

Vaughan & Chalmers.

Excavator.

N^o 76,369.

Patented Apr. 7, 1868.

Fig. 2.

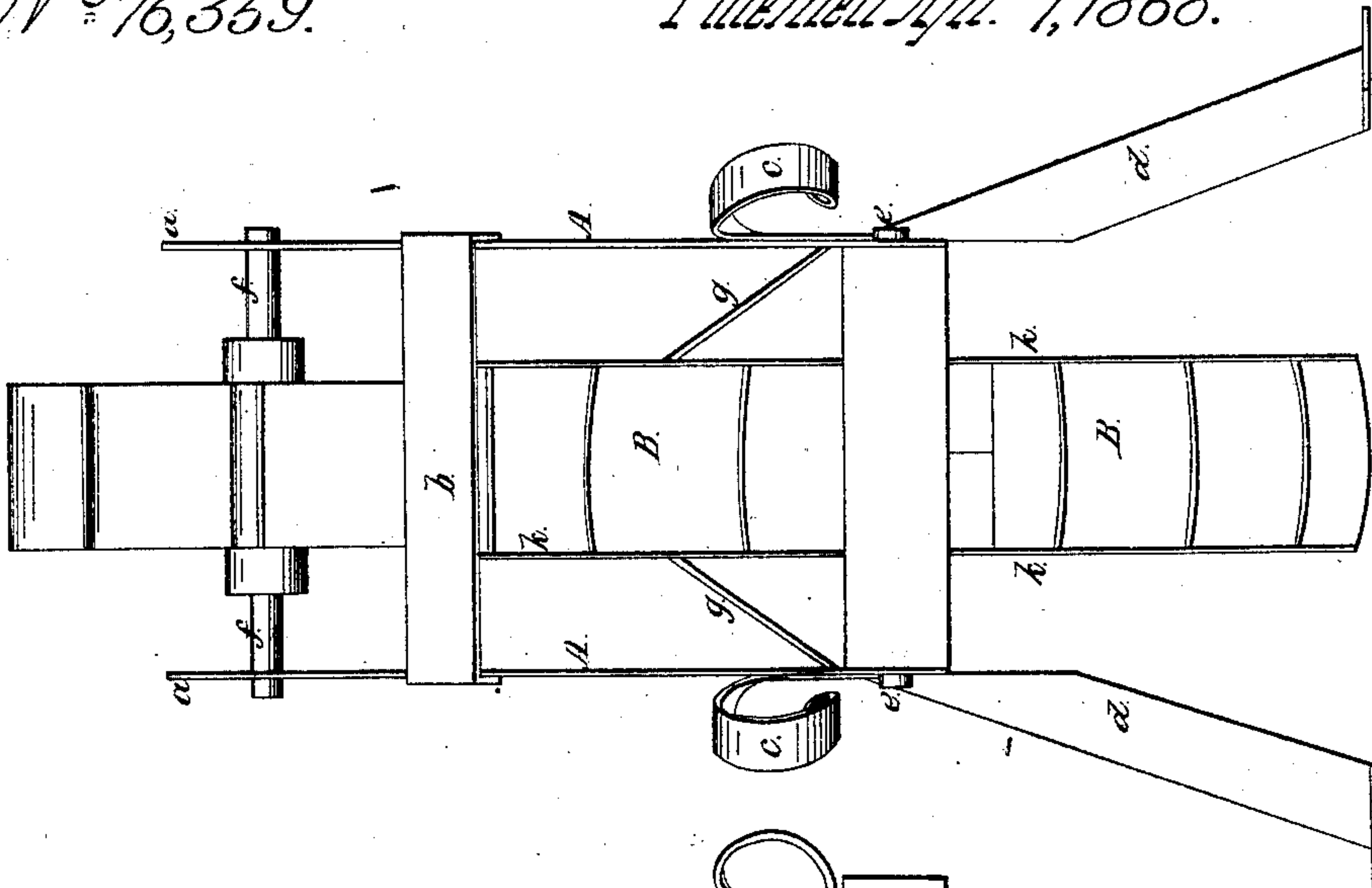
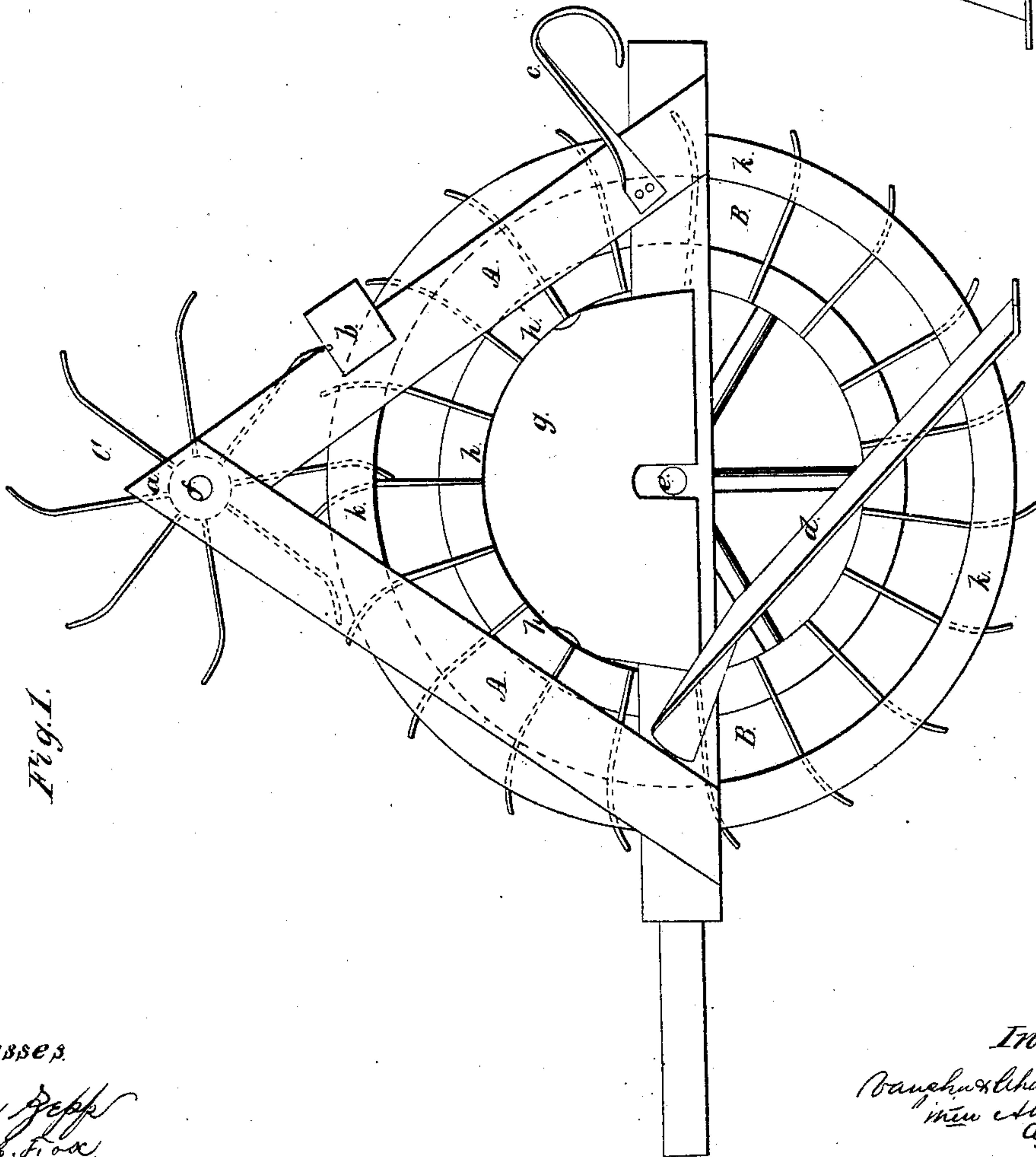


