

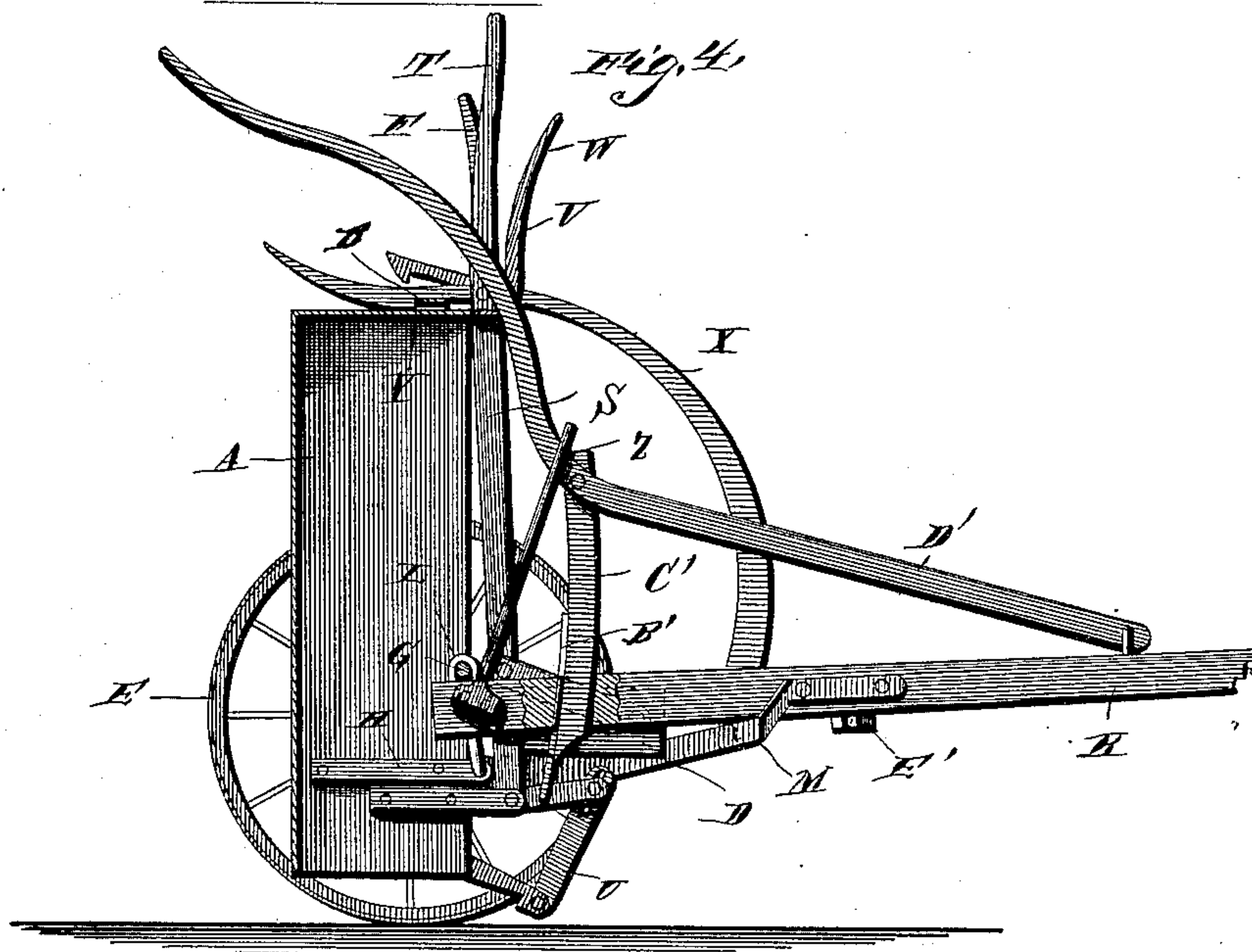
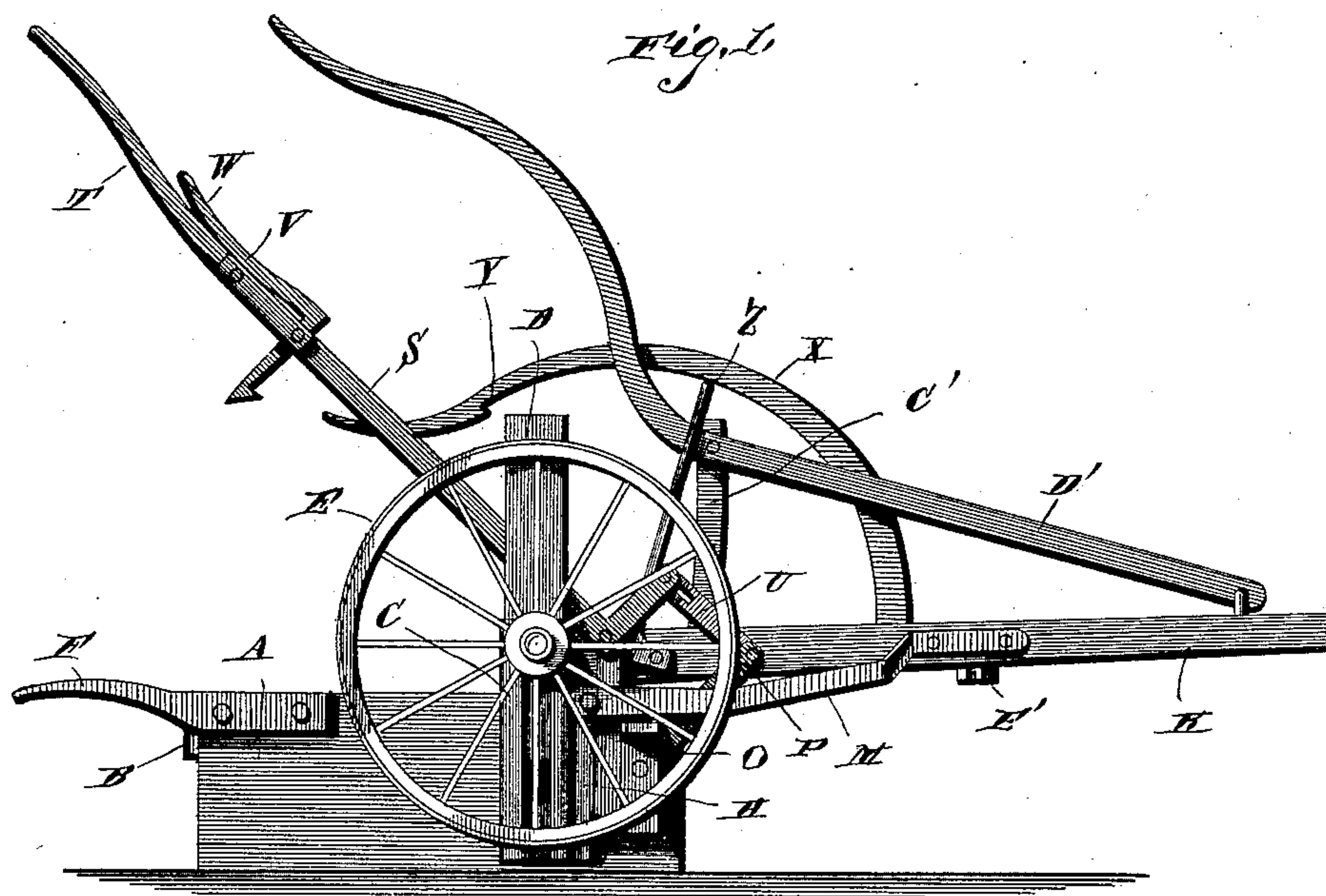
(No Model.)

