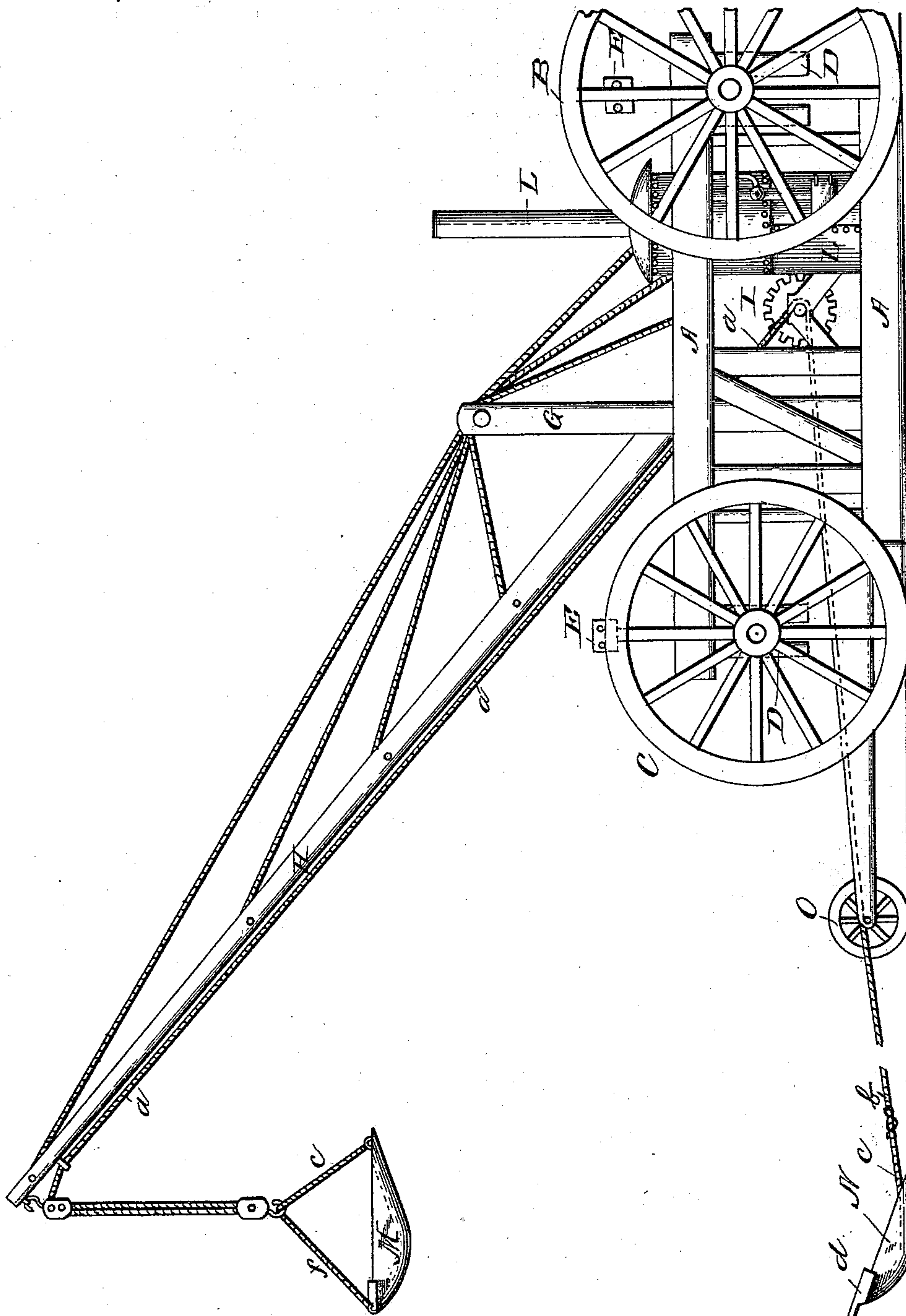


(No Model.)

W. W. LEMMON.
MACHINE FOR MOVING EARTH.

No. 439,074.

Patented Oct. 21, 1890.



Witnesses

Albert B. Blackwood
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UNITED STATES PATENT OFFICE.

