

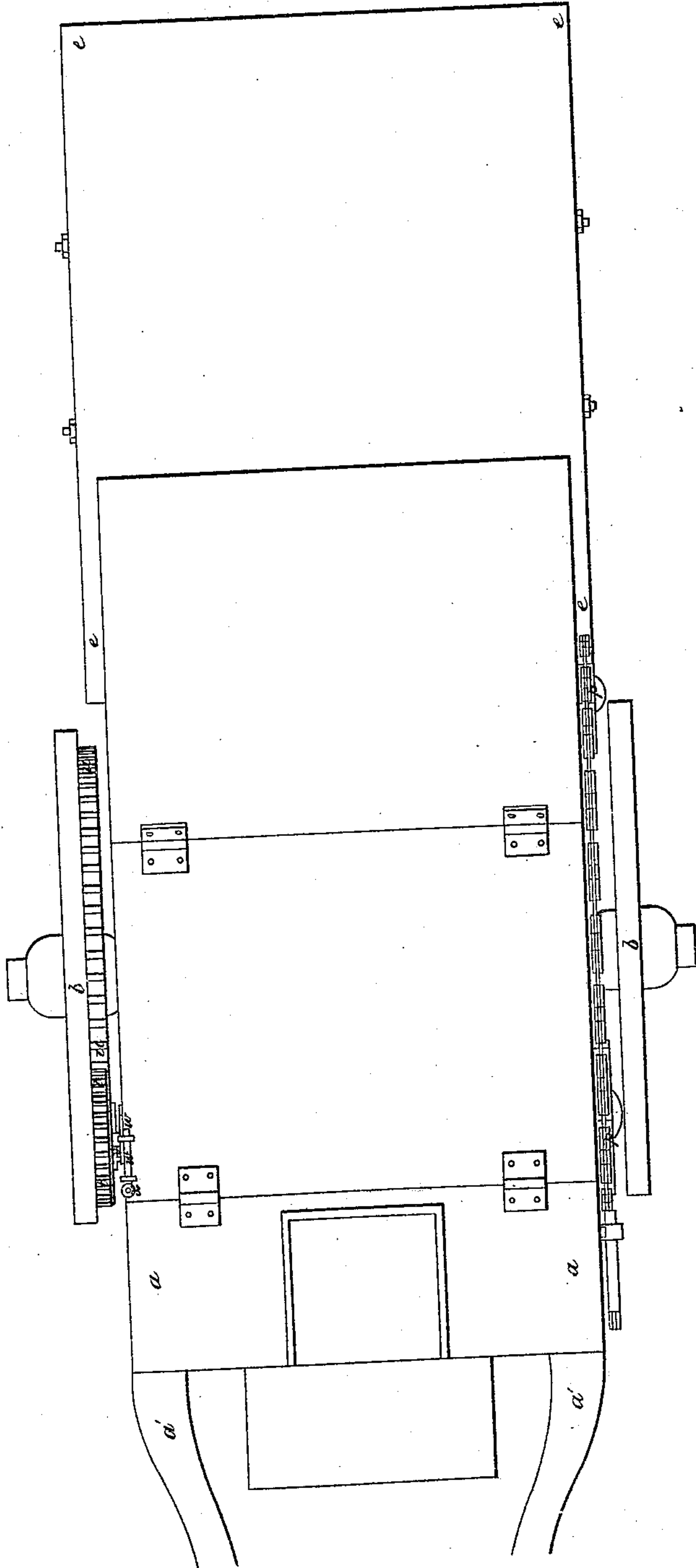
J. Miller.

Street Sweeper.

No. 52,873.

Patented Feb. 27, 1866.

Fig. 1.



