

J. Miller.

Street Sweeper.

N^o 14,512.

Patented Mar 25, 1856.

Fig: 1.

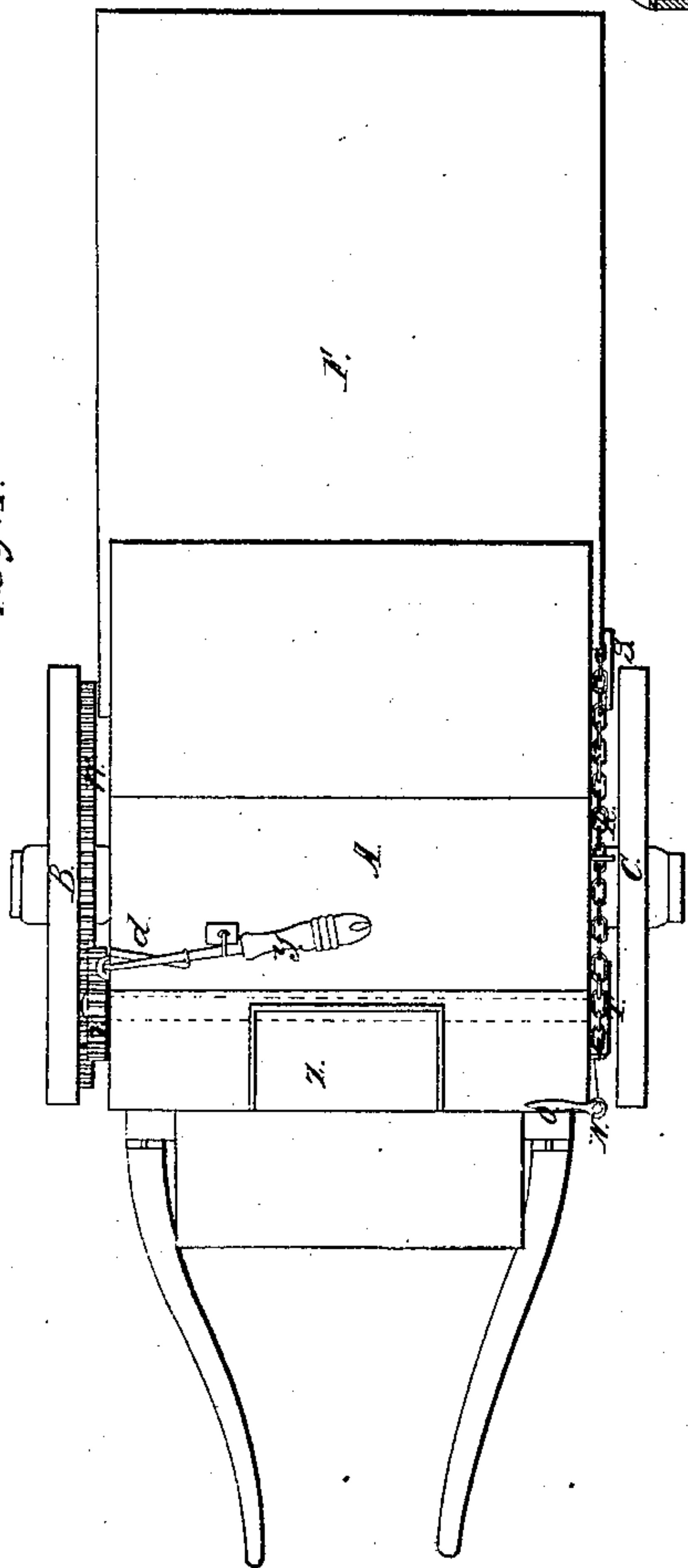


Fig: 4.

