

(No Model.)

P. REARDON.
STREET SWEEPER.

No. 492,487.

Patented Feb. 28, 1893.

Fig 1:

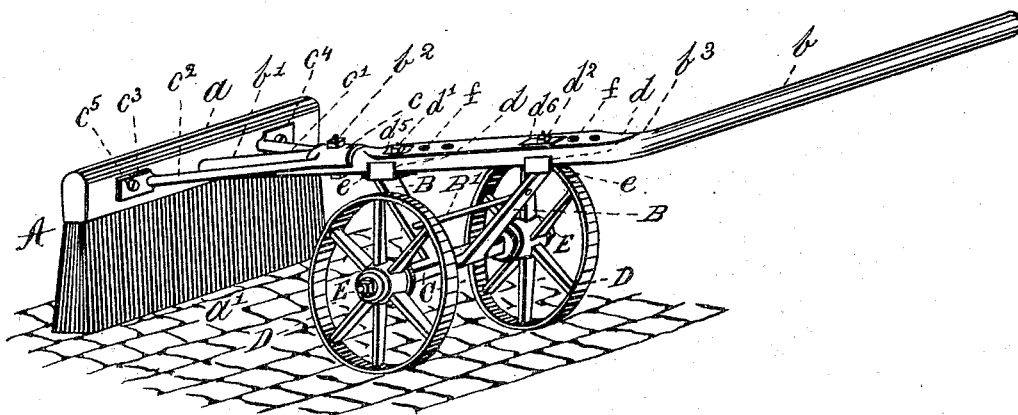


Fig 2:

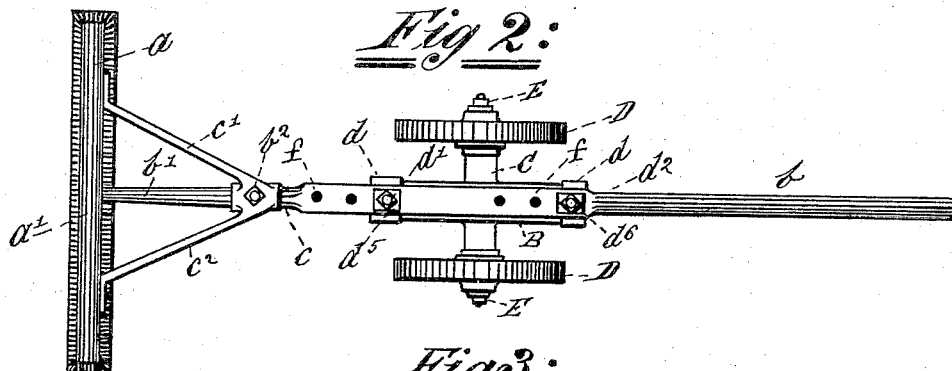
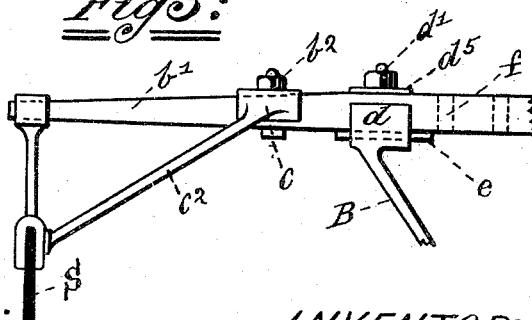


Fig 3:



WITNESSES:

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UNITED STATES PATENT OFFICE.

PATRICK REARDON, OF PATERSON, NEW JERSEY, ASSIGNOR OF ONE-HALF
TO MICHAEL MURPHY, OF SAME PLACE.

STREET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 492,487, dated February 28, 1893.

Application filed February 15, 1892. Serial No. 421,554. (No model.)

To all whom it may concern:

Be it known that I, PATRICK REARDON, a native of Ireland, residing in the city of Paterson, county of Passaic, and State of New Jersey, have invented a new and useful Improvement in Street-Sweepers, by the use of which the operation of cleaning and sweeping street pavements may be more easily and rapidly performed, of which the following is a specification.

I accomplish this by the device as described in the following specification and description and illustrated in the accompanying drawings, in which

Figure 1 is an elevation in perspective of my device showing a broom in position for use. Fig. 2 is a plan view showing means of adjustment for the length and height of handle when the bristles of the broom wear short by use. Fig. 3 is a detail view showing the application of a rubber scraper for asphalt pavements in lieu of broom.

The object of my invention is to enable street cleansing to be easily, rapidly and perfectly performed by hand in as much as the broom being secured by suitable devices to a wheel truck may be of any suitable size weight and shape and being perfectly balanced, the weight of the broom and the accumulations which generally adhere to the bristles are removed enabling the operator to use his whole force and concentrate it upon the operation of sweeping and being relieved from the labor of drawing a heavy broom backward and forward besides lifting the weight upon its return after a forward motion, the labor saved may be devoted to using a larger and more extended broom or scraper or in a rapid performance of the operation. Another advantage is obvious that as light or as great a pressure as may be found necessary may be brought to bear upon the broom itself or the scraper as may be necessary for the removal of the accumulations in wet or dry weather when the consistency of the material is changed from a semi fluid pasty mass into a light and dry powder.

I will now proceed to describe the construction of my newly improved street cleaning device.