Witnesses:
Sam. E. No. Boston
George W. Mann

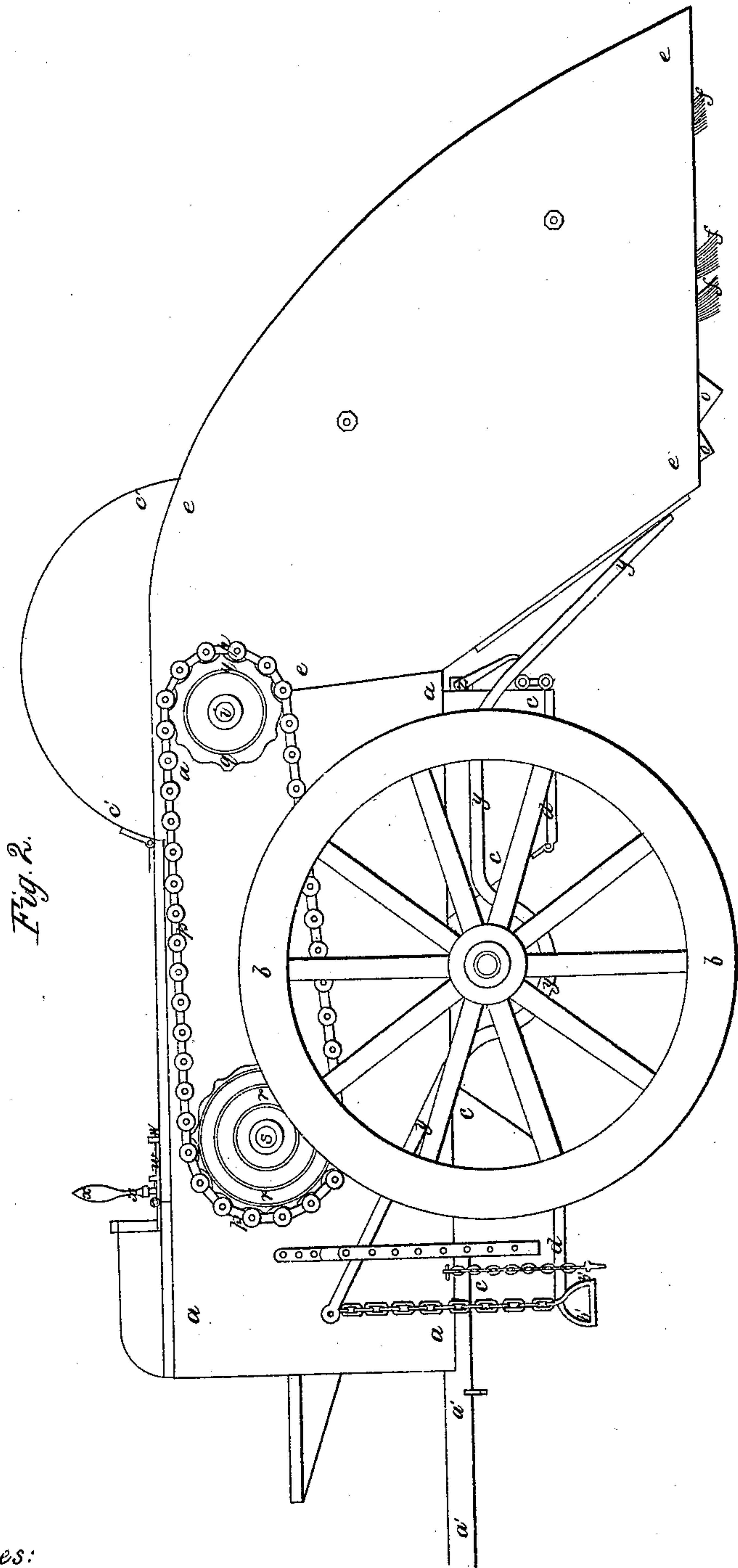
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