J. P. MANNY.

Guard-Fingers for Harvesters.

No. 216,748. Patented June 24, 1879.

Fig. 1.

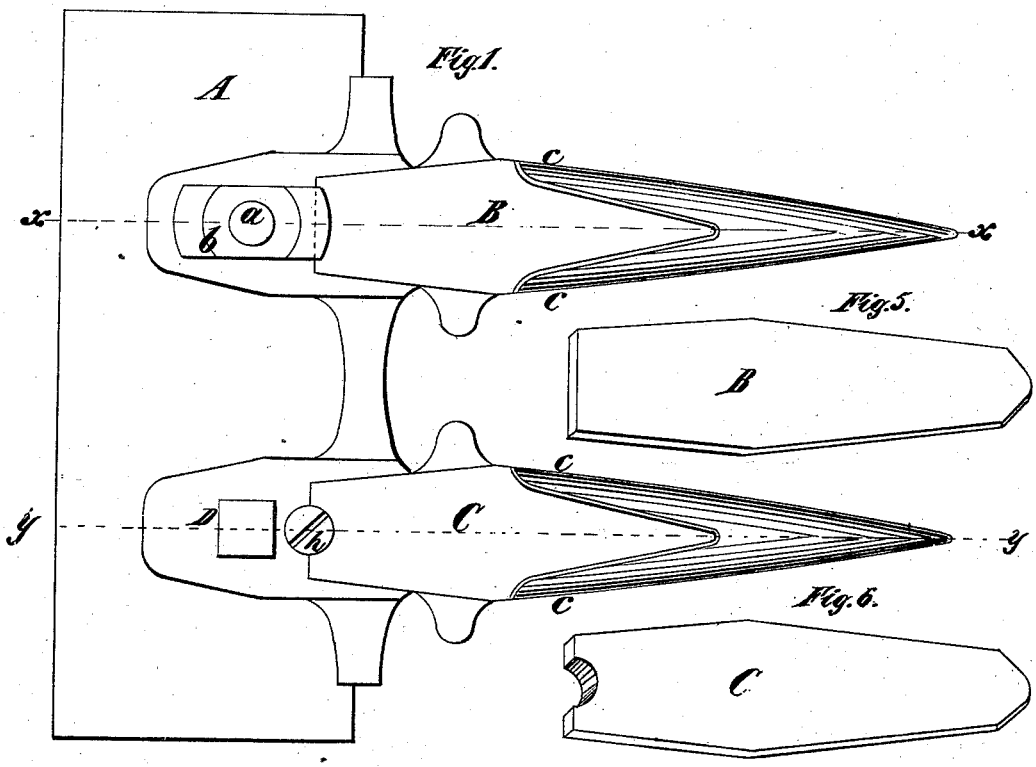


Fig. 5.

Fig. 6.

Fig. 2.

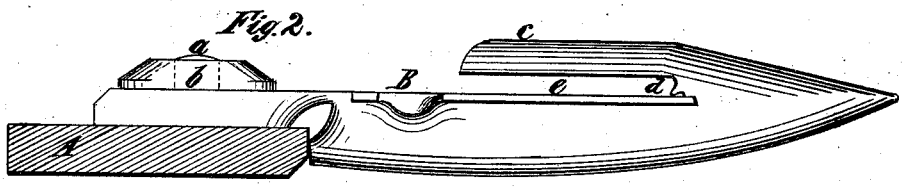


Fig. 3.

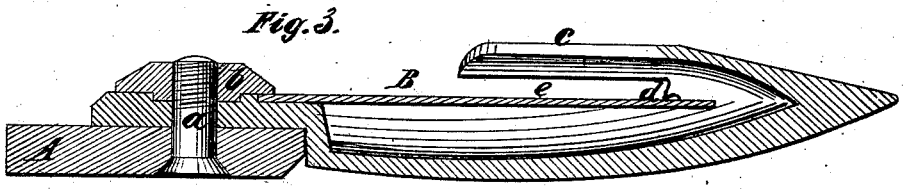
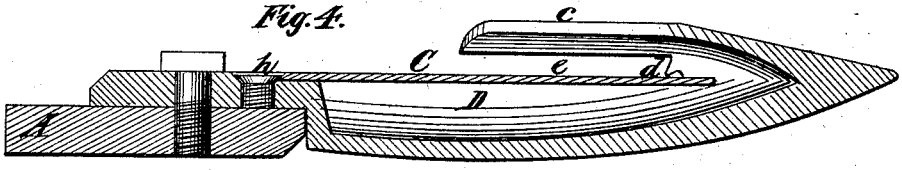


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN P. MANNY, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN GUARD-FINGERS FOR HARVESTERS.

