

No. 647,550.

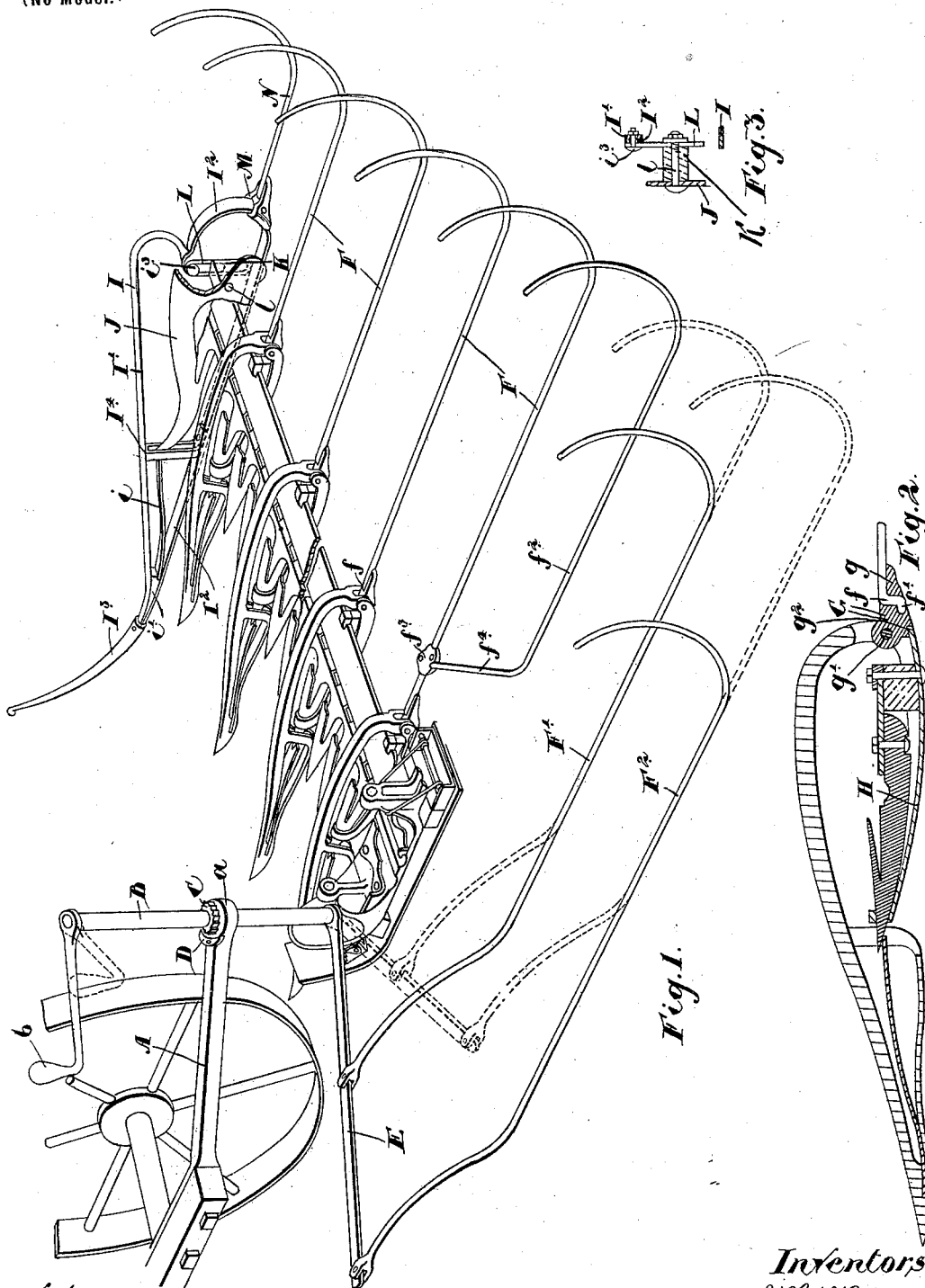
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W. H. WORTMAN & W. RICHMOND.

PEA-HARVESTER.

(Application filed June 26, 1899.)

(No Model.)