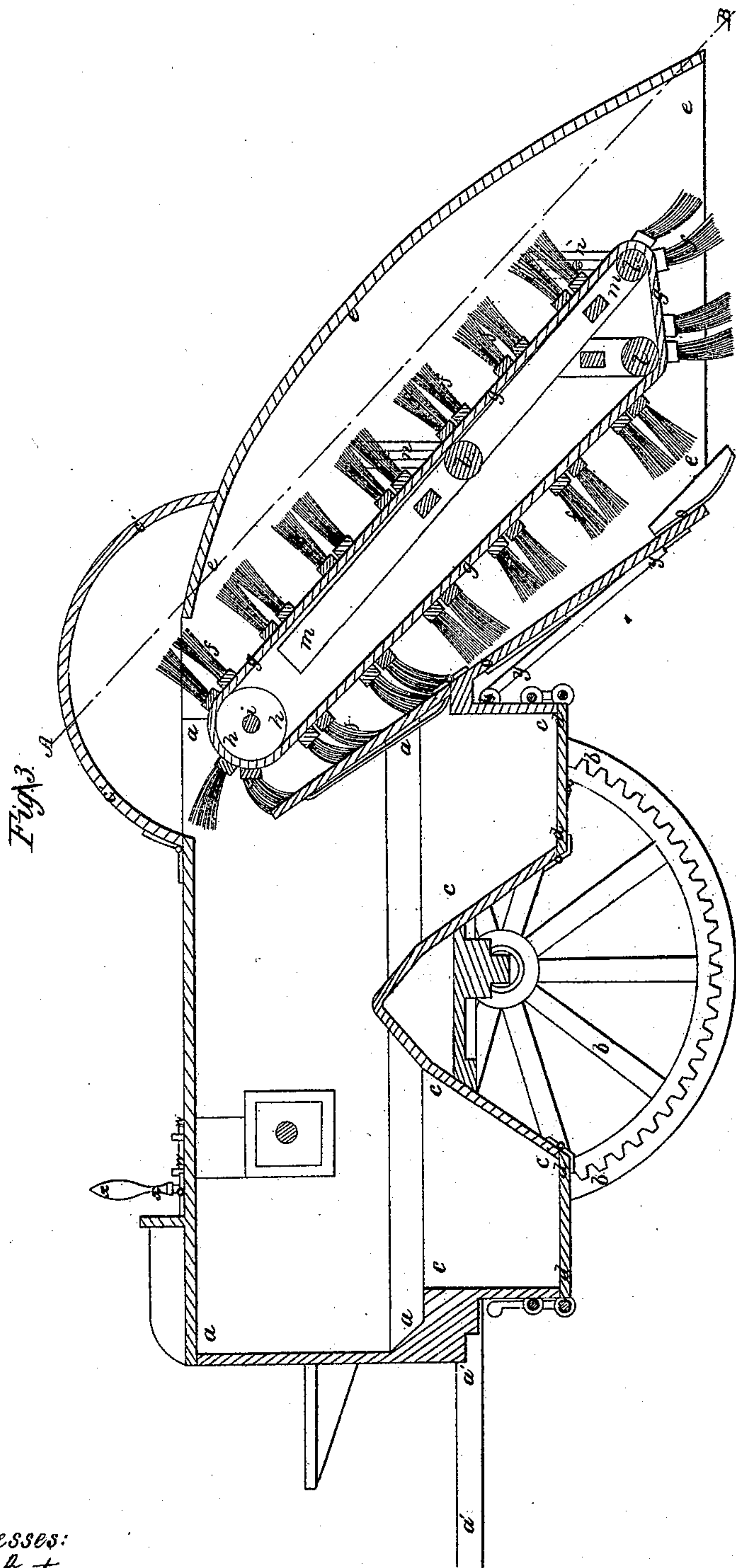
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Fig. 5.

