

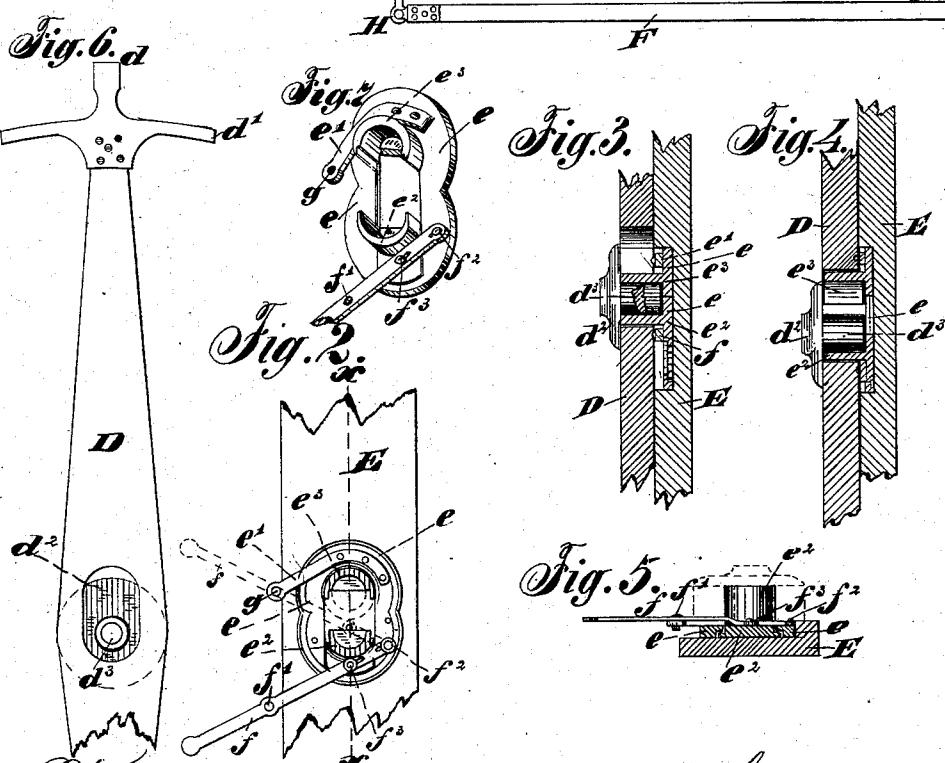
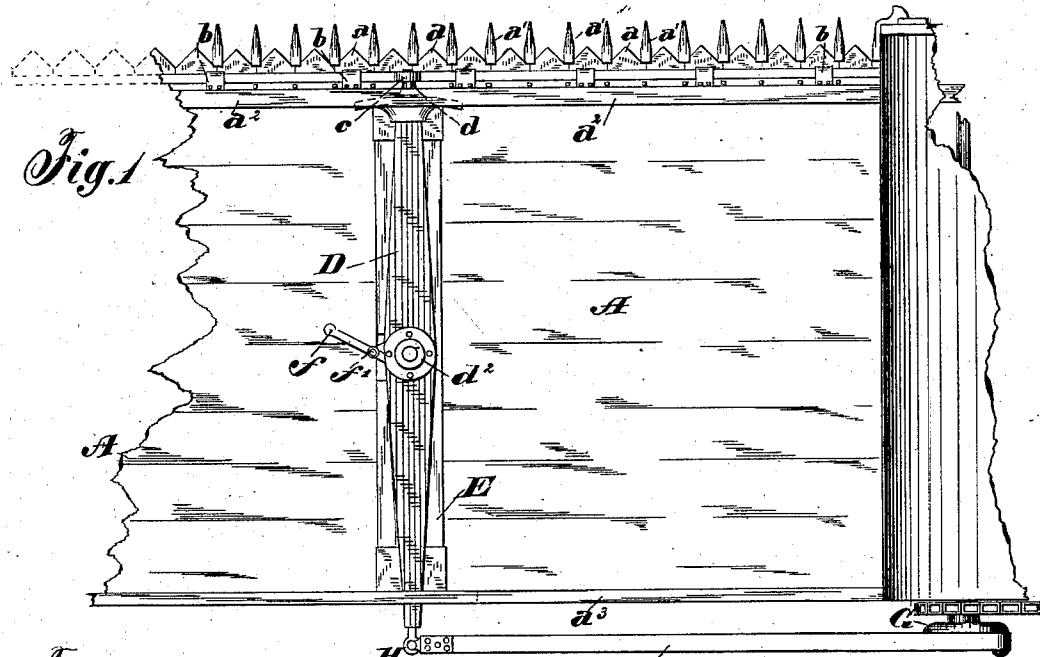
(No Model.)

G. H. CARVER.

SICKLE DRIVING MECHANISM FOR HARVESTERS.

No. 282,494.

Patented Aug. 7, 1883.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## SICKLE-DRIVING MECHANISM FOR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 282,494, dated August 7, 1883.