A represents a wide broom of the usual con-

struction used for sweeping streets secured to the end, b' , of a curved position of a wooden handle or pole, b , by the end which is rounded being inserted in a suitable hole formed in the stock, a , of the broom head A and which is provided with bristles, a' , secured to the head in the usual manner. Secured to the end of the handle or pole, b' , by suitable screws, b^2 , is a half rounded clip, C, which embraces it rather more than the semi diameter and from which are formed side braces, C' , C^2 , which at their outer ends C^3 , C^4 , are formed flat in shape to engage the side of the broom head or stock, a , to which they are secured by suitable screws, C^5 , which hold the broom head, A, in firm connection with the handle b . At a suitable distance from the broom head A and secured to the pole or handle, b , by suitable bolts and nuts, d' , d^2 , is a bearing frame or bracket, B, which is formed a part of the axle C, the arms which form the bearing frame having on their upper end projecting lips, d , d , formed to embrace the side of the pole or handle, b , and also to hold in contact the rubber cushion washers, e , e , which are inserted between the upper face of the bearing brace arms B and the under side of the pole or handle, b , to secure a firm union. The axle C has bearings formed on each end upon which the wheels D, D, move freely and which are secured by washer and nut E, E, in the usual manner. The width of the wheels D, D, in distance apart is such that the broom head or scraper used for cleaning shall project at least from six to twelve inches wider on each side than the nuts securing the wheels upon the axle C, Figs. 1 and 2. The bearing frame or brace B stiffened and the distance of the holes d^5 , d^6 , maintained undisturbed by a horizontal brace, B' , which also imparts rigidity to the frame B, in a longitudinal direction or that in which the force is applied when the broom is in use.

Formed in the pole or handle, b , are two series of holes f , f , about four in number in each and located about three inches apart and in which are inserted the bolts d' , d^2 , in their adjusted locations suitable to the length of the bristles a' , of the broom A. The handle b , about midway in its length b^3 , is curved

slightly upward to allow the end of the handle *b*, to be at a suitable and convenient height for the operator when the bristles of the broom are in contact with the surface of the road-way or pavement.

The axle bearing and stay brace may be made of malleable iron or steel of suitable strength and design and the wheels of cast iron, steel or wood as most desirable for cheapness of cost, durability or lightness of construction, the handle or pole being preferably of wood.

In operation or use the cleaning device is simply propelled forward with the head *A* forced downward into contact with the surface of the pavement to be cleaned or swept with sufficient pressure to perform such duty and not any more, and this is done by slightly raising the opposite end of the handle or pole *b*, on the return movement or backward motion the handle is depressed which raises the head *A* with its bristles *a'* from contact with the road or pavement when the device moving easily upon the wheels *D, D*, running upon the axle *C*, is drawn back a sufficient distance that by moving the device slightly sidewise or pivotally upon the axles *C* and its wheels *D, D*, a fresh part of the road is operated upon and such action continued until the work is completed. As the bristles *a'* of the broom *A* wear down or become shorter it is obvious that the outer end of the handle *b* will be raised until its height becomes inconvenient in use then the bolts and nuts *d', d²*, are unscrewed and removed and the handle *b* removed forward so as to engage another pair of holes *f, f*, that are more distant from the end *b'*, of the pole or handle, *b*, and the bolts *d', d²*, reinserted in the pole washer and brace as before and properly secured by tightening the nuts in the usual manner, washers preferably of iron being used to prevent the nuts from cutting or wearing away the part of the pole, *b*, where they come in contact, which is formed either square or flat as may be most desirable. In this manner of adjustment the height of the outer end of the handle, *b*, can be maintained at one uniform degree whatever length the broom bristles may be reduced to by continued wear. Projections,

gutters &c. may be easily swept as the ends of the broom projecting beyond the axle of the wheels *D*, allows the bristles, *a'*, free access to any irregularity of form in gutters curb line &c. without contact with the moving parts of the device such as wheels, braces &c. It is obvious that by substituting for the head, *A*, with stock, *a*, and bristles *a'*. A steel scraper mounted on a similar head and secured by similar attachments to the handle, *b*, asphalt and flagged pavements may be scraped free from snow, mud or other accumulations, and also the use of strips of rubber may be used in the same holding device for scraping or squeezing mud &c., from the surface of asphalt pavements, using a much wider faced scraper than those at present in general use for the purpose and consequently a greater amount of duty performed which is a matter of moment considering the difficult problems of keeping the streets of large cities clean and at the same time saving part of the enormous cost of maintaining such cleanliness.

Having described the construction and mode of operating my newly invented street-cleaning device, what I claim as new and original, and desire to secure by Letters Patent, is as follows:

In a street cleaning device the broom *A* having a broom head —*a*— provided with a hole to receive the end of the pole *b*, a pole *b*, the clip *c* provided with the side braces *C' C²* the bracket *B* secured to the axle *C*, the bracket *B* being provided with projecting lips *d d* formed to embrace the side of the pole of handle —*b*—, rubber cushion washers —*e e*— inserted between the brace arms *B B* and the pole or handle —*b*— and the wheels *DD* secured to axle *C*, the pole *b* being provided with two series of holes —*f f*— to permit the pole to be secured to the bracket arm *B B* at different parts as desired, all constructed substantially as shown and described and for the purposes specified.

PATRICK REARDON.

Witnesses:

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