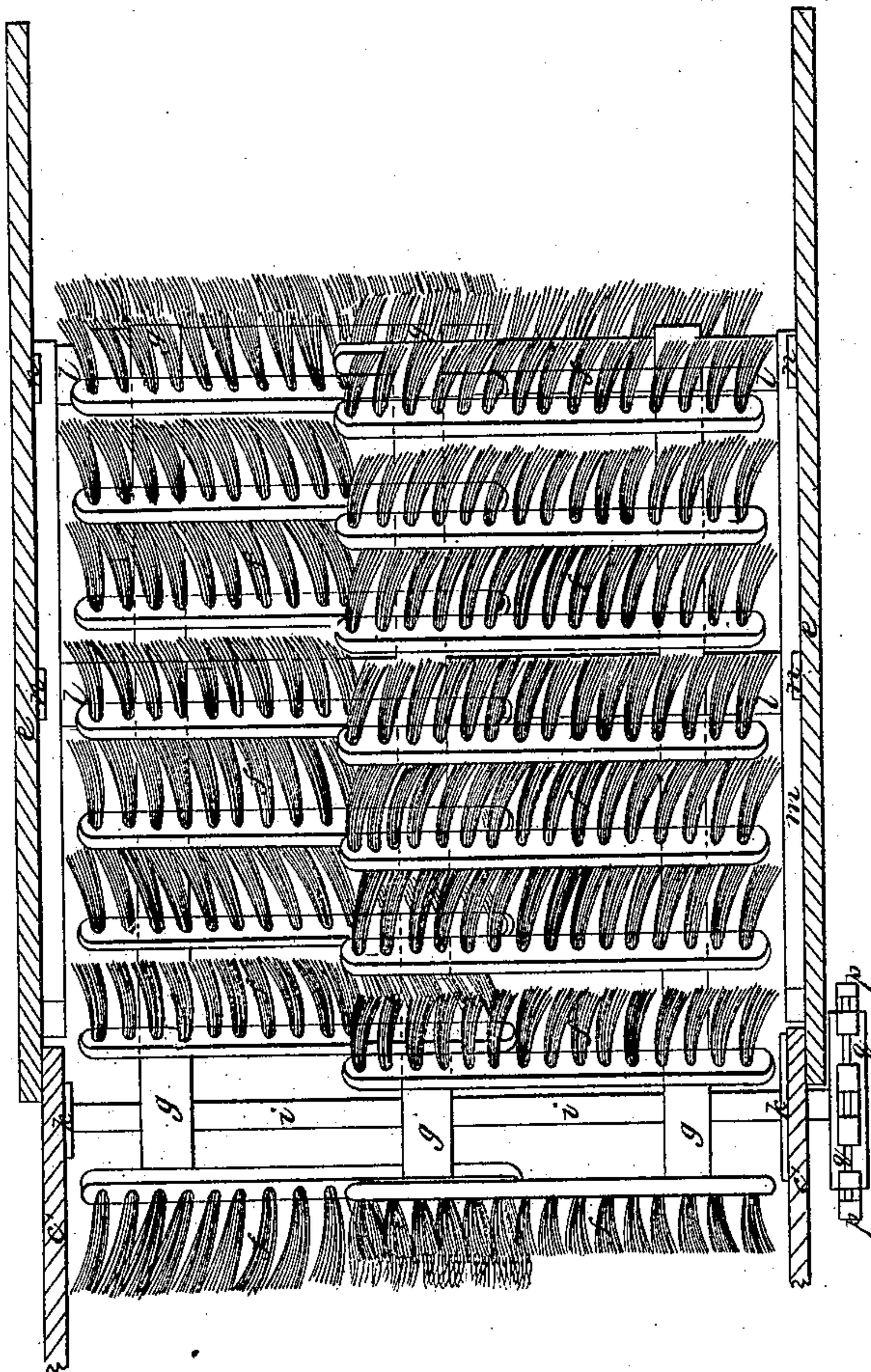