2 Sheets—Sheet 1.

A. BROWN.
WHEELED SCRAPER.

No. 411,119.

Patented Sept. 17, 1889.



Witnesses

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J. Garner

Inventor

Archie Brown.

By his Attorneys

C. A. Howland

(No Model.)

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Fig. 2.

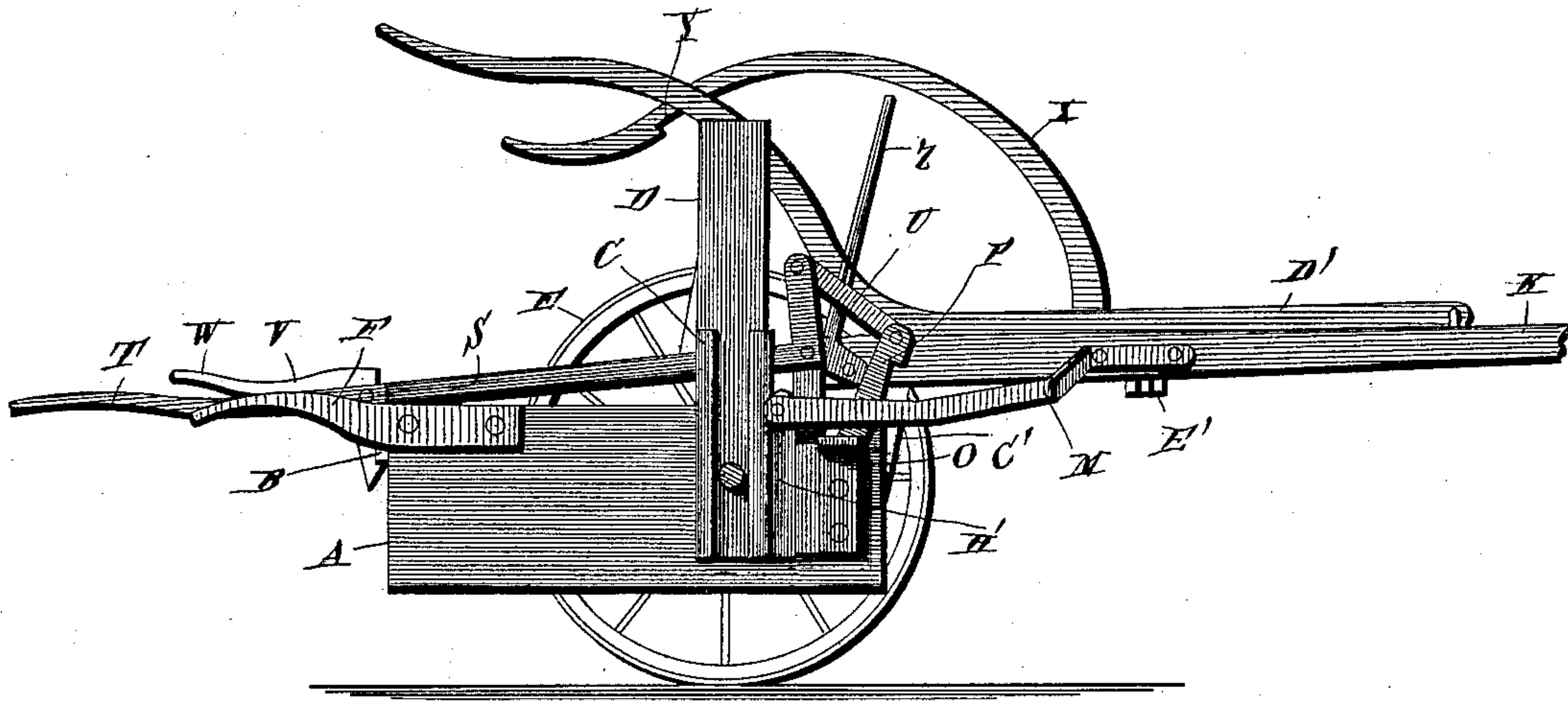
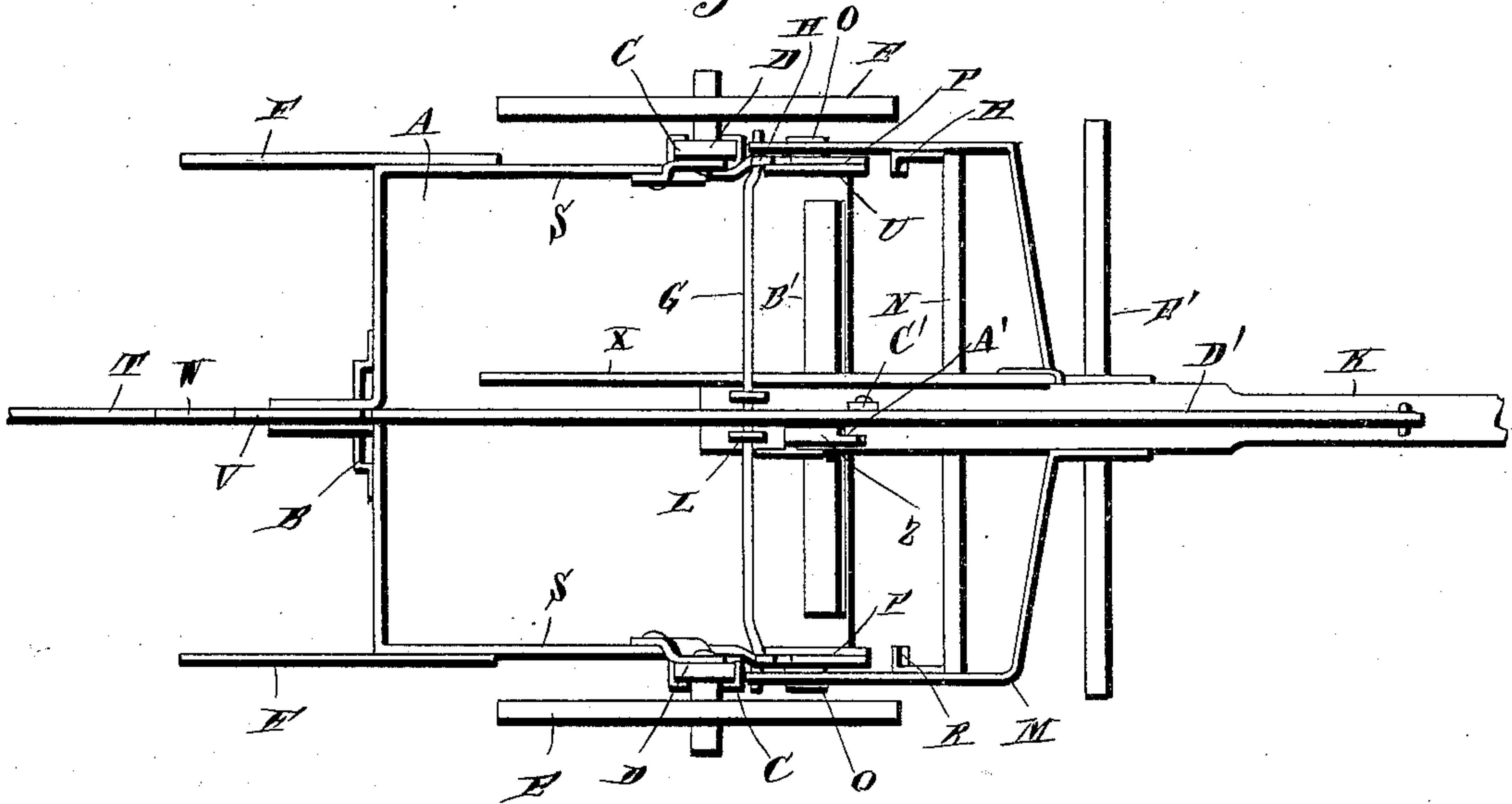


