

No. 740,560.

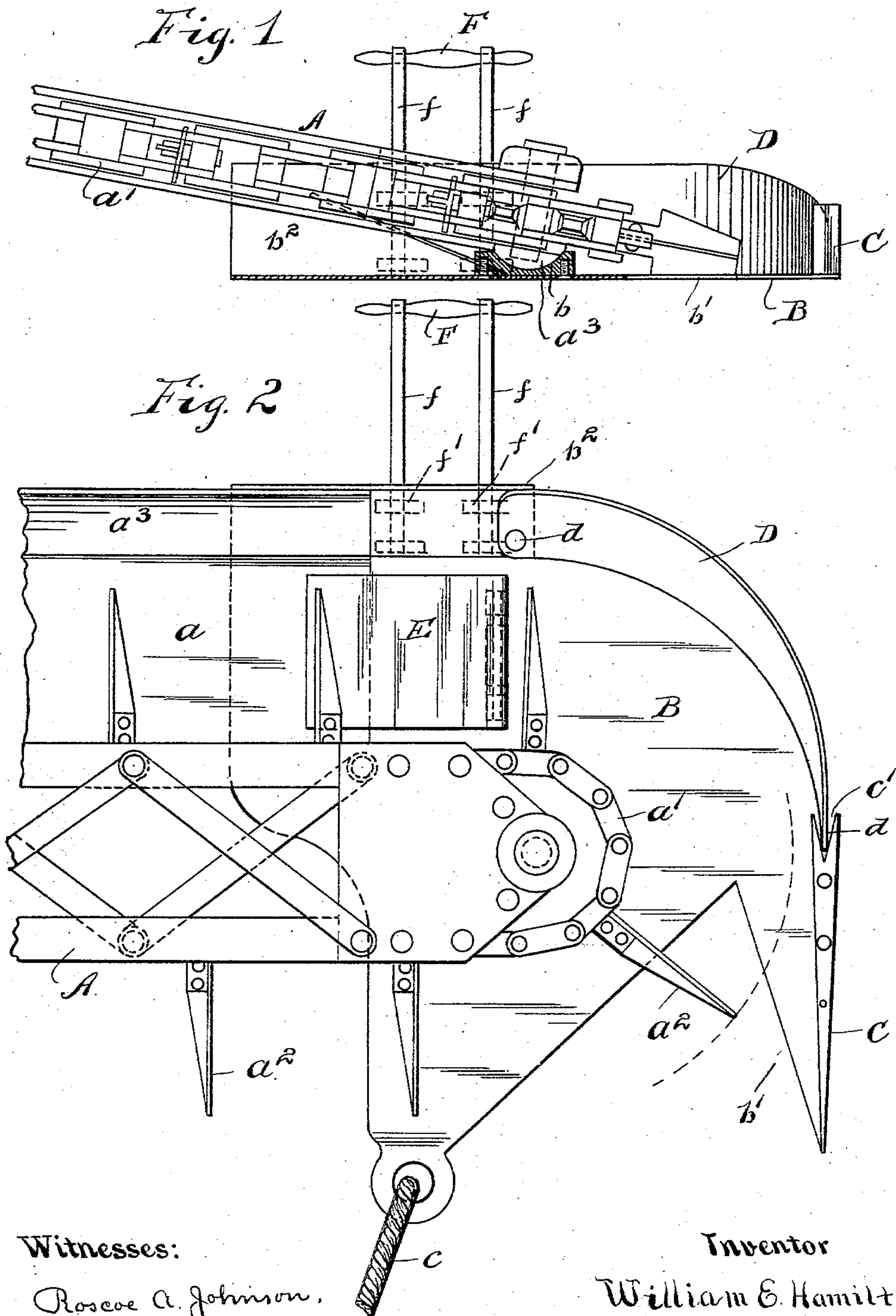
PATENTED OCT. 6, 1903.

W. E. HAMILTON.  
GATHERING SCOOP.

APPLICATION FILED JAN. 17, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

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A. McKelvey.

