

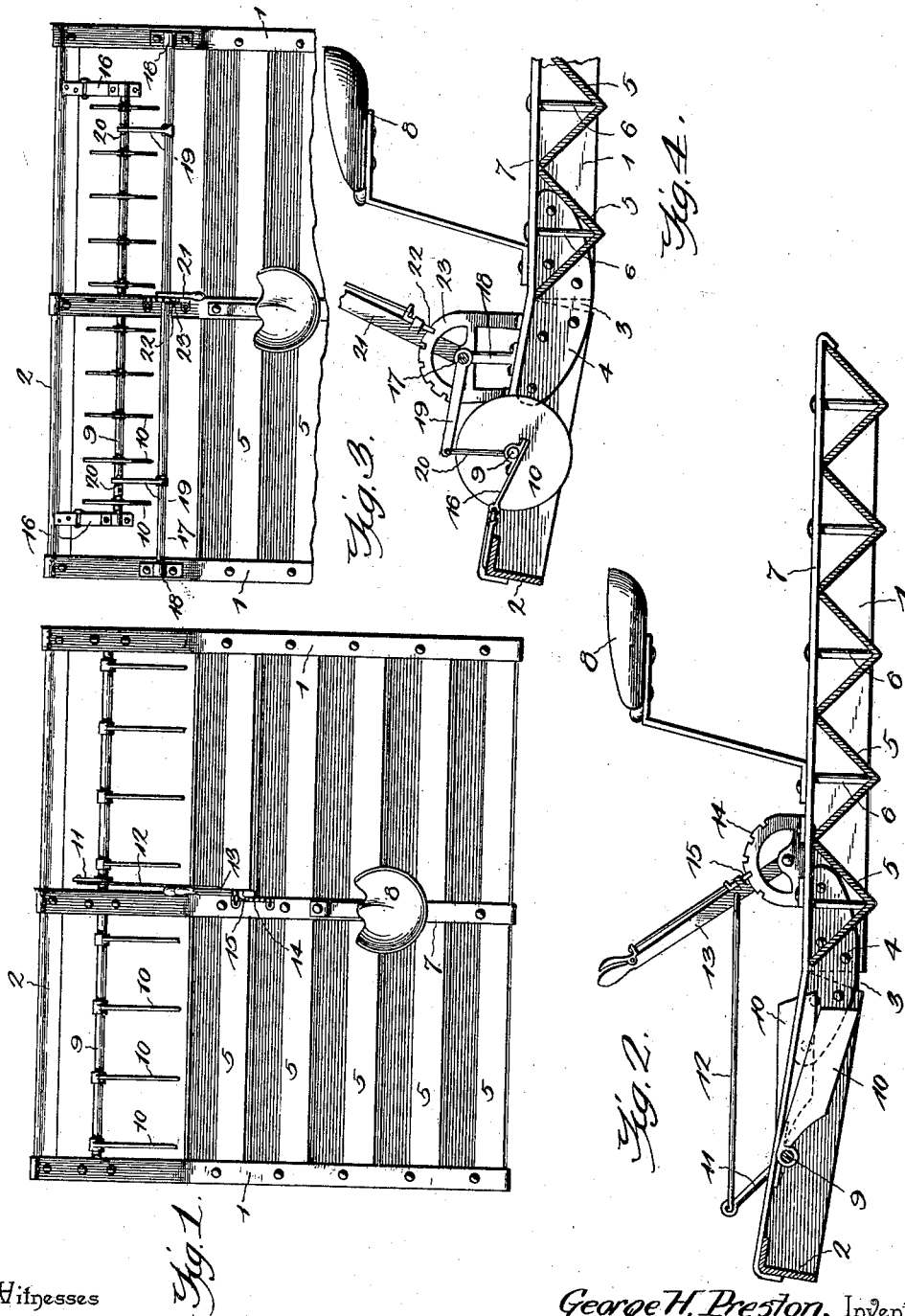
No. 647,028.

Patented Apr. 10, 1900.

G. H. PRESTON.
CLOD CRUSHER.

(Application filed Oct. 2, 1899.)

(No Model.)



Witnesses

J. Frank Culverwell, By *His* Attorneys,
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UNITED STATES PATENT OFFICE.

GEORGE H. PRESTON, OF MONTEZUMA, OHIO, ASSIGNOR OF ONE-HALF TO
FRANK W. MILLER, OF SAME PLACE.

CLOD-CRUSHER.

SPECIFICATION forming part of Letters Patent No. 647,028, dated April 10, 1900.

Application filed October 2, 1899. Serial No. 732,365. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. PRESTON, a citizen of the United States, residing at Montezuma, in the county of Mercer and State of Ohio, have invented a new and useful Clod-Crusher, of which the following is a specification.

