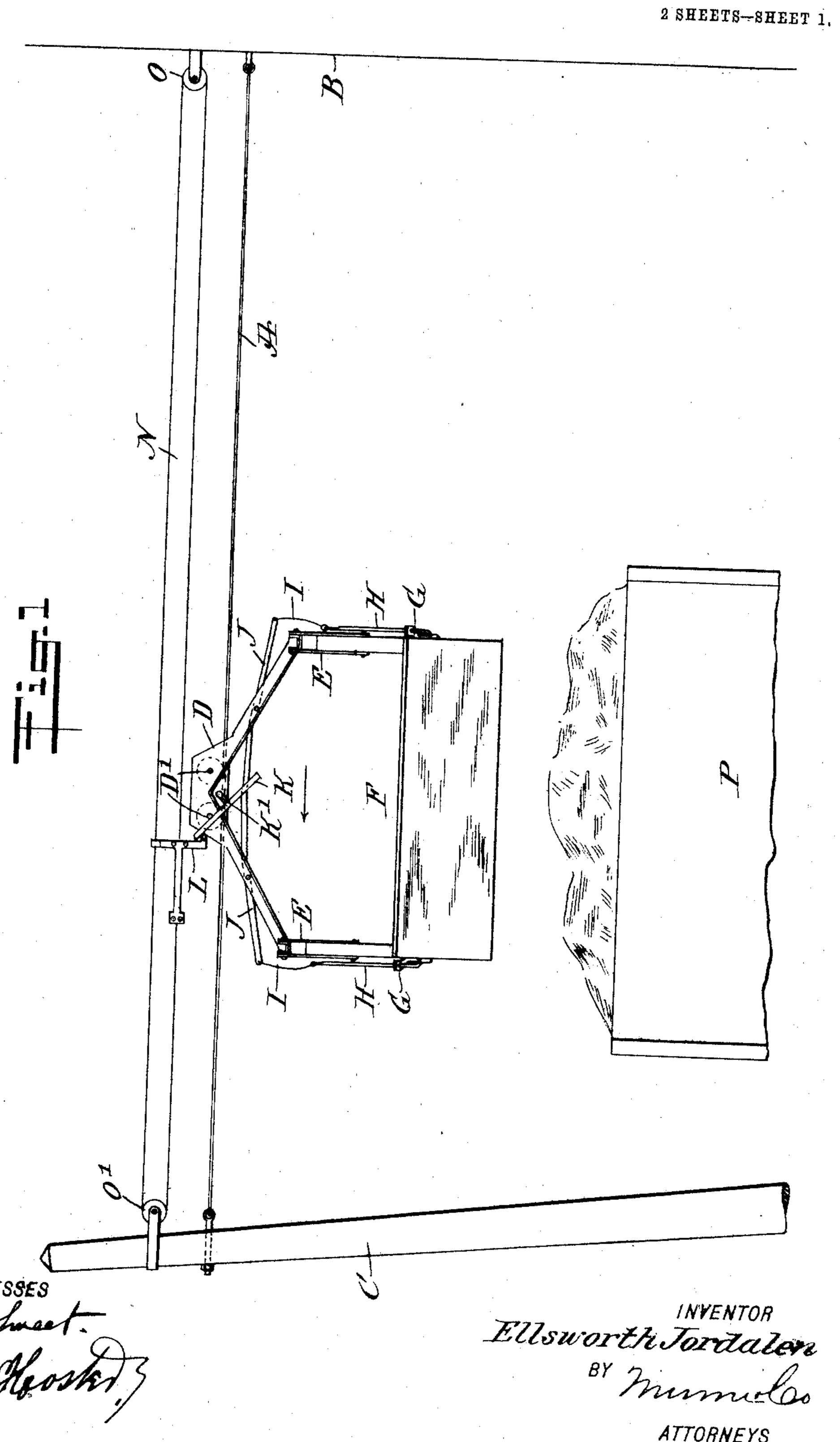
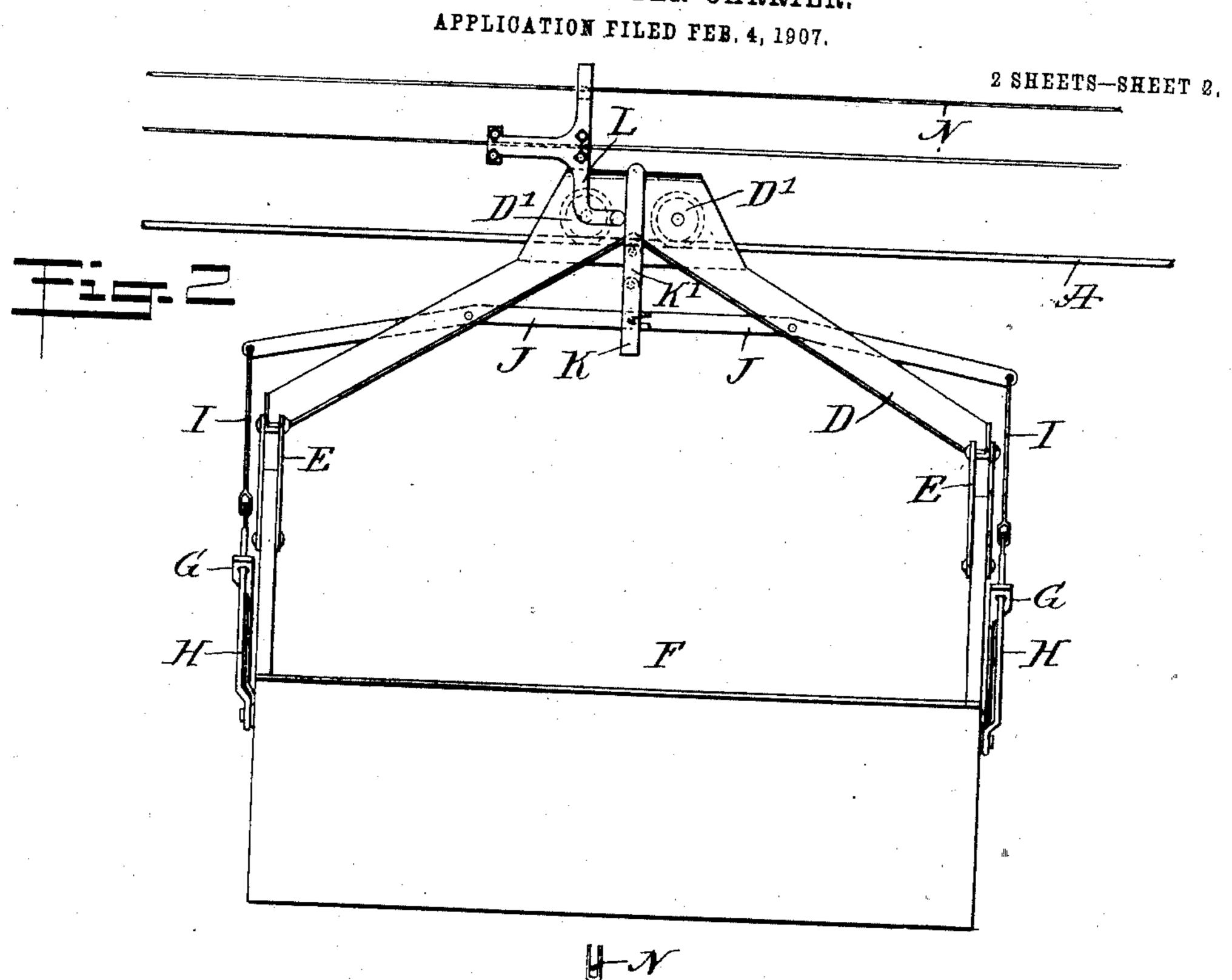
