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Machine for Sweeping the Streets.

For many years past the aid of mechanism has been employed in Europe for cleaning the principal thoroughfares of the larger cities but it is only within a comparatively short period that such apparatuses have been regularly introduced in this country. Indeed, Philadelphia, we believe, is the only city where street sweeping machines have found a permanent employment. Last year an attempt was made to introduce them into New York, and, for a season, one portion of the city was assigned to their use. The locality thus set off soon presented a cleanly appearance previously unknown, which was easily maintained as long as the machines were employed. In our opinion the time is not far distant when hand sweeping in the streets will be wholly superseded by mechanism. Its liberal adoption will contribute greatly to the health and neatness of our towns and cities.

The machines heretofore used in this country are, to a great extent, copied from those employed in London. They consist of large boxed up vehicles, the sweeping being done by a revolving brush, which sweeps the dirt up an inclined plane into the box. Whenever the box fills, the machine is taken away and its load is dumped. The vehicles in question are large, heavy, and clumsy; and in most cases the power necessary for operation is so great as to impose very severe tasks upon the horses.

The revolving brush is, to some extent, objectionable, one reason being that it cannot do clean work. Its high velocity carries a portion of the dirt clear over and throws it back upon the ground; this is especially apt to occur when the ground is a little muddy or wet. This kind of machine also creates considerable dust unless the street is well moistened with water.

In the improvements herewith illustrated the inventors have endeavored to avoid all of the objections named, and also to obtain additional advantages, unknown in any other apparatus for the same purpose.

The machine consists of a light three wheeled vehicle, of the general form exhibited in the engraving. A A are the driving wheels, by which all the sweeping machinery is putin motion. B is a steering wheel, used to support and guide the back end of the frame. Wheel B is ingeniously connected with an upright crank standard, C, in front, on the draft tongue of the machine. The cranks of B and C are connected by means of rod D, which is slotted, and has a fulcrum at E, as shown, therefore, whenever the tongue on which standard, C, rests is moved, the steering wheel, B, will be correspondently turned; the machine is thus enabled to describe a very short circle, and to turn with great ease.

The sweeping is done by means of reciprocating brooms, F, which move back and forth over the surface of the ground, sweeping the dirt up the small inclined leaf, G, on to the endless revolving belt, H; the latter carries the dirt to one side of the machine, and deposits it on the ground again, in winrows, as shown; thus collected it is easily shovelled up into dumping carts and taken away. I is a shaft, which gives motion, through suitable gearing, to the belt, H. Shaft I receives its power from the main shaft, J, with which it connects, by means of pinions. These pinions are connected with clutches, and the latter are operated by the lever, K. When it is desired to change the direction of belt, H, so as to form the dirt winrows on the other side of the machine, the driver moves lever K. By the same lever the whole machinery may be instantly thrown out of gear and stopped.

The brooms, F, are all separate; their shanks, F′, are attached to the cross bar, L, the ends of which fasten to the connecting rod, M. The broom shanks, F′, are adjusted by the screws, L′, so that if one broom is shorter, or becomes worn, more than another, it may be quickly let down to an even line with the others, or a new broom substituted. The brooms have a spring connection with their bar, L, (not shown) which permits them, when stones or other obstructions happen to be in the way, to spring back, and thus pass over the impediment; each broom being separate acts independently, so that if the obstacle presents itself before only one broom the position of the others will not be altered. The angle at which the brooms are set may be easily varied, so as to cause them to sweep obliquely, if desired. This separate adjustment of each broom is an important and valuable feature.

