

No. 607,704.

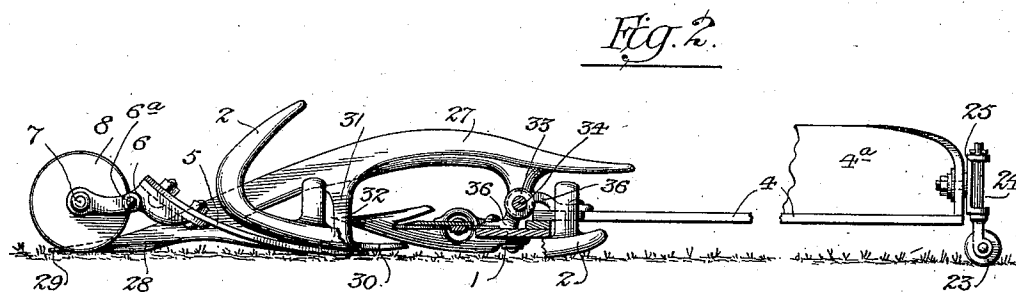
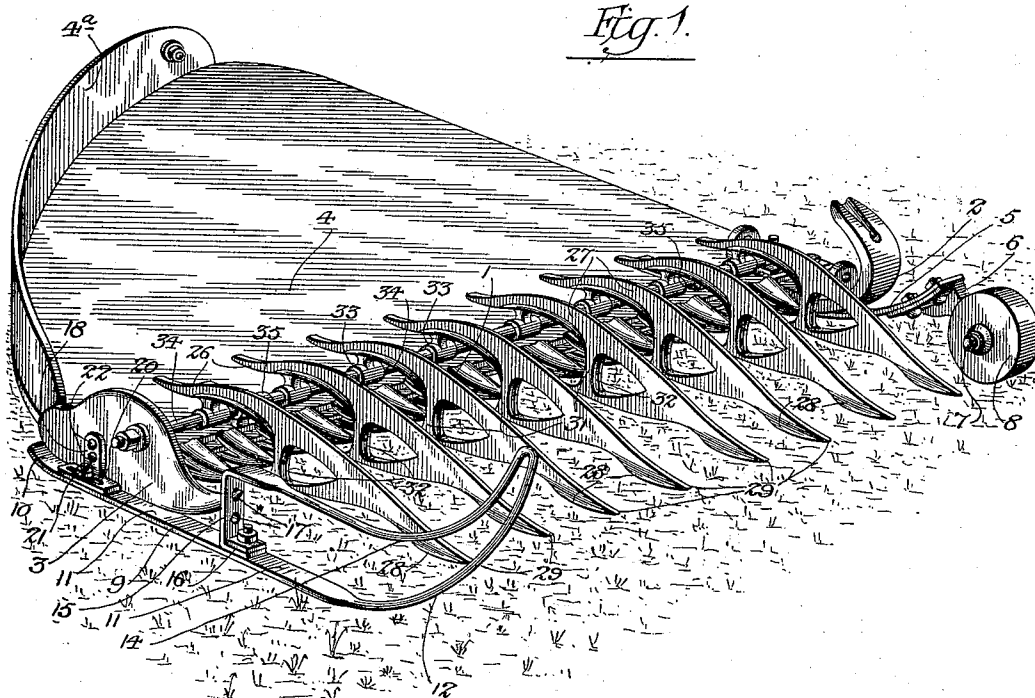
Patented July 19, 1898.

A. D. PITCHER.
PEA HARVESTER.

(Application filed Sept. 21, 1897.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:-
Louis M. Whitehead
Edwin Cruse.

By his Attorneys,

Chas. Snow & Co.

Inventor:-
Alanson D. Pitcher.