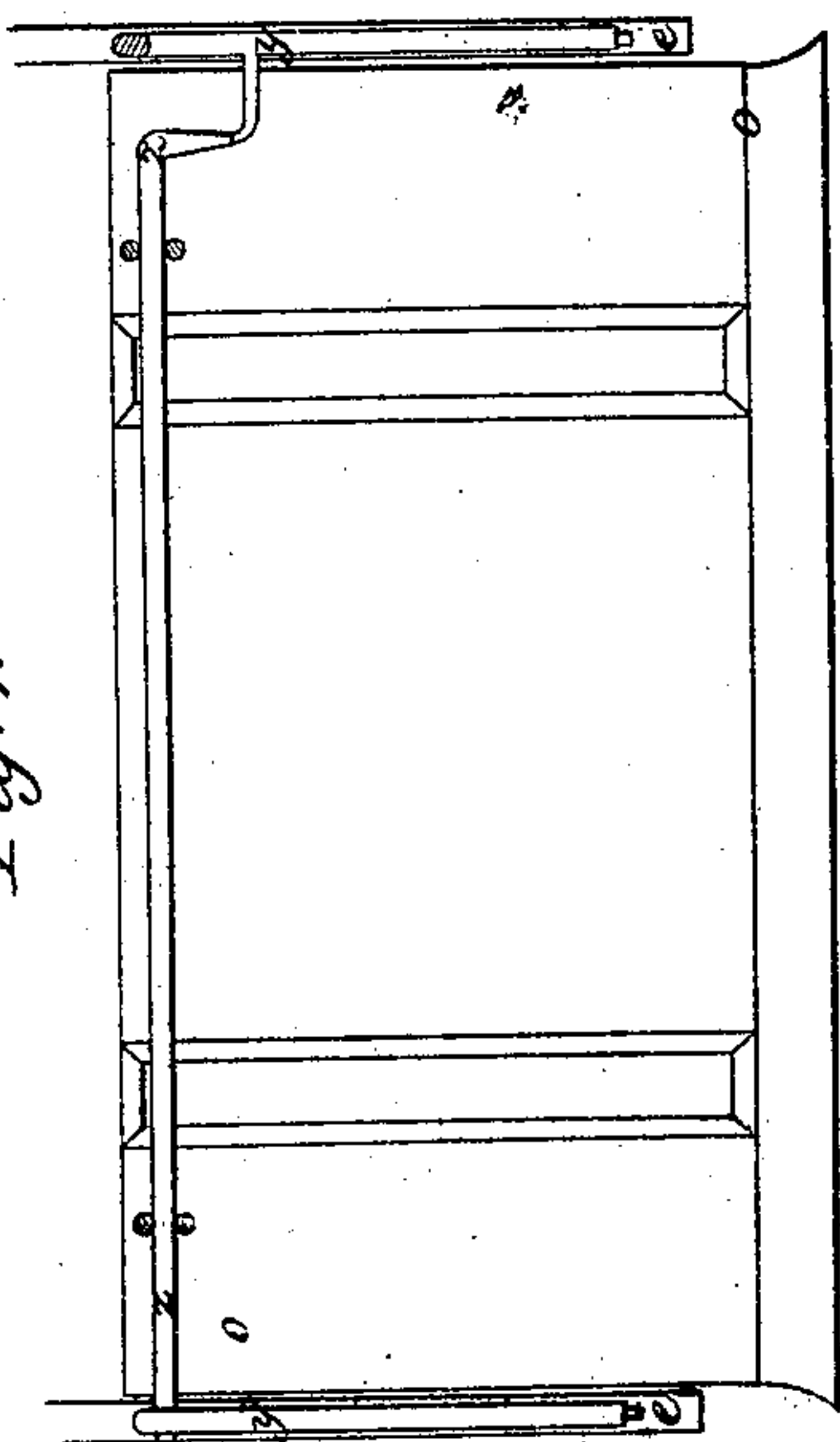