Fig. 3.



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UNITED STATES PATENT OFFICE.

ARCHIE BROWN, OF BLUNT, DAKOTA TERRITORY, ASSIGNOR OF ONE-HALF TO JAMES S. IRWIN, OF SAME PLACE.

WHEELED SCRAPER.

SPECIFICATION forming part of Letters Patent No. 411,119, dated September 17, 1889.

Application filed November 13, 1888; Serial No. 290,671. (No model.)

To all whom it may concern:

Be it known that I, ARCHIE BROWN, a citizen of the United States, residing at Blunt, in the county of Hughes and Territory of Dakota, have invented a new and useful Improvement in Wheeled Scrapers, of which the following is a specification.

My invention relates to an improvement in wheeled scrapers; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of my improved scraper, showing the wheels elevated and the scraper resting on the ground and adapted to scrape the same. Fig. 2 is a similar view showing the scraper raised and supported by the wheels. Fig. 3 is a top plan view. Fig. 4 is a vertical longitudinal sectional view showing the scraper tilted in position to discharge its contents.

A represents the scraper or body, which is rectangular in shape, has vertical sides and rear walls, and has its front side open.

On the rear side of the scraper is a loop or keeper B, and secured to the sides of the scraper, near its front ends, are vertical guideways C, in which are arranged vertical standards D, the latter being adapted to move vertically in the guideway, and having spindles projecting from their outer sides, on which are mounted supporting-wheels E, of suitable size.

Secured to the sides of the scraper, at the rear upper corners thereof, are a pair of rearward-extending handles F.

G represents an offset bar, which has cranks formed at its ends and pivoted in ears or straps H, that are secured to the sides of the scraper near the front end thereof. The tongue K has its rear end secured under the crank-shaft by clip-bolts L, and brace-bars M have their rear ends pivoted on the projecting ends of the offset bar and have their front ends bent inward toward each other and bolted on opposite sides of the tongue. The said brace-bars are connected together at a suitable distance from their front ends by a cross-bar N, which bears under the tongue.

From the foregoing description it will be

understood that the tongue is adapted to play in a vertical direction.

O represents a pair of brackets, which are bolted to the outer sides of the scraper near the front end thereof, and have their upper ends bent outward at right angles, and adapted to bear under the brace-bars M. Pivoted between the inner sides of the said brackets and the sides of the scraper are hooks P, which are adapted to engage studs or projections R, that extend from the inner sides of the brace-rods.

