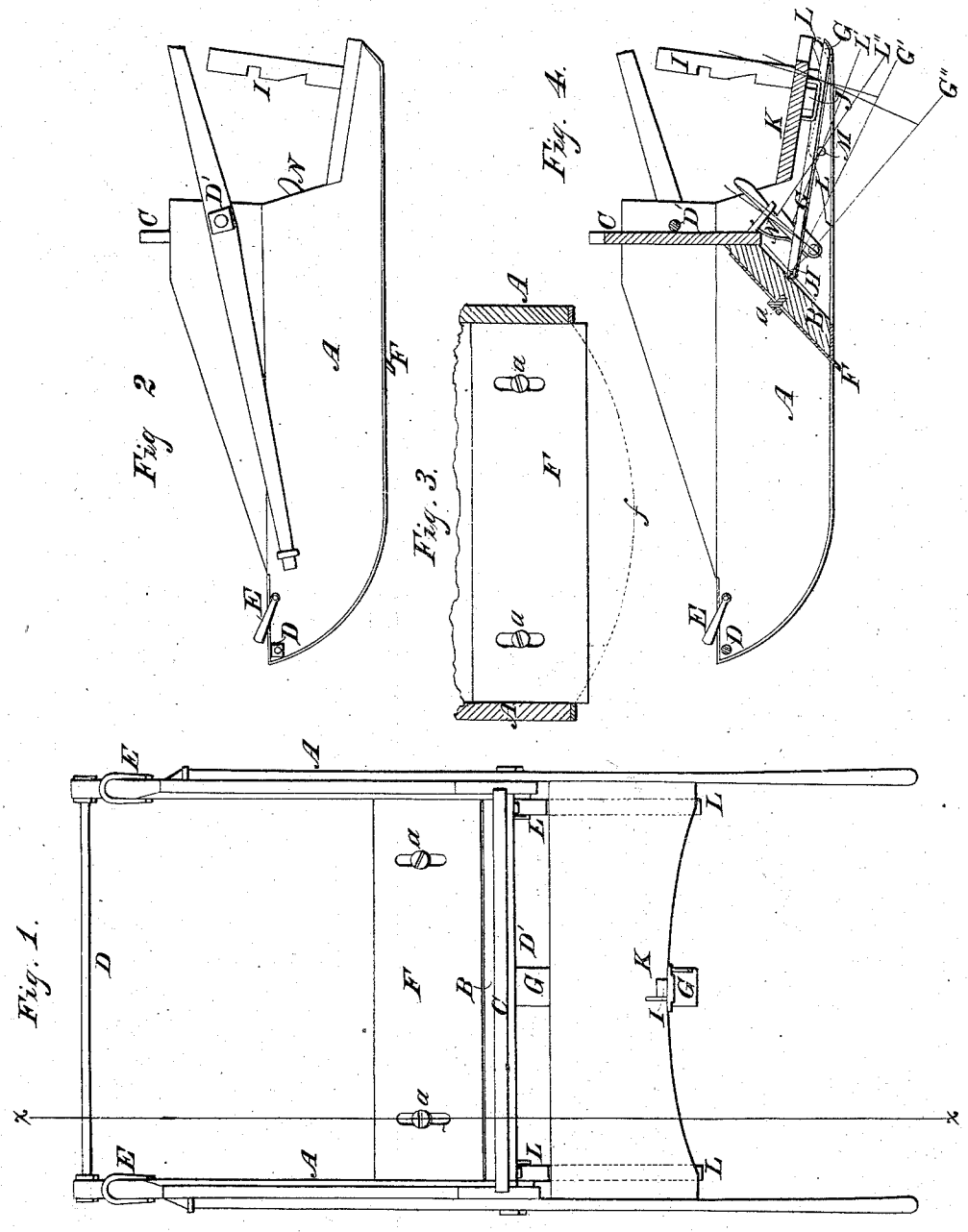
C. Blakeslee.

Road Scraper and Grader.

No. 16,963. Patented Apr. 7, 1857



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UNITED STATES PATENT OFFICE.

C. BLAKESLEE, OF ASHTABULA, OHIO.

ROAD-SCRAPER.

Specification of Letters Patent No. 16,963, dated April 7, 1857.

To all whom it may concern:

Be it known that I, C. BLAKESLEE, of Ashtabula, in the county of Ashtabula and State of Ohio, have invented a new and Improved Machine for Grading and Scraping Roads and for other Similar Purposes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of the machine; Fig. 2 a side elevation, and Fig. 4 a longitudinal section in the direction of the line *x x* Fig. 1.

