

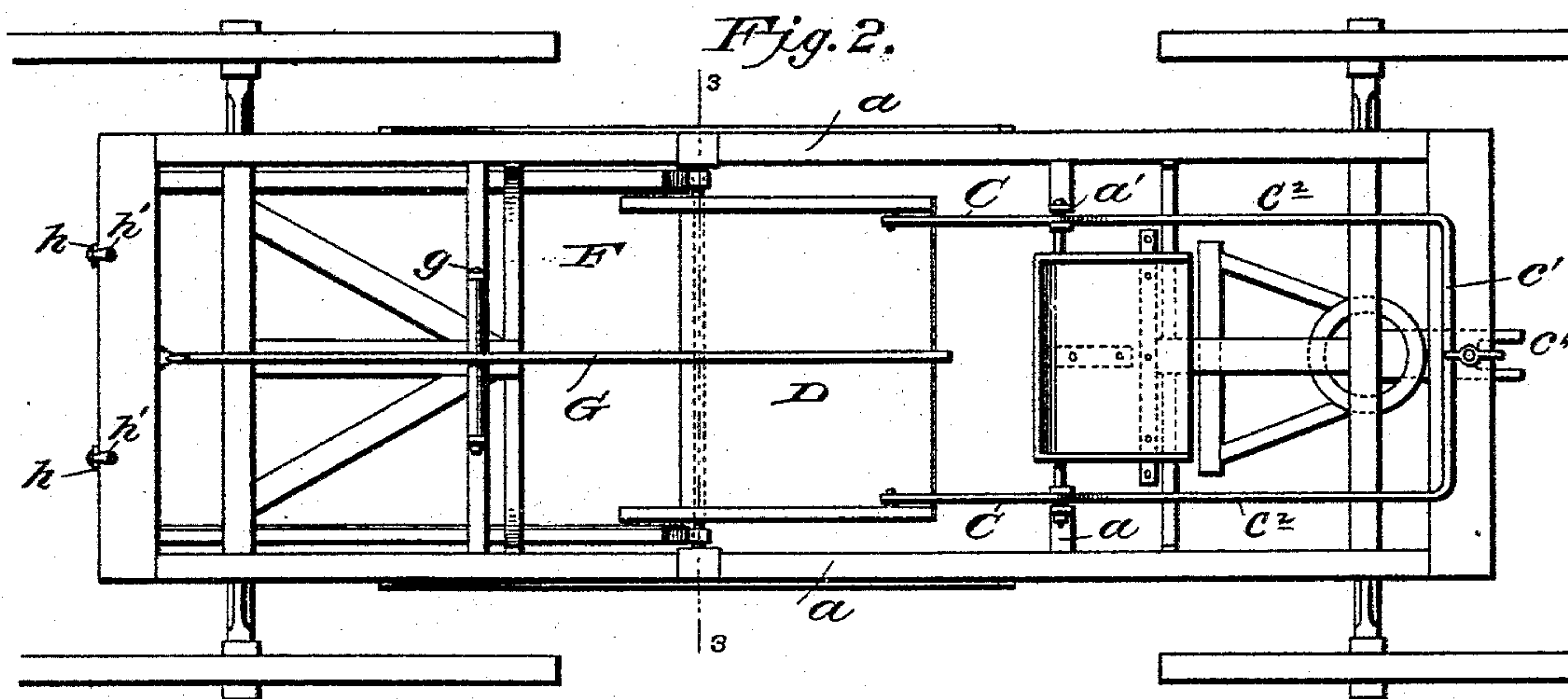
