No. 652,873. Patented July 3, 1900.

W. H. WORTMAN & W. RICHMOND.

PEA HARVESTER.

(Application filed June 26, 1899.)

(No Model.)

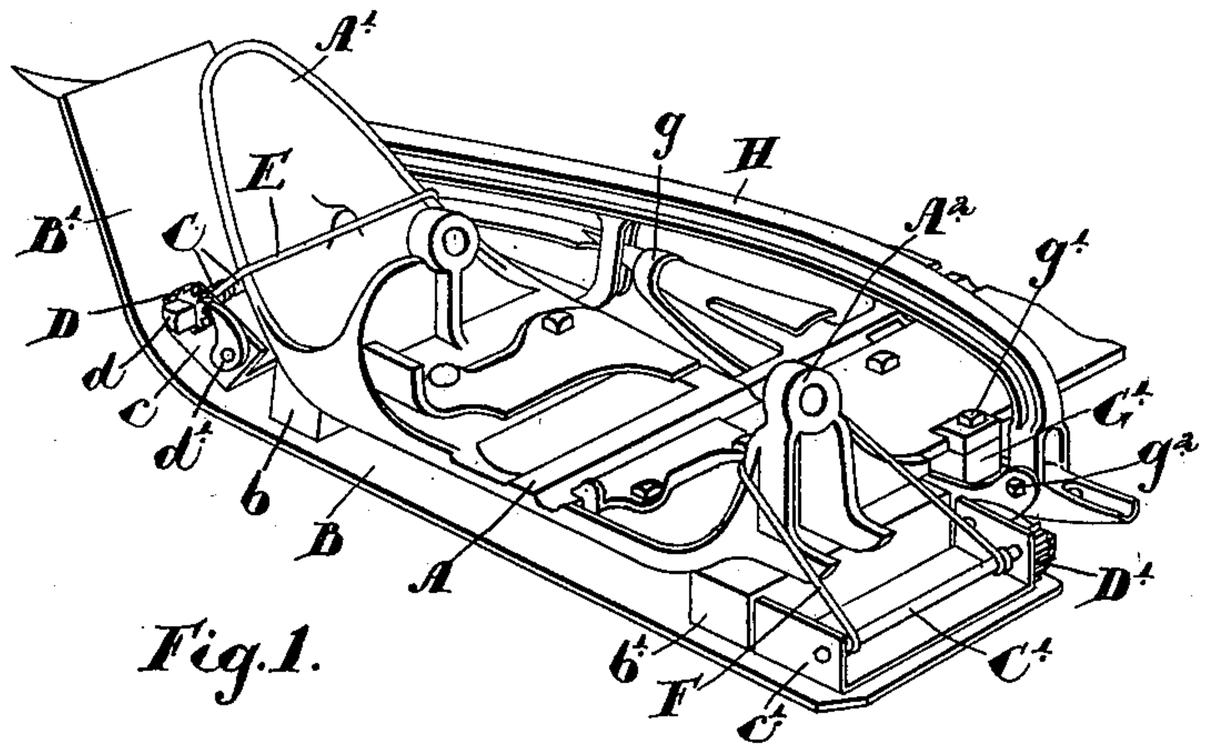

Fig. 1.

