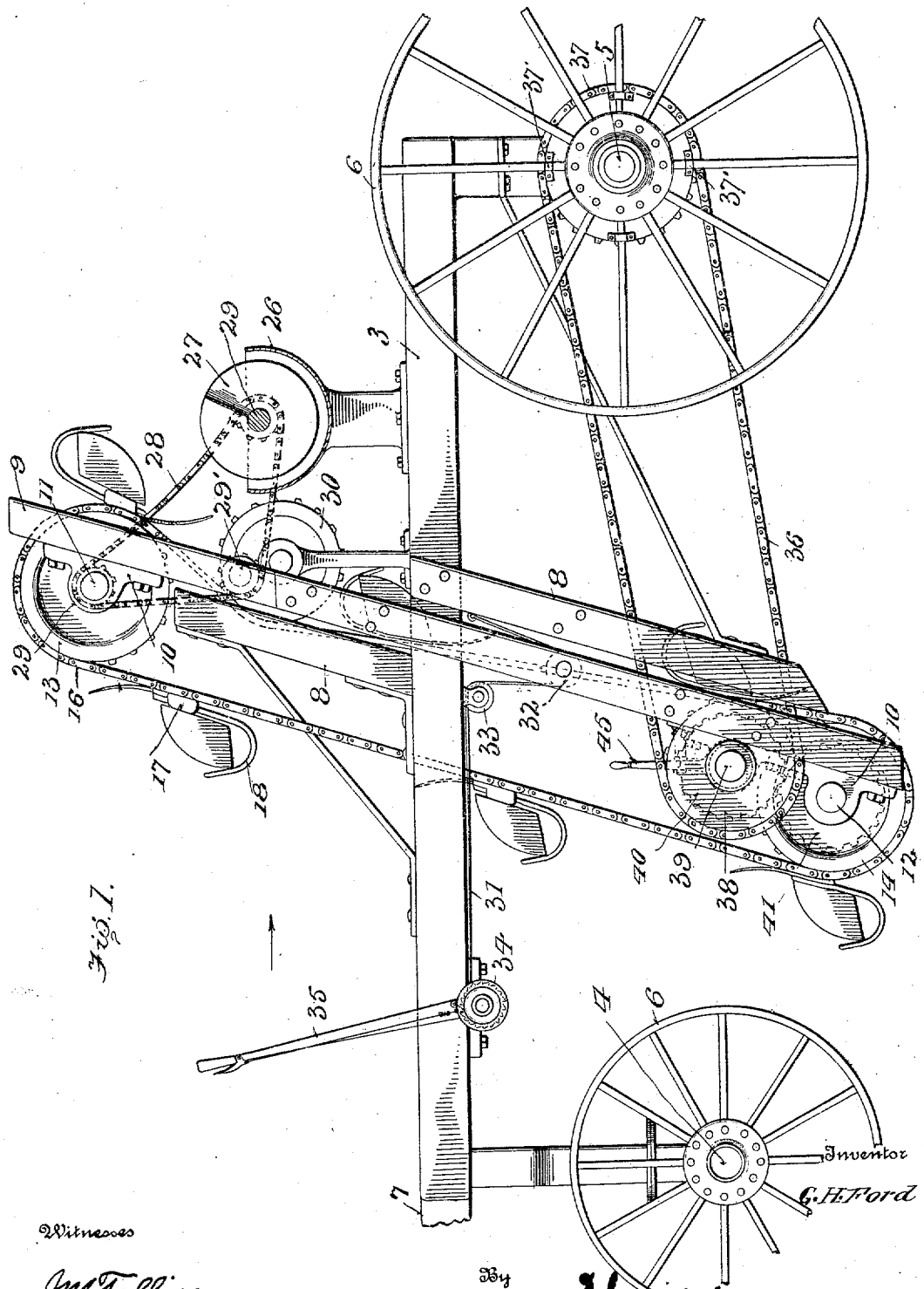


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G. H. FORD.
STONE GATHERER.
APPLICATION FILED MAR. 25, 1909.

Patented May 3, 1910.
3 SHEETS—SHEET 1.



