

N. D. EDMONDSON.
Sulky Road-Scraper.

No. 202,423.

Patented April 16, 1878.

Fig. 1

Fig. 2

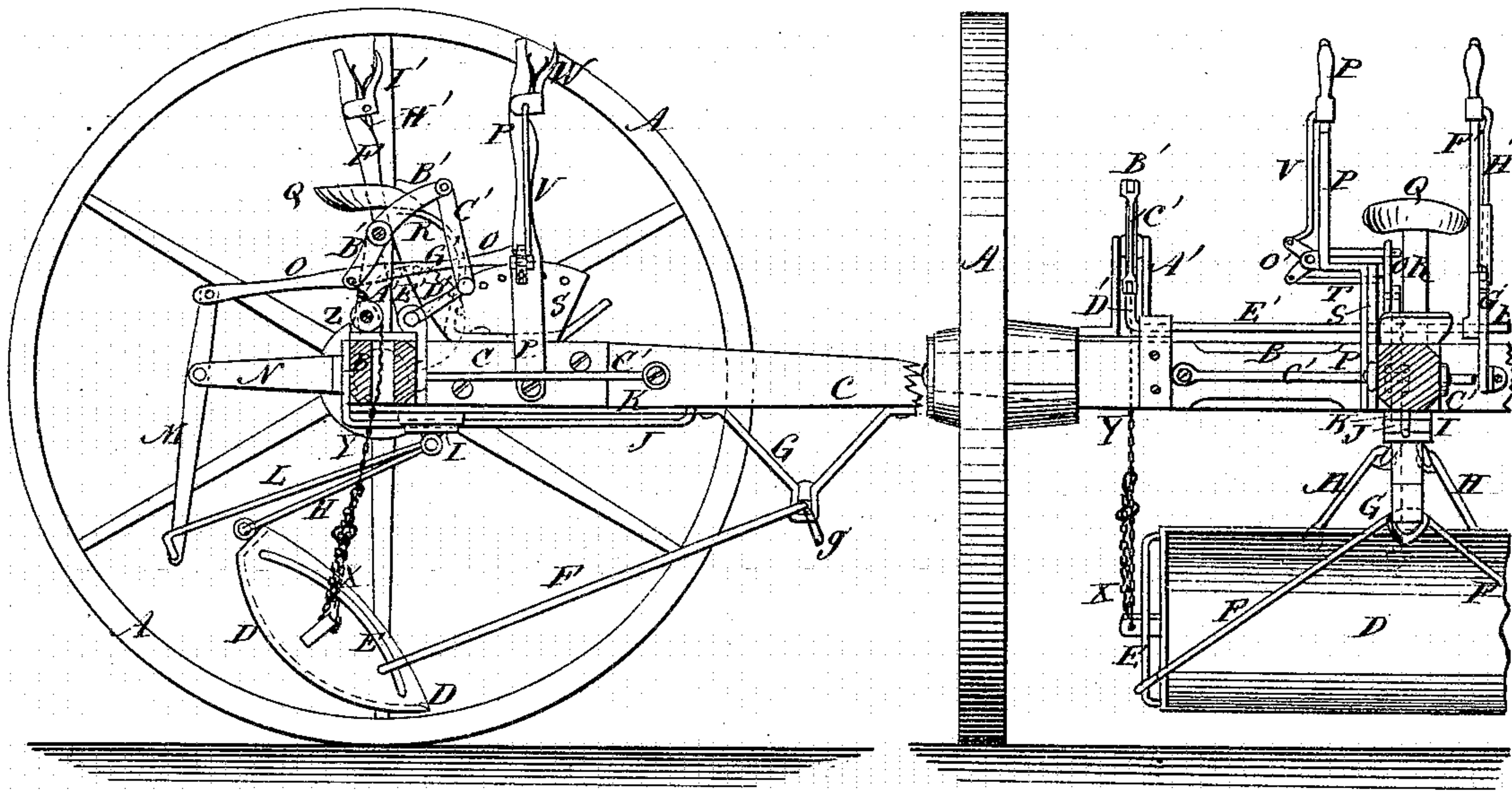
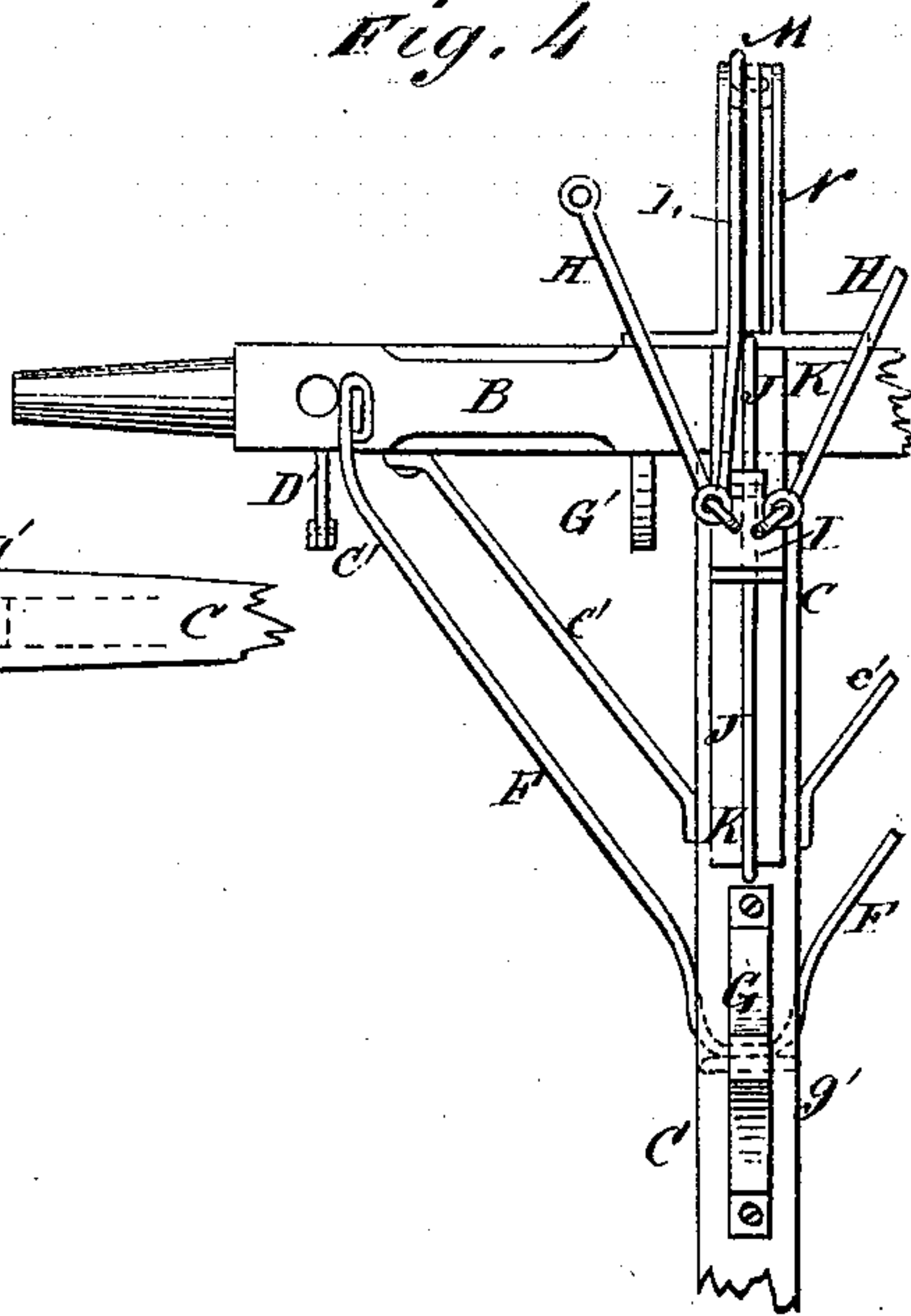


