(No Model.)

W. H. TALBOT.

ROAD SCRAPER.

No. 261,276. Patented July 18, 1882.

Fig. 1

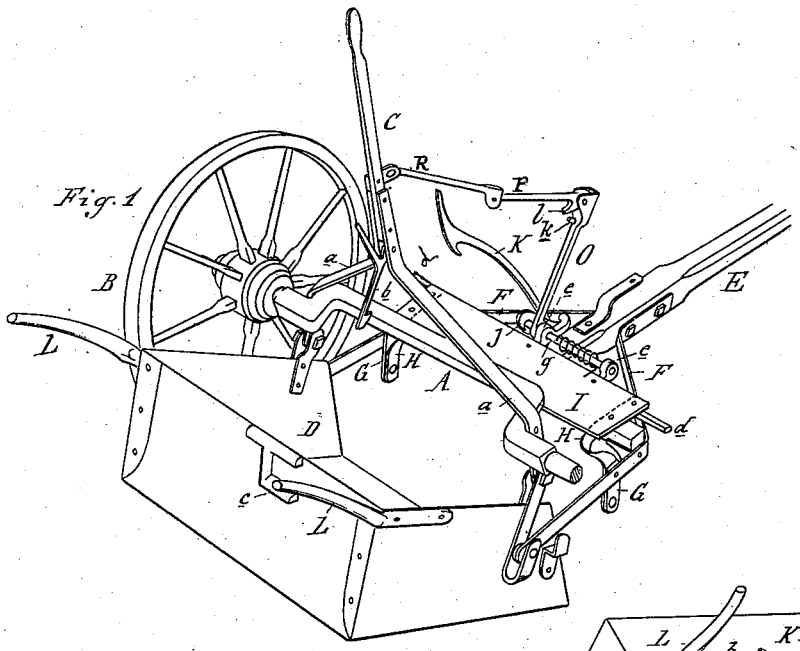


Fig. 3

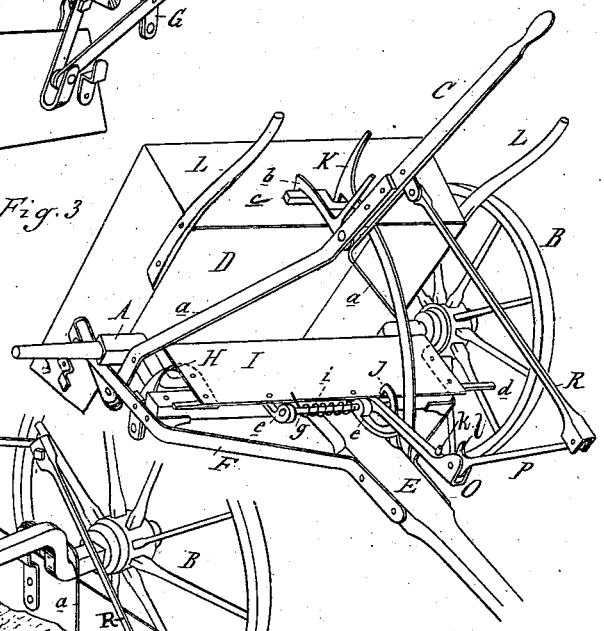
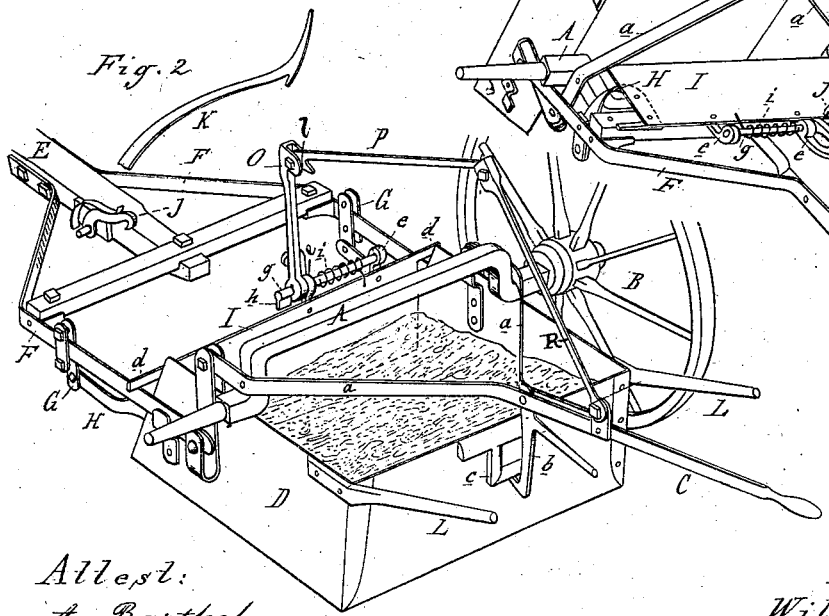


Fig. 2



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WILLIAM H. TALBOT, OF BUCHANAN, MICHIGAN.

ROAD-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 261,276, dated July 18, 1882.

Application filed March 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. TALBOT, of Buchanan, Berrien county, Michigan, have invented an Improvement in Road-Scrapers, of which the following is a specification.

The nature of this invention relates to certain new and useful improvements in the construction of scrapers or self loading and dumping carts; and the invention consists in the peculiar construction and operation of an automatic end board or gate, and in the peculiar construction and arrangement of parts, all as more fully hereinafter set forth.

