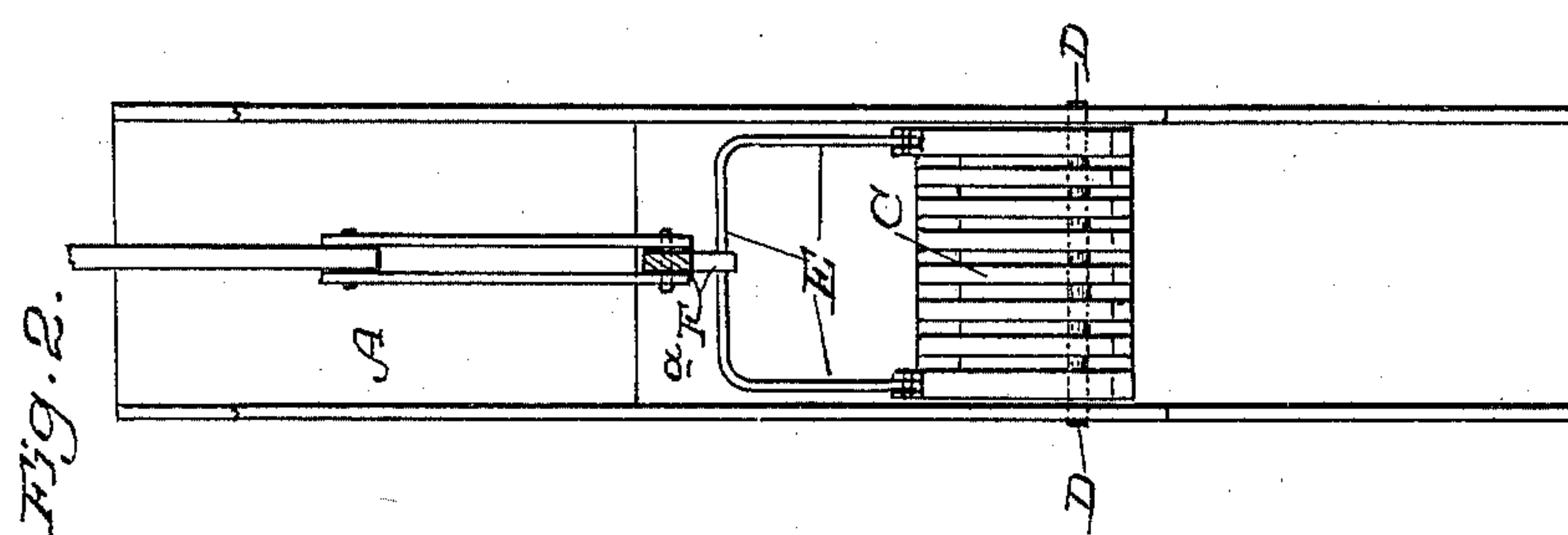


(No Model.)

L. ROSENFELD.
FEEDER FOR COAL, ORE, &c.

No. 482,652.

Patented Sept. 13, 1892.



Witnesses,
J. A. Bayless

Inventor,
Louis Rosenfeld
By Dewey & Co. atty

UNITED STATES PATENT OFFICE.

LOUIS ROSENFELD, OF NEW YORK, N. Y.

FEEDER FOR COAL, ORE, &c.

SPECIFICATION forming part of Letters Patent No. 482,652, dated September 13, 1892.

Application filed April 6, 1892. Serial No. 428,090. (No model.)

To all whom it may concern:

Be it known that I, LOUIS ROSENFELD, a citizen of the United States, residing in the city and county of New York, State of New York, have invented an Improvement in Feeders for Coal, Ore, &c.; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of feeders for coal, ore, and other material in which a supply-hopper is provided with devices for apportioning and regulating the charge fed therefrom.

My invention consists in the novel arrangement of the hopper-controlling gate and tilting charge-platform hereinafter fully described, and specifically pointed out in the claims.

The main object of my invention is to provide simple and effective means for regulating the charge of material fed from the supply hopper or bin and controlling its delivery.