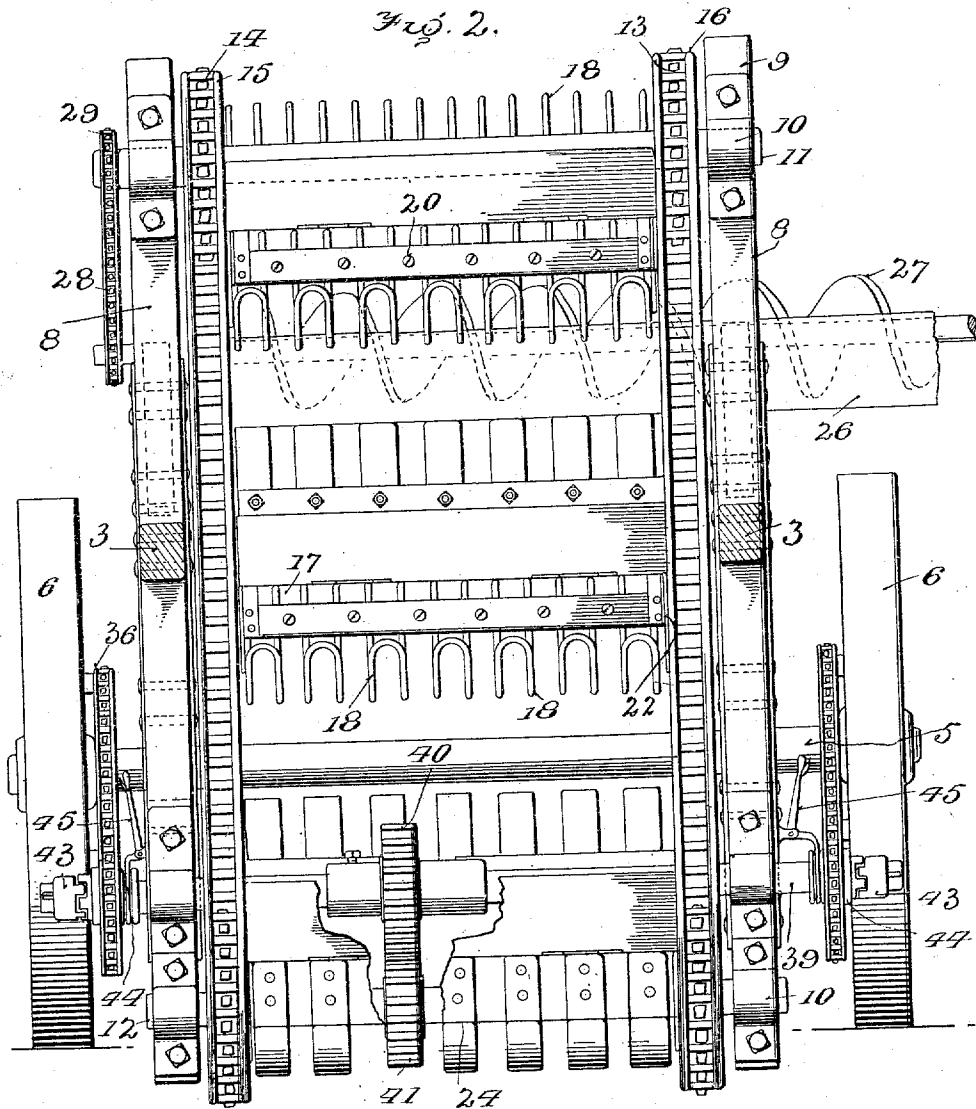
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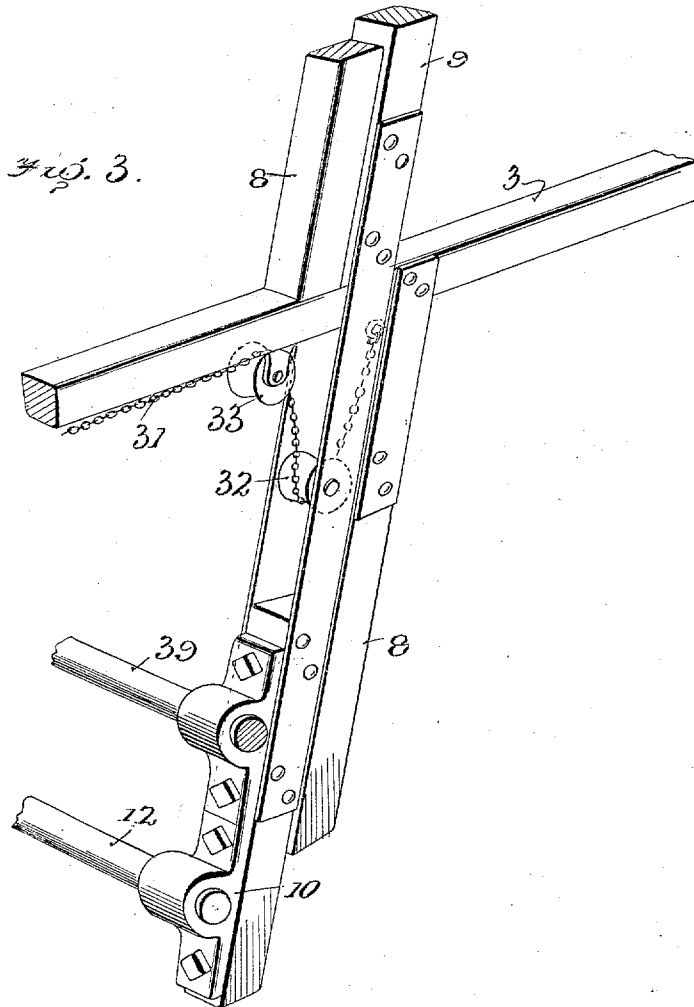
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STONE-GATHERER.

