

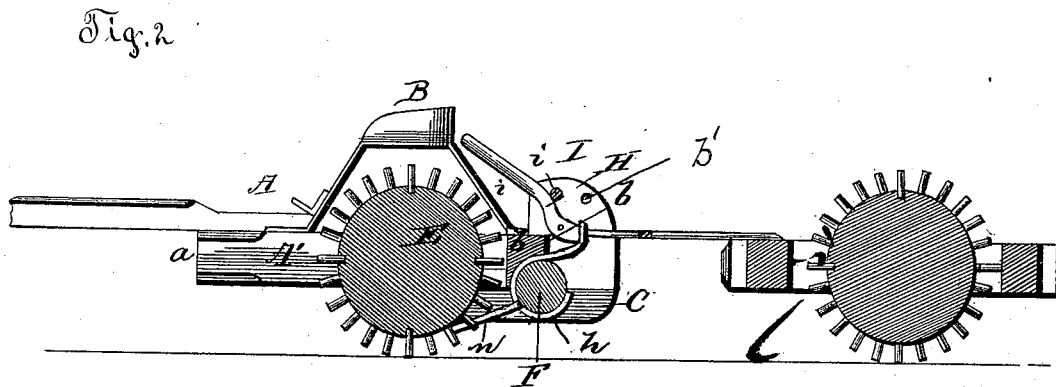
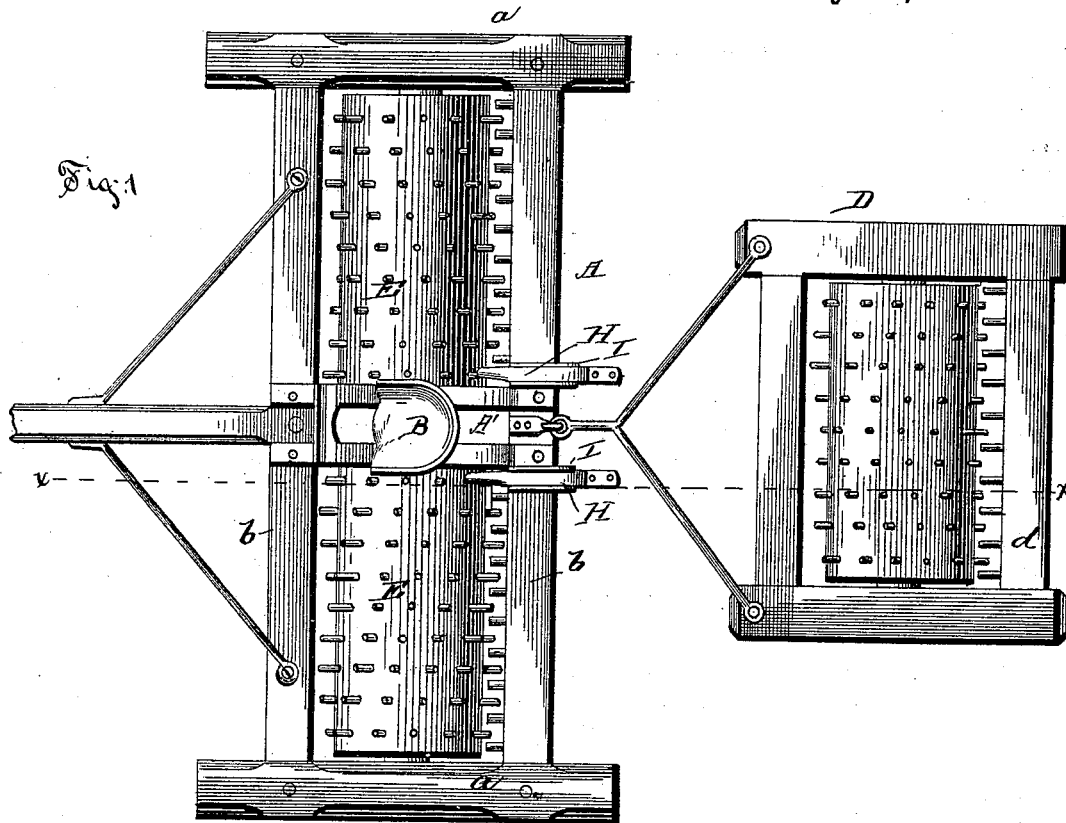
(No Model.)

G. MUNDAY & J. COON.

CLOD CRUSHER.

No. 342,758.

Patented May 25, 1886.



WITNESSES
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GILBERT MUNDAY AND JOHN COON, OF MONTEZUMA, OHIO.

CLOD-CRUSHER.