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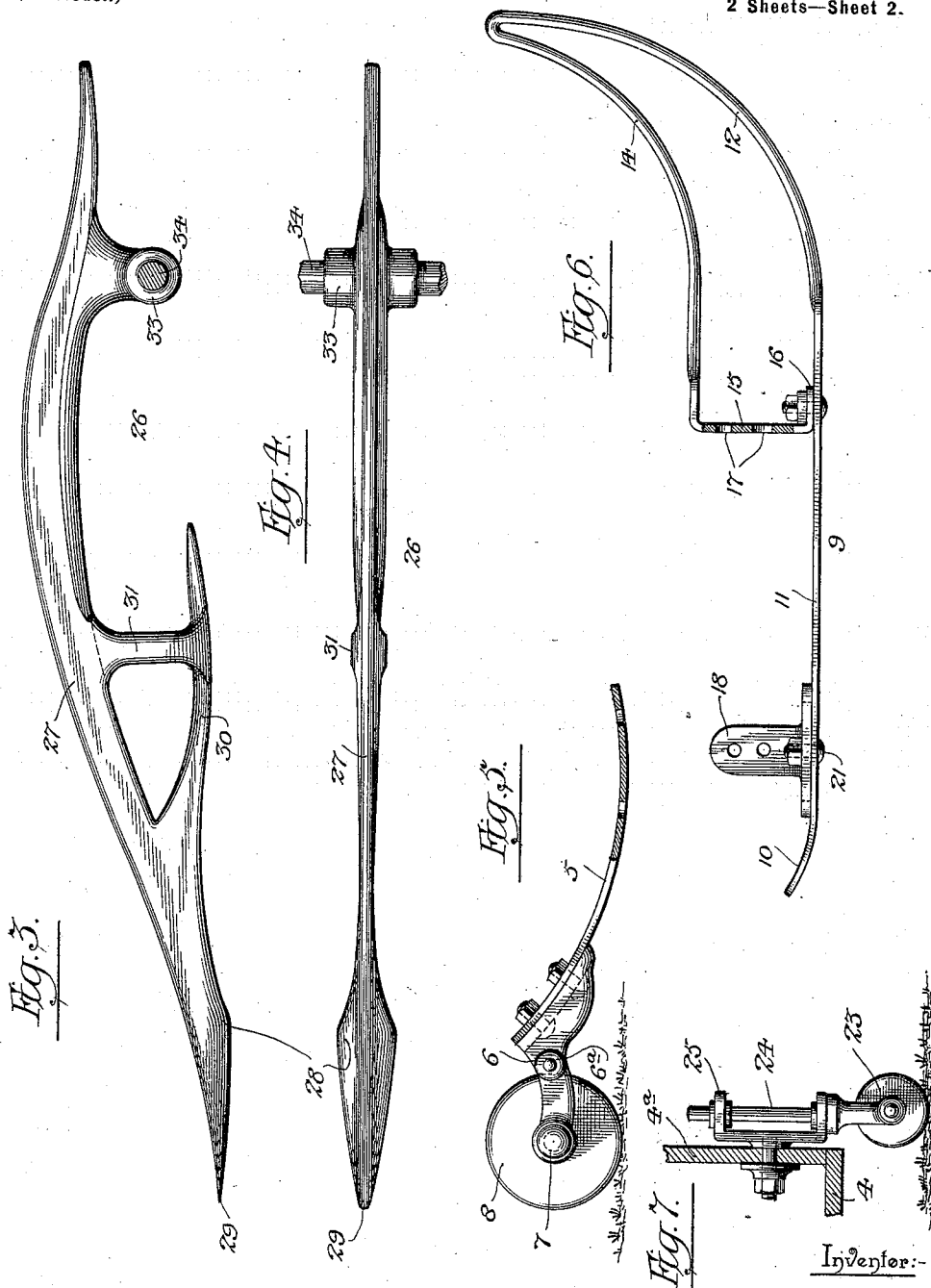
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UNITED STATES PATENT OFFICE.

ALANSING D. PITCHER, OF MARLETTE, MICHIGAN.

PEA-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 607,704, dated July 19, 1898.

