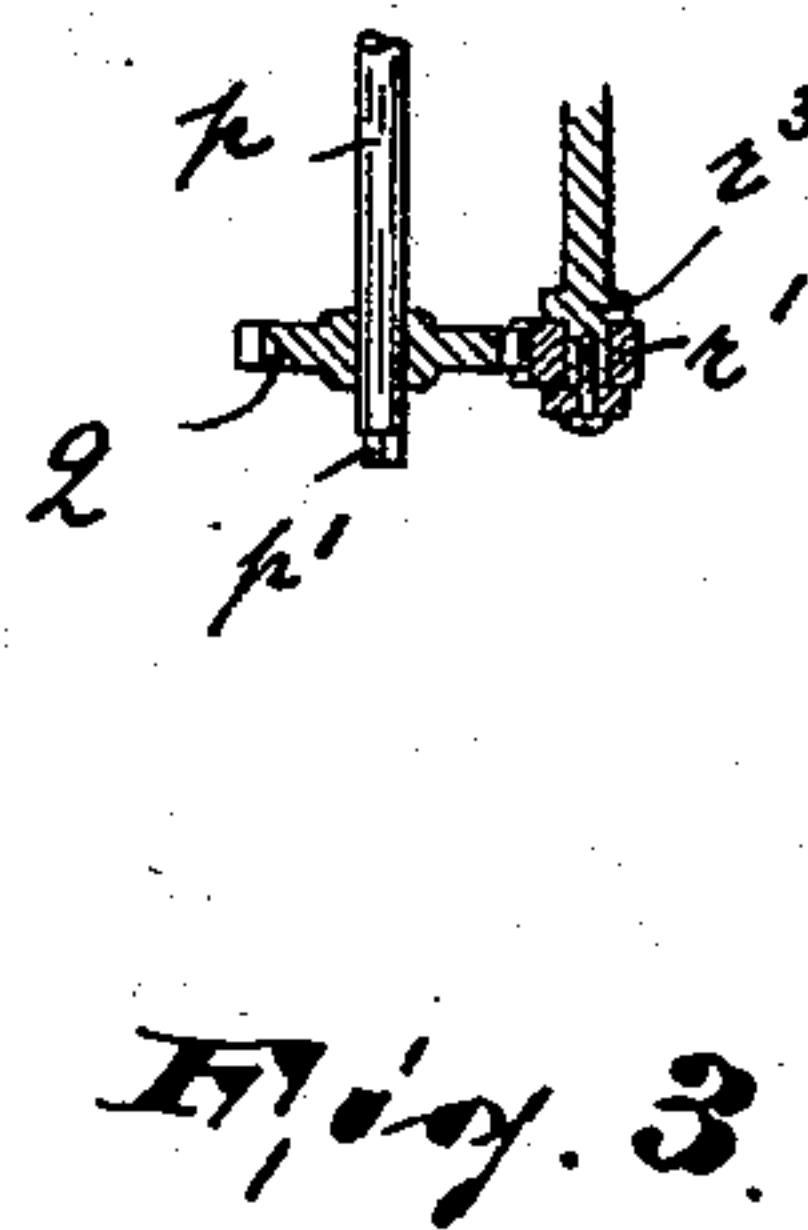
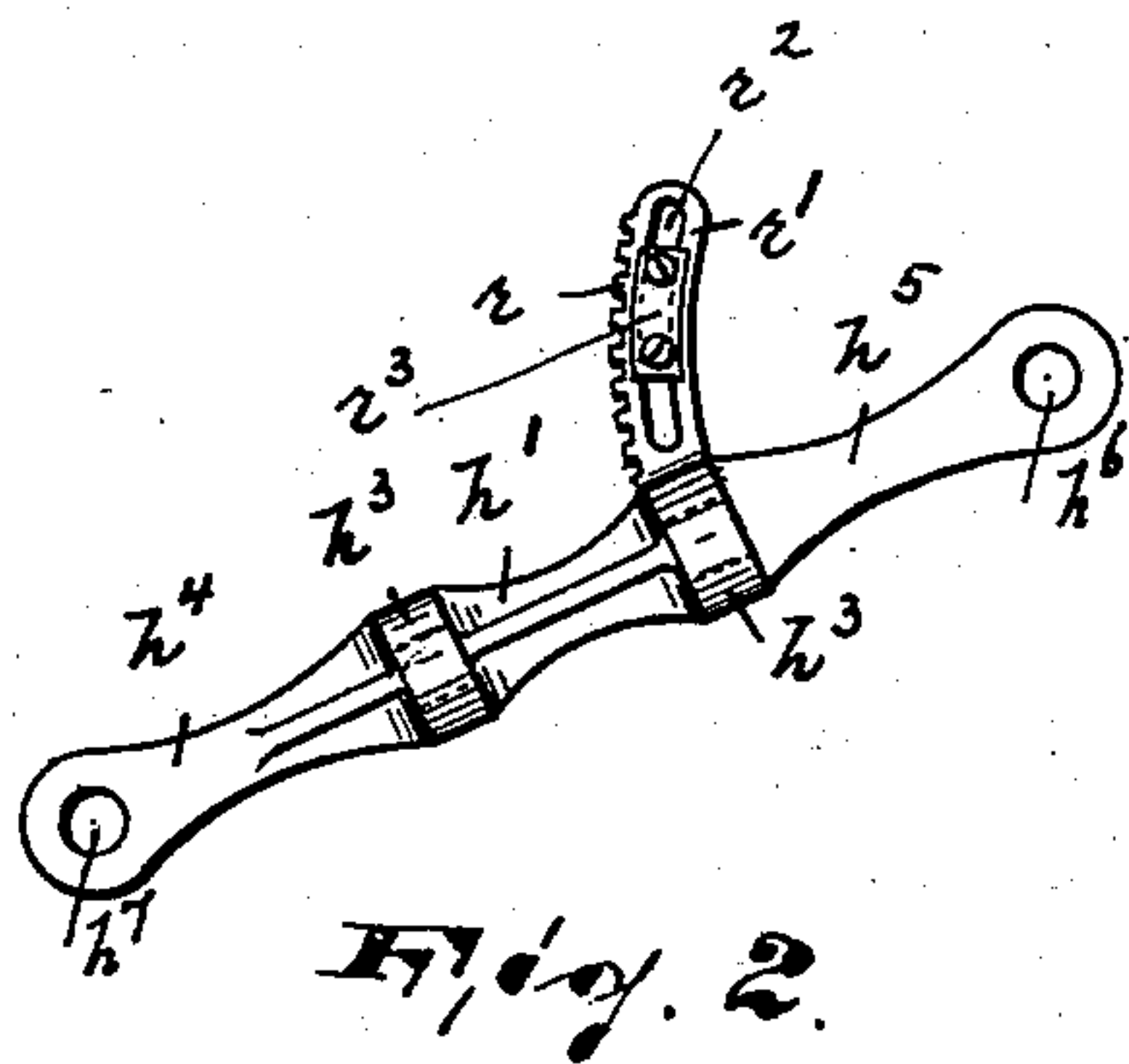
