

C. G. STELZER.
 CLOD CRUSHER.
 APPLICATION FILED JUNE 8, 1909.

941,740.

Patented Nov. 30, 1909.

Fig. 1.

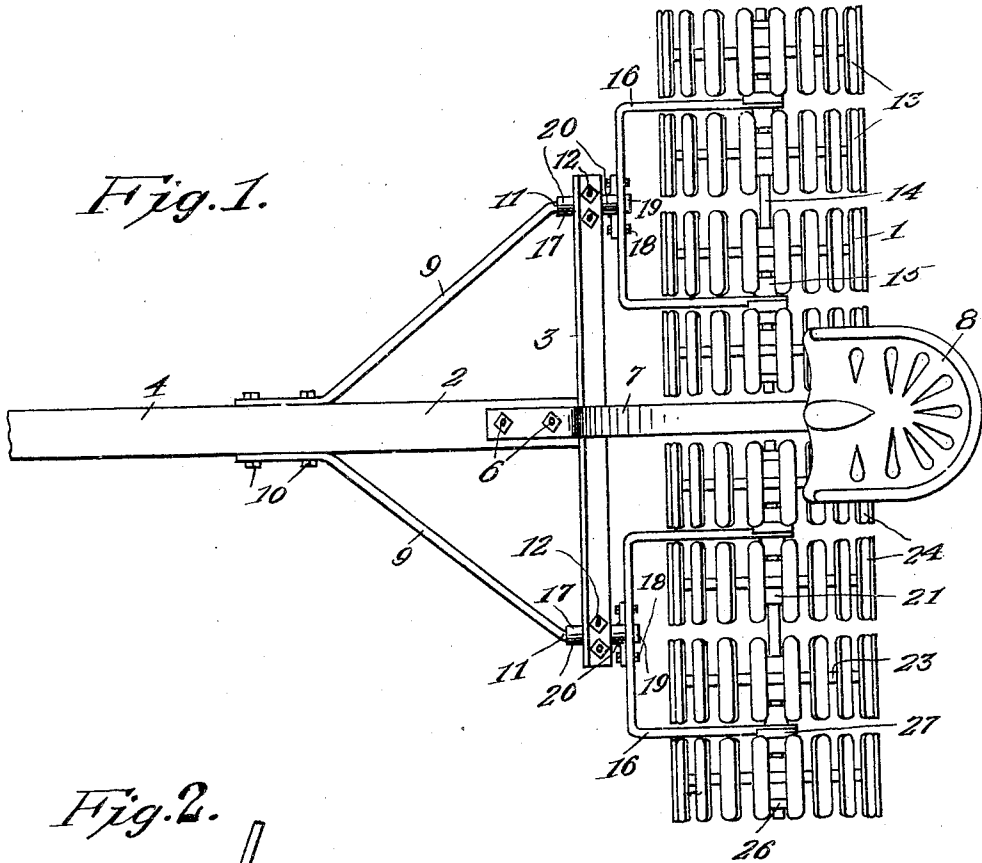
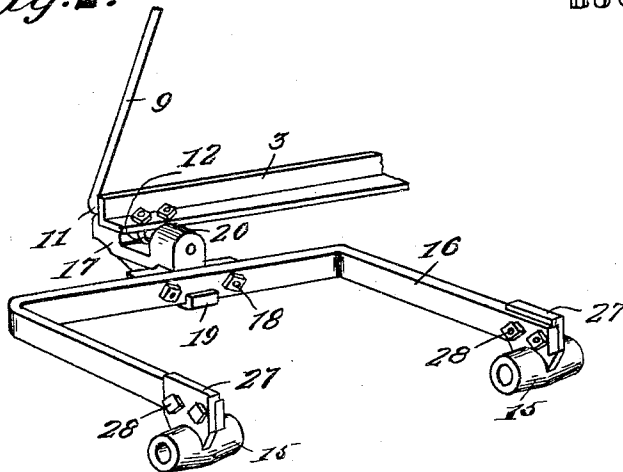


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES G. STELZER, OF POLK, OHIO.

CLOD-CRUSHER.

941,740.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed June 8, 1909. Serial No. 500,952.

To all whom it may concern:

Be it known that I, CHARLES G. STELZER, a citizen of the United States, residing at Polk, in the county of Ashland and State of Ohio, have invented certain new and useful Improvements in Clod-Crushers, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in agricultural implements and more particularly to clod crushers of the roller type.

One object of the invention is to provide an improved swinging hanger for a clod crushing or pulverizing roller.

Another object of the invention is to provide an improved frame construction which will be simple and comparatively inexpensive and at the same time exceedingly strong and durable.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a clod crusher constructed in accordance with the invention; and Fig. 2 is a perspective view of a portion of the frame.