The particular object is to provide for simultaneously screening and delivering any stated quantity of coal from the bin and with the required speed to permit proper screening and safe delivery.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a vertical section of my feeder. Fig. 2 is a front view of same.

A is a hopper or bin which contains the material to be fed. It has the discharge throat or chute *a*, in which is fitted the controlling-gate B. This gate rises from below and traverses the throat or chute *a*.

C is the charge-platform. This is connected at its rear end to the gate B. It is supported upon a fixed fulcrum-bar D, which may be in the shape of a roller.

To the gate are secured means by which it may be raised up and down. These means may be of any suitable character. They are here shown as a bail E, secured to the top of the gate, and a pivoted lever F, secured to the bail. An operating-rope G is shown as connected with the lever for raising and lowering it.

The operation is as follows: When the gate B is lowered, so as to open the throat or chute *a* of the hopper or bin, the charge-platform C, being connected with it, is tilted in a

direction to decrease its inclination. The material will thereupon pass upon said platform, and if the inclination be slight enough the amount thus fed will remain there and constitute a full charge, as no more can follow while the platform remains thus. Now upon raising the gate to shut the throat or chute *a* the charge-platform will be tilted by the same movement to a greater inclination and the charge thereon will pass off and be delivered into the receptacles below to receive it. When a smaller charge is desired, the gate is only lowered part way in the throat or chute *a* and only a small quantity will pass over the top of the gate onto the platform, which, notwithstanding its increased inclination, will still receive and hold said quantity as a charge. From the platform it can then be discharged by raising the gate and further inclining the platform. This is the general operation of the device as far as regulating a charge is concerned; but where, as in feeding coal, it is necessary to regulate the speed of delivery the object in differently inclining the charge-platform is to vary the speed of the material over it. Thus when the gate is lowered to open the throat or discharge-chute the inclination of the platform by reason of an initial adjustment should be such as to allow the material to flow gently and slowly over it. This material will be mostly large lumps, and its delivery will be gentle enough to not injure the wagons receiving it. Then when the gate is raised partially the larger lumps are held back by it and the lumps of smaller size will flow faster over the platform, the inclination of which has been increased; but they will do no damage, as they are smaller. In coal-feeding and to effect the simultaneous screening and delivery of a charge of coal the platform C will be made, as here shown, in the form of a screen. In this case, as the speed can be regulated, as heretofore described, the screening will take place to the best advantage and according to the requirements of the particular coal. The screenings will pass through and the solid material will be delivered, as heretofore described. The bail E, connected with the gate, will not be in the way, as the material will pass through it.

Having thus described my invention, what

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

1. A feeder for coal, ore, &c., having a supply hopper or bin provided with a discharge throat or chute, in combination with a platform in line with the discharge end of the throat or chute for receiving and temporarily holding the material in charges, said platform being pivotally secured and provided at its rear end with a gate adapted to close the throat or chute to cut off the further supply of material when the desired charge has been deposited upon the platform, substantially as herein described.
2. In a feeder having a supply hopper or bin with discharge throat or chute, the combination of a gate controlling said throat or chute and a tilting platform for receiving the material in charges, said platform being located beyond said gate and connected therewith, whereby as the gate moves to control the passage of the material the platform varies its inclination to receive, regulate, tempo-

rarily hold, and deliver the charge, substantially as herein described.

3. In a feeder having a supply hopper or bin with discharge throat or chute, the combination of a gate controlling said throat or chute, a tilting screen beyond said gate and adapted to vary its inclination simultaneously with the movement of said gate, an operating-lever, and a connection therefrom with the gate, substantially as herein described.

4. A feeder consisting of the hopper or bin with discharge throat or chute, the movable gate traversing said throat or chute from below, the tilting charge-platform connected with said gate, the bail of the gate, and the operating-lever connected with the bail, substantially as herein described.

In witness whereof I have hereunto set my hand.

LOUIS ROSENFELD.

Witnesses:

A. W. FOLLANSBEE,
FRED. C. MILLS.