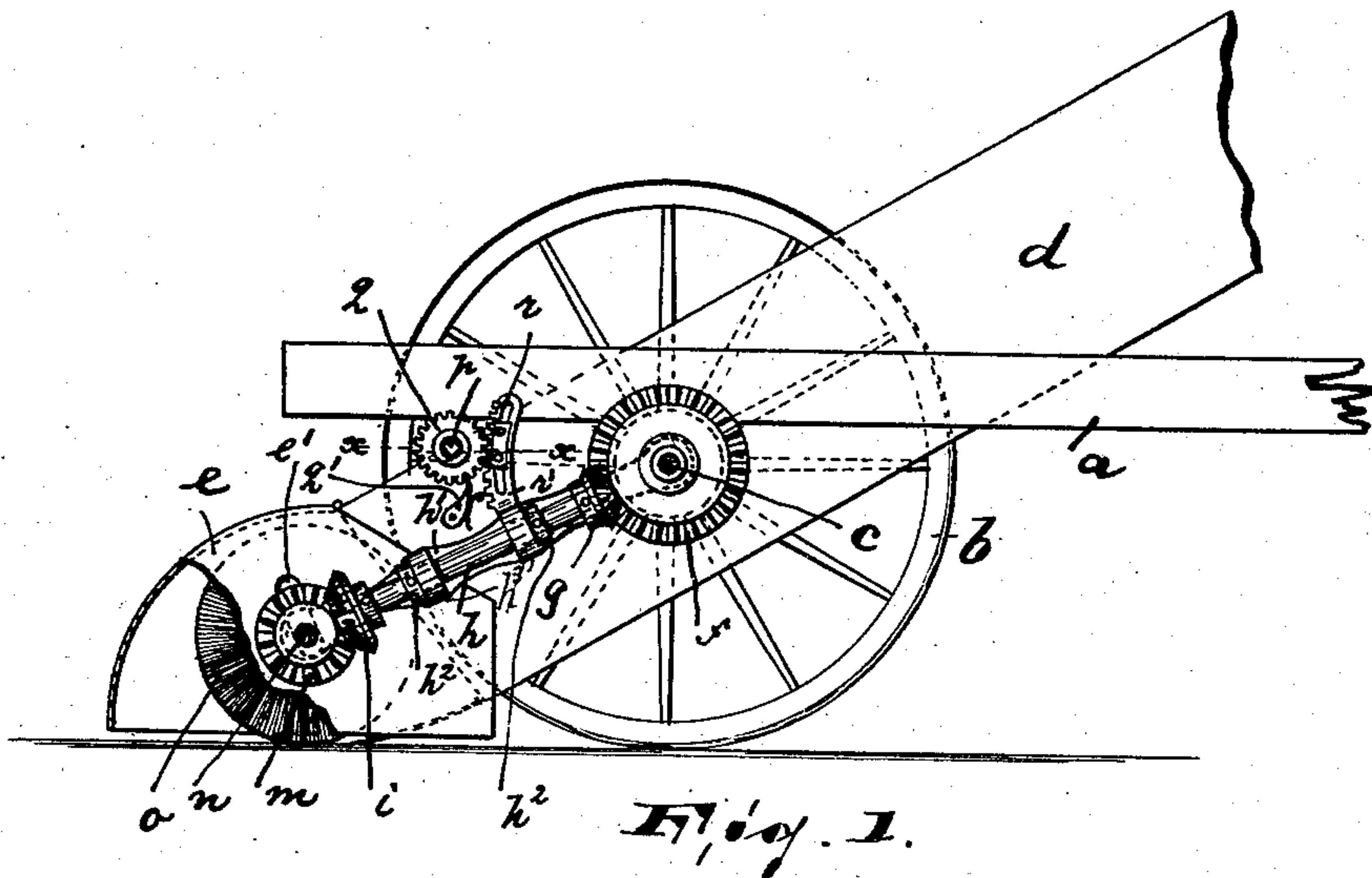