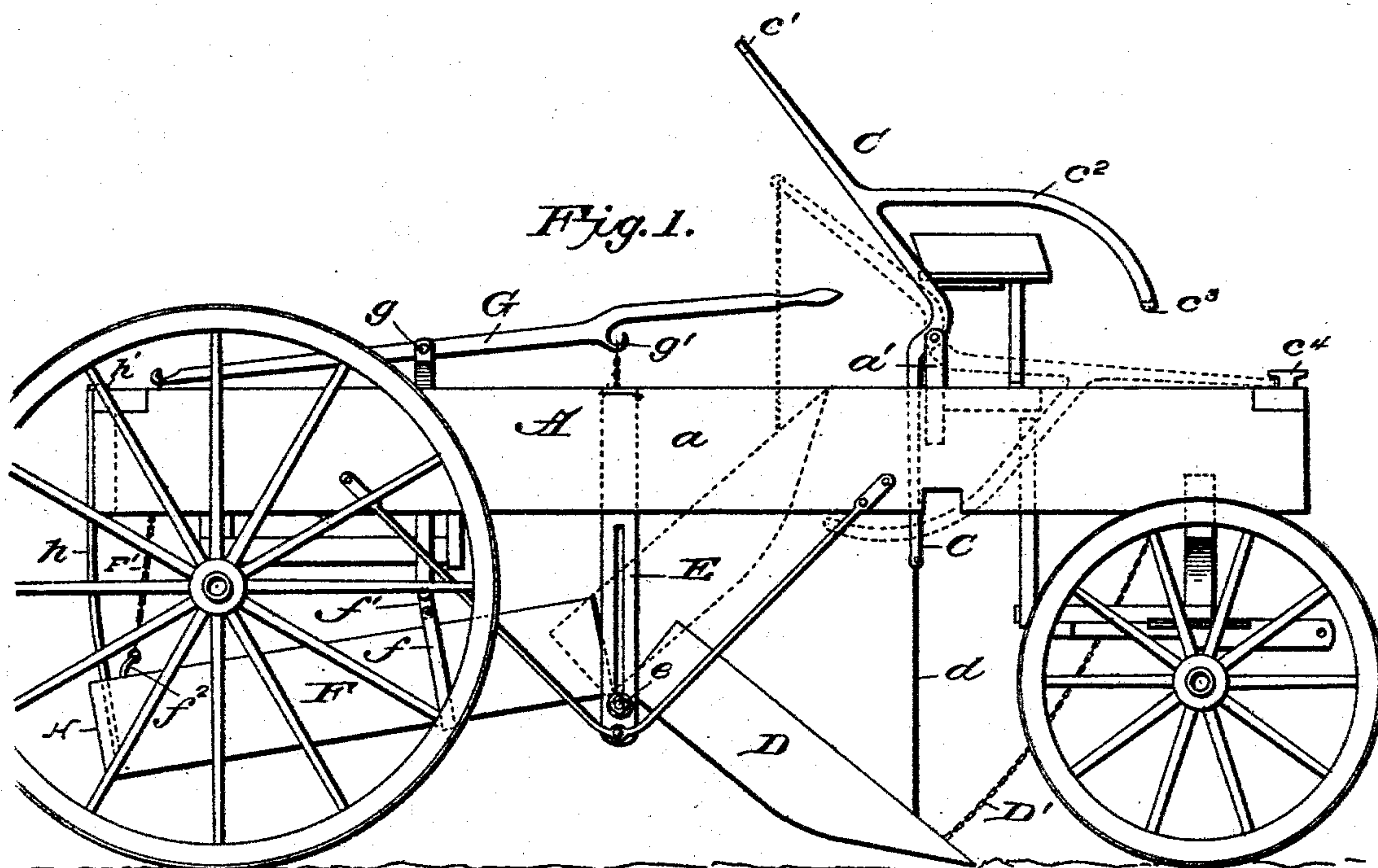
(No Model.)

