

No. 622,234.

A. W. JOHNSON.

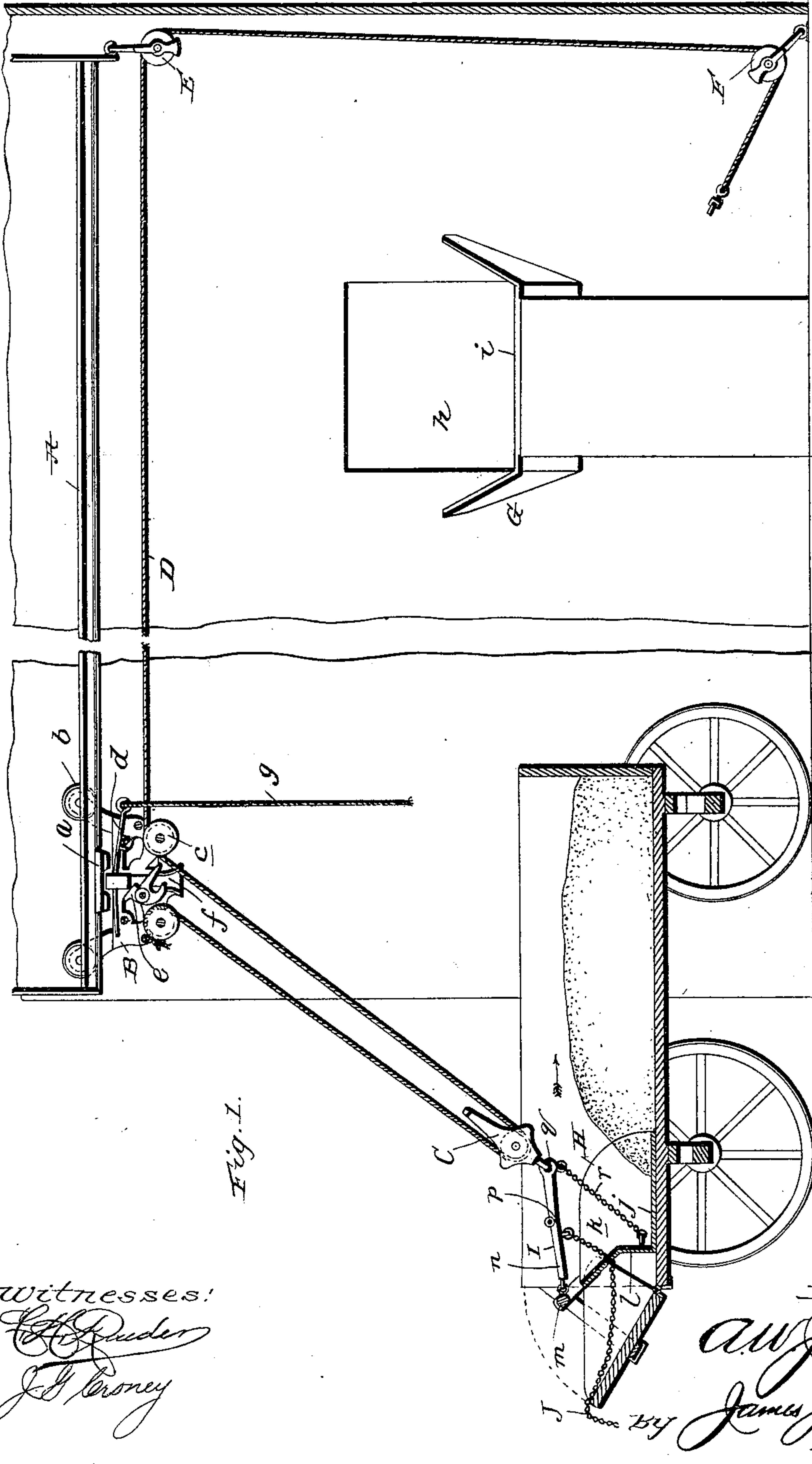
SCOOP.

(Application filed Nov. 14, 1898.)

Patented Apr. 4, 1899.

(No Model.)

2 Sheets—Sheet 1.



witnesses:

Wm. H. Under
J. J. Crony

Inventor

A. W. Johnson

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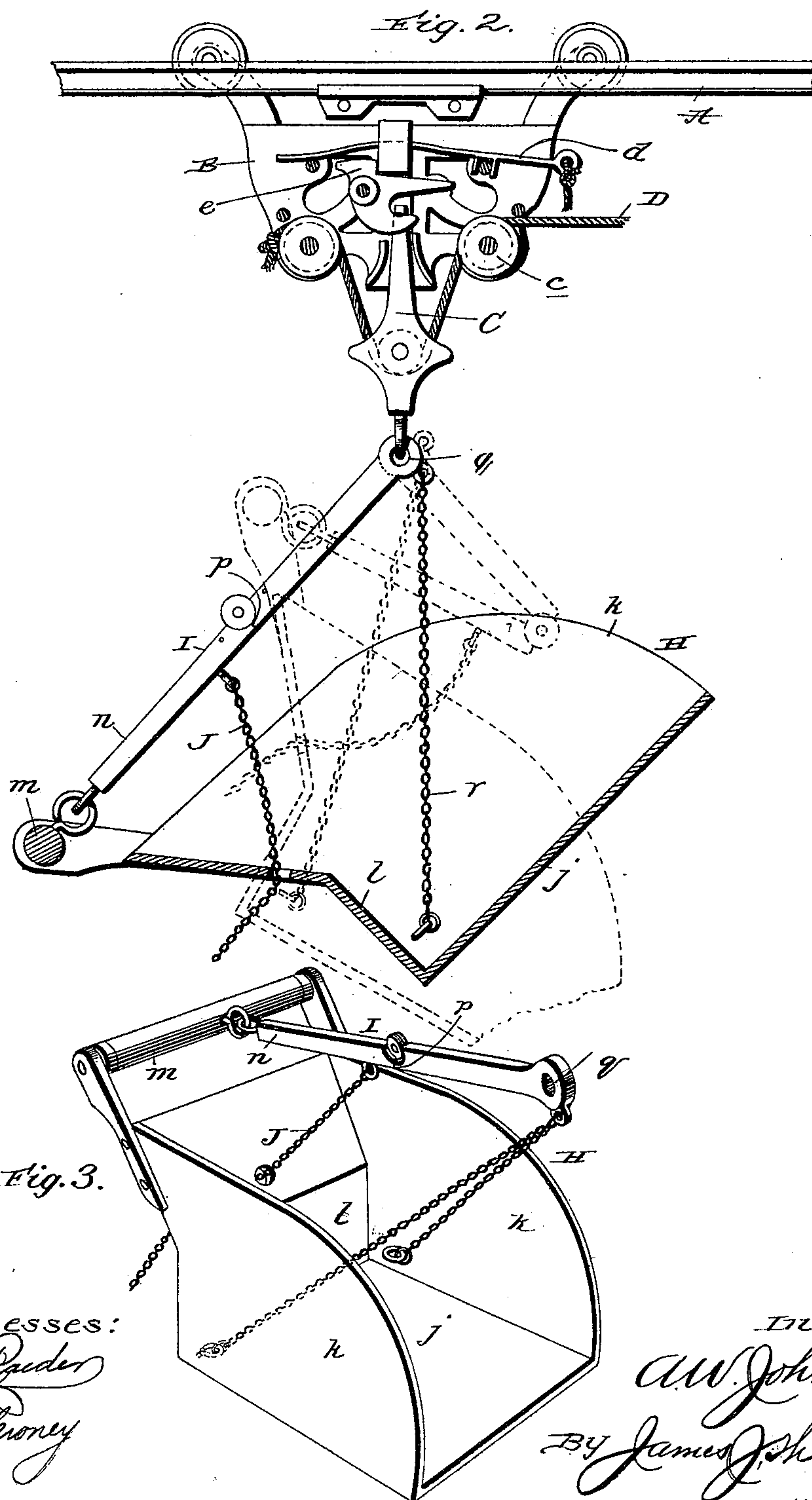
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UNITED STATES PATENT OFFICE.

ALBERT W. JOHNSON, OF MARSEILLES, ILLINOIS, ASSIGNOR OF ONE-HALF
TO HENRY M. KELLY, OF OTTAWA, ILLINOIS.

SCOOP.

SPECIFICATION forming part of Letters Patent No. 622,234, dated April 4, 1899.

Application filed November 14, 1898. Serial No. 696,444. (No model.)

To all whom it may concern:

Be it known that I, ALBERT W. JOHNSON, a citizen of the United States, residing at Marseilles, in the county of La Salle and State of Illinois, have invented new and useful Improvements in Scoops, of which the following is a specification.

My invention relates to scoops such as employed in loading and unloading apparatus; and it consists in the peculiar and advantageous construction hereinafter described, and particularly pointed out in the claim appended.

In the accompanying drawings, Figure 1 is a sectional view illustrating my improved scoop as forming part of a loading and unloading apparatus. Fig. 2 is a detail enlarged section in which the scoop is illustrated in its carrying position by full lines and in its dumped position in broken lines. Fig. 3 is a perspective view of the scoop.

Referring by letter to the said drawings, A is a track; B, a carrier; C, a fall, and D a cable which is connected to the carrier and, after taking around sheaves on the fall and carrier and fixed sheaves E F, is designed to be connected to a draft-animal.