Inventor

William E. Hamilton,  
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Att'y.

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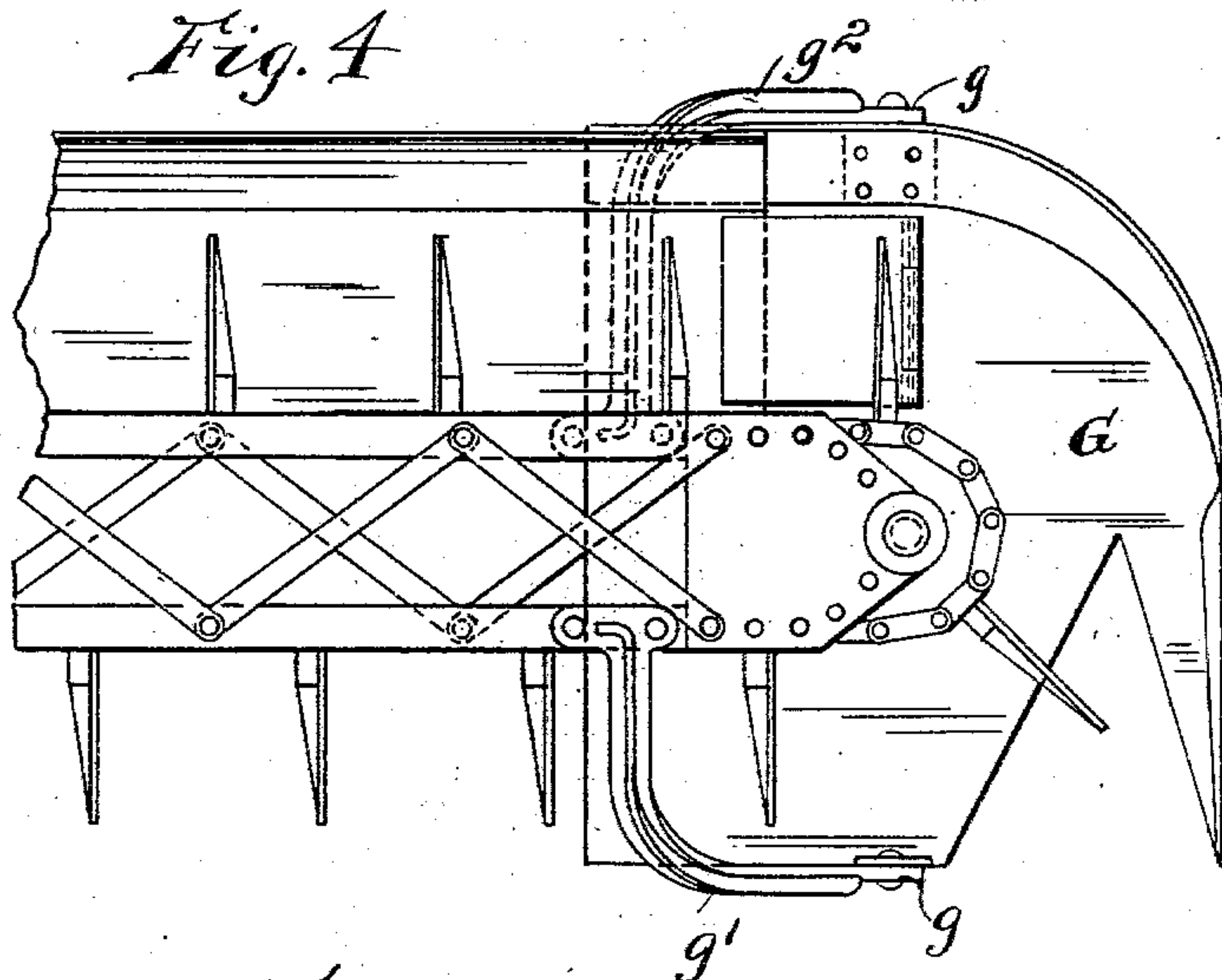
