

(No Model.)

S. M. THAYER.
DUMPING DEVICE FOR EARTH SCRAPERS.

No. 571,959.

Patented Nov. 24, 1896.

Fig. I.

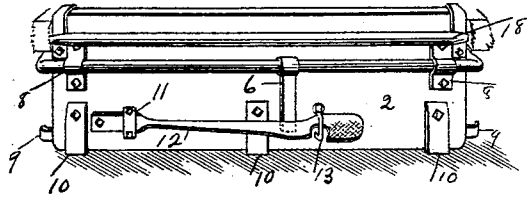


Fig. II.

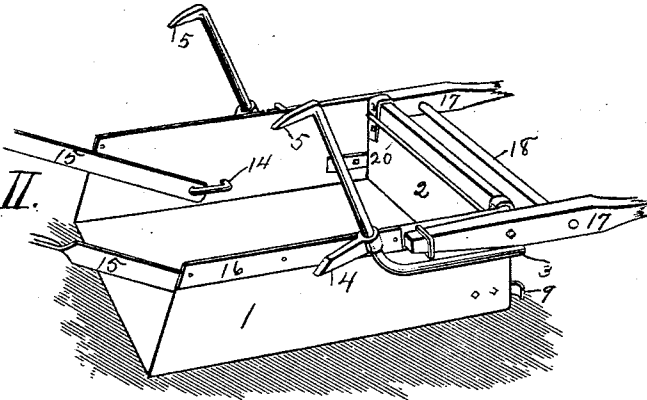


Fig. III.

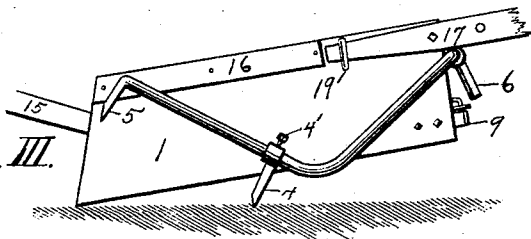
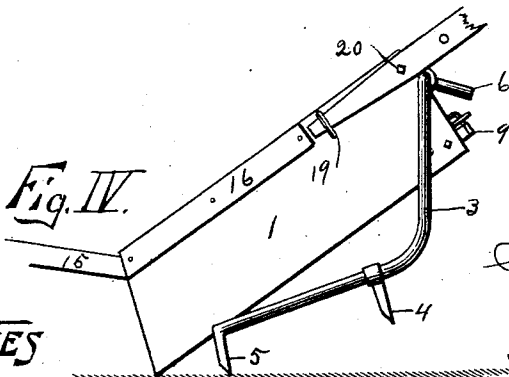


Fig. IV.



WITNESSES

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DUMPING DEVICE FOR EARTH-SCRAPERS.

SPECIFICATION forming part of Letters Patent No. 571,959, dated November 24, 1896.

Application filed March 23, 1896. Serial No. 584,507. (No model.)

To all whom it may concern:

Be it known that I, SANDERS M. THAYER, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in a Dumping Device for Earth-Scrapers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to provide earth-scrappers with a strong and efficient dumping device, and one that may be easily tripped, and one that more readily takes the soil than those heretofore in use, all of which will be readily understood by this specification and the accompanying drawings, in which—

Figure 1 is a rear view of the body of the scraper with handles broken away. Fig. 2 shows a perspective view with ends of handles and bail broken away. Figs. 3 and 4 are sectional elevations.

Similar figures refer to similar parts throughout the several views.

1 is the sides and bottom of the scraper, made preferably of a steel plate, and may be formed as shown or in other desired shapes, and I generally make it of one piece, with the corners of bottom and sides rounded more than shown in the drawings.

2 is the rear end, which I generally make of hard wood and hold to the metal plate by the heavy bands 10 10 10, which are secured to the under side of the blade to not only stiffen it but to make a wearing-surface for it. These bands are turned at right angles and come up in the rear of end piece 2 and are bolted to it, as shown in Fig. 1.