956,575.

Specification of Letters Patent.

Patented May 3, 1910.

Application filed March 25, 1909. Serial No. 485,751.

To all whom it may concern:

Be it known that I, GEORGE H. FORD, citizen of the United States, residing at Niagara Falls, in the county of Niagara and State of New York, have invented certain new and useful Improvements in Stone-Gatherers, of which the following is a specification.

This invention relates to stone gatherers, and has for its object to provide a strong, durable and thoroughly efficient machine of this character, especially designed for gathering and removing stones, clods, twigs and other foreign bodies from a field, either before or after the soil has been plowed or cultivated.

A further object of the invention is to provide means for raising and lowering the frame, and means for locking the frame in different positions of adjustment.

A still further object of the invention is generally to improve this class of machines so as to increase their utility, durability, and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions, and minor details of construction may be resorted to within the scope of the appended claims.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side elevation of a stone gatherer constructed in accordance with my invention; Fig. 2 is a transverse sectional view, looking in the direction of the arrow indicated in Fig. 1; Fig. 3 is a detail perspective view of a portion of the conveyer frame, showing the manner of adjusting the same vertically in the truck.

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

The improved stone gatherer forming the subject matter of the present invention, includes a supporting frame 3 having front and rear axles 4 and 5 on which are journaled suitable traction wheels 6, the front traction wheels being relatively small and disposed beneath and spaced from the bed of the machine so as to permit the latter to

make short turns in traveling over a field without danger of upsetting the machine. One end of the frame is provided with a tongue or similar device 7 for attachment to a draft animal, but if desired the machine may be connected with a traction engine or other suitable source of power.

Secured to the opposite longitudinal bars of the supporting frame, are upright guiding members 8, between which is slidably mounted a vertically movable frame 9. Journaled in suitable bearings 10 carried by the frame 9, are spaced shafts 11 and 12, to which are keyed or otherwise rigidly secured, a plurality of sets of sprocket wheels 13 and 14 for engagement with corresponding sprocket chains 15 and 16.

Connecting the sprocket chains 15 and 16 at spaced intervals, are transverse bars 17, to which are secured a plurality of teeth 18, the terminals of which are bent laterally and upwardly to form pockets for the reception of stones or other foreign bodies in the soil over which the machine travels.

Arranged at the rear of the machine, is a trough 26 adapted to receive the stones or other foreign bodies in the pockets of the conveyer, and from which they are transferred to another vehicle, or to a suitable receptacle designed to receive the same, by means of a conveyer 27, preferably in the form of a screw, as shown. One end of the conveyer 27 is projected laterally beyond the adjacent longitudinal edge of the truck, so that the stones deposited in the trough may be transferred to a suitable vehicle traveling parallel with the truck, and while the latter is in motion. Motion is transmitted to the conveyer 27 through the medium of a sprocket chain 28, which passes over sprocket wheels 29 mounted on the conveyer shaft and transverse shaft 11, respectively, and also passes over an idle sprocket wheel or roller 29' journaled on the frame 9.

