

No. 663,758.

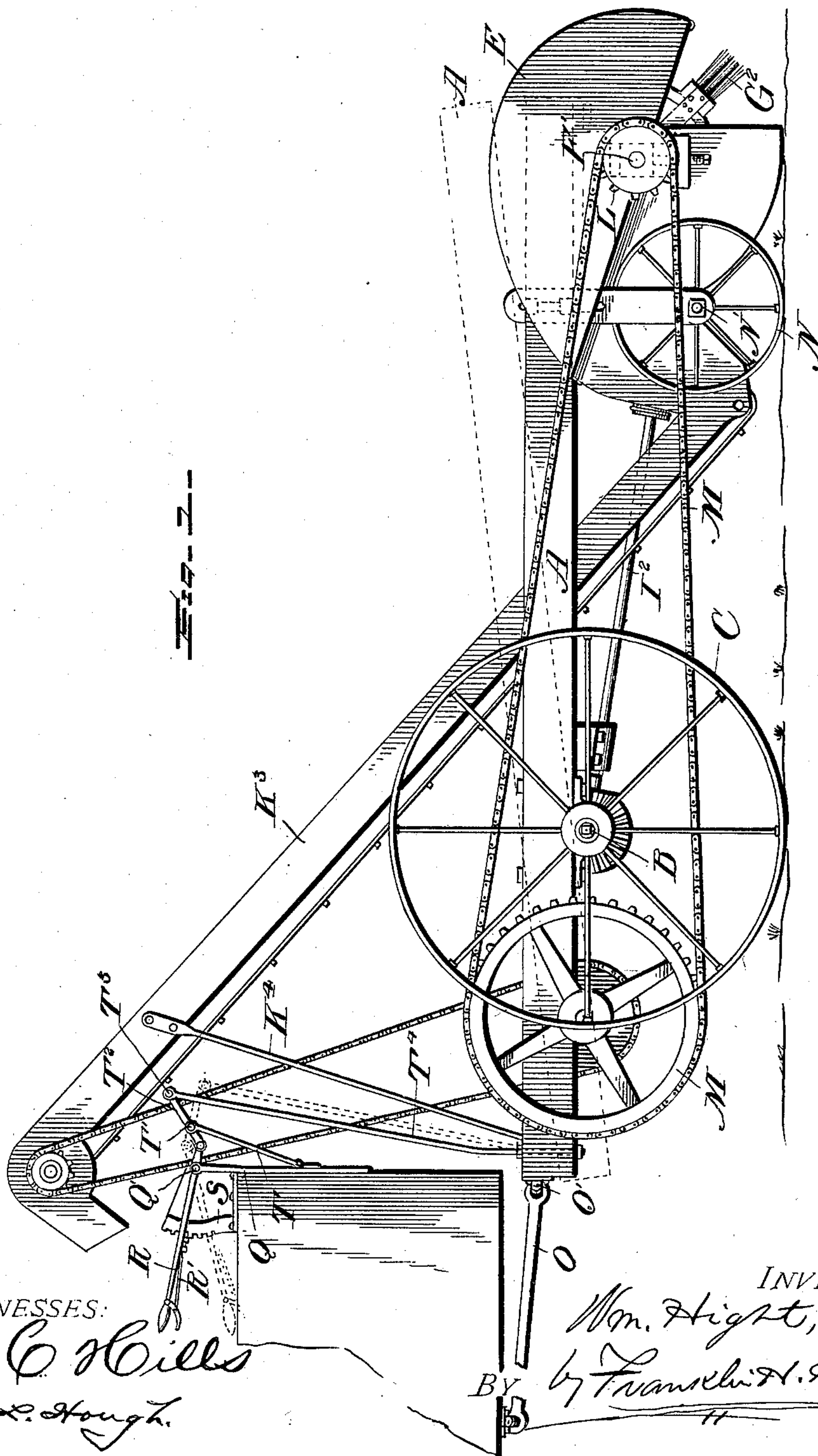
Patented Dec. 11, 1900.

W. HIGHT.
STREET SWEEPER.

(Application filed June 28, 1900.)

(No Model.)