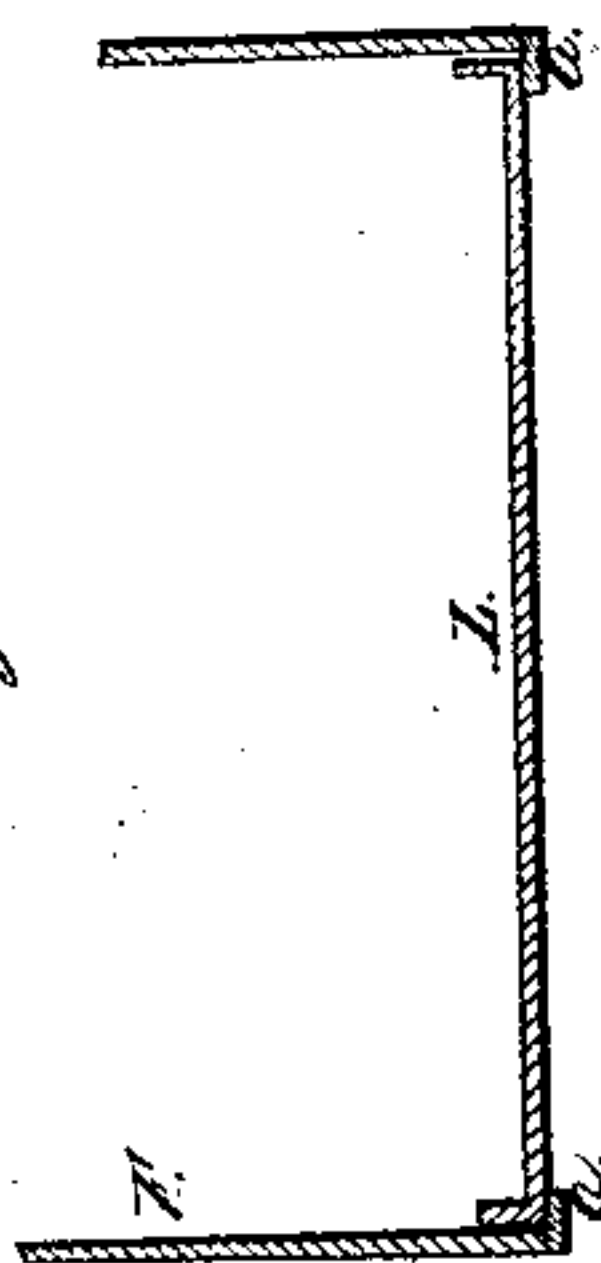


Fig: 3.