Fig. 1.



Witnesses.

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Vanhook & Chalmers per
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United States Patent Office.

JOHN VAUGHN, OF MIAMI COUNTY, AND ELI CHAMNESS, OF GRANT COUNTY, INDIANA.

Letters Patent No. 76,359, dated April 7, 1868.

IMPROVED DITCHING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, JOHN VAUGHN, of Miami county, and ELI CHAMNESS, of Grant county, in the State of Indiana, have invented a new and useful Improvement in Ditching-Machines; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation.

Figure 2 is a rear view.

Like letters in both figures of the drawings indicate like parts.

Our improvement relates to that class of excavating-machines which plough up the ground from ditches, with a series of elevators for removing the dirt therefrom, and depositing it to either side thereof; and its nature consists, first, in the combination of curved spades or scoops, which dig or scoop up the earth, and prevent its falling until the proper time for discharging it, when it is thrown out, and, by the action of a jack or cleaner on or upon the said spades or scoops, such earth as remains is loosened and cleaned off, together with framework for drawing and for supporting said machinery, whereby an extremely simple and efficient article is obtained for the intended purpose.

To enable any one skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

A represents a quadrilateral-shaped frame, from which project two angular pieces on either side, which are united at their apex, *a*, and braced together by the transverse bar *b*, just above their centre, having curved prongs or handles, *c c*, which may be used either for attaching weights or for directing the course of the machine, and, at the same time, keep it well down in the earth, so that the spades will properly take hold of the same, with feet, *d d*, for balancing and adjusting the machine in position, and with an angular projection in front, suitable for attaching horse-power. This framework or body rests upon or is adjusted in proper position by the feet *d d*, and the axle or shaft of the scoop-wheel *e*, and that of the jack-wheel or cleaner, *f*, and has a dash-board or slide, *g*, on either side, which inclines at a suitable angle towards and just under the rim of the spade or scoop-wheel, which dash-board is to prevent the earth from falling back into the ditch or excavation.

B represents a wheel, whose shaft has its bearings upon the body or frame, to which wheel-spades or scoops are attached, at suitable or obvious distances apart. This wheel is made preferably about five feet in diameter and seven inches wide, of which wheel *h* is the rim, and from which rim projects outwardly spades or scoops, which latter are at either side united to the circular plates *k*, which strengthen and sustain them in position.

C represents the jack or cleaner, whose shaft rests upon the frame or body A, having curved shovels, corresponding with those of the wheel B, and whose shovels, when revolved by the motion of the said wheel, clean the earth from it.

The operation is as follows: First, to the prongs or handles *c c* are attached suitable weights, designed to sink the spades to the required depth into the earth, and, upon the machine being drawn forward, the wheel B revolves, and carries dirt around rearward with it upon its spades, which earth is emptied upon the rim *h*, and falls upon the dash-boards *g*, but, should any earth cling to the spades, it is scraped off by the action of the scrapers of the jack or cleaner, and thus is accomplished the object in view.

Having thus fully described our invention, what we claim therein as new, and desire to secure by Letters Patent, is—

The combination and arrangement of the wheel B, jack or cleaner C, framing A, dash-board *g*, feet *d*, and handles *c*, substantially in the manner and for the purposes as herein set forth.

JOHN VAUGHN,
ELI CHAMNESS.

Witnesses:

ELIAS COLEMAN,
JOHN SELBY.