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM H. WORTMAN, OF LONDON, AND WILLIAM RICHMOND, OF
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PEA-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 647,550, dated April 17, 1900.

Application filed June 26, 1899. Serial No. 721,980. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. WORTMAN, gentleman, of the city of London, in the county of Middlesex, and WILLIAM RICHMOND, gentleman, of the village of Blythe, in the county of Huron, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Bunchers for Pea-Harvesters, of which the following is a specification.

Our invention relates to improvements in pea-harvesters, and more particularly in the bunchers which are connected therewith; and the objects of the invention are, first, to improve the construction of the buncher, so that the bunched peas or pea-vine may be securely retained in position on the bunching-fingers until it is necessary to discharge, and, secondly, to devise an improved means whereby the bunching-fingers may be detachably connected to the rear of the harvester; and it consists, essentially, first, of providing at the rear or inner end of the harvester supplemental bunching-fingers, which are adjusted by means of suitable mechanism, and at the far or outer end a supplemental divider and bunching-finger, both of these mechanisms being constructed as hereinafter more particularly explained, and, secondly, of a bracket which is pivotally connected to the bottom shoe and is provided with a socket into which the front ends of the bunching-fingers are inserted, so as to hold them securely in position and yet allow of them being readily detached, as hereinafter explained.

Figure 1 is a perspective view of our improved pea-harvester complete. Fig. 2 is a cross-section showing the pivoted brackets and manner of connecting the bunching-fingers thereto. Fig. 3 is a detail showing the means of connecting the supplemental divider to the outer end of the mower-bar.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is a bracket secured to the rear end of the tongue and provided with an enlarged end *a*.

B is a crank-shaft provided with a crank-handle *b* at the top thereof.

C is a ratchet-wheel secured to the crank-shaft B, and D is a pawl which is designed to engage therewith.

E is an arm secured to the bottom end of the crank-shaft B, and *F*¹ *F*² are the supplemental buncher-fingers, which are provided with forks at their front ends and are curved, as shown, being connected by pins extending through the forks to the arm E. In their normal position, which is indicated by dotted lines, the supplemental bunchers *F*¹ *F*² have their rear ends on a line with the incline of the buncher-fingers *F*. Each buncher-finger *F* has an L-shaped end *f*, provided with a slight turn *f'*, which fits within the socket *g* of the bracket G, which is pivoted between the sides of the shoe H on a suitable pin *g'*. The bottom front end of the bracket G is provided with a notch *g*², which forms a shoulder that abuts the rear end of the shoe, and thereby holds the finger in proper position in relation to the mower-bar.

I is a supplemental divider which consists of the top bar *I*¹, connected to the bottom bar *I*², both being curved at their rear end and extending outside each other and provided with opposite holes. The front ends of the bars converge to an apex, the sides being welded together. A supplemental curved bar *I*³ is placed on the welded apex of the bars when it is desired to harvest a green, heavy, or tangled crop; but when the crop is ripe and dry it may be left off. The top and bottom bars are braced together intermediately by the double bar *I*⁴.

i is a flat spring which is secured at the front in the block *i'* at the converging of the two bars *I*¹ and *I*². The rear of the spring *i* extends under the point of the ordinary divider J.

K is a block, and L is a link, secured to the side of the ordinary divider by a bolt *l*. (See detail Fig. 3).

*l*³ is a bolt extending through the link L and holes in the adjacent ends of the sides *I*¹

and I², thereby securely holding them together. The bottom side or bar I² is preferably a flat bar.

M is a bracket straddling the curved lower portion of the bar I² and having the curved supplemental finger N fixed in it in the same manner as that in which the other fingers F are secured in their respective brackets G.

The supplemental divider serves to keep the mower-bar from the ground. Also on account of its having the spring *i* it will lift up the same as the other lifters shown, but not described.

The buncher-finger F at the inner end of the machine is provided with a supplemental finger *f*², which extends into a socket in the sleeve *f*³, secured on the finger F. The finger *f*² has an offset portion *f*¹ in order to keep the finger for the major portion of its length parallel with the finger F.