2 Sheets—Sheet 1.

J. H. HAWKINS.
ROAD SCRAPING MACHINE.

No. 515,679.

Patented Feb. 27, 1894.



John H. Hawkins

INVENTOR

WITNESSES
L. S. Elliott
W. Johnson

by Attorney

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

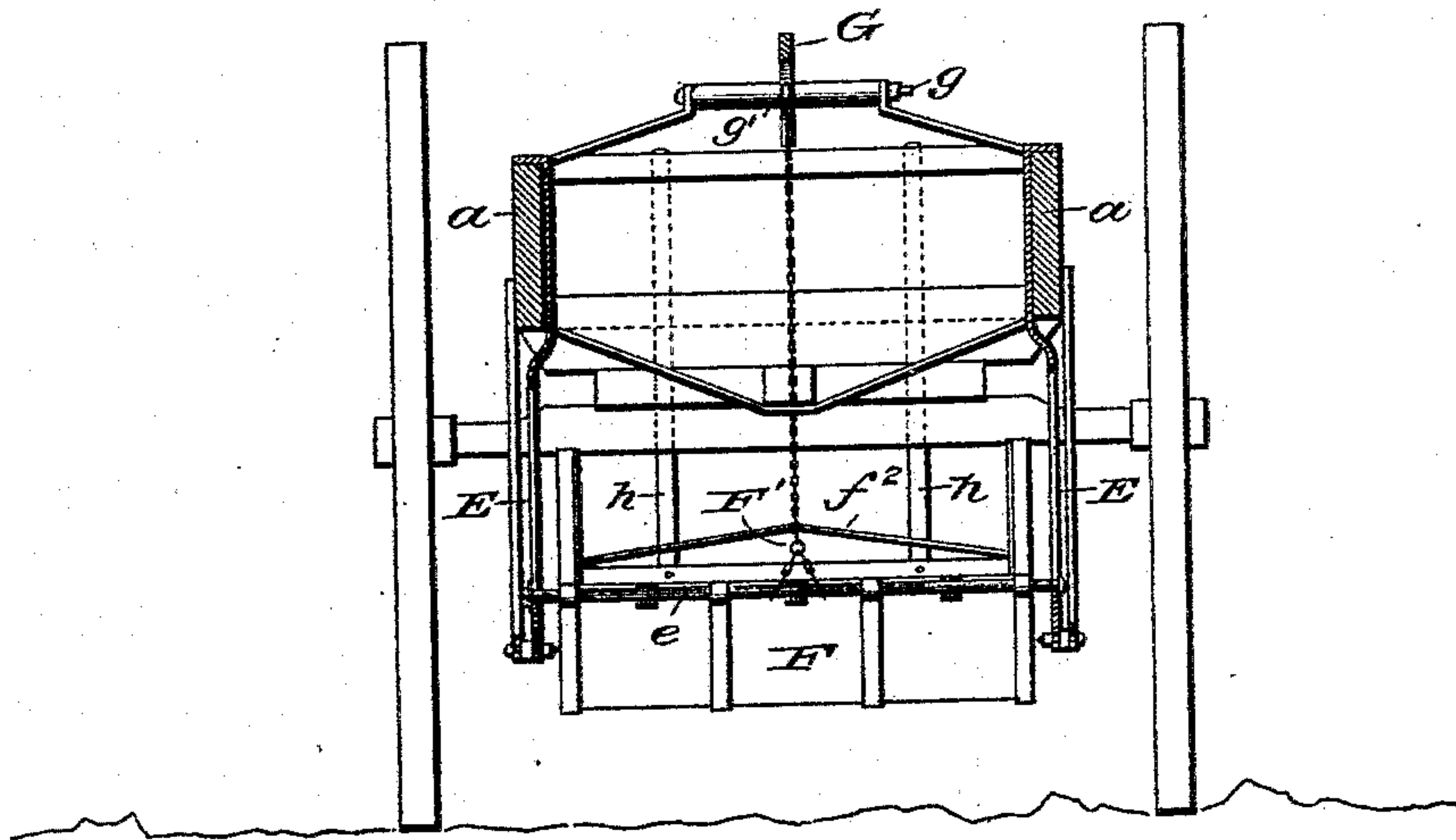


Fig. 4.