Fig. 3

Fig. 4



WITNESSES:

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NELSON D. EDMONDSON, OF CROWN POINT, INDIANA.

IMPROVEMENT IN SULKY ROAD-SCRAPERS.

Specification forming part of Letters Patent No. **202,423**, dated April 16, 1878; application filed November 20, 1877.

To all whom it may concern:

Be it known that I, NELSON D. EDMONDSON, of Crown Point, in the county of Lake and State of Indiana, have invented a new and useful Improvement in Sulky Road-Scrapers, of which the following is a specification:

Figure 1 is a vertical longitudinal section of my improved machine, taken through the line *x x*, Fig. 3. Fig. 2 is a front view of a part of the same. Fig. 3 is a top view of the same. Fig. 4 is an under-side view of a part of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved sulky-scraper for grading roads, lawns, &c., and for other uses where dirt is to be moved from one place to another, and which shall be so constructed that it may be readily controlled by the driver from his seat.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

A are the wheels, which revolve upon the journals of the axle B. To the middle part of the axle B is attached the rear end of the tongue C, which is strengthened in place by the braces *c'*. D is the scraper, which is made in the form of a section of a hollow cylinder, with a narrow upright back, and with upright ends. The ends of the scraper D are made with curved upper edges, to protect the curved rods E from the dirt. The ends of the curved rods E are bent inward at right angles, and are riveted or otherwise attached to the ends of the scraper D. F is a V-shaped draw-bar, which has eyes formed upon its ends, to receive and slide upon the rods E, and has a loop formed upon its center, to fit into the loop of a bracket, G, attached to the lower side of the tongue C. The loop of the bracket G is so formed as to also receive the ring or link *g'*, to which the draft is applied.