Figure 1 is a perspective as in the act of scraping. Fig. 2 is a rear view as loaded. Fig. 3 is a front perspective as after dumping.

In the accompanying drawings, which form a part of this specification, A represents a suitable axle mounted upon the traction-wheels B.

C is a bifurcated lever, the arms *a* of which are secured to the axle A, as shown. To the outer ends of the arms *a* is pivotally hung the scraper-box D. A hook-lever, *b*, is pivotally secured to the longer arm of the lever C, which engages with a stop, *c*, on the rear end of the scraper-box, as shown.

E is the tongue, which is pivotally secured to the sides of the scraper-box by means of the bars F.

G are hangers pendent from the bars F, and to the lower ends of these hangers G are pivotally secured the end of the bars H, the opposite ends of which are rigidly secured to the end board or gate I, which has a stud, *d*, projecting from both upper corners to rest upon the bars F when in a closed position.

Rising from the upper edge of the board I are two studs, *e*, in the upper ends of which is journaled a short shaft, *g*, one end of which is provided with a cam, *h*, and around the shaft is coiled a spring, *i*, one end being secured to the shaft, while the opposite end finds resistance against the side of the gate, the parts being so arranged that as they assume certain positions the spring will be twisted, for the purpose to be hereinafter set forth.

J is a spring-latch pivotally secured to the side of the tongue, as shown, and engaging with the end of the shaft *g* when in the position shown in Figs. 1 and 3. A lever, O, is secured to one end of the shaft *g;* but for the purpose of throwing upward and forward the gate I it acts as a lever rigidly attached thereto, by reason of the bearing it has (see Fig. 2) against the curved offset or upward extension of the stud *e* adjacent thereto. Its upper end is pivotally connected to the lever C by means of the connecting-rods P R.

K is a hook pivoted to the tongue, and L are the handles of the scraper-box.

In practice the ground should first be well plowed, when the scraper is lowered by disengaging the hook-lever *b* of the lever C from the stop *c* on the scraper-box, and lifting upon the lever C, which opens the gate and depresses the front of the scraper, the depth of cut being regulated by raising or depressing the rear end of the scraper-box by means of the handles. By releasing the lever-hook *b* the depression of the lever C necessary therefor permits the jointed bars P R to fall into a straight line, their falling below such line being prevented by the knuckle-like character of the joint. Thereupon the weight of the scraper causes the lever C, now released, to assume the position shown in Fig. 1, and the movement of the lever to this position operates the connecting-rods P R and lever O, and causes the gate I to move forward and upward on the pivoted arms H until the end of the shaft *g* engages with the spring-latch J on the tongue. After the scraper has been loaded the lever C is depressed until the hook *b* engages with the stop *c* on the rear of the scraper-box, which at the same time lifts the scraper, with its load, clear of the ground. This movement also draws upon the rods P R, and, causing them to assume a straight line, these rods, by means of the lever O, rotate the shaft *g* and twist the spring *i* until the cam *h* on the shaft, by acting against the rear of the latch J, raises the latter to allow the forward movement of the shaft. The spring *i* then turns the shaft to its original position, and in so doing pulls against the lever O at its lower end. The upper end of this lever being connected to the rods P R, and these rods being held straight by the action of drawing on the handle C, the twisting action of the spring against the lever causes the lower end of the latter to

draw the gate on its pivoted arms H into the position in Fig. 2. As the gate moves into this position the pin *k* of the lever O, striking against the arm *l* of the rod P, causes the rods P R to move upward at their center connecting-pivot, as shown in Fig. 2. In this position the scraper is ready for dumping. This operation can be more clearly seen by imagining the lever C in the position shown in Fig. 2, and the shaft *g*, with the spring *i* twisted, still held by the hook or latch J. In this position the moment this latch was raised the tendency of the spring *i* would be to partially rotate the shaft *g*. This action of the shaft operating against its rigid arm or lever O by pulling against the rods P R would cause the gate I to move backward on its arms H until past the center of gravity, when its further descent would be aided by its own weight.

When it is desired to dump the load, having first opened the gate, as before described, raise the back end of the scraper by the handles until the point catches in the ground, and the team will then pull it over, the hook K engaging with a stop on the back of the box and holding the box in that position.

What I claim as my invention is—

1. In combination with a scraper-box having an open end, an end-gate adapted to be released from a detaining-latch on the scraper-frame by the movement of the mechanism which changes the position of the scraper-box, substantially as and for the purpose specified.

2. In combination with a scraper constructed substantially as described, the end board or gate I, adapted to be closed by a spring, substantially as and for the purposes specified.

3. In a road-scraper, the lever C, rods R P, lever O, shaft *g*, spring *i*, and cam *h*, in combination with the gate I and detaining-latch J, substantially as and for the purpose specified.

4. In a scraper and in combination with the box D, axle A, lever C, hook *b*, stop *c*, tongue and frame E F, and latch J, the end-gate I, shaft *g*, spring *i*, cam *h*, lever O, and rods R P, substantially as and for the purpose specified.

5. The latch J, pivoted to the scraper-frame, in combination with the shaft *g* on the end-gate I, and the end-gate, as a means of detachably holding the latter from the scraper-box, substantially as described.

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Witnesses:
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