SPECIFICATION forming part of Letters Patent No. 342,758, dated May 25, 1886.

Application filed December 10, 1885. Serial No. 185,288. (No model.)

To all whom it may concern:

Be it known that we, GILBERT MUNDAY and JOHN COON, citizens of the United States of America, residing at Montezuma, in the county of Mercer and State of Ohio, have invented certain new and useful Improvements in Clod-Crushers; and we do hereby 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 letters or figures of reference marked thereon, which form a part of this specification.

Our invention relates to certain new and useful improvements in clod-crushers or rotary harrows; and it consists in the construction and combination of the parts, as will be hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, which illustrate our invention, Figure 1 is a plan view of a clod-crusher or rotary harrow constructed in accordance with my invention; and Fig. 2 is a sectional view of the same, taken through the line *x x* of Fig. 1.

A refers to the rigid forward frame, which consists of the bars *a a* and *b b*. To the forward beam, *b*, the draft-tongue is attached and thoroughly braced, and immediately in the rear of said draft-tongue is located a central connecting-beam, *A'*, above which is located the driver's seat *B*. To each of the beams *a a* and to the central beam, *A'*, are attached blocks *C*, which are provided at their ends with bearings for the shafts of the rollers, and rear of the same with bearings for supplemental shafts. To the main forward frame, *A*, is secured a frame, *D*, which has journaled thereto a pulverizing-roller, said roller being provided with projecting pins, as shown, said pins being arranged in series, so that they will pass between the forwardly-projecting pins, which are attached to the rear cross-beam, *d*, said pins serving to prevent the roller from clogging. This rear frame, *D*, is attached to the main frame so that it can swing vertically.

The rollers *E E* are journaled on independent shafts, which have bearings in the blocks *C*, which are attached to the beams of the main frame, and the rear cross-beam is provided

with forwardly-projecting pins, between which the pins on the rollers *E E* pass. Immediately in the rear of the rollers *E E* are pivotally secured shafts *F*, each of the said shafts having attached thereto flexible connections *h*, one end of said connections being secured rigidly thereto, while the other end is rigidly attached to the ends of levers *H*, which are pivotally attached to frames *I*, located on the beams *b b*, so that the end portion of the levers will project forwardly within easy reach of the driver. The frames *I* are provided with perforations *i*, through which pass pins for retaining the levers in a fixed position.

Each of the rollers or shafts *F* carry series of teeth *n*, and by suitably adjusting said levers the teeth can be allowed to assume either a vertical position or a forwardly-inclined position. When said teeth are in a vertical position, they serve as harrow-teeth and assist in smoothing the surface of the ground, and when moved to a forwardly-inclined position it will engage with the teeth of the rollers and remove any obstructions which may collect upon the same. The rear under sides of the beams *b b* are recessed, so that the strips or flexible connections *h* may pass through said recesses. If desirable, the teeth *n* may be allowed to assume a rearwardly-inclined position with respect to the rollers *E E*.

It will be obvious that when the rear end of each lever *H* is depressed the tension on the flexible connection *h* is relieved, so that the shaft *F* is permitted to turn, under the gravity of its teeth, until the latter reach a vertical position. The elevation of the rear end of each lever causes it to draw upon the connection *h* and partly revolve the shaft *F*, to throw its teeth to an inclined position. By removing the pin locking the lever *H*, and permitting the rear part of the latter to be depressed enables the strap *h* to give and allow the teeth of the shaft *F* to drop to a vertical position, in which position the said teeth and the lever *H* may be locked by inserting the pin in the opening *i'*, Fig. 2. Of course it will be understood that there may be as many openings as may be deemed desirable.

We claim—

1. A clod-crusher or rotary harrow, consisting of a main frame having journaled there-

on rollers E E, with teeth which project there-
from, bars F F, journaled in the frame in rear
of the rollers and provided with a series of pro-
jecting teeth, and flexible connections attached
5 to levers for adjusting said bars, substantially
as shown, and for the purpose set forth.

2. In a clod-crusher or rotary harrow, a main
frame having rollers journaled therein, pivot-
ed bars FF, provided with projecting teeth *n*,
10 and flexible connections *h*, which are attached
to levers, said levers being pivotally attached
to upwardly-projecting frames with perfora-

tions *i*, through which pins are adapted to be
passed, so as to hold the pivot-bars F in posi-
tion, substantially as shown, and for the pur- 15
pose set forth.

In testimony whereof we affix our signatures
in presence of two witnesses.

GILBERT MUNDAY.
JOHN COON.

Witnesses:

GEORGE H. PRESTON,
SILAS RECK.