4 Sheets—Sheet 1.



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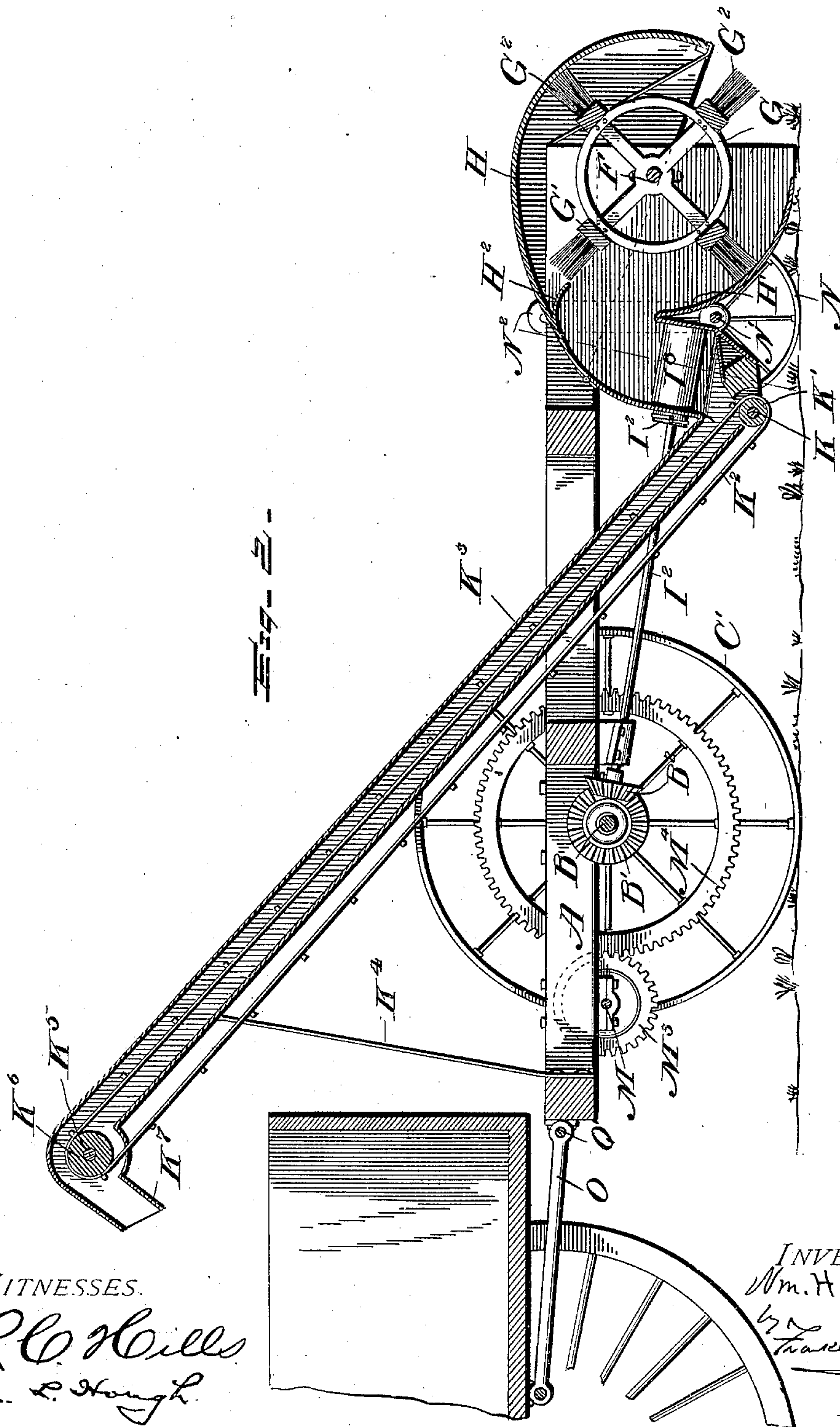
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4 Sheets—Sheet 2.