It will be seen that the supplemental finger N, together with the finger *f*² and intermediate fingers F, forms a complete support for the pea-vine from end to end of the mower-bar of the harvester.

When the machine is being driven forward, the supplemental fingers F¹ and F² are thrown into the position shown in full lines in the drawings, thereby retaining the pea-vine as it is being rolled up and prevent any of the peas straggling off from the end, as they would have a tendency to do if these supplemental fingers were not provided. As soon as a sufficient bunch has been collected the dog D may be knocked clear of the ratchet C by the foot of the driver and the crank thrown rearwardly into the position shown by dotted lines, thereby allowing the completed bunch to readily pass out of the buncher at the inner side.

What we claim as our invention is—

1. In a pea-harvester, the combination with the finger-bar and lifters and fingers having the obliquely-arranged curved rear ends, of the supplemental fingers adjustably held at the rear end of the machine with their ends normally out of line with the ends of the others, so as to form a receptacle to hold the gathered peas and means for throwing the curved ends of such supplemental fingers in alinement with the curved ends of the remaining fingers as and for the purpose specified.

2. In a pea-harvester, the combination with the finger-bar and lifters and fingers having the obliquely-arranged curved rear ends, of the inner supplemental fingers, the bracket secured to the frame, the crank-shaft rotatably supported in such bracket, the arm secured to the crank-shaft to which such supplemental fingers are connected and means for turning such shaft and holding it in the required position when turned as and for the purpose specified.

3. In a pea-harvester, the combination with the finger-bar and lifters and fingers having

the obliquely-arranged curved rear ends, of the inner supplemental fingers, the bracket secured to the frame, the crank-shaft rotatably supported in such bracket, the arm secured to the crank-shaft to which such supplemental fingers are connected, the crank-handle, the ratchet-wheel secured to the crank-shaft and the dog designed to engage therewith as and for the purpose specified.

4. The combination with the finger-bar and lifters and shoes secured underneath the lifters, of the hinged brackets pivoted in the rear of the shoes and having the sockets therein and the buncher-fingers having the L-shaped front ends with forwardly-turned extremities fitting in correspondingly-shaped sockets, so as to hold the buncher-fingers in proper relative position as and for the purpose specified.

5. The combination with the finger-bar and lifters and shoes secured underneath the lifters, of the hinged brackets pivoted in the rear of the shoes and each provided with a notch forming a shoulder to abut the rear end of its shoe and having the sockets therein and the buncher-fingers having the L-shaped front ends with forwardly-turned extremities fitting in the correspondingly-shaped sockets, so as to hold the buncher-fingers in proper relative position as and for the purposes specified.

6. The combination with the finger-bar and lifters and fingers the ends of each of which are obliquely arranged relative to the finger-bar, of a sleeve secured to the innermost finger and the supplemental finger parallelly arranged to the main fingers and having an offset portion extending into the sleeve on the inner finger as and for the purpose specified.

7. The combination with the finger-bar and lifters and fingers the ends of each of which are obliquely arranged relative to the finger-bar as specified, of the supplemental divider comprising the upper side bar I¹, lower side bar I² having curved rear portions, the ends of which are adjacently placed, the block secured to the divider of the finger-bar, the link adjacent thereto, the bolt securing the block and link to the divider, the bolt extending through the link and ends of the curved rear portions, the said side bars converging to the front portion and having a curvular end piece and the spring extending from the converging portion under the end of the divider of the mower-bar as and for the purpose specified.

8. The combination with the finger-bar and lifters and fingers with rear ends obliquely arranged as specified, of the supplemental divider provided with a portion extending rearwardly of the finger-bar, a bracket secured to such portion and a supplemental finger suitably socketed in such bracket and extending rearwardly from the same as and for the purpose specified.

9. The combination with the finger-bar and

fingers suitably connected to the rear thereof, with their rear extremities obliquely arranged, of the supplemental fingers also suitably connected to the rear of the machine
5 with their rear ends normally out of line with the ends of the others, so as to form a receptacle for the vine and means for throwing the curved ends of such supplemental fingers in

alinement with the curved ends of the remaining fingers as and for the purpose specified.

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Witnesses:

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