In the preferred embodiment of the invention illustrated in the drawings, two clod crushing or pulverizing rollers 1 are mounted on a main frame 2 and arranged end to end and for longitudinal tilting movement in a vertical plane. This main frame 2 comprises a transverse beam 3, preferably of angle metal secured at its center to the rear end of a draft tongue 4. The forward upright flange of the cross beam 3 abuts against the rear end of the tongue 4 and it is secured thereto by any suitable means. Fastenings 6 serve to secure to the upper face of the tongue a seat supporting spring 7 which inclines upwardly and rearwardly and has suitably mounted upon it a driver's seat 8 disposed over the rear portions of the rollers 2 so as to balance the tongue and main frame. The connection of the tongue and transverse beam 3 is strengthened by two brace rods 9 which have their forwardly converging ends secured by transverse fastenings 10 to the opposite sides of the tongue 4. The diverging outer or rear portions of the braces 9 are bent angularly so as to provide rearwardly extending parallel pivot

portions 11 which are clamped at points intermediate their ends on the bottom face of the transverse beam 3 by means of clips or U-bolts 12.

Each of the rollers 1 consists of a plurality of wheels 13 fixed to a transverse shaft 14 journaled in bearings 15 on a vertically and transversely tilting frame 16. The roller frames 16 are of U-form being formed from a single metal bar by bending the same, as shown, and they are pivotally mounted at their central points by means of hangers 17 which swing from the pivot portions 11 of the brace rods 9. The hangers 17 are in the form of castings which have their lower rear portions engaged with the front faces of the connecting portions of the U-shaped frames 16 and secured thereto by bolts 18, supporting and strengthening lips 19 being formed on said bottom portions of the hangers for engagement with the bottom edges of the frames 16, as shown. The upper and front portions of the cast hangers 17 are bifurcated to provide two pivot eyes 20 which receive the pivot portions 11 of the braces 9 and which are retained upon the latter by the disposition of the transverse beam 3 between them, as will be readily understood on reference to the drawings. It will be noted that this pivotal hanger connection for the roller frames 16 permits the latter to tilt vertically in a plane transversely of the main frame or longitudinally of the axis of the roller, thus adapting the implement for use on uneven ground.

Each of the improved pulverizing wheels 13 is in the form of a one-piece casting having a hub 21, radiating spokes 22, a connecting rim 23, an annular series of spaced transverse bars 24 projecting in opposite directions from said rim and having their ends strengthened by angular bracing webs 25. Preferably four of the wheels are employed to constitute one roller, two of the wheels being arranged between the rearwardly extending arms of the U-shaped frame 16 and the other two wheels being fixed to the projecting ends of the axle or shaft 14. The outermost wheels are retained upon the axles by stop collars 26, as shown in Fig. 1. The bearings 15 are preferably in the form of castings having tubular lower portions to receive the shaft 14 and forwardly and rearwardly extending channeled upper portions 27 in which the rearwardly

extending arms of the U-shaped frames 16 are secured by bolts or similar fastenings 28.

From the foregoing it will be seen that the invention provides an exceedingly simple
5 clod crushing or pulverizing implement, the parts of which may be produced at a small cost and will be strong and durable and which is of such construction that it is especially effective upon uneven ground.
10 The improved construction of the main frame and the pivot hanger connection between the latter and the roller frames permit the rollers to tilt freely independent of each other and at the same time provide an
15 exceedingly strong and durable connection.

While I have shown and described in detail the preferred embodiment of the invention, I wish it understood that I do not limit myself to the precise construction set
20 forth and that changes in the form, proportion and arrangement of parts and in the details of construction may be resorted to within the spirit and scope of the invention.

Having thus described the invention what
25 is claimed is:

1. In an implement of the character described, the combination of a main frame having a transverse beam, forwardly and rearwardly extending pivots connected to
30 and crossing said beam, hangers having bifurcated portions to receive said beam between them and to engage and oscillate on said pivots, rearwardly extending U-shaped

frames connected to said hangers and earth-working devices carried by said frames. 35

2. In an implement of the character described, the combination of a tongue, a transverse beam secured thereto, diagonal braces connected at their forward ends to the tongue and having their rear ends provided
40 with parallel rearwardly extending pivot portions secured to and crossing said beam, hangers having spaced pivot ears to receive and oscillate on said pivots and to receive
45 said beam between them, and earth working devices connected to said hangers.

3. In an implement of the character described, the combination of a tongue, a transverse beam secured thereto, diagonal braces connected at their forward ends to the
50 tongue and having their rear ends provided with parallel rearwardly extending pivot portions secured to and crossing said beam, hangers having spaced pivot ears to receive and oscillate on said pivots and to receive
55 said beam between them, rearwardly extending U-shaped frames connected to said hangers, bearings upon the arms of said U-shaped frames, shafts in said bearings and pulverizing wheels upon said shafts. 60

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

CHARLES G. STELZER.

Witnesses:

THOS. B. HOLMES,
JOHN F. STELZER.