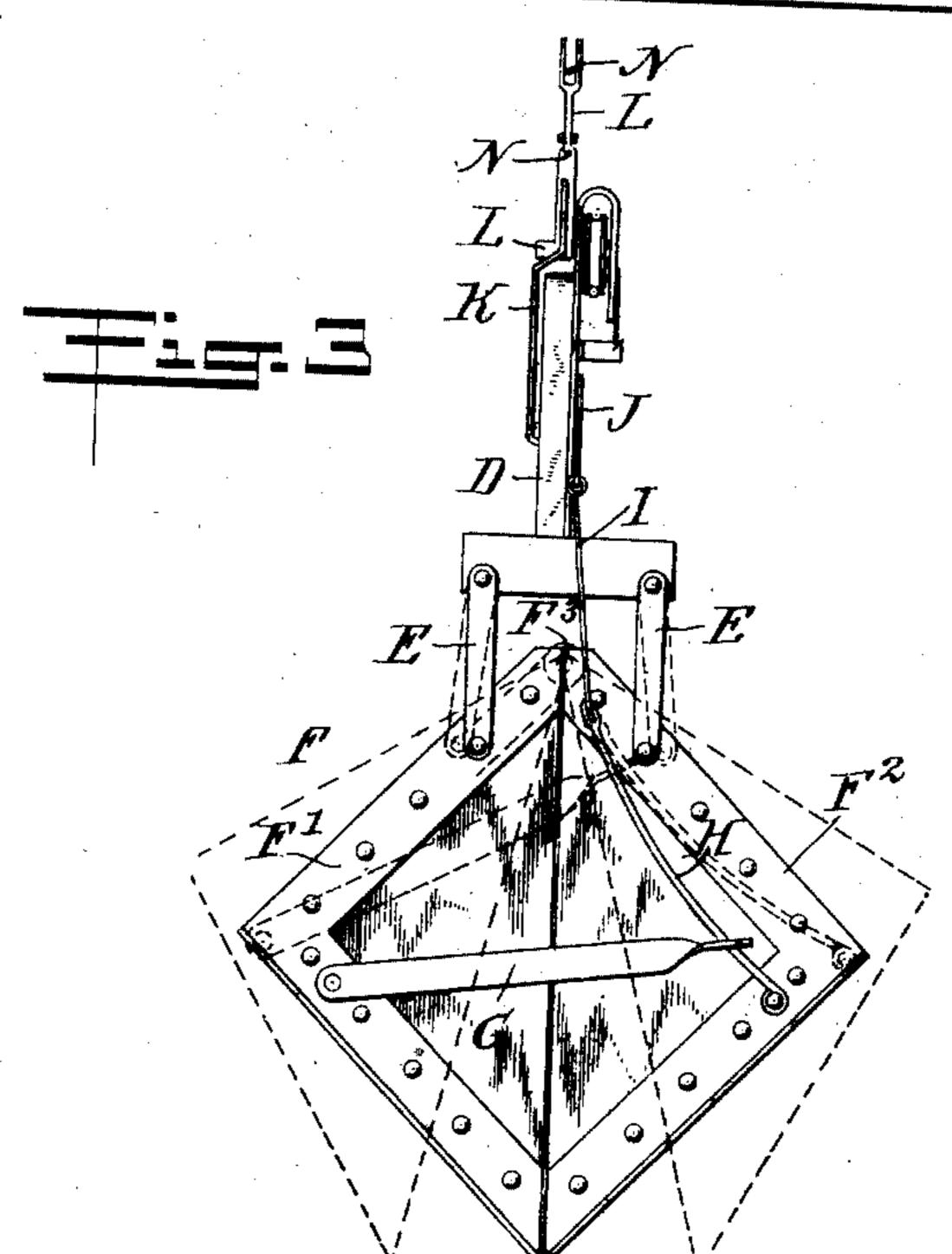
E. JORDALEN. GRAVITY LITTER CARRIER. APPLICATION FILED FEB. 4, 1907.