Specification forming part of Letters Patent No. **216,748**, dated June 24, 1879; application filed October 15, 1877.

To all whom it may concern:

Be it known that I, JOHN P. MANNY, of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Guard-Fingers for Harvesters, of which the following is a specification.

The invention relates to that class of guard-fingers in which a removable ledger-plate is employed, set in the upper face of the guard. By the use of such plates the sharpening of the cutting-edges is made far easier than it would otherwise be, and, as will be readily understood, when the cutting-edges have become so worn as not to admit profitably of further grinding, new plates may be substituted for the old ones without the expense of replacing the guards. It is very desirable that these plates should be attached to the guard-fingers in such a way that they can be removed without loosening the guards from the finger-beam.

Whenever, in order to remove a detachable ledger-plate from the guard, it becomes necessary to unseat or to loosen the guard itself, there arises a practical difficulty of the following nature: In fitting the guards on the finger-beam it is required that they be very accurately aligned, to correspond to the plane of the cutting-edges of the knives. This adjustment is secured by carefully packing the joints between the guards and the finger-beam, and this requires an expert provided with proper tools. If it becomes necessary to remove, or even to loosen, the guards in order to remove the plates for grinding, this packing is liable to become disarranged, and it thus becomes a very difficult matter for an ordinary person to reset the guards properly.

The present invention consists in a special mode of constructing the parts, as hereinafter explained, with view to obviate this difficulty, so that the user of a machine may freely remove, sharpen, and replace the cutting-plates without disturbing in the least the alignment of the guards.

In the accompanying drawings, which fully illustrate the invention, Figure 1 is a plan view of a section of a finger-beam, A, with two guard-fingers, B and C, attached thereto. Figs. 2 and 3 are, respectively, a side and a sectional view of the guard B. Fig. 4 is a sectional view of the guard C, and Figs. 5 and 6 are perspective views of the ledger-plates of the two guards.

The guard, as will be seen in the drawings, is in outline similar to those now in use, being provided with a forked cap, D, between which and the main body of the guard is the usual opening, E, for the passage of the knives, and it is bolted to the finger-beam by means of a screw-bolt, F, passing through its rear part. Upon its upper face is constructed a recess for the reception of the ledger-plate. G represents such a plate, formed to fit this recess in the guard, and having its edges beveled in the usual mode. The forward end of this plate may be held in place in the recess more firmly by setting down against it, as shown at H, a projection on the malleable guard, designed for this purpose, and its rear end, as shown upon guard B, may be held down by the overlapping of the screw-nut I, which holds the bolt that secures the guard to the finger-beam. For this purpose this nut may be made in the form of a button, as shown; or, if preferred, it may be of the usual square form. In either case it is to be of such size, with reference to the rear end of the plate, and of the recess which receives the plate, that when turned into one position (being that which it will assume when screwed down tightly upon the guard) it will overlap the rear end of the plate, and when turned into at least one other position will come a little short of such plate. In the first-named position of the nut the plate, which is plain, and at its rear end comes flush with the upper face of the guard, will be firmly held in place; but whenever the nut is turned into the last-named position the plate can be readily removed without disturbing the adjustment of the guard on the finger-beam.

Instead of holding the cutting-plate in its recess by means of the nut of the screw-bolt which confines the guard to the finger-beam, which is deemed the best means, it may, if preferred, be done by means of a separate screw, countersunk centrally into the joint between the rear end of the plate and its recess. This modification in the mode of fastening the plate is illustrated at K in Figs. 1 and 4,

and Fig. 6 shows how the rear end of the plate is to be formed therefor.

This mode of securing the detachable ledger-plate has an advantage over other known modes in this, that the plate is plain, and therefore can be made more economically, and can be adjusted in its seat more accurately, than is the case with those plates that are made of a different shape under the requirements of other modes of fastening them.

It will readily be understood that when the ledger-plates are fastened by means of the screw-nuts that secure the guards to the finger-beam, the knife-back is to run in front of the row of binding-nuts, its exact path, of course, being determined by properly-located cleats or guides of suitable construction, and the knife-blades should be secured to the under side of such back.

What is claimed as new is—

The combination of the guard-finger, the ledger-plate, the finger-beam, and the screw-bolt and nut that secure the guard-finger to the finger-beam, the nut being formed to overlap the ledger-plate, and thus hold it in place and to release it for removal, substantially as described.

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Witnesses:
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