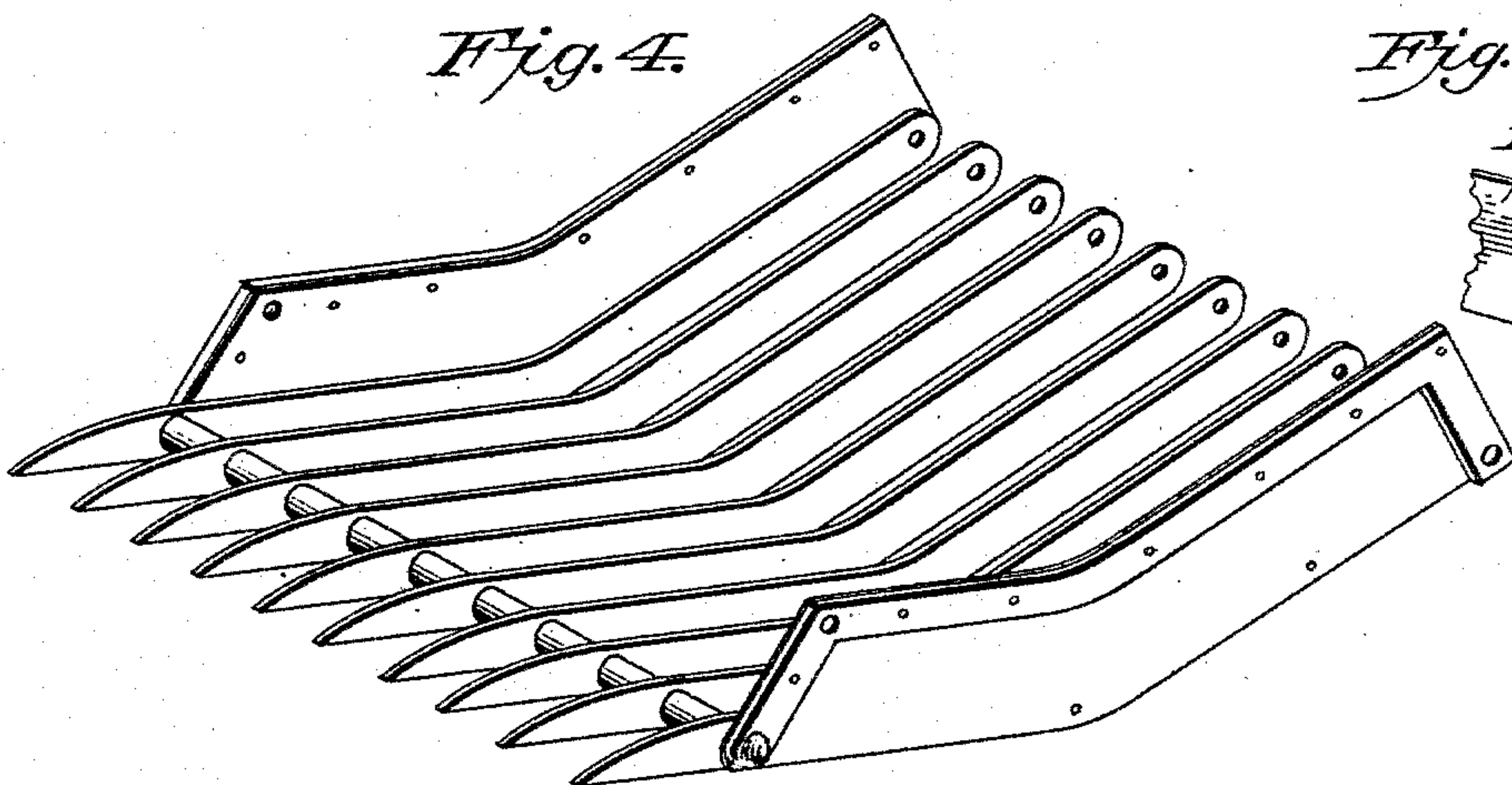
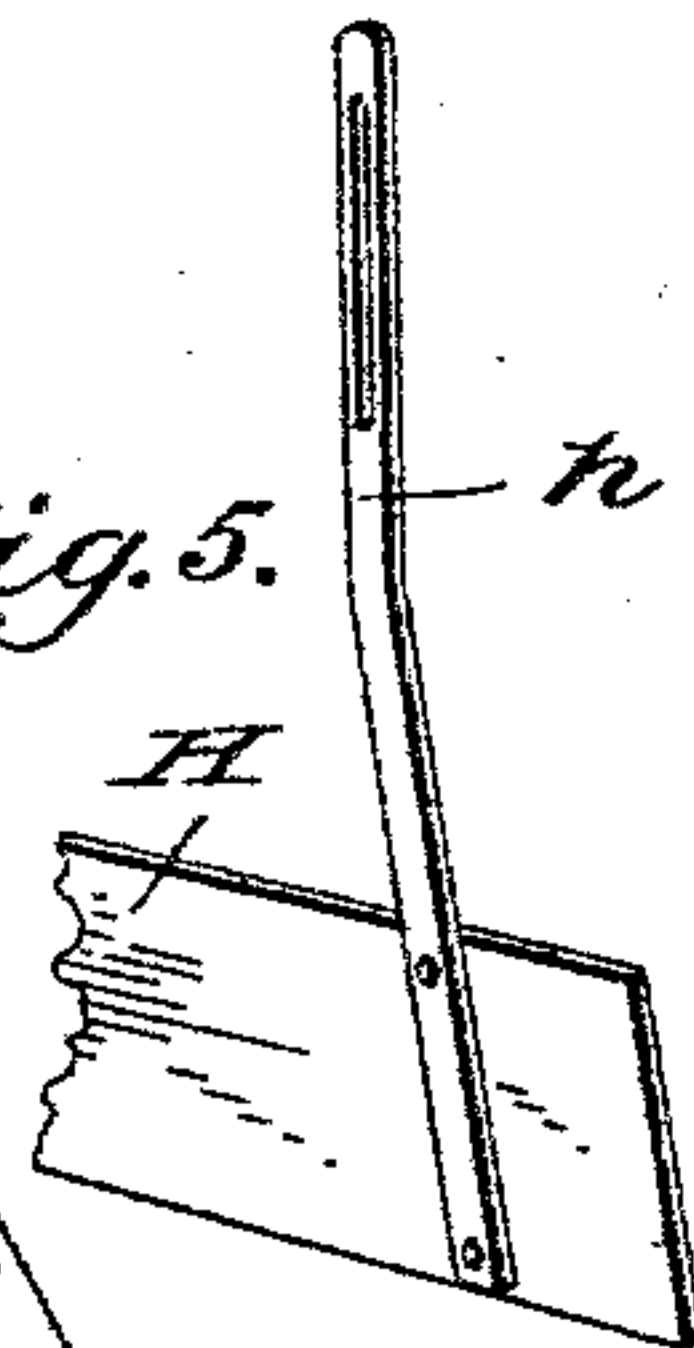


