

No. 879,194.

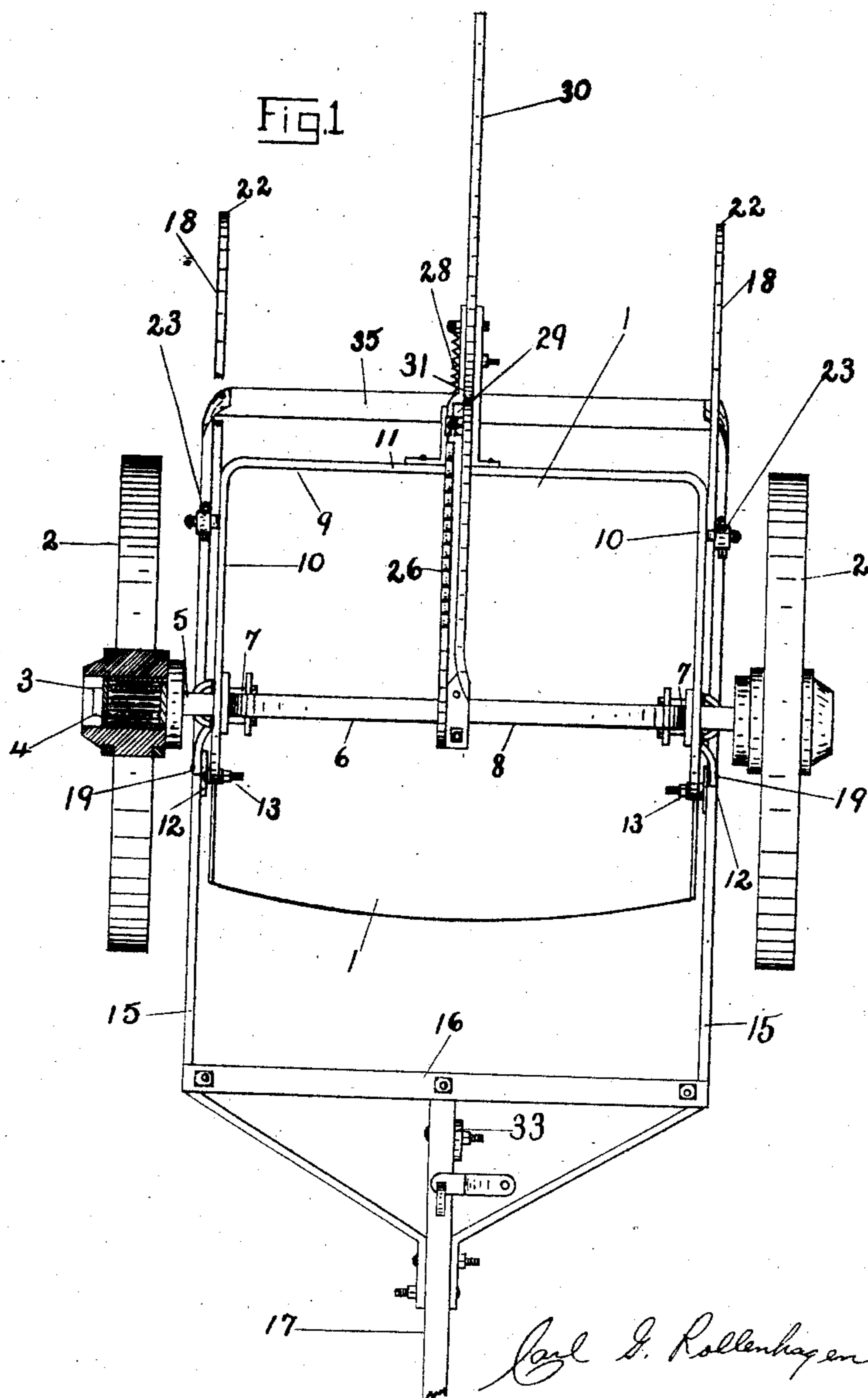
C. G. ROLLENHAGEN.

PATENTED FEB. 18, 1908.

SCOOP.

APPLICATION FILED MAY 2, 1907.