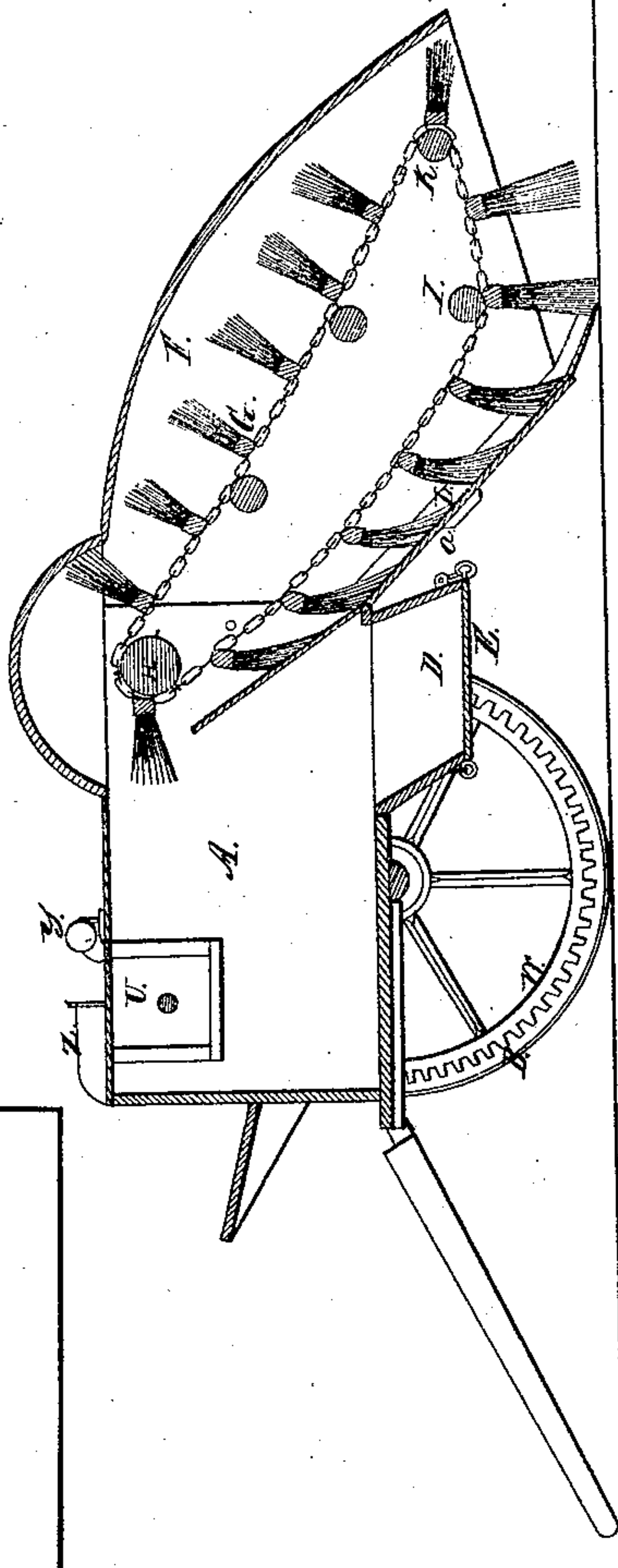


Fig: 2.