In order to insure the discharge of the contents of the pockets into the trough or receptacle 26, there are provided spaced idle sprocket wheels 30 which engage the sprocket chains 15 and 16 and press the latter in the direction of the forward end of the truck, so that as the gathering devices are successively presented to the trough 26, the stones or other contents of the pockets will fall by gravity into the trough.

Secured to the supporting frame are

spaced chains or cables 31, the opposite ends of which extend over sheaves or pulleys 32 and 33 carried by the vertically movable frame 9 and supporting frame 5 respectively, for attachment to a transverse shaft 34 mounted on the side beams of the supporting frame at the forward portion of the truck. Mounted on the truck, adjacent the shaft 34, is an operating lever 35, the teeth of which engage a ratchet wheel carried by the shaft 34, so that by operating the lever 35, the shaft 34 may be rotated to effect the vertical adjustment of the frame 9, and thus regulate the depth of penetration of the teeth into the soil.

Attention is here called to the fact that the frame 9 is normally and yieldingly supported in contact with the surface of the ground so that the frame will adapt itself to any irregularities or obstructions over which it may pass in traveling back and forth over the field.

Motion is transmitted to the conveyer through the medium of spaced sprocket chains 36, which engage sprocket wheels 37 and 38 carried by the rear axle 5 and a transverse shaft 39, respectively. The sprocket wheels 37 are detachably secured to the adjacent traction wheels by means of suitable clips 37' which engage the spokes of the wheels, as shown. The shaft 39 is disposed above the shaft 12, and is provided with a gear wheel 40 which meshes with a corresponding gear 41 on the shaft 12, so that as the truck travels in a forward direction, motion will be imparted from the traction wheels of the truck to the endless conveyer, in the manner described.

In order to elevate the frame 9, it is merely necessary to operate the lever 35 which exerts a longitudinal pull on the chains 31, and thus effects the vertical adjustment of said frame.

It will of course be understood that when the machine is not in use, the frame 9 carrying the teeth or gathering devices, will be elevated above the surface of the ground so as not to strike any obstruction thereon when transporting the truck from one portion of the field to another. It will also be noted that the blocks or guiding members 8 bear against the adjacent longitudinal edges of the frame 9 and support the same when the lever 35 is actuated to effect the adjustment of said frame. Mating clutch members 43 and 44 are preferably mounted on the opposite ends of the shaft 39, one of

the clutch members of each set being loose on the shaft 39 and normally and yieldably supported in engagement with the mating clutch member so that when the machine is making a turn the clutch on one end of the shaft will be thrown out and the machine driven from the sprocket wheel on the other end of said shaft. A suitable operating lever 45 is also disposed at each end of the shaft 39 for the purpose of moving the clutch members to operative and inoperative positions, when desired.

Having thus described the invention, what is claimed as new is:

1. In a stone gatherer, a wheeled truck, spaced inclined guides carried by the truck, a conveyer frame slidably mounted for vertical movement between said guides, an endless conveyer carried by said frame and provided with a plurality of gathering devices, a shaft journaled on the truck, and flexible connections secured to the body of the truck and having their intermediate portions extending through the conveyer frame for attachment to the shaft, thereby to raise and lower the conveyer frame.

2. In a stone gatherer, a wheeled truck, oppositely disposed guiding members carried by the truck, a conveyer frame slidably mounted for vertical movement between the guiding members and provided with rollers, there being similar rollers journaled on the truck, a conveyer carried by the adjustable frame, a shaft, chains secured to the truck and extending over the rollers for attachment to the shaft, and means for rotating the shaft to effect the vertical adjustment of the conveyer.

3. In a stone gatherer, a wheeled truck, a frame mounted for vertical movement on the truck, a conveyer carried by the frame, a plurality of spaced gathering devices carried by the conveyer, a transverse shaft having a ratchet secured thereto, flexible connections secured to the truck and extending through the vertical frame for attachment to the shaft, and a lever pivotally mounted on the truck and provided with a pawl arranged to engage the teeth on the ratchet for rotating the shaft to effect the vertical adjustment of the conveyer.

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

GEORGE H. FORD. [L. s.]

Witnesses:

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