2 SHEETS—SHEET 1.



Witnesses

J. G. Faustich  
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by John W Farley

Attorney

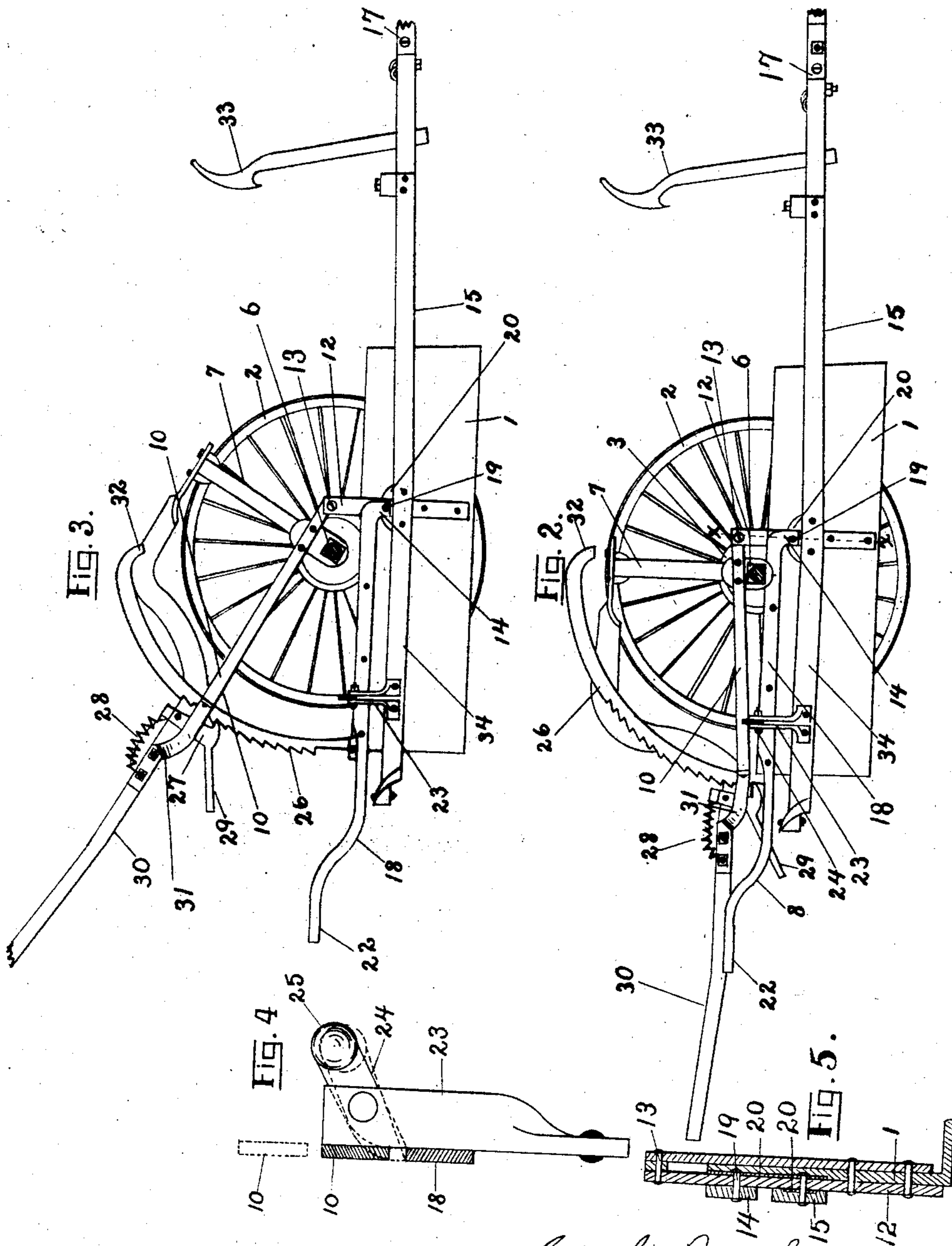
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Witnesses

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# UNITED STATES PATENT OFFICE.

CARL G. ROLLENHAGEN, OF MEMPHIS, TENNESSEE, ASSIGNOR OF ONE-HALF TO WILLIAM BATES, OF MEMPHIS, TENNESSEE.