Application filed January 20, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE H. CARVER, a citizen of the United States, and a resident of Ravenswood, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sickle-Driving Mechanism for Harvesters, of which the following is a full description, reference being had to the accompanying drawings, in which—

10 Figure 1 is a plan view of a harvester-platform with the cutting apparatus, the vibrating lever, its supporting bar or board, and the driving mechanism. Fig. 2 is a plan view of the lever's pivot-socket, showing its fixed and removable sections, as well as the means for moving and securing said movable section in place. Fig. 3 is a longitudinal section of the parts on the line  $x-x$  of Fig. 2, but with the parts of the socket closed. Fig. 4 is the same 15 as Fig. 3, but with the parts of the socket shown separated and the pivot of the sickle-driving lever drawn backward out of the fixed half of the socket. Fig. 5 is a cross-section of the driving-lever rest, and shows the socket 20 and the lever for moving its sliding section. Fig. 6 is an under plan view of the sickle-driving lever. Fig. 7 is a perspective view of the socket-casting.

25 My invention relates to that class of sickle-drivers in which the reduced end of a vibrating lever enters an eye riveted to the sickle; and its object is to make the removal of the sickle easy; and its nature consists in providing means to allow an endwise movement 30 of the driving-lever to withdraw its working end from the eye of the sickle at will, so that the said sickle can be lifted out of its place upon removal of the sickle clips or gibbs.

35 In the drawings, A is the platform of a harvester; a, the sickle, vibrating through the guards a' and held in place by the clips or gibbs b, the guards and gibbs being secured to the usual finger-bar.

40 a<sup>2</sup> and a<sup>3</sup> are guides over which the delivery-apron (not shown) moves. These two guides are over the ends of the driving-lever, and prevent its rising, so as to permit its pivot to work out of its socket.

45 c is a small casting riveted to the sickle-bar, and provided with an eye or mortise whose top and bottom walls are parallel, but

whose end walls are slightly curved outward. Into this eye or mortise the metallic tip d of the lever D enters. The driving-lever D is provided with an ellipsoidal eye near its center. 55 d<sup>2</sup> is a circular plate, having the cylindrical stud or pivot d<sup>3</sup>. This plate is riveted to the upper surface of the driving-lever, with its pivot passed through the slot coincident with the rearmost focus, as seen in Fig. 6. At the 60 rear end the lever is connected by a swivel-joint, H, to the pitman F, which in turn connects with the crank-wheel G. The driving-lever rest E is connected to the front and rear parallel bars of the platform so high above the 65 bottom boards that the delivery-canvas may move under it in its return. Fixed near the middle of the rest E and let into its upper surface is the casting e, which may be of any form suitable for securing it firmly to the rest. 70 The form shown serves a good purpose. From this base rises the hollow half-cylinder e<sup>1</sup>, of such height that it shall receive the whole length of the pivot or stud d<sup>3</sup>. The base is slotted, as shown in Figs. 2 and 7, and in this 75 slot the base of the half-socket e<sup>2</sup> slides, its edges being dovetailed under the margins of the slot, as seen in Fig. 5. Rising from its base is the hollow half-cylinder e<sup>3</sup>, which, with its mate, (the fixed half-cylinder,) forms the 80 complete socket for the pivot d<sup>3</sup>. The vertical margins of the half-cylinder are halved together when they meet, as seen in Fig. 2. In the manufacture these two parts are placed in proper relative position—that is, with their 85 halved margins interlocked and then bored out to proper size. As means for moving and securing the parts in proper relation I provide the lever f and pivot it to the base e at f<sup>2</sup>, the eye in the lever being slightly elongated. This 90 lever is also pivoted at f<sup>3</sup> to the sliding half-socket e<sup>2</sup>, and farther outward from its axis of vibration it is provided with the eye f'. To the plate e I rivet or otherwise secure an arm, e', provided with the eye g, in such position 95 that when the lever f is moved forward to close the socket the said eye and the eye f' in the lever shall coincide, and by the insertion of a bolt or pin the two parts of the socket be firmly fixed in position.

100 With the parts in place, as shown in Fig. 1, if it is wished to remove the sickle, it is but

necessary to take out the pin or bolt holding the lever *f* to the arm *e'* and swing said lever backward to the position shown in Fig. 7, when the driving-lever may be drawn backward sufficiently to withdraw its working-point from the mortise or eye on the sickle-bar, and by taking off the clips *b* the said sickle may be lifted out of place.

What I claim is—

- 10 1. The combination of the sickle-bar with the vibrating lever, the bearing of the latter adapted to be moved, whereby the lever is disconnected from the sickle-bar, substantially as set forth.
- 15 2. The sickle-bar provided with an eye for

receiving the end of the driving-lever, the said driving-lever adapted to be drawn therefrom, the fixed and removable half-sockets, and means for moving and locking the latter, all combined substantially as described.

20 3. The slotted base *e*, provided with the hollow half-cylinder *e'*, the footed hollow half-cylinder *e''*, sliding in the said slot, the lever *f*, and means for securing the said parts in their fixed positions, substantially as described.

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