WILLIAM WALTER LEMMON, OF ARBROTH, LOUISIANA, ASSIGNOR OF TWO-THIRDS TO RICHARD CARY AMBLER PECQUET, OF SAME PLACE, AND EDWARD VIVES, SR., OF NAPOLEONVILLE, LOUISIANA.

MACHINE FOR MOVING EARTH.

SPECIFICATION forming part of Letters Patent No. 439,074, dated October 21, 1890.

Application filed July 3, 1890. Serial No. 357,605. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WALTER LEMMON, a citizen of the United States, residing at Arbroth, in the parish of West Baton Rouge and State of Louisiana, have invented certain new and useful Improvements in Machines for Moving Earth; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, and represent a side view, partly in section, of a machine embodying my improvements.

The purpose of my invention is to produce a simple, light, portable, and cheap machine for digging and moving earth in excavating and in conveying it to small distances, such as for making levees and embankments, loading carts and trains, making roads, digging and cleaning out canals and ditches, and for grading the surface of ground.

I make a suitable frame A of any convenient form and construction, on which the working parts are mounted. For transporting the machine from place to place, the frame has or should preferably have two supporting-wheels B toward the rear end thereof. The forward wheels C are swiveled to enable the machine to be turned in any direction while moving. Each wheel is mounted in a suitable bearing frame or block D, which has a vertical movement in the main frame, and a screw (or screws) E is provided for each bearing-frame for the purpose of adjusting it up and down. By this means when the machine has been brought to the place where it is to be used the entire frame and parts thereon can be let down to the ground, so as to support the same firmly thereon, and when the machine is to be moved to another place or position the frame is to be hoisted by the screws, so as to be again supported by the wheel.

In a central or proper position on the main frame a crane mast or post G is mounted and securely supported in a vertical position there-

on by braces or guys, and a crane H, of any usual or suitable construction, is supported by the said mast or post; also, mounted in or on the main frame is a winding-windlass I for raising and lowering the earth by the crane, there being a rope *a* to wind on the windlass, and extending therefrom to the tackle supported at the upper end of the crane; also, a windlass, which may be a continuation of or on the same shaft as the windlass I, winds another rope or portion of the same rope *b* in the opposite direction for excavating the earth.

For turning the windlasses on this double windlass, I prefer to mount a steam-engine L on the frame of the machine; but a horse-power may be employed, either mounted on the machine or stationed close by it, and for small machines the windlasses may be worked by hand-power.

The means for communicating the motion to the windlasses from the power will be readily understood and need not be here described.

The above being the construction of the operating parts of the machine, I employ in connection therewith two scrapers M N, each of which is used alternately for scooping and gathering the earth and for hoisting it by the crane to the place required, and while one, as M in the drawing, is hoisting and conveying the earth the other, as N, is being drawn back ready for scraping and gathering the earth. The same windlass movement, therefore, can serve to accomplish both operations simultaneously. To perform the double purpose of scraping and gathering and of hoisting and conveying the earth, each scraper should have a scoop form, or such that will hold the earth gathered by it, as shown, or otherwise. By placing its bail *c* nearer to the scraping-edge, the dragging-rope *b* acts properly to draw it along in a scraping position, riding, preferably, over a guide-truck O; but a suitable handle or handles *d* should be used to hold it firmly at the proper inclination. Then when the scraper is to be used to elevate the earth, a shorter or brace bail *f* is to be attached to the scraper toward the rear edge, so as to hold the scraper or scoop in an

upright position to hold the earth, as shown (on the one being hoisted) in the drawings.

I do not, however, confine myself to any special construction of these minor parts.

5 Any suitable construction may be used if arranged to effect the purposes herein set forth.

It will be seen that as the one scraper N in the drawings is being loaded the other
10 M is being lowered thereto, and that the scrapers may be then transferred, the first one N now serving to raise the earth, while the second one M is being drawn back over the ground preparatory to being loaded.

15 What I claim as my invention, and desire to secure by Letters Patent, is—

In an earth-moving machine, the combination, with a supporting-frame having a guide-truck on the base thereof, of a windlass I and a crane H, carried by the said supporting-
20 frame, ropes *a* and *b*, oppositely wound upon the said windlass and passing over the said crane and truck, respectively, and a combined carrier and scraper attached to each of the
25 said ropes, as described.

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

WILLIAM WALTER LEMMON.

Witnesses:

FRANK DELANY,
T. E. MUSE.