(No Model.)

A. GARTNER.  
STREET SWEEPER.

No. 572,791.

Patented Dec. 8, 1896.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALFRED GARTNER, OF NEWARK, NEW JERSEY, ASSIGNOR TO PLUMMER  
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## STREET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 572,791, dated December 8, 1896.

Application filed April 27, 1896. Serial No. 589,196. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED GARTNER, a citizen of the United States, residing in Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Street-Sweepers; 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.

This invention relates to improvements in street-sweepers of the class illustrated in the United States Letters Patent No. 558,719, dated April 21, 1896. Its object is to provide a street-sweeper in which the revolving brush can be raised and lowered, together with the elevator-casing and hood, or independent of the same, of simple, strong, and durable construction, easily handled, and reliable in operation.

The invention consists in the improved street-sweeper and in the combination and arrangement of the various parts thereof, substantially as will be hereinafter more fully described and finally embodied in the clauses of the claim.

In the accompanying drawings, Figure 1 is a side elevation of a portion of a street-sweeper provided with my improvement, only those portions of the sweeper being shown which are necessary to fully illustrate the nature of my said invention; Fig. 2, an enlarged detail view of a certain adjustable bracket for supporting the power-transmitting means and the revolving brush; and Fig. 3, a detail sectional view on the line *xx* of Fig. 1, showing only those parts which form the bracket-adjusting mechanism.

In said drawings, *a* represents the truck, *b* one of the rear wheels, and *c* the axle for the same. The inclined elevator-casing *d* is fulcrumed on said axle and is provided at its lower end with the hood *e*, covering the revolving brush *o*, all of the usual and well-known construction.

On the axle *c* and between the casing and the wheel is secured the beveled gear *f*, meshing into the pinion *g*, secured at or near the

upper end of the shaft *h*, which latter has its bearings in the lugs *h*<sup>3</sup>, projecting at right angles from the link or bracket-plate *h*'. The shaft *h* is prevented from lateral movement by means of the collars *h*<sup>2</sup>, secured thereon and bearing against the lugs *h*<sup>3</sup>. The upper portion *h*<sup>5</sup> of said bracket-plate *h*' is provided with a hole *h*<sup>6</sup>, by means of which it is fulcrumed on the axle *c*, while the lower portion *h*<sup>4</sup> of said bracket-plate is provided with a hole *h*<sup>7</sup>, adapted to receive and to thus form the bearing for the shaft *n* of the revolving brush *o*. On the lower end of the said shaft *h* is secured a beveled pinion *i*, meshing into beveled gear *m*, which latter is secured on the shaft *n*. By this arrangement the motion of the axle *c* is transmitted to the shaft *n* and the brush revolved in a direction opposite to that of the axle *c* and of the rear wheels *b*, as will be manifest.