Like letters indicate like parts in the several views.

This machine may be constructed of any size, according to the purpose for which it may be designed. One for ditching purposes need not be so wide, as one for grading or scraping roads.

A, A, represent the sides of the machine, to which are attached the handles, in any convenient manner, to the sides are secured the back and end boards, B, and C. The screw bolts D, D′, aid in strengthening and securing the machine together, E, E, are two clevises, to which the team is hitched.

The sides of the machine constitute runners, and may be provided with shoes in the ordinary manner; between these, is placed the stationary or adjustable grading blade F, which is secured in place by the set screws *a*, *a*, Fig. 1. There may be slots or holes in the blade, so that it can be moved. In some cases this blade may be stationary, and in a line with the bottom of the shoes, the back piece B, may then form the blade or scraper, the wearing edge being of iron, or other suitable material.

The adjustable blade may be set so as to take up more or less earth, according to the nature of the soil, a light soil is more readily excavated than a close and compact one, consequently it is important that the blade F, be adjustable so that more or less earth may be taken up, according to the nature of the case.

In ditching, the sides or runners A, may move along on the sod, or surface of the earth, while the blade F, is so set as to excavate the earth between the sides, in some such cases it may be desirable to have the blade curved as shown in Fig. 3, by the red line *f;* a blade of the proper width for the required ditch, is readily attached to the machine, as herein represented.

In grading walks, and some rail-road embankments, so as to give them a uniform level, I have attached to the machine a gaging apparatus, consisting of the arm G, which is attached to the center of the machine, by a joint at H, seen in Fig. 4. The adjustable standard I, is connected to the arm G, by a hinge joint so that the arm G can be raised and lowered from G, to G′, or G″. The standard is provided with notches, corresponding to the positions G, G′, G″. At J is a spring catch, which slips into these notches and retains the arm G and standard I, in place. This spring catch is attached to the piece K, which forms a brace and guide for the standard I. By this arrangement of the arm G, standard I, and catch J, a walk or track can be scraped and graded uniformly. As the blade precedes the arm G, the arm will be dragged along on level ground, and the walk or track being within the runners or sides A, A, it follows that the blade F, will be kept at a uniform distance from the earth at all times, and irregularities reduced to a uniform level.

On the inside of each runner, is attached the gage lever L, which works upon the pivot M. This lever may be adjusted to several positions, as indicated by the lines L′, L″, and is retained in the several places by springs, one of which is seen at N, Fig. 4, by this arrangement the blade may be gaged so as to level down the inequalities of a walk or track in a manner similar to that described in the use of the arm G. The gage levers L slide upon the ground on each side of the walk or track which is to be graded or leveled. The gage levers would be particularly applicable in leveling the walks and roads of parks, lawns, and prairies, in such cases a blade of the curved or rounded form of the walk or road, may be used.

By means of the herein described devices for gaging, in combination with the runners, and the adjustable blade, more or less earth may be excavated, and the inequalities of a walk or road graded down to a uniform level.

This machine is well adapted for leveling fields, preparatory to the use of the mowing machine, or, for leveling railroads preparatory to laying the ties. When snow falls to a considerable depth, there is frequently

great inconvenience arising from the form which the path naturally assumes, that is, two or more deep troughs in which it is hard to travel, and from which it is difficult to turn out, this implement is admirably adapted, to the leveling of such obstructions.

In the use of the old scraper, in keeping the edge to the ground, the weight of the load in the scraper, is necessarily thrown upon the hands, which is not the case in the use of my implement. Among the advantages, which my implement has over the common scraper, are facility of unloading, for in its use, the necessity of turning the scraper bottom side up, and of throwing out the whole load at once, is avoided and as much or as little of the earth may be unloaded as is required; ease of holding the scraper; and also, avoidance of the liability of being thrown forward, in the meeting of the scraper with obstructions, this is obtained, by placing the draft forward of the edge of the scraper, the point of draft being at the clevises to which the team is attached.

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

The grading blade F, arranged as described, and combined with the runners A, A, with the draft forward of the edge of the blade, for the purpose of causing said runners to serve as guides or gages thereto, and preventing the blade from dropping into furrows or depressions substantially in the manner and for the purpose set forth.

C. BLAKESLEE.

Witnesses:
CHAS. KENDALL,
A. E. STOL.