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH MILLER, OF BOSTON, MASSACHUSETTS.

IMPROVED STREET-SWEEPING MACHINE.

Specification forming part of Letters Patent No. 52,873, dated February 27, 1866.

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 certain new and useful Improvements in Street-Sweeping Machines; and I do hereby declare that the following description, taken in connection with the accompanying plate of drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The present invention in street-sweeping machines consists in a new arrangement of devices whereby the brushes are so arranged and operated that coarse as well as fine dirt can be taken up and deposited in the cart; also, so forming the brushes that they adapt themselves more readily to varying surfaces and spread out and expand over a wider surface than they have heretofore done in other machines, thus operating in a similar manner to a hand-broom; also, hanging the brushes in their frames so that as soon as they become worn they can be lowered sufficiently to compensate for the wear and set in proper position to perform their work as before.

It also consists in arranging the tail-piece or hood attached to the cart so that it is evenly balanced while being lifted, so that one side shall not be raised more than the other.

I will now proceed to describe my invention together with the arrangement and operation of the different parts by which the foregoing results are obtained.

The accompanying plates of drawings represent my improved street-sweeping machine.

Figure 1 is a top view of said street-sweeping machine. Fig. 2 is a side view of the same. Fig. 3 is a central vertical longitudinal section of the same. Fig. 4 is a detail view of the dust-board or fender of the same, and Fig. 5 is a section taken in the plane of the line A B, showing rear elevation of the brushes, &c.

a a a in the drawings represent the body or box of the cart, supported on two wheels, *b b*. To the under part of the cart boxes *c c*, open at the tops and having traps or covers *d d* in their bottoms, are attached for discharging the

dirt. A tail-piece or hood, *e e*, is affixed to the end of the cart *a a* so as to move freely up and down. Within this tail-piece or hood *e e* the brushes *f f* are placed on endless bands or chains *g g*, which move over the rollers *h h* attached to the shaft *i i*, which turns in the adjustable slotted bars *h h* affixed to the inner sides of the cart-body *a a*, and also passes over the cylinders *l l*, which turn in the frame *m m*.

Attached to the inner sides of the hood *e e* are the adjustable slotted bars *n n*, so formed that the frame *m m* can be raised or lowered in them at pleasure.

At the bottom of the rear end of the cart *a a* a dust-board or fender, *o o*, is hinged for the purpose of guiding the dirt into the cart.

The bands or chains *g g*, to which the brushes *f f* are attached, are operated upon by an endless chain, *p p*, that is carried around a wheel or pulley, *q q*, attached to the end of the shaft *i i*, and the wheel or pulley *r r* affixed to the end of the driving-shaft *s s*, which extends through the front sides of the cart *a a*, and works a gear-wheel, *t t*, that engages with another gear, *u u*, attached to one of the wheels *b b*.

The gear *t t* works loosely on the shaft *s s*, and has a clutch, *v v*, that is moved on the shaft *s s* by means of a lever, *w w*, operated upon by the handle *x x*.

y y are levers connected by the bars *z z*, as shown in Fig. 4, and extending from the under sides of the hood *e e* along one side of the cart to the shaft *a' a'* and by means of a foot-stirrup, *b' b'*, is operated so as to raise or lower the hood *e e*.

On the top of the cart *a a* a semicircular cover, *c' c'*, is hinged, so that access to the brushes may be had at any time to clear and arrange them.

The brushes *f f* are made with a facing of corn broom and a backing of rattan or other stiff elastic material, so that a support is given to the corn broom which first strikes the surface, and preventing its rapid wear, serving, in fact, as an elastic support to the face of the broom, thus enabling the brushes to take up coarse as well as fine dirt, which could not be effected without this combination. The brushes are also formed in two separate sections, as shown in Fig. 5, by which arrangement they adapt themselves more readily to varying sur-

faces; and by setting them so as to make an angle with each other—that is, so as to extend from their frames in different directions when they strike the surface to be swept—they spread out and expand over a wider surface than they otherwise could, and operate in a similar manner to a hand-broom.

By hanging the endless brushes or their frame in adjustable slotted bars *n n*, as above described, they can as fast they become worn be lowered sufficiently to compensate for the wear and be set in proper position to perform their work as before.

By the arrangement of the double levers *y y*, as above described, the tail-piece or hood *e e* is evenly balanced while being raised, so that one side of the hood *e e* shall not be lifted more than the other.

Having thus described my improvements, I shall state my claims, as follows:

What I claim as my invention, and desire to have secured to me by Letters Patent, is—

1. Arranging the brushes in their sections at angles to each other, so as to extend from their frames in different directions, whereby, when they strike the surface to be swept, they expand and spread out over a wider surface than they otherwise could.

2. Hanging the endless brushes or their frames in adjustable slotted bars, so as fast as they become worn they can be lowered sufficiently to compensate for their wear.

3. The arrangement of the double levers *y y* operating on the tail-piece or hood *e e* of the cart, substantially as described.

JOSEPH MILLER.

Witnesses:

JOSEPH GAVETT,
SAMUEL M. BARTON.