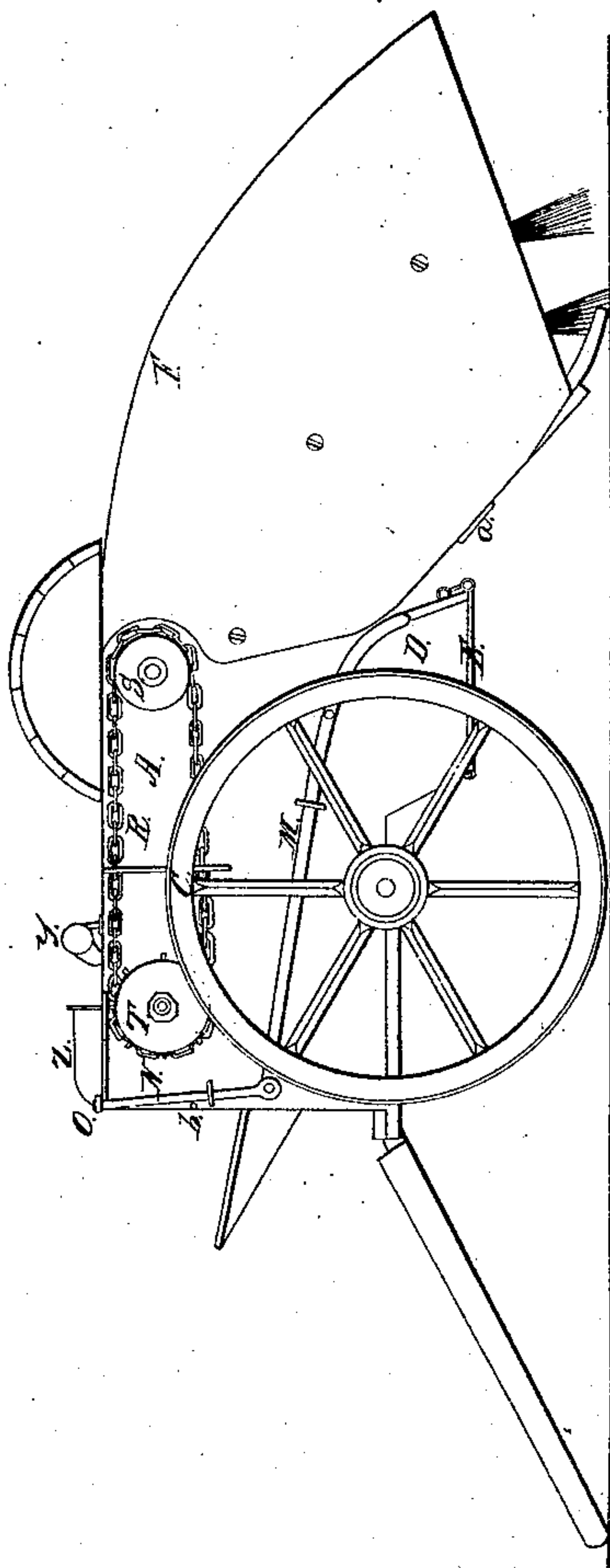
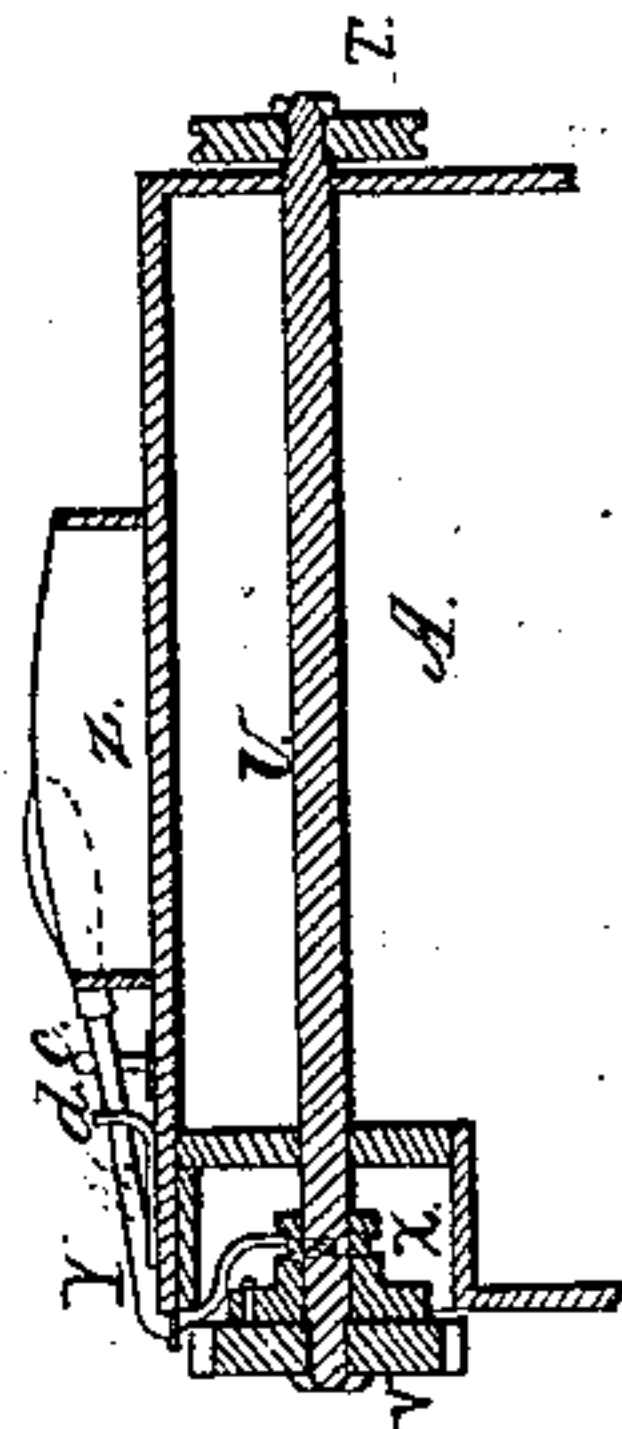


Fig: 5.



UNITED STATES PATENT OFFICE.

JOS. MILLER, OF BOSTON, MASSACHUSETTS.

MACHINE FOR SWEEPING STREETS.

Specification of Letters Patent No. 14,512, dated March 25, 1856.

To all whom it may concern:

Be it known that I, JOSEPH MILLER, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved
5 Machine for Sweeping Streets; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and reference thereof.

10 Of the said drawings, Figure 1, is a top view of the said street sweeping contrivance; Fig. 2, is a side elevation and Fig. 3, a vertical, central, and longitudinal section of it.