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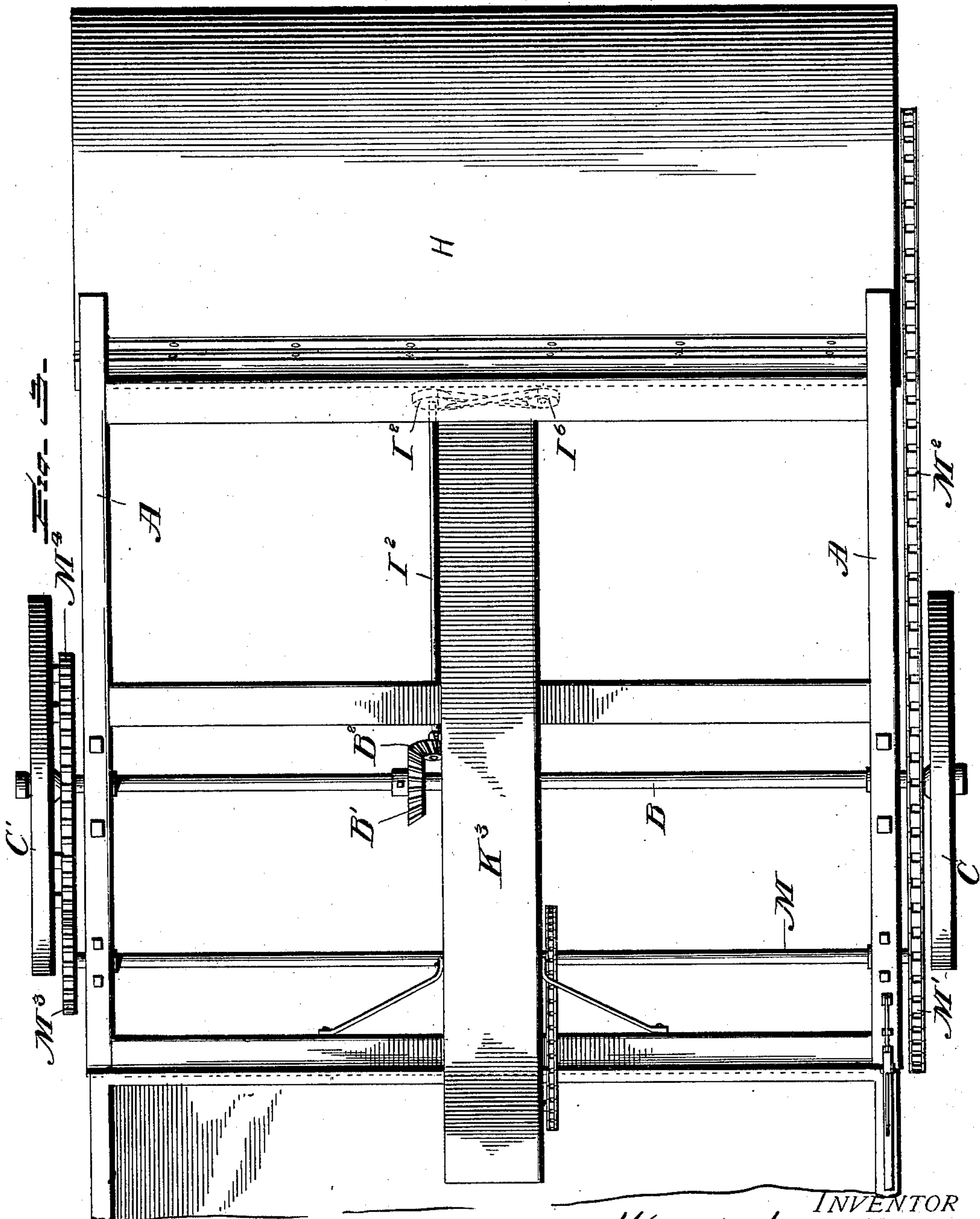
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4 Sheets—Sheet 3.



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4 Sheets—Sheet 4.

Fig. 2.