The track, carrier, and fall are constructed in accordance with the invention of one J. E. Porter and form the subject-matter of his Letters Patent No. 482,412, dated September 13, 1892. The track has a stop *a* arranged at about the point shown, and the carrier, in addition to the usual traveling wheels *b* and sheaves *c*, is equipped with a catch *d*, a pivoted hook *e*, and a vertically-disposed passage *f*. These parts are so constructed that when the fall C is raised into the passage or socket *f* of the carrier it will be automatically engaged by the pivoted hook *e* and by moving said hook will release the catch *d* and permit the same to fall out of engagement with the stop *a*. From this it follows that with the fall in its lowered position the carrier is locked against movement on the track; but when the fall is raised to the carrier the carrier is released and may then be drawn along the track. The catch *d* of the carrier is also provided with a depending line *g*. This line is provided in order to enable an attendant when the carrier has been moved

back on the track to place the catch *d* in engagement with the stop *a* and by so doing release the fall C from the carrier and permit said fall to descend.

In accordance with my invention the track A is fixed, in the relation shown, to a grain-crib G, having an opening *h* and a receiving-trough *i*, and my improved scoop H is connected to the fall C.

The body of the scoop H is preferably of the form shown and comprises a bottom wall *j*, side walls *k*, and a rear wall *l*. It is provided at the upper portion of its rear end with a transversely-disposed handle *m* and is also provided with a stay I, as best shown in Figs. 2 and 3. The stay is loosely connected at one end to the handle *m* and comprises two sections *n*, which are connected in a hinged manner and have abutting ends *p*, so as to permit the stay to flex in one direction, but not in the other. The stay is connected to the fall C, it being provided at the end of its outer section *n* with an eye *q* to receive the hook of the fall. Such end of the stay is also connected by chains *r* or other flexible connections with the opposite side walls *k* of the scoop-body, and hence it follows that with the stay in the position shown by full lines in Fig. 2 the scoop-body will be held in the position shown by full lines and therefore will not spill any of the material which it is carrying. When, however, the stay is flexed after the manner shown in Fig. 2, the scoop-body will assume the position shown by dotted lines and discharge its contents.

In order to enable an attendant standing on the ground to flex the stay I, and thereby dump the scoop, I provide the line J, which is connected to the inner section of the stay and takes through an aperture in the rear wall *l* of the scoop. By drawing on the line J the stay may be readily flexed and the scoop thereby dumped.

In the practical operation of my invention when it is desired to remove grain or other material from a wagon to a crib or bin, such as G, the wagon K is moved into about the position shown with respect to the point at which the carrier B is backed to track A and the scoop is lowered into the wagon. With

this done the draft-animal attached to cable D is driven forwardly, when the scoop will be drawn in the direction indicated by arrow on the bottom of the wagon-body until it comes
 5 below the locked carrier. By this time the scoop is filled, and the draft on the stay I will hold the same against flexure, so that when the scoop is raised from the wagon-body by the continued movement of the draft-animal
 10 it will assume the position shown by full lines in Fig. 2, and consequently will not spill any of its contents. The continued forward movement of the draft-animal will raise the scoop toward the carrier, and when the fall
 15 enters the socket *f* of the carrier it will be engaged and held by the hook *e*, and at the same time catch *d* will be released and permitted to drop out of engagement with the stop *a*. The carrier is now released, and the contin-
 20 ued forward movement of the draft-animal will serve to move it along the track until the scoop reaches a point above the trough *i*, when the draft-animal is stopped, and the scoop is dumped by the attendant drawing
 25 upon the line J. After the scoop is dumped the carrier is returned to the position shown in Fig. 1, and the line *g* is drawn upon to place the catch *d* in engagement with the stop *a* and release the fall C and permit the scoop
 30 to descend, when the operation described is repeated.

The handle *m* on the scoop serves to enable an attendant to conveniently move and guide the same while it is being filled and also
 35 serves for the connection of the stay J. This latter, however, is but a preferred feature, as, when desired, the stay may be connected to the upper portion of the rear end wall of the scoop.

When desirable, a stop *a* may be provided 40 on the track A above the trough *i*; but it is not essential to the proper operation of my invention, and it is therefore not deemed necessary to illustrate it. I would also have it understood that I do not confine myself to using 45 my improved scoop in conjunction with the track, carrier, and fall described, as it may be used in conjunction with any other suitable apparatus. The scoop may also be used to advantage to convey grain and other mate- 50 rial as well as from a wagon or other vehicle.

Having thus described my invention, what I claim is—

The herein-described scoop comprising the body having the bottom, side and rear walls, 55 and also having the transverse handle *m* disposed above its rear wall, the stay loosely connected at its rear end to the middle of the handle *m* and embracing a rear section, a forward section adapted at its forward end for 60 the connection of means for moving the scoop, and a connection between the sections whereby the stay is enabled to flex in one direction and is held against flexing in the opposite di- 65 rection, direct flexible connections connected at one end to opposite sides of the body at points adjacent to the bottom and rear walls thereof and at their opposite ends to the outer end of the stay, and a line connected to the stay, substantially as specified. 70

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

ALBERT W. JOHNSON.

Witnesses:

H. M. KELLY,
 JOS. M. KELLY.