15 In such drawings A, denotes a cart body or box mounted on two wheels B, C, and provided with a discharging opening or spout D to which is applied a drop or closing door, E, the same being arranged as seen
20 in the drawings.

To the rear end of the cart a movable case or hood, F, is hinged or so connected as to play freely upward and downward such case or hood serving to cover and sustain an endless chain or band of brushes as
25 seen at G. This brush band works at its upper end around a single barrel or cylinder H, extending across and within the cart and in the upper portion of the rear part
30 of it as seen in Fig. 3. The endless chain also passes around two rollers I, K, which are arranged across the lower part of the case or hood, F, and with their axes in a plane parallel or about so with that of the
35 open mouth or rear end, of the hood. The object of using two rollers for sustaining the lower part of the chain is to cause the brushes while sweeping the streets to have a long dragging movement over the surface
40 to be swept. If but one roller at the lower part of the case be used to sustain the endless chain, the brushes in passing around the same and against the pavement would move through the arc of a circle and consequently
45 would have little or no dragging movement or be likely to touch only the surface of the street where such surface would be tangential to the arc.

By my improved mode of supporting the
50 chain each of the brushes is caused to sweep over a considerable length of surface of the street or pavement before it comes in contact with the trap board L. This trap board or inclined plane while it constitutes
55 the bottom of the case F, is hinged to the cart body and is movable upward independ-

ently of the case or hood F. Its rear part rests directly upon the ground when the machine is in operation, it being lifted therefrom only by raising upward the hood F, 60 and so as to carry into contact with the underside of the trap board, one or more projections *a*, extended from one or both sides of the hood and underneath the trap board as seen in Fig. 4, which is a section of such 65 trap board, projection and side of the case. By means of the trapboard being made to work independently of the hood it will not only accommodate itself to the surface of ground passed over without being incom- 70 moded in its operations by the weight of the hood, but the machine is preserved from the friction that would result to retard the draft on it in case the weight of the hood were suffered to bear upon the trapboard. By a 75 lever, M, applied to the side of a cart, and jointed to an upright hand slide, N, and made to bear against the case or hood, F, such case or hood may be elevated so as to entirely raise the trap board off the ground. 80
To the top of the slide, N, a handle, O, is applied so that it can be turned horizontally thereon. By moving the handle underneath a stud *b*, from the side of the case, the hood will be fixed in its elevated position. 85

In order to operate the brush chain, an endless band or chain R, is carried around a pulley S, (fixed on the shaft of the roller H) and another pulley, T, fixed on- the 90 driving shaft, U, which is extended through the upper part and near the front end of the cart, such shaft carrying a pinion V, which engages with a gear, W, applied to one of the wheels as seen in Fig. 1. The 95 pinion V runs loosely on its shaft, it being provided with a clutch X, which slides on the shaft and is operated by a hand lever Y, arranged within reach of the driver, whose seat is disposed as seen at Z. 100

In Fig. 5, is given a section of the shaft, U, the clutch, X, and the pinion V. When the pinion is unclutched from the shaft, the latter will not be put in rotation by the former, while the machine is being moved 105 on its wheels. In order to connect or clutch the pinion to the shaft the driver bears down the lever and forces it under a hook or bent stud *c*. A spring, *d*, applied to the lever as seen in Fig. 5, serves to elevate the 110 same and thereby unclutch the pinion from the shaft when necessary.

When the cart is drawn upon a street pavement the brush chain will be set in rotation, and the dirt will be swept toward and up the trap board, and into the body of
5 the cart, which when full may be emptied through the discharging spout or orifice at its bottom, its trap being first let down so as to open it.

What I claim in the above described machine is—
10

Arranging the main driving shaft, its clutch-lever, and clutch, in the upper and

front part of the cart body, in order that the shaft may not only be unobstructed by the earth piled in the body, but have its
15 clutch lever disposed within easy reach of the driver.

In testimony whereof, I have hereunto set my signature this sixteenth day of May
A. D. 1855.

JOSEPH MILLER.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.