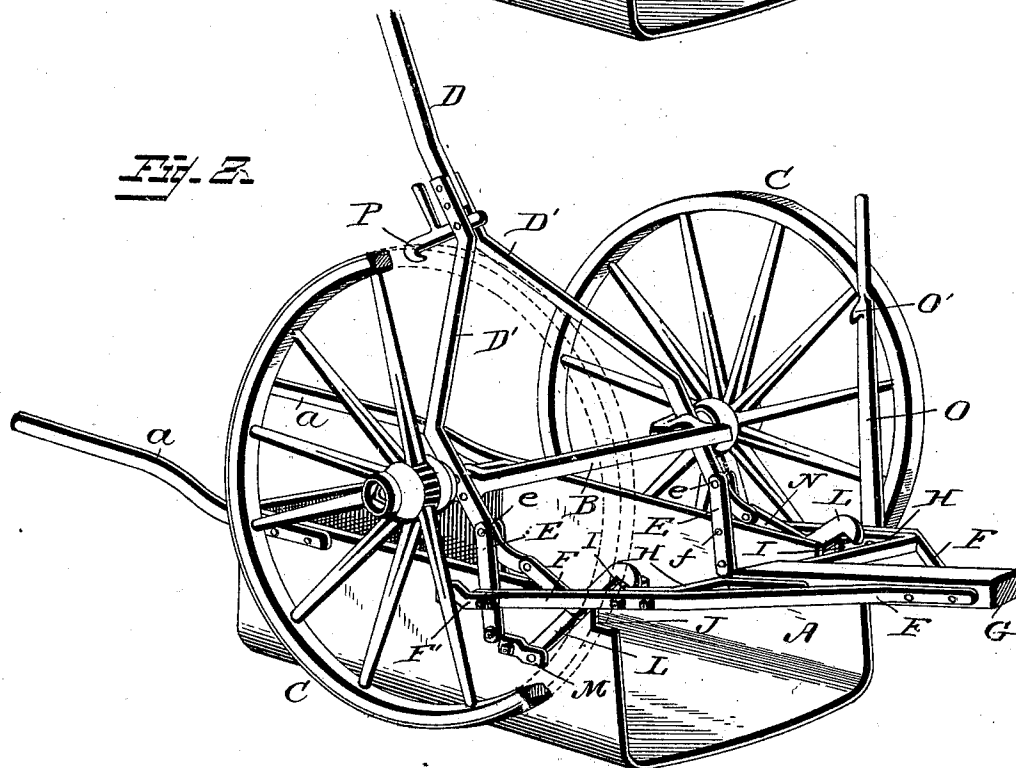
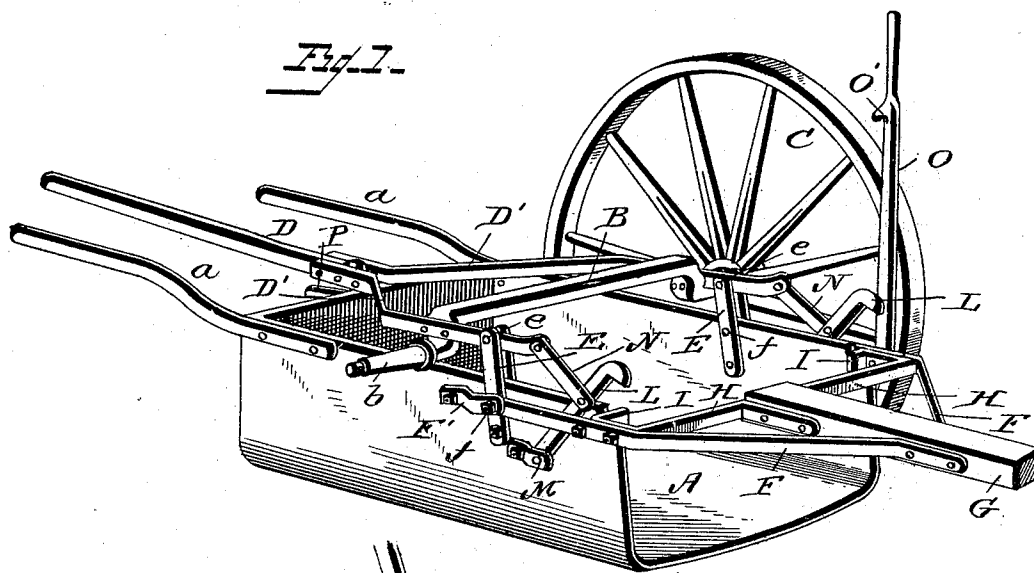


(No Model.)

W. E. KILBORN.
WHEELED EARTH SCRAPER.

No. 513,464.

Patented Jan. 23, 1894.



Witnesses
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UNITED STATES PATENT OFFICE.

WILBER E. KILBORN, OF SIDNEY, OHIO.

WHEELED EARTH-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 513,464, dated January 23, 1894.

Application filed August 19, 1892. Serial No. 443,507. (No model.)

To all whom it may concern:

Be it known that I, WILBER E. KILBORN, a citizen of the United States of America, residing at Sidney, in the county of Shelby and State of Ohio, have invented certain new and useful Improvements in Wheeled Earth-Scrapers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in wheeled earth-scrapers, particularly those of the class illustrated and described in Patent No. 422,531, granted to me March 4, 1890, the object of the invention being to improve the mechanism for preventing the scraper bowl from dumping while loading, whereby I obtain the several advantages hereinafter mentioned.

Broadly stated, the invention consists in adapting the hooks to engage with the inwardly-projecting lugs on the tongue-braces while the scraper-bowl is in position for loading, and dispensing with the hook-catches on the outer sides of the bowl.