Fig. 5.



WITNESSES
L. S. Elliott.
T. M. Johnson.

John H. Hawkins
INVENTOR

— by *[Signature]* Attorney

UNITED STATES PATENT OFFICE.

JOHN H. HAWKINS, OF GRABEEL, MISSOURI.

ROAD-SCRAPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 515,679, dated February 27, 1894.

Application filed October 12, 1893. Serial No. 487,913. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. HAWKINS, a citizen of the United States of America, residing at Grabeel, in the county of Ozark and State of Missouri, have invented certain new and useful Improvements in Road-Scraping Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a road grading or scraping machine in which the scraper or scoop is operated from the driver's seat to dump the contents of the same into a receptacle located at the rear part of the machine, said receptacle being supported in such a manner that when loaded it can be dumped by operating a lever which raises the forward end of the same and lowers the rear end away from the end gate.

The invention consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of the machine showing the scoop in full lines lowered and in dotted lines elevated in a position for dumping the same. Fig. 2 is a plan view showing the parts positioned as shown in dotted lines in Fig. 1. Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 2. Fig. 4 is a modification of the scoop or scraper, and Fig. 5 is a detail view of one of the bars which supports the end gate.

A designates the frame of the machine which is supported upon wheels after the manner of an ordinary wagon body and is made up of longitudinal side pieces *a a* connected to each other by cross-pieces as shown. Upon one of the cross-pieces is mounted the driver's seat, and to the front axle is attached the draft mechanism in the usual manner.

Rear of the driver's seat and to the side pieces *a a* of the frame of the machine are rigidly attached depending hangers *E E* which

are slotted from near their lower ends upward a short distance as shown in Fig. 1, and between these hangers and within the slots extends a cross-bar *e* to which the scraper or scoop *D* is pivoted at its rear end, the forward end of the scraper being connected to the machine by means of chains *D'*, which limit the downward movement of said forward end to regulate the depth it enters the ground. To the forward end of the scoop are also attached rods *d d* which are connected to levers *C C* located on either side of the driver's seat and fulcrumed on a bar or shaft which extends across the machine and is supported by uprights *a' a'* as shown. The upper ends of these levers are connected by a cross-piece *c'* for convenience in operating them by hand, and to provide for partially operating them by foot they are formed with forwardly projecting portions *c²* connected by the foot portion *c³*. The rear end of the scoop is left open so that when these levers *C* are operated to lift the forward end of said scoop the contents of the same will be dumped into a receptacle *F* located immediately in the rear thereof. It will be noted that in operating the levers *C* to dump the scoop the operator depresses said levers with his feet until the cross-piece *c'* comes in reach of his hands when they are further operated thereby, and should he desire to retain the scoop in an elevated position the button *c⁴* can be turned over the cross-piece *c'*.