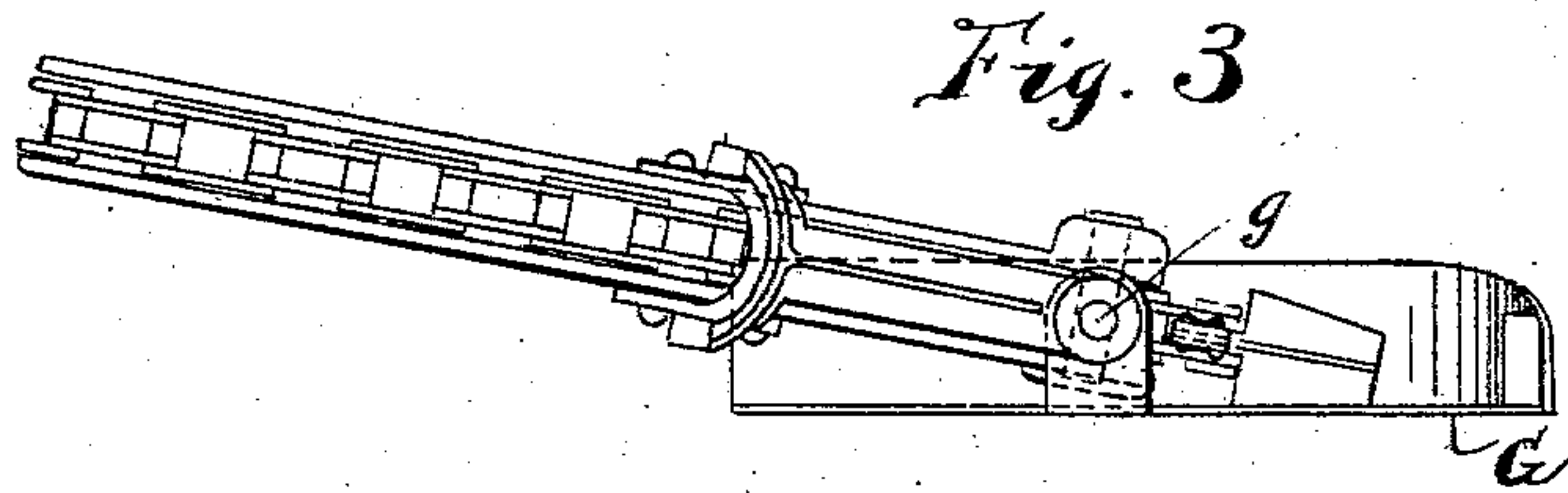
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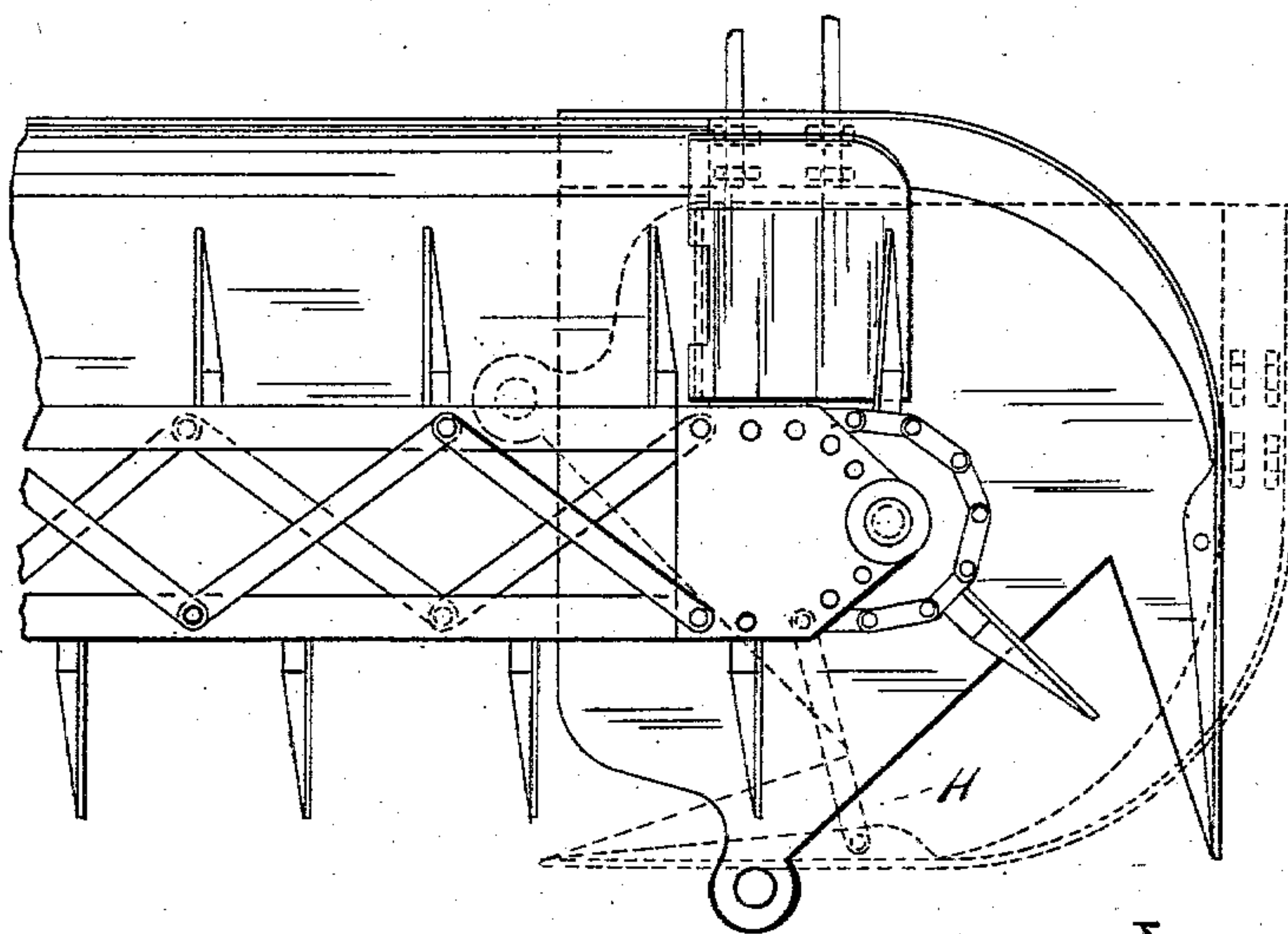
APPLICATION FILED JAN. 17, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