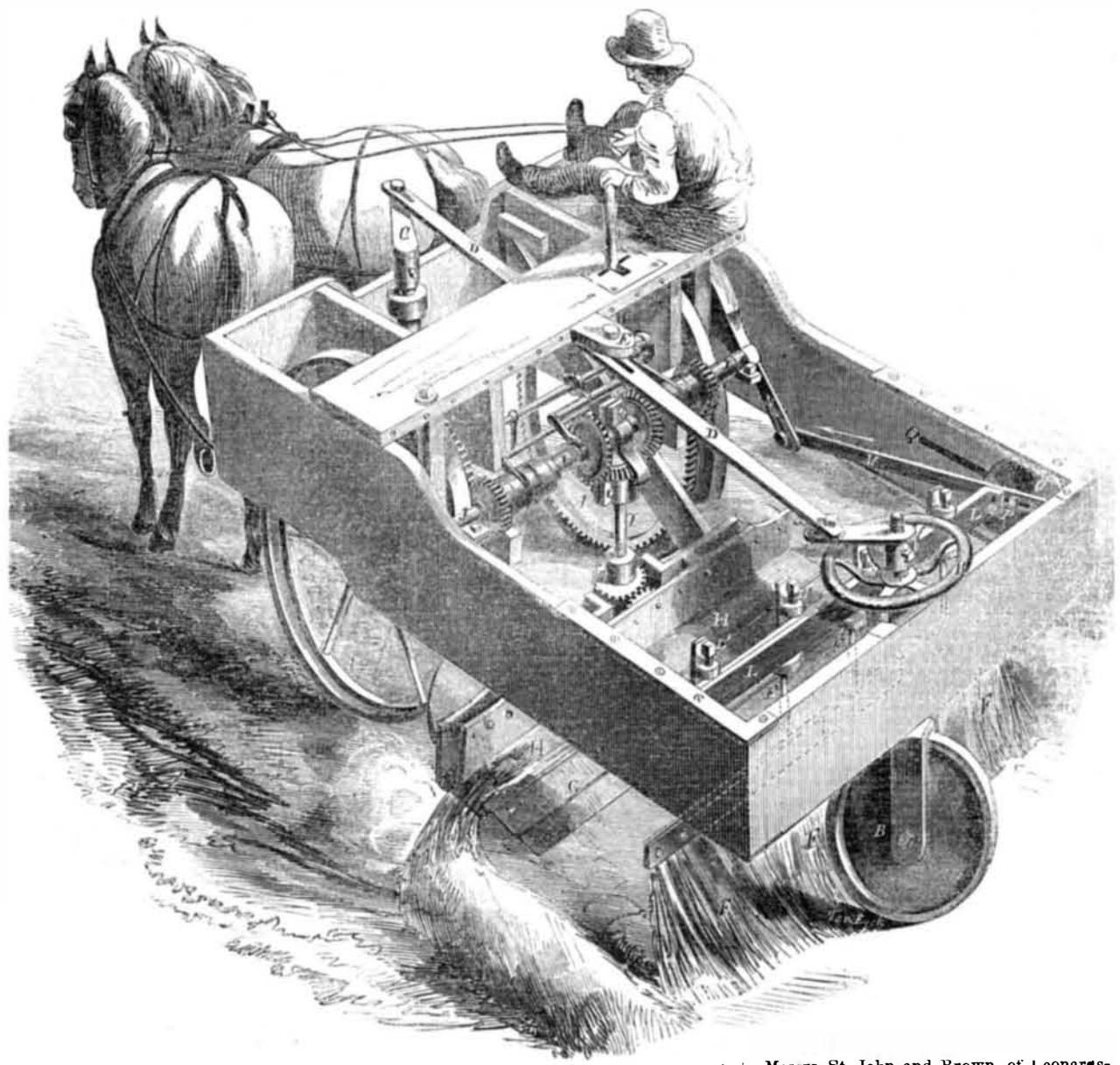
Bar L receives reciprocating motion from rod M and crank N, the latter being attached to main shaft J. One end of rod M is attached to wheel O, the pin of which, P, traverses in slot Q. In the forward movement of rod M the broom bar, L, is depressed, and the brooms thus brought in contact with the ground; on the backward movement of M the broom bar, L, is elevated, and the brooms lifted from the earth; this motion is almost exactly the same as that given to a broom by a person sweeping in the common manner. It must be obvious that such an arrangement insures clean and thorough work.

The hight of the back end of the machine is regulated by turning the hand nut, R, which is attached to the shank of wheel, B; the pressure of the brooms upon the ground is thus adjusted with great convenience.

If desirable, scrapers may be substituted in place of the brooms, and mud may be thus removed with great facility. The elasticity given to each broom shank would also render the scrapers effective. For some of the Western cities this arrangement might often be valuable; in New York it certainly would.

This machine appears to combine ususual facilities and capabilities. It is simple and strong in all its parts; light and easy of draft; convenient and economical in use; thorough and effective under nearly all circumstances and conditions of the streets; it strikes us as being much superior to any other machines of the same class that we have seen; its merits, we believe, will sooner or later give it a very extensive introduction. Good street sweeping machines are wanted in nearly every city in the country; we shall be disappointed if the present improvement does not carry off the palm.

IMPROVED STREET SWEEPING MACHINE.



Messrs. St. John and Brown, of Leonardsville, N. Y., are the inventors and patentees; from them any further information can be obtained Their patent bears date Nov. 20, 1855.

Preserving Fur.

A solution of alum and corrosive sublimate applied to fur, keeps it from coming off. An ounce of corrosive sublimate and an ounce of alum are dissolved in a pint of rain water, and this is applied to the roots of the fur with a sponge; and if possible it should be also applied on the inside of the fur. This solution applied to fur capes, victorines, &c., before they are laid past during warm weather, it is said, will effectually prevent the attacks of moths. Many valuable articles of fur are destroyed every season by moths; if such articles are treated as described, then hung up to dry in a room for a few days; they may be then wrapped in glazed linen, and laid past with perfect safety. The corrosive sublimate being a virulent poison, is the grand protective. It must be kept out of the reach of children and thoughtless persons.

A Good Notice on Both Sides.

A correspondent—J. Gray—writing to us from Dundas, C. W., says: "I got one of Carpenter's Rotary Pumps through a notice I saw in your paper; it is invaluable; has been up six months, pumping hot water every day, and I have never touched a screw about it. It has paid for itself and my paper, long ago."

A little sugar dissolved in any writing ink changes it into a suitable copying ink.