The receptacle *F* is supported at its forward end upon the cross-bar *e* and at a short distance rear of its forward end it is connected to the frame of the machine by means of bars *f f* and an intermediate link *f'*, which connection permits the receptacle to have a slight vertical movement. The rear end of the receptacle is supported by a chain *F'* which is connected to a cross-bar *f²* and to the rear end of a lever *G* fulcrumed on a cross-bar *g* supported by the frame of the machine, the forward end of the lever being formed into a handle for operating the same, while near the forward end is a hook *g'* to which a chain extending from the cross-bar *e* is attached so that by elevating the forward end of the lever the cross-bar *e* will be raised and carry with it the scoop and forward end of the re-

ceptacle F, which are supported thereby, the rear end of the receptacle being lowered as the rear end of the lever is lowered.

The rear end of the receptacle F is provided with a suitable end-gate H which is supported from the frame of the machine by means of bars *h h* so that as the rear end of the receptacle is lowered it will move away from the end gate and provide an opening through which the contents will be dumped. The upper ends of the bars *h h* are slotted to receive the screws for attaching them to the machine, and these slots provide for a slight upward movement of the end-gate so that when the receptacle is elevated against the same it will be raised with said receptacle a short distance to be certain of its resting properly on the bottom-board.

At the rear end of the machine are located hooks *h' h'* which can be turned over the upper ends of the rods *h h* so that said rods will strike against the same to force the end-gate in proper position when the rear end of the receptacle is elevated.

In Fig. 4 I have shown a modification of the scoop or scraper in which instead of being made up with a solid bottom it is formed by a series of bars separated by suitable blocks, the rear ends of the bars being apertured for the passage of the cross-bar *e*. This form of scraper or scoop is designed for gathering rocks, the dirt scooped up with the rocks falling out between the bars.

The different parts of the machine are placed in an operative position by moving the levers to the positions shown in full lines Fig. 1, that is the lever C thrown back to lower the scoop and the lever G placed in engagement with the chains, so that the receptacle F will be raised in position against the end-gate. With the parts thus arranged when the machine is drawn over the road the scoop or scraper will gather up any loose dirt and when it is filled the contents are dumped into the receptacle F by depressing the levers C, and when the receptacle F is filled it can be dumped when the machine has reached the dumping ground by releasing the lever G and lifting the forward end of the same, which operation elevates the forward end of the receptacle and lowers the rear end away from the end-gate.

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

1. A wheel scraper or excavator consisting of a frame having depending hangers between which is pivotally secured the rear end

of a scoop or scraper, means for connecting the forward portion of the scraper with a lever having forwardly projecting members, substantially as shown and described.

2. In a scraping machine, the combination, of a frame supporting slotted hangers E and levers C and G, of a scoop or scraper and a receptacle pivotally connected to the hangers, the levers C being connected to the forward end of the scoop or scraper and the lever G to both ends of the receptacle and fulcrumed intermediate its connections with said receptacle, substantially as shown, and for the purpose set forth.

3. In a scraping machine, the combination, of a frame having depending hangers with vertical slots, levers C and G fulcrumed upon the frame, a scraper D mounted at its rear end between the hangers E and connected to the levers C by rods, and a receptacle F mounted at its forward end between the hangers E and connected to the lever G at both ends by flexible connections, the forward end of the receptacle and rear end of the scraper being mounted between the hangers on a cross-bar which extends through the slots in said hangers, substantially as shown, and for the purpose set forth.

4. The combination with a scraper pivotally connected to a frame, of levers C C fulcrumed on the frame and connected to the scraper by rods and to each other by a hand grasping portion *c'*, and members *c²* projecting from the levers C and connected to each other by a foot portion *c³*, substantially as shown, and for the purpose set forth.

5. In a scraping machine, the combination, of a frame having depending slotted hangers which support a cross-bar, a scraper mounted at its rear end upon said cross-bar and connected at its forward end to a lever fulcrumed on the frame of the machine, a receptacle mounted at its forward end upon the cross-bar and connected to the frame of the machine by bars and an intermediate link, a lever G fulcrumed on the frame and connected to the cross-bar and to the rear end of the receptacle by flexible connections, and an end-gate attached to the main frame and adapted to close the rear end of the receptacle, substantially as shown, and for the purpose set forth.

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

JOHN H. HAWKINS.

Witnesses:

W. P. HALE,

GEO. W. BOONE.