Figure 1 of the drawings is a perspective view of a scraper embodying my improvement with the bowl elevated as when filled, one of the wheels being removed. Fig. 2 is a perspective view of the same, showing the bowl lowered for loading, one of the wheels being partly broken away in order to give a clear view of certain parts.

In the drawings, A represents the scraper-bowl, provided with side handles *a*.

B is the axle, whose spindles *b* for the wheels C are cranked, in order to raise and lower the scraper-bowl.

D is the lever, to whose forward end are rigidly secured the lever-bars D', which are also rigidly secured to the sides of the axles, as shown.

E are standards, to which the scraper-bowl is hung, each consisting, preferably, of two pieces of bar-iron, one piece being placed on the inside and the other piece on the outside of the bowl, and firmly bolted thereto at their lower ends, their upper ends extending far enough above the bowl to receive the lever-bars between them, which are pivoted to the standards at *e*.

F are the draft-bars, whose forward ends are rigidly secured to the tongue G, their rear

ends being each pivoted on a bolt *f* passed through the side of the scraper-bowl and through the standard E; and F' are holdback-straps, each bolted at one end to the bowl, its other end being passed over the bolt *f*, outside of the draft-bar, and secured thereon by a nut, these straps serving to counteract the leverage on the bolts.

H are tongue-braces bolted to the tongue and riveted to the inner sides of the draft-bars. The rear ends of these braces are bent inwardly to form lugs I, adapted, as the scraper-bowl is being raised from the loading position, to engage shoulders J formed in or on its front ends, for the purpose of preventing backward tilting of the bowl. As these tongue-braces are rigidly secured to the draft-bars, the lugs I may be formed on or secured to the latter, as it is only essential that they be carried by the draft-bars.

O is a standard rising vertically from one of the draft-bars and provided near its upper end with a spring-hook O' for engagement with one of the handles *a* when the scraper box or bowl is dumped.

P is the lever-hook, pivoted between the rear ends of the lever-bars and designed to engage with a cleat (not seen) secured to the back of the box or bowl.

So far the description relates solely to the wheeled scraper which is the subject of my aforesaid patent No. 422,531. I will now describe the improvement on which this application for patent is based. Heretofore the bowl was prevented from tilting forward while loading by means of hooks pivoted at their upper ends in loops on the draft-bars, their lower ends engaging with hook-catches secured on the outer sides of the bowl, near the bottom of the front end. That construction is objectionable for the following reasons, as has been demonstrated in the use of a large number of scrapers made in that way. First, it requires that the hooks shall be pivoted some distance in front of the bowl, which necessitates making the draft-bars so long as to render them liable to twist out of shape or break; and, furthermore, when the draft-bars are of this undue length the horses must of necessity be hitched so far from the bowl as to add very materially to the draft of the scraper while loading; secondly, the hook-

catches and the hooks when in engagement with them coming in contact with the soil are not only liable to be broken, but they also impede to a considerable extent the movement of the bowl in loading. Instead of pivoting the hooks L in the manner and in the positions above stated, I now place them between the draft-bars and the sides of the bowl, and pivot their lower ends in ears M secured to the sides of the bowl, far enough up to prevent them from coming into contact with the loose earth while the scraper is filling, the hooks being so positioned that when they are thrown down in the act of lowering the bowl their upper ends will engage the upper edges of the lugs I carried by the tongue-braces. The hooks are operated by means of hook-links N pivoted to them and to the forward ends of the lever-bars D', as in the construction previously alluded to. It will be observed that by my present improvement the lugs I have two functions instead of but one, as formerly; that the hook-catches are dispensed with and the hooks so placed as not to interfere with the free movement of the scraper-bowl in filling; and also that the draft-bars may be made much shorter than formerly, thereby lessening their liability to twist or break and permitting of the team being hitched near the load.

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

1. The combination, with the scraper bowl having shoulders at its front end and the draft-bars carrying inwardly-projecting lugs adapted to engage with said shoulders when the bowl is in the elevated position, of hooks pivoted at their lower ends on the sides of the bowl, their upper ends being adapted to engage with said lugs when the bowl is in the lowered position, for the purposes stated.

2. The combination, with the scraper-bowl having shoulders at its front end and the

draft-bars carrying inwardly-projecting lugs adapted to engage with said shoulders when the bowl is in the elevated position, of hooks pivoted at their lower ends on the sides of the bowl, their upper ends being adapted to engage with said lugs when the bowl is in the lowered position, and means for actuating the hooks.

3. The combination, with the scraper-bowl, the cranked axle, standards rigidly secured to the sides of the bowl, the lever-bars rigidly secured to the axle and pivoted to the standards, the tongue, and the draft-bars secured to the tongue and pivoted to the sides of the bowl, of inwardly-projecting lugs carried by the draft-bars, hooks pivoted at their lower ends on the sides of the bowl, their upper ends being adapted to engage with said lugs when the bowl is in the lowered position, and links pivoted to the hooks and to the lever-bars forward of the standards, substantially as described.

4. The combination, with the scraper-bowl having shoulders at its front end, the cranked axle, standards rigidly secured to the sides of the bowl, the lever-bars rigidly secured to the axle and pivoted to the standards, the tongue, and the draft-bars secured to the tongue and pivoted to the sides of the bowl, of inwardly-projecting lugs carried by the draft-bars and adapted to engage with said shoulders when the bowl is in the elevated position, hooks pivoted at their lower ends on the sides of the bowl, their upper ends being adapted to engage with said lugs when the bowl is in the lowered position, and links pivoted to the hooks and to the lever-bars forward of the standards, all substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILBER E. KILBORN.

Witnesses:

GEO. B. TOLAND,
C. W. FRAZER.