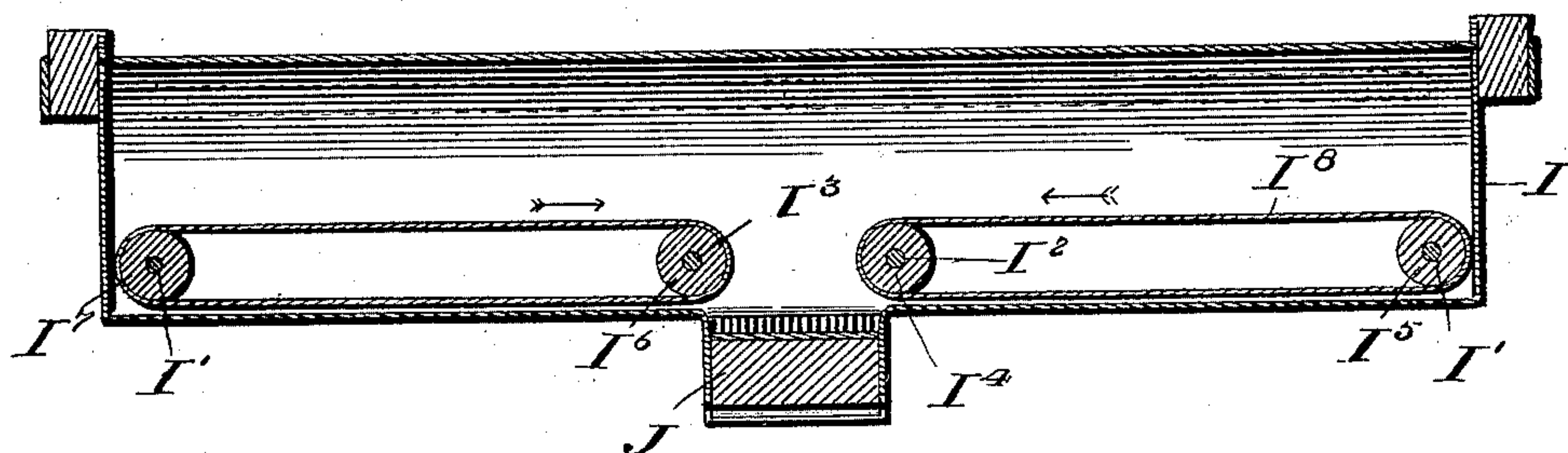
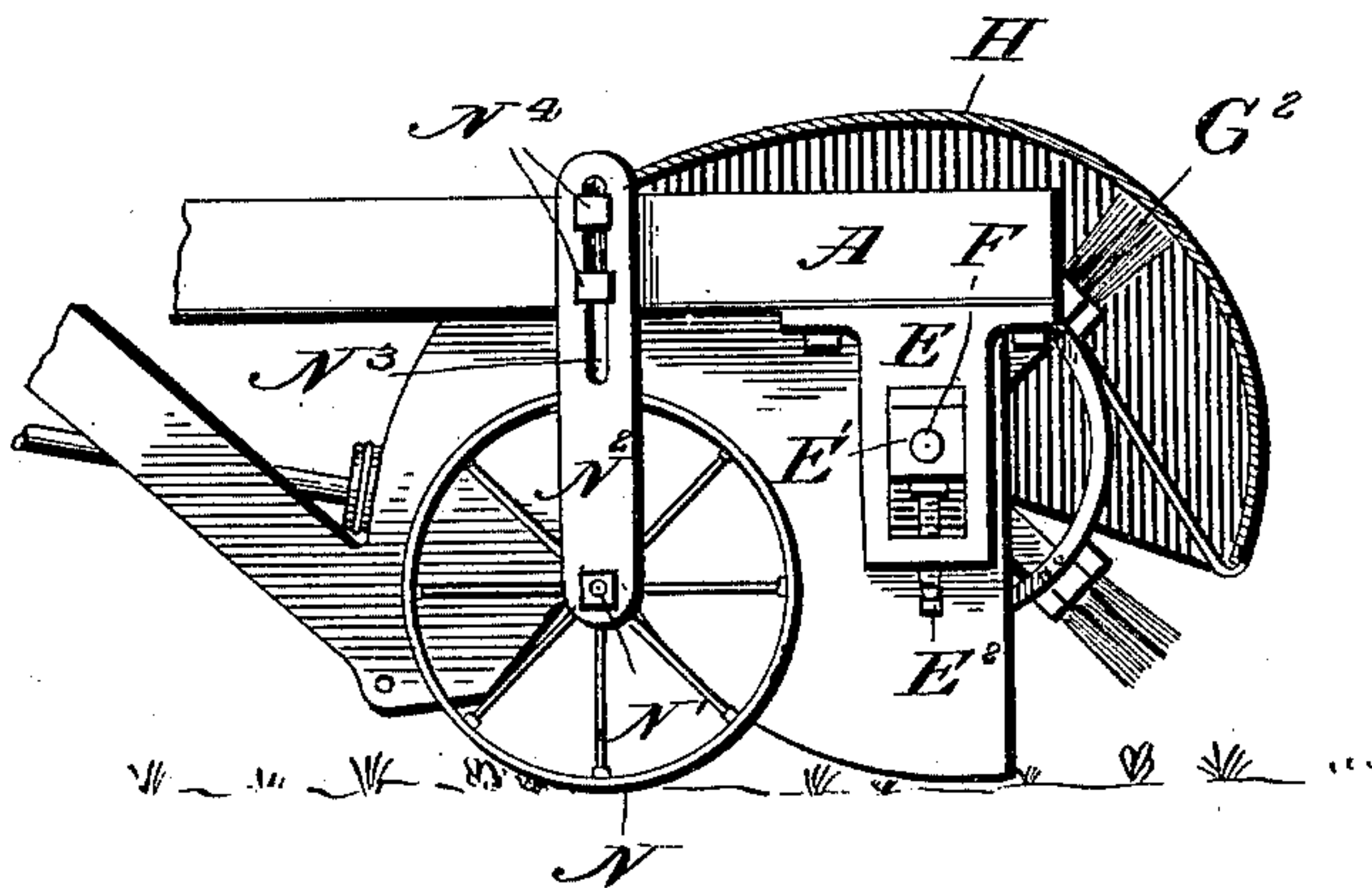