On one side of the bracket-plate *h*' is arranged an extension or arm *r*', provided with an elongated curved slot *r*<sup>2</sup>, radial to the center of the axle and engaged by the curved guide-block *r*<sup>3</sup>, which latter is secured to and projects at right angles from the elevator-casing *d*. The rear portion of said arm *r*' is curved parallel to the curve of the slot, and is provided with a series of teeth *r*, adapted to be engaged by the teeth of the gear or pinion *q*, which latter is secured on the shaft *p*, having its bearings in or on the elevator-casing *d*.

The shaft *p* is squared at its outer end, as at *p*', and is thus adapted to be operated by a crank, as will be manifest. A spring-controlled pawl *q*', preferably pivoted on the casing *d*, holds the gear or pinion *q* in its adjusted position.

The sides of the hood *e* are provided with curved elongated slots *e*', radial to the center of the axle *c*, and are penetrated by the revolving-brush-carrying shaft *n*.

It will be understood that while a bracket-plate *h*', (for supporting the shaft *n*,) together with its toothed extension *r*' and the operating-gear *q* is arranged on each side of the machine the power-transmitting mechanism is only needed on one side thereof.

In operation when the casing *d* and its hood *e* are raised or lowered by any well-known



means the revolving brush is raised or lowered simultaneously; but should it be required to raise or lower the brush *o* independent of the casing (say, for instance, the brush  
5 has been reduced in diameter by constant wear and use) the shaft *p* is operated, whereby the link or bracket-plate *h'* is respectively swung upward or downward on its fulcrum, (the axle *c*,) as will be manifest.

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

1. In a street-sweeper, the combination with the truck on wheels, of an inclined elevator-casing fulcrumed on the axle of the rear  
15 wheels, a bracket-plate or link also fulcrumed on the axle and on each side of the casing, a revolving brush at the lower end of the elevator-casing and carried by said links, a  
20 curved arm or extension projecting from the link and provided with a series of teeth, a shaft traversing the elevator-casing, a gear mounted on said shaft and engaging the teeth on the curved arm, a pawl pivotally secured  
25 on the casing and engaging the gear, and means for transmitting the motion of the rear axle to the revolving brush, all said parts, substantially as described.

2. In a street-sweeper, the combination  
30 with the truck on wheels, of an inclined elevator-casing fulcrumed on the axle of the rear wheels, a bracket-plate or link also fulcrumed on the axle and on each side of the casing, a revolving brush at the lower end of the elevator-casing and carried by said links, an arm  
35 or extension projecting from the link and provided with an elongated curved slot, a curved guide-block projecting from the casing and engaging said slot, a series of teeth  
40 arranged on said curved arm, in an arc parallel to the slot, a shaft traversing the elevator-casing, a gear-wheel mounted on said shaft and engaging the teeth on the arm, a pawl pivotally secured on the elevator-casing  
45 and controlling the gear-wheel, and means for transmitting the motion from the rear axle to the revolving brush, all said parts, substantially as and for the purposes described.

3. In a street-sweeper, the combination 50 with the truck on wheels, of an inclined elevator-casing fulcrumed on the axle of the rear wheels, a link also fulcrumed on the axle and on each side of the casing, a revolving brush arranged at the lower end of the casing and  
55 carried by said links, a beveled gear mounted on the rear axle, a shaft supported by said links, a beveled pinion at the upper end of said shaft and engaging the beveled gear on the axle, a beveled pinion at the lower end of  
60 said shaft, a beveled gear meshing into said beveled pinion and mounted on the revolving-brush-carrying shaft, a curved arm projecting from the link and provided with a series of teeth, a shaft traversing the elevator-cas- 65 ing, and a pawl-controlled gear mounted on said shaft and engaging the teeth on the curved arm, all said parts, substantially as and for the purposes described.

4. In a street-sweeper, the combination 70 with the truck on wheels, of an inclined elevator-casing fulcrumed on the axle of the rear wheels, a hood arranged on the lower end of said casing and provided at each side with a curved elongated slot, a bracket-plate or link 75 also fulcrumed on the axle of the rear wheels and on each side of the casing, a shaft, carried by said links, arranged at the lower end of the casing and penetrating the elongated curved slots of the hood, a brush mounted on 80 said shaft, a beveled gear also mounted on said shaft, a beveled gear secured on the rear axle, a shaft supported by said link, a beveled pinion at each end of the shaft and engaging the beveled gears on the axle and the revolving- 85 brush-carrying shaft respectively, and means for raising and lowering the links simultaneously and yet independent of the casing, all said parts, substantially as and for the purposes described. 90

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of April, 1896.

ALFRED GARTNER.

Witnesses:

FELICITAS GARTNER,  
DUNCAN M. ROBERTSON.