*Fig. 5*



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## UNITED STATES PATENT OFFICE.

WILLIAM E. HAMILTON, OF ZANESVILLE, OHIO.

## GATHERING-SCOOP.

SPECIFICATION forming part of Letters Patent No. 740,560, dated October 6, 1903.

Application filed January 17, 1903. Serial No. 139,485. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM E. HAMILTON, a citizen of the United States, residing at Zanesville, in the county of Muskingum and State of Ohio, have invented certain new and useful Improvements in Gathering-Scoops, of which the following is a specification.

This invention relates more particularly to gathering scoops or shovels adapted to be flexibly secured to the extremity of a sweep for a loading-machine which carries the slide-way and means for elevating the material. Among its objects are to provide means for gathering the material which may be in part or wholly manually controlled and which will directly supply the elevating or conveying devices. Its further objects are to provide a device of the character indicated which will be yieldingly secured to the sweep, readily detachable, and operable in either a forward or backward movement of the sweep, and which will coact with the conveyer-flights to assist the forward movement of the sweep.

It consists in the various combinations and novel features, which will be described and claimed hereinafter and which are shown in the accompanying drawings.

Figure 1 is a front elevation of a device embodying this invention, shown with parts broken away. Fig. 2 is a plan view of the same. Fig. 3 is a front elevation showing a modified form of construction. Fig. 4 is a plan view of the same. Fig. 5 is a view showing the scoop in its normal position and shown in dotted lines swung around to gather when the movement of the sweep is reversed.