WITNESSES 7-D. Smaet.

E. JORDALEN. GRAVITY LITTER CARRIER.





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UNITED STATES PATENT OFFICE.

ELLSWORTH JORDALEN, OF PLEASANT SPRINGS, WISCONSIN.

GRAVITY LITTER-CARRIER.

No. 864,649.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed February 4, 1907. Serial No. 355,573.

To all whom it may concern:

Be it known that I, Ellsworth Jordalen, a citizen of the United States, and a resident of Pleasant Springs, in the county of Dane and State of Wisconsin, 5 have invented a new and Improved Gravity Litter-Carrier, of which the following is a full, clear, and exact description.

The invention relates to loading and unloading devices, and its object is to provide a new and improved 10 carrier, more especially designed for conveniently carrying litter or other material from a barn or other building to a distant wagon or cart for carrying the material away.

The invention consists of novel features and parts 15 and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part 20 of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement as applied; Fig. 2 is an enlarged side elevation of the improvement showing the box in an open or dumping 25 position, and Fig. 3 is an end elevation of the improvement, and showing the box in a closed position.

A suspension cable A is stretched from the barn or other building B to a distant pole C erected in the yard or other place, and on the said cable A are mount-30 ed to travel wheels D' of a carriage D provided with depending links E, on which is hung a box F for carrying the litter or other material from the building B to a place of discharge, it being understood that the box F after being loaded at the barn B is given a push so 35 as to send the box out along the suspension cable A until the place of discharge is reached, and then the box automatically discharges its contents and returns empty to the barn or other building B. For the purpose mentioned the suspension cable A is inclined up-40 wardly and outwardly from the barn or other building B to the pole C, as indicated in the drawings.

