(No Model.)

M. VAN MATTESON.

ONE WHEEL HARVESTER.

No. 313,137. Patented Mar. 3, 1885.

Fig. 1.

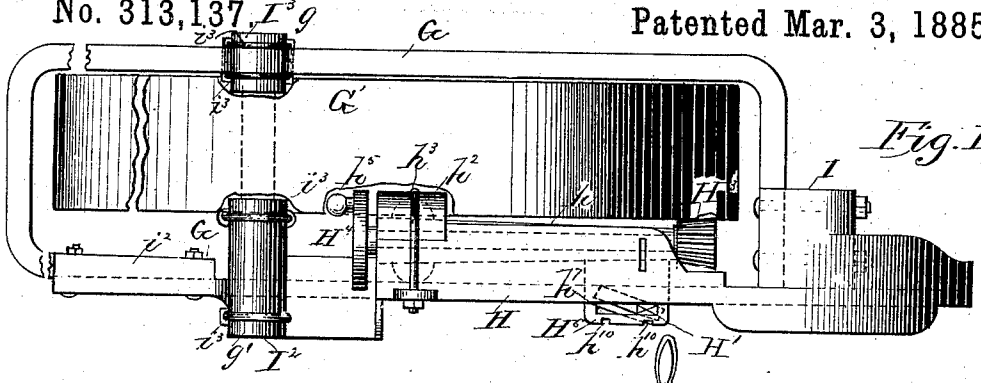


Fig. 2.

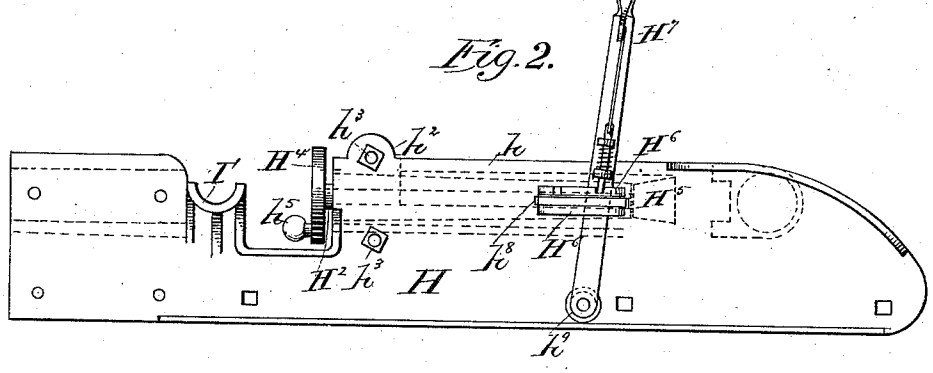


Fig. 3.

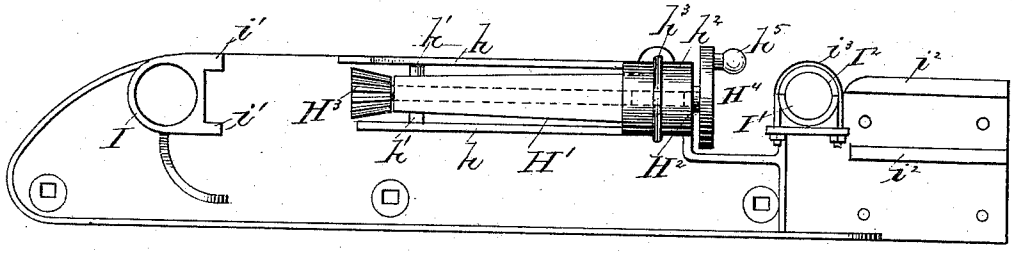
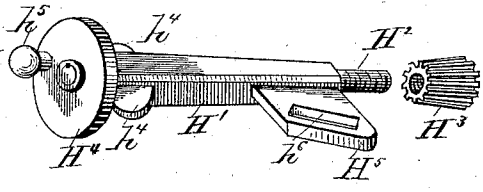


Fig. 4.



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UNITED STATES PATENT OFFICE.

MARSE VAN MATTESON, OF MILWAUKEE, WISCONSIN.

ONE-WHEEL HARVESTER.

SPECIFICATION forming part of Letters Patent No. 313,137, dated March 3, 1885.

Application filed November 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, MARSE VAN MATTESON, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in One-Wheel Harvesters; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to one-wheel harvesting-machines; and it consists in certain peculiarities of construction, as will be more fully set forth hereinafter.

In the drawings, Figure 1 is a plan view of the frame and frame-plate and attachments, and of the main drive-wheel and its axle. Figs. 2 and 3 represent opposite sides of the said frame-plate and attachments, and Fig. 4 is a detail of the crank-sleeve and attachments.

In Fig. 1 I show at G' the main drive-wheel, which is of ordinary construction, the interior of which is provided with gearing on an interior flange extending entirely around it, the cogs of which are radial with the axis of the wheel, as is common in machines of this class, the said cogs being adapted to be in or out of mesh with the beveled cog-pinion on the end of the crank-shaft, hereinafter described.