This invention has relation to that type of implements which crush clods, pulverize the soil, and level the land, thereby putting the ground in condition for planting.

The purpose of the invention is to devise an implement of comparatively light and durable construction and capable of performing the desired work in a rapid and satisfactory manner.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a top plan view of a clod-crusher specially designed for effecting the intents of the invention. Fig. 2 is a longitudinal section. Fig. 3 is a plan view showing a modification. Fig. 4 is a longitudinal section of the modification.

Corresponding and like parts are referred to in the following description and indicated in the views of the drawings by the same reference characters.

The frame comprises side bars 1 and a cross-bar 2, the frame-bars being constructed of angle-irons and rigidly connected at their meeting ends or corners. The front portion of the frame is upwardly deflected and is provided with a series of cutters which break up large lumps of earth in advance of the pulverizing-bars. The forward end portions of the bars 1 have their vertical flanges split, as shown at 3, so as to admit of the horizontal flanges being bent upwardly opposite the split, thereby securing the upwardly-deflected part of the crusher. Plates 4 span each split 3 and are secured to the vertical flanges

of the bars 1 upon opposite sides of the splits, thereby strengthening and bracing the side bars at their point of flection.

Pulverizing-bars 5 are disposed in parallel relation and have their longitudinal edges touching and are secured at their ends to the horizontal flanges of the bars 1 by means of bolts or like fastenings 6. These pulverizing-bars are L-shaped in cross-section and are placed with their angles lowermost, so as to come in contact with the ground and crush the soil and level the land. The pulverizing-bars are formed from strips or plates of metal bent intermediate their edges, as clearly indicated in the cross-sectional view. A stay 7, located intermediate of the bars 1, is secured at its front end to the cross-bar 2 and intermediate of its ends to the pulverizing-bars 5, thereby stiffening and strengthening the implement. The seat 8 is secured to the rear portion of the stay 7.

A shaft 9 is journaled in bearings applied to the upwardly-inclined ends of the bars 1 and stay 7 and is provided with cutters 10. An arm 11 is applied to the shaft 9, and a rod 12 connects the upper end of the arm 11 with the lever 13, fulcrumed to the toothed standard 14, secured to the pulverizer, said lever having the usual hand-latch 15 to engage with the teeth of the part 14 and hold the shaft 9 and the cutters 10 in the required adjusted position. Upon operating the lever 13 the shaft 9 can be turned in its bearings to raise or lower the active ends of the cutters 10, thereby regulating their depth of penetration or action.

As shown in Figs. 3 and 4, the shaft 9 is rotatably mounted in bearings 16, having hinge or pivotal connection at their front ends with the cross-bar 2, and the cutters 10 are of circular or disk form and are secured to the shaft, so as to rotate therewith. A rock-shaft 17 is mounted in uprights 18, secured to the side bars 1, and is supplied with arms 19, which are connected by links 20 with the shaft 9. A lever 21 is secured to the shaft 9, and its hand-latch 22 is adapted to cooperate with the toothed segment 23, applied to the stay 7, so as to secure the rock-shaft and the cutter-shaft in the required positions. Upon turning the rock-shaft the

shaft bearing the circular cutters is raised and lowered bodily, thereby admitting of the cutters being thrown out of action or lowered, so as to penetrate the soil to the required site depth.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a clod-crusher, the combination with
10 side bars having their forward portions upwardly inclined, of V-shaped pulverizing-bars mutually connected at their edges and attached adjacent to their ends to the side bars, braces connecting the side bars with the
15 lowermost portions of the pulverizing-bars, a shaft rotatably mounted upon the side bars at their upturned portions, cutters carried by the shaft, and means for raising and lowering the cutters with respect to the pulverizing-bars.
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2. In a clod-crusher, the combination of side bars of substantially L form having their vertical flanges split a short distance from their front ends and having the forward end
25 portions upwardly inclined, plates secured to the vertical flanges of the side bars upon each

side of and overlapping the slits therein, pulverizing-bars secured at their ends to the horizontal flanges of the side bars, a shaft applied to the upwardly-inclined end of the im- 30
plement and provided with cutters, and means for moving the shaft to effect the vertical adjustment of the cutters, substantially as set forth.

3. In a clod-crusher, the combination with 35
the frame having its forward portion upwardly inclined and its rear portion provided with pulverizing-bars, of bearings hinged to the frame, a shaft journaled in the bearings and provided with rotary cutters, a rock-shaft 40
having connection with the cutter-shaft to raise and lower it, and an operating-lever for turning the rock-shaft in its bearings, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as 45
my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE H. PRESTON.

Witnesses:

ALVIN LACY,

WALTER N. MONROE.