Application filed September 21, 1897. Serial No. 652,469. (No model.)

To all whom it may concern:

Be it known that I, ALANSING D. PITCHER, a citizen of the United States, residing at Marlette, in the county of Sanilac and State of Michigan, have invented a new and useful Pea-Harvester, of which the following is a specification.

This invention relates to certain new and useful attachments to mowing-machines particularly adapted for use in harvesting peas or other crops lying close to the ground; and the objects of the invention are to provide improved supports for the cutting mechanism and the table on which the pea-vines or grain are delivered, and also improved supplemental fingers to lift the vines in advance of the cutting mechanism to bring them into position to be cut and to convey them after being cut over and to the rear of the cutting mechanism.

With these and other objects in view the invention consists of the several details of construction and combination of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the cutting mechanism and table of a mowing-machine with my attachments in position. Fig. 2 is a side elevation of the same. Fig. 3 is a side elevation of one of the lifting-fingers detached. Fig. 4 is a plan view of the same. Fig. 5 is a detail view of the supporting shoe and wheel for the rear end of the cutting mechanism. Fig. 6 is a detail view of the supporting-shoe for the off end of the cutting mechanism. Fig. 7 is a detail view of the supporting-wheel for the rear end of the table.

Similar reference-numerals indicate similar parts in the several figures.

1 indicates the finger-bar, and 2 and 3 the ordinary shoes or runners at the rear and off end of the finger-bar, respectively.

4 indicates a table or platform detachably secured to the cutting mechanism in any suitable manner. This table is provided along its outer curved edge with the upwardly-disposed segmental rim or flange 4^a, tapering at its ends toward the plane of the table and serving the usual function of a guard to pre-

vent the grain from passing straight across the table from the cutting apparatus.

5 indicates a shoe fitted under the shoe 2 and securely bolted to it. This shoe 5 extends forwardly beyond the shoe 2, and to its forward end a bearing arm or casting 6 is bolted or otherwise firmly secured, which casting carries at its front end a pin 7, that may be either integral with or secured to it in any suitable manner, and on the pin 7 a wheel 8 is journaled to rotate. The bearing arm or casting 6 is preferably in two parts connected together by any suitable clutch-joint 6^a, which permits of an adjustment of the wheel 8 to raise or lower the same to suit soft or hard ground.

9 indicates a shoe formed, preferably, of a metal bar having its rear end bent upwardly, as indicated at 10, and having a straight portion 11, from the forward end of which the bar is upwardly curved, as indicated at 12, and then given a return-bend and again curved to form the upper member 14, having a straight portion extending parallel with the straight portion 11, and the bar is then bent downwardly at a right angle to form the vertical connecting-bar 15, which is bent inwardly at its lower end to form a foot 16, which is securely bolted to the straight portion 11. The vertical bar 15 is provided with a series of holes 17, either of which is adapted to receive the point of the shoe or runner 3.

18 indicates an angle-bracket, the horizontal member of which extends laterally at each end beyond the vertical member and is provided with an elongated slot 20. A bolt 21 passes through this slot and the rear end portion of the shoe 9, and the vertical member of the bracket is firmly secured to the rear end of the runner 3 by bolts 22.

23 indicates a caster-wheel, the vertical stem 24 of which is swiveled in a bearing plate or yoke 25, which is secured to the rim or flange 4^a near the rear corner of the table in any suitable manner, and this caster-wheel serves as a support for the rear end of the table.

The supplemental lifting-fingers are indicated by 26, and each consists of a long arm 27, upwardly curved at its middle por-

tion. The front end portion of the arm 27 is widened, as indicated at 28, to form a bearing-surface, and from this point the bar is tapered laterally and upwardly to form a point 29 at its front end.

30 indicates a short arm diverging downwardly and in a rearward direction from the arm 27, and the rear end of the arm 30 and the bearing-surface 28 are designed to support the front portion of the finger and will offer little frictional resistance.