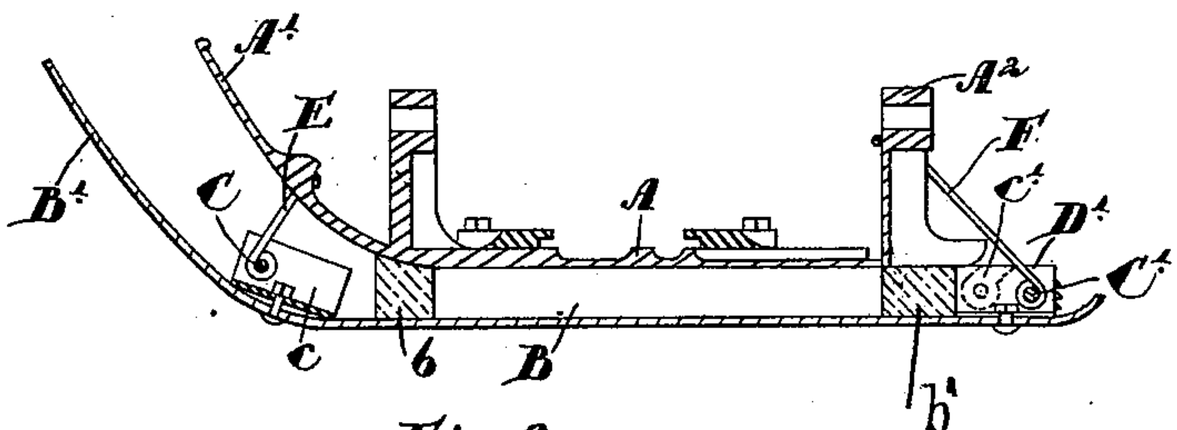

Fig. 2.

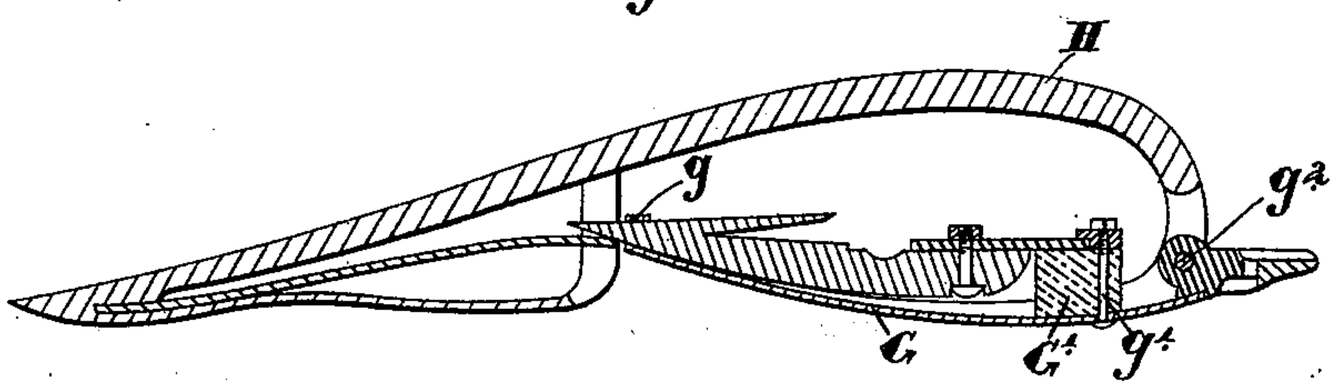

Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

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PEA-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 652,873, dated July 3, 1900.

Application filed June 26, 1899. Serial No. 721,981. (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 Pea-Harvesters, of which the following is a specification.

Our invention relates to improvements in pea-harvesters; and the objects of the invention are, first, to provide such an attachment to the cutter-bar of a mower whereby the end shoe may be supported a sufficient height from the ground, so as to make it adaptable for use as a pea-harvester, and, secondly, to provide means whereby the cutter-bar itself may be held clear of the soil on uneven ground; and it consists, first, of a supplemental shoe provided with cross-bars and spindles supported in suitable bearings, which spindles are provided at one end with a suitable ratchet-wheel and an engaging pawl and have attached to them wire loops which are designed to extend over a suitable portion of the shoe at the front and the rear and to be tightened by the turning of the spindle, so as to securely hold such supplemental shoe to the main shoe, and, secondly, of a shoe secured underneath the cutter-bar and directly underneath each lifting-bar of the harvester, being suitably attached and constructed, as hereinafter more particularly explained.

Figure 1 is a perspective view of a portion of a mower provided with our attachments converting it into a pea-harvester. Fig. 2 is a longitudinal section through the main shoe and supplemental shoe, Fig. 1. Fig. 3 is a longitudinal section through the lifting-bars and raising-shoe.

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

A is the end shoe of an ordinary finger cutter-bar, which is provided with the usual upwardly-inclined front portion A′ and a rear bracket A^2.

B is the supplemental shoe, which is provided with cross-bars *b* and *b′*, upon which rests the upper main shoe A. The shoe B is very similarly formed, as to its bottom portion, as the shoe A, having an inclined front end B′.