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM HIGHT, OF MACON, ILLINOIS.

STREET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 663,758, dated December 11, 1900.

Application filed June 28, 1900. Serial No. 21,958. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HIGHT, a citizen of the United States, residing at Macon, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Street-Sweepers; and I do 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in street-sweepers, and especially to a sweeper which is adapted to be connected to the rear end of a wagon and provided with the usual elevator and rotary brush whereby foreign matter is swept into a receptacle and carried by endless conveyers to and dumped into a hopper or receptacle, from which it is carried to and emptied into a wagon-box, suitable means being provided whereby the rear end of the framework carrying the brush may be held at different heights and the brush raised from contact with the ground.

The invention relates, further, to the provision of a street-sweeper in which a truck adapted to be connected to the rear end of the wagon is provided with a rotary brush and suitable elevators and has secured to the inner end of said truck a rod-and-lever connection with the rear end of the wagon-box, whereby as said lever and rods are actuated the forward end of the truck may be raised or lowered and the rear end raised, so that the brush will be held from contact with the ground.

My invention will be hereinafter more fully described, and then specifically defined in the appended claims, and is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form part of this application, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a side elevation of my improved street-sweeper shown as connected to the rear end of a wagon. Fig. 2 is a vertical longitudinal sectional view through the sweeper-

frame and a portion of the box to which the frame is connected. Fig. 3 is a top plan view of the sweeper. Fig. 4 is a vertical sectional view through the receptacle into which the foreign matter is deposited from the brush, showing the endless conveyers therein; and Fig. 5 is a side elevation of a portion of the frame carrying the brush, showing the manner of adjustment of the rear end of the sweeper.

Reference now being had to the details of the drawings by letter, A A designate the longitudinal side beams of the truck, carrying in suitable bearings an axle B, on which the wheels C and C' rotate. At the rear ends of the beams A are secured two brackets E, fastened by means of bolts or other suitable means to the under face of said beams, and each of said brackets is apertured, and a boxing E' is adapted to work vertically in said apertures. These boxings (one on each side of the frame) are adjusted vertically by means of screws E², and mounted in said boxings is a shaft F, on which are mounted the wheels G, which are connected by means of cross-beams G', which are fastened at the ends of the spokes of said wheels. These beams carry the brushes G².

H is a casing surrounding the rotary brush and has its lower portion upwardly bent, as at H', forming a guard to retain the foreign matter which is brushed up. On the inner curved surface of said casing and directly over said upturned portion H is a rearwardly and downwardly curved wing H², against which the free ends of the brush contact as the brush rotates for the purpose of knocking off the foreign matter, which is allowed to fall by gravity into the receptacle beneath. Said receptacle comprises a box I, Fig. 4 of the drawings, in the walls of which are journaled shafts I¹, I², and I³, on which the rollers I⁴, I⁵, I⁶, and I⁸ are mounted. About these rollers endless carriers I⁷ travel in the direction indicated by the arrows and deposit the foreign matter which is brushed up into a central trough J. Mounted on a shaft K, underneath the receptacle I, is a roller K', over which the endless carrier or elevator K² travels. Mounted at an angle to the beams A A is a conveyer-trough K³, supported at its rear end upon the rear ends of the beams A A by

means of the braces K^4 . At the upper end of said trough K^3 is mounted a shaft K^5 , having a wheel K^6 mounted thereon and over which the endless conveyer K^2 travels. It will be
 5 observed that the upper end of said trough K^3 is downwardly disposed, as at K^7 , whereby foreign matter which is elevated therein may fall into the wagon-box underneath the outlet end of said trough.