31 indicates a vertical bar connecting the arms 27 and 30 a short distance in advance of the rear end of the latter, and this bar is provided with a vertical elongated slot 32. A horizontally-disposed sleeve 33 projects from the lower face of the arm 27 near its rear end. Preferably the sleeve will be integral with the arm, but it may be secured to it in any suitable manner, if preferred.

34 is a rod supported in eyes 35 of the short bars 36, which bars are secured firmly to the finger-bar and the table, respectively, by bolts or otherwise. The sleeves of the several lifting-fingers 26 fit over the rod 34 to turn thereon, and the points of some of the fingers on the finger-bar 1 project into the slots 32 in the vertical bars 31 of the respective lifting-fingers. A lifting-finger will preferably be connected to each alternate finger on the bar 1, and each lifting-finger will have a limited independent vertical movement at its front end, but will be held against lateral movement by the engagement of the finger 35 on the bar 1 in the slot 32.

By the use of my invention the pea-vines will be raised from the ground by the lifting-fingers and brought into position to be cut, and the lifting-fingers will also carry the pea-vines over the cutting mechanism onto the table, from whence they can be easily moved to one side by an attendant. The table is not, however, an essential part of my invention, as the lifting-fingers will operate just as well and will discharge the cut vines to the rear of the cutting mechanism onto the ground, but I deem the use of the table preferable, as the vines can be handled much easier on the table than on the ground.

The invention is equally useful for harvesting clover or any other crop that may lie close to the ground. By the use of the supplemental supporting-shoe for the off end of the cutting mechanism each end will be enabled to ride over the vines at the edge of the cut without the vines becoming tangled with it and causing it to drag.

It will be understood that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what I claim is—

1. The combination with a finger-bar, and a runner on the off end thereof, of a shoe

fitted to the lower edge of the finger-bar runner and extending forwardly thereof, the front end of said shoe being curved upwardly and provided with a vertical bar which is connected with the forward end of the finger-bar runner, and a clamp for uniting the rear end of the shoe rigidly to the said runner, substantially as and for the purposes set forth.

2. In a harvester, a shoe having its front end curved upwardly and extended backward a suitable distance, and provided with a vertical bar which unites the shoe and its extended curved end, combined with a finger-bar runner which rests upon the shoe and has its front end attached to said vertical bar, and means for uniting said shoe and runner rigidly together, substantially as described.

3. In a harvester, the shoe curved upwardly and extended backwardly of its curved front extremity, said extended part of the shoe terminating in a vertical perforated bar which is attached to the lower part of the shoe, combined with a finger-bar runner seated upon the shoe in rear of said vertical bar and having its front extremity fitted in a perforation of the vertical bar, and an angular clamp fastened to the finger-bar runner, substantially as described.

4. The combination with a finger-bar having a runner at its off end, of a rod supported above the finger-bar, a shoe clamped to the runner and vertically adjustable thereon, a wheel-carrying shoe on the rear end of the finger-bar and also vertically adjustable thereon for sustaining the finger-bar, in connection with the off-end shoe, at the desired elevation, and a series of lifting-fingers arranged between the rear and off end shoes and mounted loosely on the rod, substantially as described.

5. The combination with a finger-bar, and a runner thereon, of the shoe clamped detachably at its rear end to the runner, said shoe being vertically adjustable from the clamp as an axis for connection with the front end of the runner at different elevations, substantially as described.

6. In a harvester attachment, a lifting-finger cast in a single piece of metal and consisting of the arched upper bar provided at a point in advance of its rear extremity with a bearing-sleeve, 33, the lower bar, 30, in the vertical plane of the arched upper bar, the horizontal tapered foot, 28, which unites the upper and lower arms, and the vertical bar, 31, joining the two bars together and provided with a socket, substantially as described.

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

ALANSING D. PITCHER.

Witnesses:

J. H. SLY,

W. A. ELLIS.