C and C′ are the front and rear spindles, which are supported in suitable bearing-plates *c c′*, secured to the top of the shoe.

D is a ratchet-wheel secured to one end of the spindle C and provided with a square end *d*, designed to receive a wrench. *d′* is a pawl engaging with the ratchet-wheel D. The rear spindle C′ is similarly formed and provided with a similar ratchet-wheel D′ and square end and an engaging pawl.

E is a wire loop the ends of which are secured to the spindle C. This wire is passed over the front of the shoe and is wound up by means of a wrench by turning the ratchet-wheel D, the pawl *d′* holding the wire tightly around the front of the shoe A, thereby serving to securely bind the supplemental shoe to it.

F is a wire loop the ends of which are secured to the spindle C′, being passed over in the form of a loop around the bracket A^2 and wound around until taut by means of a wrench on the square end of the ratchet-wheel D′, the pawl engaging the ratchet-wheel and serving to hold the rear end of the supplemental shoe tightly in position against the main shoe. The loop E engages a portion of the end shoe arranged opposite to the bracket A^2, and as the tendency of said loops is to move in reverse direction the shoes will be firmly held together.

G is a raising-shoe which has an eye *g* formed at the front end thereof, by which it is secured on the point of the guard of the cutter-bar. The shoe is substantially U-shaped in cross-section, and secured at the rear by the block G′ and bolt *g′* to the cutter-bar. It will be seen that if there are a series of these shoes provided, one under each lifting-bar, as the mower-bar is being drawn forward over uneven ground such shoes will hold the cutter-bar clear of the ground or any projection thereon, as such shoes will ride over such projections, thereby raising the bar clear of them, and thus there will be no danger of the cutter-bar sticking nor being filled with dirt or clay.

It will be noticed that the lifting-bar H is pivotally held at the rear on a pin g^2 extending through the raised rear end of the shoe G.

What we claim as our invention is—

1. The combination with the finger-bar and

end shoe of the same, of a supplemental shoe, and loops having swinging movement carried by the supplemental shoe and portions on the end shoe engaged by the loops to hold the said shoes together, substantially as described.

2. The combination with the finger-bar and end shoe of the same, of a supplemental shoe, and loops having swinging movement carried by the supplemental shoe portions on the end shoe engaged by said loops to hold said shoes together, and means for placing a tension on said loops, substantially as described.

3. The combination with the finger-bar and end shoe, of a supplemental shoe, and pivoted devices carried by the supplemental shoe engaging portions located at opposite ends of the main shoe for holding said shoes together.

4. The combination with the finger-bar and end shoe, of a supplemental shoe, pivoted loops carried thereby adapted to swing in reverse directions, and portions located at opposite ends of the main shoe engaged by said loops.

5. The combination with the finger-bar and end shoe, of a supplemental shoe, pivoted loops carried thereby adapted to swing in reverse directions, portions located at opposite ends of the main shoe engaged by said loops and means for locking said loops in position, substantially as described.

6. The combination with the finger-bar and end shoe, of a supplemental shoe, pivoted loops carried thereby adapted to swing in reverse directions, portions located at opposite ends of the main shoe engaged by said loops and means for locking said loops in position, said means comprising ratchets carried by the loops and pawls pivotally connected to the supplemental shoe.

7. The combination with the finger-bar and end shoe, of a supplemental shoe, bearing-plates secured thereto, spindles journaled in said plates, ratchet-wheels secured to said spindles, pawls engaging the ratchets and loop carried by said spindle, engaging the ordinary end shoe, substantially as described.

8. The combination with the finger-bar and end shoe, of a supplemental shoe, bearing-plates secured thereto, square-headed spindles journaled therein, ratchet-wheels fixed to said spindles, pawls engaging the same, portions located at opposite ends of the end shoe, and loops fixed to said spindles engaging said portions, substantially as described.

9. The combination with the finger-bar and finger, a shoe straddling the end of one of said fingers, a block interposed between the finger-bar and said shoe, and a fastening-bolt passing through said bar, block and shoe, substantially as described.

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Witnesses:
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