## SCOOP.

No. 879,194.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed May 2, 1907. Serial No. 371,509.

*To all whom it may concern:*

Be it known that I, CARL G. ROLLENHAGEN, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented certain new and useful Improvements in Scoops, of which the following is a specification.

My invention relates to scoops and more particularly to that class of scoops which are provided with wheels and with means for regulating the depth of cut of the scoop.

The object of my invention is to provide a device of this class in which simple and effective means are employed to prevent the scoop from tipping forward before it is desired to dump the same, in which means easily operated by a person of ordinary strength are provided for regulating the depth of cut and lifting the scoop from the ground when loaded and to generally improve the construction of the scoop.

My invention is embodied in preferable form, in the device hereinafter described and illustrated in the accompanying drawings.

In these drawings, Figure 1 is a top plan view of the scoop; Fig. 2, a side view in elevation showing the scoop-pan in raised position; Fig. 3, a view similar to Fig. 2 showing the scoop lowered; Fig. 4, a detail elevation partly in section of the scoop-pan locking hook, and Fig. 5, an enlarged detail vertical section on line *x—x* of Fig. 2.

Referring to the drawings, 1 is the scoop-pan and 2, wheels on which the scoop is suitably mounted. These wheels are provided with ball bearing hubs 3, to enable the scoop to travel more easily. The hubs 3 are journaled on sleeves 4, which are squared and fit on the squared portions 5 of the axles of the wheels. These axles are formed by the ends of a single cross-bar 6, having vertical bends 7, and a central, horizontal portion 8. Rigidly secured to the vertical bends of this cross-bar is a wheel-shifting frame 9, comprising rearwardly extending arms 10, and a connecting cross-arm 11.

To the front ends of arms 10 of the wheel-shifting frame is pivotally hung by means of the vertical double arms 12, embracing the arm 10, and engaging the bolt 13, the scoop-pan 1. The pan is also pivotally connected at 14 to a rectangular frame 15, which extends entirely around the scoop-pan and is fixed to the cross-tree 16 and shaft 17 to which the horses are harnessed. The pivotal

connection between scoop-pan and draft-frame 15 is to permit of the pan being dumped after a load has been scooped up thereon, and the pivotal connection between the wheel-shifting frame fixed on the axle and the pan is for the purpose of raising or lowering the pan by shifting the bent axle-bar down and up. The pivotal connection at 14 is obtained by the engagement of a long handle-bar 18, fixed to the scoop-pan on each side thereof, with a pivot-pin 19, mounted on a lug 20, rising from the side arm of the frame 15. The bars 18 are prolonged rearwardly to form handles 22, by means of which the scoop may be guided.

Fixed to the opposite side arms of the frame 15 are vertically rising forked up-rights 23, in which are pivoted hooks 24, provided at their outer ends with weights 25, which tend to normally hold the hooks in raised position and over the edges of bars 18 of the scoop-pan so as to hold said pan locked against the frame 15 and also to limit the downward movement of the frame 15. The side arms 10 of the wheel-shifting frame 9, however, when forced down to their lowest position, press against the inner ends of the hooks 24, so as to hold the scoop-pan free of the frame 15, and thus permit the pan to be lifted and dumped when loaded.

Secured to and rising from the rear end of the pan is a curved rack bar 26. Adapted to engage with the rack-bar is a pawl 27, pressed into engagement with the rack by a spring 28. The pawl has an operating arm 29. This pawl is pivoted on a handle 30, bent upwardly at its forward end and clamped or otherwise secured to the cross-bar 6 of the axles. The handle is also bent upwardly at its rear end to permit it to be grasped and operated more readily. Extending from the rear cross-arm of the bracket 9 to the handle 30, is a bail 31, embracing and adapted to move over the rack-bar which is provided with a bent stop portion 32, at its upper end to stop the movement of the bail.

On the shaft 17 is pivotally mounted a hook-bar 33, adapted to catch and hold the scoop-pan when turned over in dumped position. The frame 15 not only serves as a pivoting support for the scoop-pan by means of its side arms 34, but also serves to strengthen and guard the scoop. The arms 34 are twisted angularly at their rear ends

and secured at their flat portions thus formed to the ends of the cross-bar 35 of the frame.