10 Mounted on the shaft F is a sprocket-wheel L , and mounted in suitable bearings on the under faces of the beams $A A$, near their forward ends, is a shaft M , on one end of which a sprocket-wheel M' is mounted which is con-
 15 nected by means of a sprocket-chain M^2 with the sprocket-wheel L , whereby the brush may be driven. On the opposite end of the shaft M is a gear-wheel M^3 , and secured to the inner face of the wheel C' is a gear-wheel M^4 , which
 20 is in mesh with the wheel M^3 , whereby as the sweeper is drawn forward motion is imparted to the shaft M .

Mounted on the shaft B at any suitable location and adapted to rotate therewith is a
 25 bevel gear-wheel B' , which is in mesh with a bevel-gear B^2 , mounted at the end of the shaft J^2 , which is journaled at right angles to the shaft B in suitable bearings. The forward end of said shaft I^2 , carrying the pulley J^4 ,
 30 has belted connection with the pulley I^6 , and by crossing said belt the two conveyers are made to travel in the opposite direction, as indicated by the arrows in Fig. 4.

The rear wheels N of the sweeper are mount-
 35 ed on stub-shafts N' , carried by the vertically-adjustable strips N^2 , said strips being longitudinally slotted, as at N^3 , and held to the beams $A A$ by means of adjusting-screws N^4 . By means of these screws it will be observed
 40 that the rear end of the sweeper carrying the rotary brush may be raised or lowered and held in an adjusted position. The forward end of the sweeper-frame is connected to the under side of the wagon-box by means of the
 45 rod O , which has pivotal connections with eyes O' , one on the body portion of the wagon and the other at the forward end of the frame of the sweeper.

Mounted on the end of the wagon-box is a
 50 bar Q , which has a pin Q' pivoted in an aperture in its upper end, said pin being fastened to the operating-lever R , which carries an adjusting-dog R' , adapted to engage in the teeth of the segment S , mounted on the upper
 55 edge of the wagon-box. Secured to the lower end of the box is a second bar T , the upper end of which has pivoted in an aperture therein the pin T' , which is either integral with or secured to the lever T^2 . Said lever
 60 T^2 is pivoted at one end to the end of the

lever R and its other end is pivoted, as at T^3 , to the upper end of the rod T^4 , which is fixedly held to the forward end of the frame of the sweeper. By means of this lever and
 65 pivoted connections with the frame of the sweeper it will be observed that the forward end of the sweeper may be tilted down, the frame being fulcrumed over the central axis or shaft B and the brush and the rear wheels
 70 of the sweeper may be bodily raised from the ground. The axle on which the wheels C are mounted should be so located with reference to the frame carrying the sweeper or the frame should be so weighted with reference to its
 75 fulcrumed point on the driving-axle that the forward end of the sweeper may be easily tilted down by the application of a slight pressure.

From the foregoing it will be observed that a sweeper constructed in accordance with my
 80 invention may be easily adjusted and the frame so tilted that the brush may be held out of contact with the ground and held in such position by means of the lever mechanism shown, and the apparatus may be easily
 85 adjusted to any ordinary wagon-box.

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

1. A street-sweeper comprising a truck
 90 which is adapted to be pivotally connected to the rear end of a wagon-box, a rotary sweeper and means for operating the same, conveyers, and a pivoted lever mounted upon the rear end of the wagon-box, and having
 95 pivotal lever connections with a fixed portion of said truck, whereby the frame of the truck may be tilted so as to raise the brush at the rear end thereof from the ground, as set forth. 100

2. A street-sweeper comprising a truck having a rotary sweeper at one end thereof, and means for driving the same, said truck adapted to be connected to the box of a wagon, the bar secured to the rear end of the box, an
 105 operating-lever pivotally mounted on said bar, a second bar T secured to the rear end of the box of the wagon, a lever T^2 pivoted to the upper end of said bar T , and a rod T^4 fixedly held at its lower end to the truck, and
 110 its upper end pivoted to the lever T^2 , the inner ends of the operating-lever and lever T^2 being pivoted together, substantially as shown and described.

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

WILLIAM HIGHT.

Witnesses:

ROBERT K. SCHUDEL,
 ANTON BESCHLE.