S represents a pair of bell-crank levers, which constitute a bail, are pivoted to the inner sides of the standards D, and have their rear ends secured to a lever T. Links U are pivoted to the outer ends of the hooks P, and have their upper ends slotted and pivoted to the short right-angled arms of the bails or levers S.

V represents a gravity-hook, which is pivoted between the inner ends of the levers S, is adapted to engage the bail or detent B, and has a rearward-extending arm W at its upper end.

X represents a link-rod, which has its front end pivoted to one side of the tongue, and is provided at its rear end on its under side with a shoulder Y, adapted to engage the detent or loop B when the scraper is tilted to discharge its contents.

Z represents a forward-inclined standard, which is secured to the tongue near the rear end thereof, and extends upward from the tongue, and has a shoulder A' on its inner side at a suitable distance from its upper end.

In the front end of the scraper is a gate B', to the center of which is secured a vertical rod C', that passes through an opening in the tongue. A lever D' is pivoted at its front end on the tongue and is connected to the rod C', and is thereby adapted to raise and lower the gate B'.

On the under side of the tongue near its rear end is pivoted a whiffletree E', to which the draft-animals are attached.

The operation of my invention is as follows: In order to lower the scraper to the ground and cause the same to become filled with earth, the hook V is tripped from the loop B and the

lever T is turned upward, so as to cause the bell-crank levers S to lower the front end of the scraper by causing the guideways C to move downward on the standards D until the 5 bottom of the scraper is on a lower plane than the lower sides of the supporting-wheels. When thus arranged, the hooks P engage the studs or projections on the inner sides of the hounds or brace-rods M, and thereby lock the 10 bail or bell-crank lever in its elevated position. Before moving the scraper forward to cause it to become filled with earth, the operator raises the gate B' by means of the lever D', the gate being held in its elevated position 15 by causing the lever to engage the shoulder A' of the standard Z. When the scraper has become filled with earth, the operator trips the lever D' from the standard Z and closes the gate, and he then grasps the lever T and 20 moves the same downward to cause the bail or bell-crank levers to elevate the scraper or body by moving the guideways C upward on the standards D until the hook V engages the bail or keeper B. The machine may be then 25 drawn forward by the team until it reaches the point where the load is to be discharged, which may be accomplished by raising the rear end of the lever T, and thereby causing the hook V to turn the scraper forward on 30 the cranked ends of the offset bar G to the position indicated in Fig. 4. The link-bar X causes its shoulder to become engaged with the loop B on the rear side of the scraper when the latter is turned to this position.

35 Having thus described my invention, I claim—

1. The combination of the scraper, the standards secured to and vertically movable on the sides of the same and having the 40 spindles on which the supporting-wheels are mounted, the offset bar G, pivoted to the scraper, the tongue secured to the offset bar, and the bail or lever S, pivotally connected to the standards D and connected to the 45 scraper, whereby the latter may be raised and lowered, substantially as described.

2. The combination of the scraper, the standards secured to and vertically movable on the sides of the same and having the 50 spindles on which the supporting-wheels are

mounted, the offset bar G, pivoted to the scraper, the tongue secured to the offset bar, and the bail or lever S, pivotally connected to the standards D and connected to the scraper, whereby the latter may be raised and 55 lowered, and the gravity-hook V, pivoted to the bail or levers and adapted to engage a loop or keeper on the rear side of the scraper, whereby the latter may be turned and discharged of its contents, substantially as de- 60 scribed.

3. The combination of the scraper mounted on wheels and adapted to tilt, the tongue, the bar C', guided vertically therein, the gate se- 65 cured to the lower end of the said bar, and the lever pivoted on the tongue and connected to the bar C', whereby the gate may be raised and lowered, substantially as de- scribed.

4. The combination of the scraper mounted 70 on wheels and adapted to tilt, the tongue, the bar C', guided vertically therein, the gate se- cured to the lower end of the said bar, and the lever pivoted on the tongue and con- 75 nected to the bar C', whereby the gate may be raised and lowered, and the standard on the tongue having the shoulder to engage the lever, for the purpose set forth, substantially as described.

5. The combination of the scraper, the 80 tongue having the brace-rods pivotally connected to the scraper and provided with the studs, the standards movable vertically in guides on the sides of the scraper and having 85 the spindles on which the supporting-wheels are journaled, the bell-crank levers S, pivotally connected to the scraper and connected by links to the wheel-standard, the hooks P, pivoted to the scraper and adapted to engage 90 the studs on the hounds, and the links connecting the said hooks to the bell-crank levers, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ARCHIE BROWN.

Witnesses:

HENRY HOFFMAN,
FRANK RUPP.