The operation of the device is as follows: When the parts are in the position shown in Fig. 2, the scoop-pan will be held some distance above the ground, and the side arms 10 of the wheel-shifting frame 9 being at their lowest position will press against the hooks 24, and hold them out of engagement with the pan, but at the same time holding the pan down against the frame 15. The scoop is then loaded in the usual manner by scraping up the dirt as the device is drawn along. To dump the pan, the handle 30 being in its lowermost position, or being first moved thereto and the pawl 27 being carried into engagement with the lowest notch of the rack this handle is lifted whereupon the pan is tilted on the frame 15, at pivot 14, and turned over. After the load has been emptied the pan is swung back again to scraping position by rocking the pan back on the pivot 19.

To lower the pan with respect to the wheels, so as to obtain a deeper cut, the pawl 27, is released from the rack, and the handle 30 lifted, as shown in Fig. 3, whereupon the axle cross-bar 6, will be turned, the axles turning in the hubs of the wheels so as to thereby lower with respect to the axles, the pivotal connection 13, arms 12 and scoop-pan, whereby the scoop-pan will penetrate the earth more deeply.

To change the cut while scooping, it is merely necessary to press down the handle 30, whereupon the pawl will catch in the successive teeth of the rack-bar. This depression of the handle may be accomplished by a man of light weight owing to the rack which permits the depression to be accomplished by a series of step-by-step movements, the space gained being held by engagement of rack and pawl.

It is clear that various changes in the details of the device may be made without departing from the principle of my invention.

Having thus described my invention, what I claim is:

1. A wheeled scoop having a scoop-pan, draft means and a continuous rectangular frame fixed to the draft means and entirely surrounding the scoop-pan and forming a guard for the pan and a support therefor, said pan being pivoted to said frame, substantially as described.

2. A wheeled scoop having draft means, a continuous rigid frame, said frame having side arms, a scoop-pan pivoted to said side arms, said frame having a cross-arm passing across the rear of the scoop-pan, and having a front cross-arm secured to the draft means and means on said scoop-pan to contact with

said frame to limit the downward movement of the frame, substantially as described.

3. A wheeled scoop having a scoop-pan, a rigid frame surrounding the pan, said frame fixed to the draft means, said scoop-pan being pivotally hung to and within said frame, an axle-bar, and a pivotal connection between the pan and bar, substantially as described.

4. A wheeled scoop having a scoop-pan, a rigid rectangular frame surrounding the scoop-pan and to which said pan is pivoted, and releasable means on said frame to hold the scoop-pan in locked engagement therewith.

5. A wheeled scoop having a scoop-pan, a frame surrounding the scoop-pan, a pivotal connection between the scoop-pan and frame an axle-bar, a pivotal connection between the scoop-pan and axle-bar, means on the frame to hold the scoop-pan in engagement therewith and means connected with the axle-bar to release said means, substantially as described.

6. A wheeled scoop having a scoop-pan, an axle-bar extending across the scoop and supporting the wheels, a bracket secured to said bar, said scoop-pan pivoted to the forward ends of said bracket, a handle secured to the rear end of said bracket a rack-bar carried by said scoop-pan and a pawl adapted to engage said rack-bar, substantially as described.

7. A wheeled scoop having a scoop-pan, an axle-bar extending across the scoop and having vertical portions, a horizontal bracket having side arms extending across said vertical portions and having a rear cross-arm, vertical arms rising from the scoop-pan and pivotally connected to the forward ends of said side arms, a handle secured to the said cross-arm, a spring pawl on said handle and a curved rack bar rising from said scoop-pan whereby the pan may be adjusted vertically with respect to the axles of the wheels, substantially as described.

8. A wheeled scoop having a scoop-pan, a draft frame, pivoted hooks on said draft frame adapted to engage the upper edge of the scoop-pan, an axle bar, a bracket fixed to the axle bar and pivotally connected to the scoop-pan, means on said bracket to release said hooks from the scoop-pan and means to adjustably fix said bracket in position, substantially as described.

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

CARL G. ROLLENHAGEN.

Witnesses:

R. E. COBB,  
DABNEY M. SCALES.