G is a horizontal frame, preferably of wrought-iron, which, taken in connection with its plates, hereinafter described, entirely surrounds the main drive-wheel of the harvester, and which has bearings g g' on each side, for supporting the axle, (as indicated in dotted lines in Fig. 1,) which is keyed to said hub.

H is the frame-plate, bolted to the frame G, and provided on the side next the drive-wheel with the horizontal flanges h h and the vertical guides h' h', extending down from the upper flange and up from the lower flange, respectively, and rigid therewith, while the rear ends of the flanges h h are united by a box or housing, h^2, secured to them by a staple or stirrup, h^3.

H' is a crank-shaft sleeve placed lengthwise between the flanges h h, its lesser or forward end being adapted to move laterally between the guides h' h', while its larger or rear end is provided with two radial lugs, h^4 h^4, on opposite sides. These lugs fit within correspondingly-shaped depressions, one formed within the said frame-plate and the other within the box or housing h^2, which allows the lateral movement of the crank-shaft sleeve already described. Through this sleeve passes a crank-shaft, H², the forward end of which is screw-threaded to receive the beveled cog-pinion H³, while the rear end has a crank-wheel, H⁴, provided with a ball crank-pin, h^5. At the forward end of the crank-shaft sleeve, and cast solidly therewith, is the shifting-lug H⁵, parallel with the lugs, and projecting from the side opposite the main wheel, and this lug is provided with a diagonal slot, h^6. On the other side of the frame-plate (or that farthest from the drive-wheel) are two horizontal lugs, H⁶ H⁶, with straight slots h^7 h^7, while between these lugs H⁶ H⁶ the said frame-plate is provided with a long slot, h^8, through which the lug H⁵ on the crank-sleeve projects.

H⁷ is a lever which passes down through the slots h^7 h^6 h^7 in the lugs H⁶ H⁵ H⁶, and is pivoted to a projection, h^9, near the lower edge of the frame-plate. Now, it may be seen that owing to the fact that the line of the slot h^6 is diagonal to the line of the slots h^7 h^7, by simply moving the lever H⁷ forward or back, the pinion H³ will be thrown into or out of mesh with the described gearing on the inner face of the drive-wheel, (not shown,) and hence the harvester-pitman, (not shown,) which vibrates the sickle of the harvester, and whose head is connected to the ball crank-pin h^5, will be operated or allowed to remain idle, as the case may be; and the upper lug H⁶ is provided with the notches h^{10} h^{10} for the detent of the lever H⁷, whereby the said lever is kept stationary, either forward or back, and hence the pinion H³ is either kept in or out of mesh with the gearing of the drive-wheel, as desired. The forward part of the frame-plate is provided with a tube, I, for the purpose of receiving a wooden foot-rest, and the rear outer side of this tube is made flat and provided with flanges i' i', to receive between them the front of the wrought-iron frame G, and when the parts are put together the same bolts that secure the wooden foot-rest in place may also serve to secure the frame G to the aforesaid part I. Similar flanges, i^2 i^2, at the rear upper end of said frame-plate receive between them the rear end of said frame G.

I' is a half-box rigid with the frame-plate

and extending transversely across the same; and the frame, G, opposite thereto is provided with a similar half-box, and (after the axle of the drive-wheel is in place) caps I^2 I^3 are applied, and then these caps and the half-boxes are secured firmly together by means of the staples i^3 i^3, as shown, thus forming in their entirety the axle-bearings g g', already referred to. A great advantage of these half-bearings and caps over solid tubular bearings lies in the fact that the strain and wear come chiefly upon the top of the bearings, and heretofore, when the bearings gave out at that point, entire new bearings (or entire new frame-plates when the bearings were integral therewith) were necessary, whereas with my arrangement new caps only will be required.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the frame-plate H, having flanges h h, with guides h' h' at one end, and box or housing h^2, secured by stirrup h^3, at the other end, the tapering sleeve H', whose forward end is adapted to move between the guides h' h', while its rear end is furnished with the lugs h^4 h^4, fitting within corresponding depressions in the frame-plate, and the crank-shaft H^2, having the pinion H^3, and means for moving said sleeve and pinion laterally, substantially as set forth.

2. The frame-plate H, having flanges h h, guides h' h', housing h^2, stirrup h^3, slot h^8, and lugs H^6 H^6, with straight slots h^7 h^7, in combination with the sleeve H', carrying the crank-shaft H^2 and pinion H^3, and having lugs h^4 h^4 at one end and lug H^5, with diagonal slot h^6, at the other end, and the shifting-lever H^7, passing through the slots h^7 h^6 h^7, and pivoted to the frame-plate near its lower edge, substantially as set forth.

3. In a harvesting-machine, the combination of the drive-wheel, a metal frame-plate provided with indentations or perforations and suitable supporting-guides, a crank-shaft, a sleeve for said crank-shaft, supported by said guides and having projections adapted to engage said perforations, and means for moving said sleeve toward and from the drive-wheel, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

MARSE VAN MATTESON.

Witnesses:

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