This construction prevents the scraper from swinging longitudinally and thus coming in contact with the wheels A.

To the rear side of the scraper D, upon the opposite sides of, and equally distant from, its center, are attached eyes, to which are hinged the ends of bar or bars H. The bars H have loops formed in their ends, to receive

two eyes attached to the block I, and which may be the heads of the bolts that secure the parts of the said block to each other and to the rod J, upon which it slides. The ends of the rod J are bent upward, and are attached to the axle B and the tongue C. To the lower side of the tongue C and axle B is attached a metal plate, K, to prevent said parts from being worn by the movements of the sliding block I. To the rear part of the sliding block I is hinged the forward end of the connecting-rod L, the rear end of which is bent downward and sidewise, and is pivoted to the lower end of the upright lever M. The lever M is pivoted in the rear end of the slotted bracket N, attached to the rear side of the axle B. To the upper end of the lever M is pivoted the rear end of the connecting-rod O, which passes forward above the axle B, and its forward end is pivoted to the lever P, or to a bar or lug attached to or formed upon said lever. The lever P is pivoted at its lower end to the side of the tongue C, and is made with an offset, so that its upper part can swing past the driver's seat Q, the standard R of which is attached to the rear part of the tongue C. To the shoulder of the lever P is attached a flange or half-keeper, which overlaps the inner side of the curved upper edge of the plate S attached to the side of the tongue C, and along the side of which the said lever P moves. In the plate S, near its curved upper edge, is formed a number of holes, to receive the inner end of the pin T, the outer end of which is pivoted to the lower end of a short angle-lever, U. The lever U is pivoted at its angle to the outer angle of the lever P, and to its upper end is pivoted the lower end of a rod, V, which extends upward along the side of the lever P. The upper end of the lever V is pivoted to a small hand-lever, W, which is pivoted to the lever P, and its upper end is held out by a spring interposed between it and the said lever P.

By this construction, by operating the lever P the rear edge of the scraper D can be raised to bring it into proper position for collecting or discharging its load, or to bring it into a horizontal position for carrying its load from place to place.

To the ends of the scraper D are attached

ears, to receive the ends of short chains X, which have hooks formed upon their other ends, to pass through rings in the lower ends of the chains Y, and hook into the links of the said chains Y.

By this construction the chains can be readily lengthened and shortened, and the loose end of the chains Y will be kept from swinging about and interfering with the free operation of the scraper.

The chains Y pass up through holes in the end parts of the axle B and over guide-pulleys Z, pivoted to slotted standards A' attached to the upper side of the said axle B. The upper ends of the chains Y are attached to the rear ends of levers B', which are pivoted in the upper ends of the said slotted standards A'.

To the forward ends of the levers B' are pivoted the upper ends of the connecting-bars C', the lower ends of which are pivoted to the ends of the crank-arms D', formed upon or attached to the ends of the shaft E'. The shaft E' works in bearings attached to the upper and forward sides of the axle B, and to it is rigidly attached the lower end of a lever, F', which passes up along the side of a plate, G', attached at its lower edge to the top and front sides of the axle B. The upper edge of the

plate G' is curved upon the arc of a circle, and is notched to receive the engaging end of the sliding pawl H', which passes up along the side of the lever F', is withdrawn by a small hand-lever, I', pivoted to the upper part of the said lever F', and is held down against the catch-plate G' by a spring interposed between the hand-lever I' and the lever F'.

By this construction, by operating the lever F' the scraper D will be raised and lowered vertically.

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

1. The combination of the curved rods E, the draw-bar F, made in one piece, with eyes upon its ends and a loop in its center, and the loop-bracket G with the scraper D and the tongue C of the sulky A B C, substantially as herein shown and described.

2. The combination of the connecting-rods H, the sliding block I, and the slide J with the rear side of the scraper D, and with the axle and tongue B C of the sulky A B C, substantially as herein shown and described.

NELSON D. EDMONDSON.

Witnesses:

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