In machines of the character to which this invention is applicable a sweep A is either swung or otherwise moved along the face of the pile of material to be gathered. This sweep carries a slideway  $a$  and a link belt  $a'$ , with flights  $a^2$  for elevating and conveying the material. These flights are preferably pivoted so that they may play in a vertical direction. The scoop B is formed of sheet metal and is of irregular shape, as shown. Approximately in the center of the scoop is a socket  $b$ , secured thereto in any suitable manner. Into this socket fits a ball or semi-spherical lug  $a^3$ , attached to the end of the sweep A. The joint thus formed is the flexi-

ble connection between the sweep and scoop and supports the end of the sweep.

The forward edge of the scoop is cut away, as at  $b'$ , so that the flights  $a^2$  may engage the material before passing entirely onto the scoop, and in this manner they will assist in drawing the end of the sweep forward and forcing the scoop into the material.

At the forward and outer edge of the scoop is a steel finger C, which is adapted to be forced into the material and is readily replaced when worn, and at the inner corner is an eye for a feeding-rope  $c$ , by means of which the scoop may be drawn forward.

The back of the scoop is provided with a raised flare  $b^2$  to correspond with a similar flare  $a^3$  on the slideway. This flare is made outstanding, so that the material will be urged in toward the flights. The outer portion of this flare is pivoted to the back or rigid part at  $d$  to form a gate D, which engages at the forward end  $d$  with a slot  $c'$  in the finger C to hold it in normal position. When the scoop is swung back, this gate may be raised to allow the scoop to gather up any loose material that has fallen down after its forward movement.

In order to secure a continuous pathway for the flights between the scoop and the slideway, an apron E is provided, which is hinged to the scoop and has its free end resting on the slideway.

The scoop is controlled by the attendant and guided and worked into the material by means of a handle F, which is provided with arms  $f$ , taking into straps  $f'$  on the flare of the scoop, and may be readily withdrawn therefrom.

In the modification shown in Figs. 3 and 4 the scoop G is pivoted at  $g$  to arms  $g'g^2$ , reaching out from the sweep. The arm  $g'$  is made to engage the top and bottom members of the sweep and allows the flights to pass through it. The other arm  $g^2$  only engages the lower part of the sweep and passes beneath the slideway in order to leave a clear passage-way for the material.

In Fig. 5 substantially the same construction is shown as in Figs. 1 and 2; but the gate D is dispensed with and the scoop swung around to gather material on the return move-



ment. In order to hold the scoop in this position, a removable brace or bar H (shown in dotted lines) is connected from the sweep to the scoop. In this case the apron is hinged to the slideway, the free end resting on the scoop.

I am aware that various modifications will readily suggest themselves as coming within the scope of this invention, and I do not wish to limit myself to the exact details of construction shown; but

What I claim, and desire to secure by Letters Patent, is—

1. A sweep provided with a slideway and conveying apparatus, a scoop pivotally connected to the end of said sweep and adapted to support the same and a handle on said scoop.

2. In combination, a sweep provided with a slideway and movable conveyer-flights, and a scoop secured to the end of said sweep, having its forward edge cut away so that the flights will engage the material before passing entirely onto the scoop.

3. In combination with apparatus for conveying material, a scoop, a flare on said scoop and a gate connected to said flare and adapted to form substantially a continuation thereof.

4. In combination with apparatus for conveying material, a scoop pivoted to said apparatus adapted to be turned to operate in a forward or backward movement of the apparatus.

5. In combination, a sweep provided with conveying apparatus, a scoop, a socket in said scoop, a lug on said sweep engaging said socket, a removable finger on said scoop and a handle for guiding said scoop.

6. In combination, a sweep provided with a slideway and conveyer-flights, a scoop pivotally connected with said sweep and a hinged apron connecting between said scoop and the slideway.

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Witnesses:

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GUTHRIE KING.