3 is a long bar of steel or iron formed to pass across the back of end piece 2 and is secured to it by straps 8 8, in which it turns, as shown in Fig. 1. It is then bent at right angles at the corners of the scraper and passes along the sides about one-third the distance and is then bent up nearly at a right angle, and has its ends turned down at a right angle and brought to a point, as shown at 5 5.

4 is a metal piece formed to clasp the rod 3 and may be secured to it in any suitable way,

but I prefer to have it adjustable and secured by a set-screw, as shown at 4' in Fig. 3.

12 is a long steel spring secured to the end piece 2 by a bolt and strap 11, as shown in Fig. 1, at one end, the other end being held loosely by the long staple 13, the end of rod 12 being formed to make a step to press the spring down with the foot.

6 is a metal bar or lug securely attached at its upper end to the rod 3 at the center of said rod, as shown in Fig. 1, its lower end coming down behind spring 12 and holding the front ends of dump-rod 3 above the sides of the scraper, as shown in Fig. 2.

The dump-rod instead of being fastened to the back of the scraper might pass through the sides in front of end board or be secured to the under side of the handles and not depart from my invention, but I prefer to have it secured as shown.

The handles 17 17 are preferably of wood, and are secured to the body of the scraper by the long end rod 20, (see Fig. 2,) and the front end by staples 19, through which the end passes, as shown.

16 is a heavy metal plate secured to the upper edge of the metal blade 1, as shown in Figs. 2, 3, and 4, and is for the purpose of stiffening the blade and making the wearing-surface for the scraper when turned over. This plate may come above the body of the scraper when desired to have the scraper hold more and may be oval on top when so preferred.

It will be understood that my device is a self-dump and much easier on the team than dumping by hand, besides saving all the hard manual labor of lifting the scraper, and it always leaves the contents where desired.

The operation is as follows: The scraper is filled in the usual way, and when ready to dump the spring 12 is pressed down, releasing lug 6, and the weight of rod 3 is such that the metal tripping-point 4 engages the ground. Drawing the scraper causes its rear end to raise, as shown in Fig. 3, until front points 5 take the earth, as in Fig. 4, and so continues the raise till dumped, the rods striking the metal stops 9 9. (See Fig. 1.) The object of these stops is to prevent the rod from going too far back. When it is desired

to fill the scraper again, it is turned back by the handles to an upright position, the foot is pressed against rod 3 or lug 4, and said rod swinging forward the catch 6 passes back of the spring 12 and is caught and held by it in the position shown in Fig. 2.

It will be observed that with my improved dump the scraper is raised on three different axes. First, point 4 takes the earth and raises the scraper till point 5 comes in contact, and this moves it high enough so that the front end of the scraper finishes the work. Of course more axes might be put in by giving the dump-rods more bends and putting on lugs similar to point 4, but enough are used to make the dump easy for the team.

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

1. In a dumping device for earth-scrapers, a rod encircling the rear of the scraper and connected thereto, the rod being bent upward and provided near the bend with a spur to engage the earth, the rod being provided

with a tripping-arm to hold it in position, substantially as shown and for the purpose set forth.

2. In a dumping device for earth-scrapers, a rod hinged to the scraper, a tripping-arm secured thereto, the rod passing each side of the scraper and provided with spurs to take the earth at different distances from the hinging-point, substantially as shown and for the purpose set forth.

3. In a dumping device for earth-scrapers, the rod 3 encircling the scraper and hinged thereto, and provided with spurs 4, 4, and 5, to engage the earth, and the trip-arm 6, in combination with a spring-arm having one end secured to the scraper the other end holding the arm 6 in place, substantially as shown and for the purpose set forth.

In testimony whereof I hereunto subscribe my name in the presence of two witnesses.

SANDERS M. THAYER.

In presence of—

N. E. THOMAS,

R. G. OWENS.