The box F is made V-shape in cross section, and in two sections F', F^2 , hinged together at their upper ends F^3 to allow the sections F', F^2 to be swung open into dump-45 ing position by the contents of the box whenever the sections F' and F^2 are unlocked, as herein after more fully described. Normally the sections F' and F2 are locked together so as to hold the contents in position while the box travels from the barn B to the place of 50 discharge, and for this purpose the section F' is provided at each end with a locking arm G slidingly engaging at its free end a swing bolt H made segmental in shape and pivoted on the other box section F^2 . The upper free ends of the swing bolts H are pivotally con-55 nected by links I with operating levers J fulcrumed on the carriage D and pivotally connected with a trip-

ping lever K, having one end pivotally connected by a link K' with the carriage D, the other end of the lever K being adapted to abut against a stop L secured to the lower run of an endless rope or cable N passing over 60 pulleys O and O' secured to the barn B and post C, respectively. Thus by the operator manipulating the rope N, the stop L for the tripping lever K can be shifted to any desired place, so that the contents of the box F are dumped into a wagon P at any point out in the 65 barnyard or other place of discharge. Now when the box is F closed, as shown in Fig. 3, and is held locked in this position by the swing bolt H and locking lever G, and the box is given a push in an outward direction from the barn B, then the carriage D in traveling along 70 the cable A finally brings the tripping lever K in contact with the stop L, so that a swinging motion is given to the tripping lever K, whereby the inner ends of the levers J are swung downward, thus causing the outer ends of the said levers J to rise, whereby the links I 75 pull the swing bolts H slightly upward, to allow the locking levers G to follow the swing bolts H by the pressure of the contents in the box F, so that the sections F', F2 open and the contents of the box drop down into the cart or wagon P. After the contents of 80 the box F are discharged, the box sections F', F^2 immediately close without any manipulation on the part of the operator, and the closed box then immediately returns by its own gravity from the dumping point back to the barn, ready for the operator to reload the 85 box F and again send it out to a discharging position, as above explained.

It is understood that by suspending the box F from the links E and having the sections F', F² hinged at F³, the box sections readily close automatically as 90 soon as the contents of the box are discharged, the contents in leaving the box readily scouring the same owing to the peculiar shape given to the box sections $\mathbf{F}', \mathbf{F}^2$.

It will also be seen that by mounting the stop L on 95 one of the runs of the endless cable N, the operator at the barn by manipulating the cable N can readily shift the stop L to any desired position, with a view to discharge the contents of the box at a given point.

The device is very simple and durable in construction 100 tion, and is arranged to automatically discharge the contents of the box and return the latter by gravity to its starting and loading position.

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

1. A carrier comprising a suspension cable, a carriage mounted to travel thereon, a box hung on the said carriage and made in two parts hinged together at the upper ends, a locking bar hinged to one of the box sections, a swing bolt pivoted on the other box section and slidably 110 engaged by the said locking bar, a link connected with the said bolt, an operating lever fulcrumed on the said carriage and connected at one end with the said link, a trip-

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ping lever operatively connected with the other end of the said operating lever, and a stop at the place of discharge and adapted to be engaged by the said tripping lever.

2. A carrier comprising a suspension cable, a carriage mounted to travel thereon, a box hung on the said carriage and made in two parts hinged together at the upper ends, a locking bar hinged at one of the box sections, a swing bolt pivoted on the other box section and slidably engaged by the said locking bar, a link connected with the said bolt, an operating lever fulcrumed on the said carriage and connected at one end with the said link, a tripping lever operatively connected with the other end of the said operating lever, a stop at the place of discharge and adapted to be engaged by the said tripping lever, an end-

less rope under the control of the operator and carrying 15 the said stop, and pulleys over which passes the said rope.

3. A carrier having a box made in two sections hinged together at the upper end, a locking bar hinged to one of the box sections, a swing bolt pivoted on the other box section and slidably engaged by the said locking bar, a 20 link connected with the said bolt, and an operating lever connected with the link for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. ELLSWORTH JORDALEN.

Witnesses:
ERLING K. LOVERUD,
LARS C. JORDALEN.