C. PRINCE.

Machine for Sharpening Mower and Reaper Knives.

No. 212,568. Patented Feb. 25, 1879.

Fig. 1.

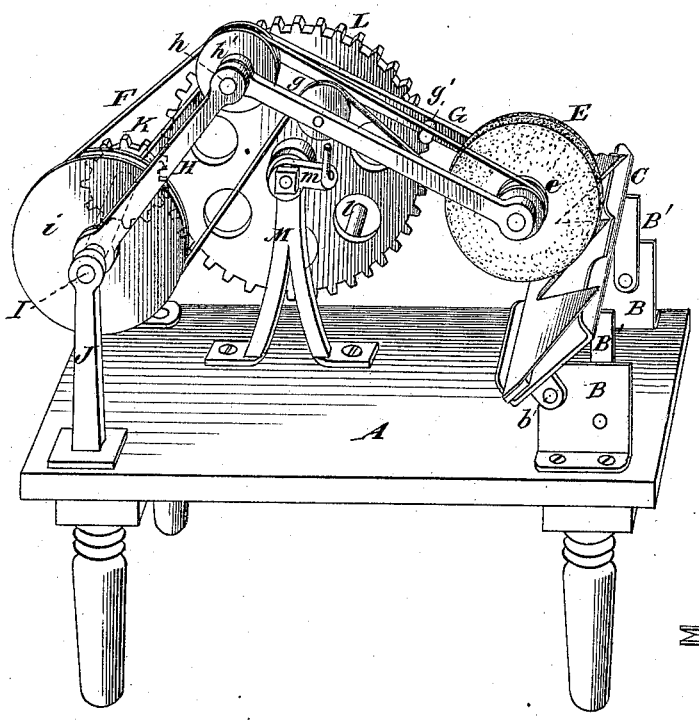


Fig. 5.

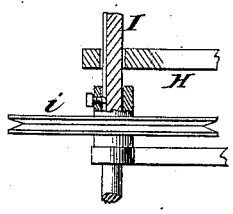


Fig. 2.

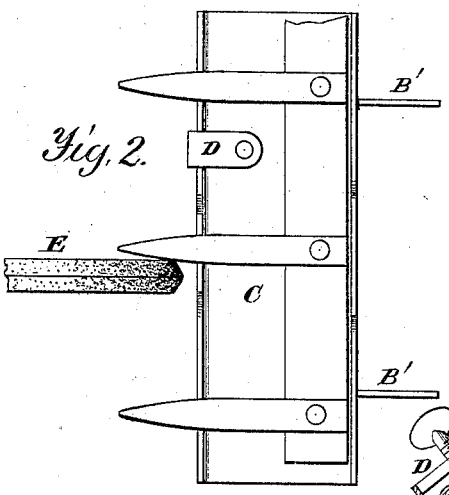


Fig. 3.

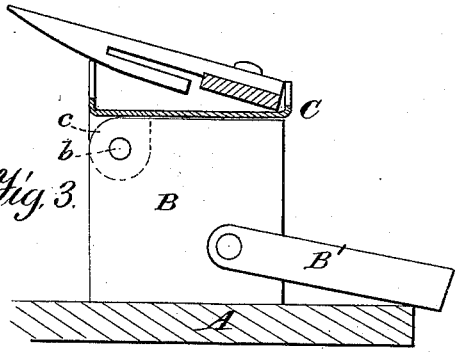
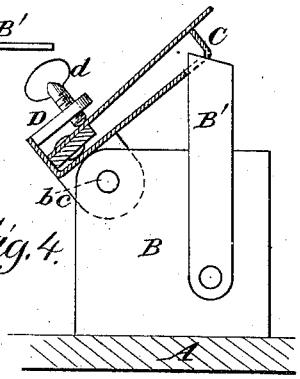


Fig. 4.



Witnesses.
A. Ruppert,
James H. Lange.

Inventor:
Charles Prince.
per Edson Bros.
Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES PRINCE, OF MOUNT PLEASANT, IOWA.

IMPROVEMENT IN MACHINES FOR SHARPENING MOWER AND REAPER KNIVES.

Specification forming part of Letters Patent No. **212,568**, dated February 25, 1879; application filed October 30, 1878.

To all whom it may concern:

Be it known that I, CHARLES PRINCE, of Mount Pleasant, in the county of Henry and State of Iowa, have invented certain new and useful Improvements in Machines for Sharpening Mower and Reaper Knives; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved machine for sharpening mower and reaper knives and grinding the finger-bars. Fig. 2 is a plan view of the adjustable platform, with the finger-bar resting thereon. Fig. 3 is a side elevation of same. Fig. 4 is a similar view, showing the platform raised and the mower-knives held thereon by means of a thumb-screw; and Fig. 5 is a detailed view of the grooved shaft, to which is keyed the large belt-pulley.

Corresponding parts in the several figures are denoted by similar letters of reference.

This invention appertains to certain improvements in machines for sharpening mower and reaper knives, and grinding the knife-guards or finger-bars; and it consists of an adjustable platform, journaled to two uprights or standards, provided each with a swinging arm or bracket to hold said platform, substantially as hereinafter more particularly set forth and claimed.

The object of this invention is to provide a simple and durable machine for holding either a sickle-bar or knife-guard while being ground.

In the annexed drawings, A marks a suitable table or support, to one end of which are secured two uprights or standards, B, to which a platform, C, is adjustably secured by pintles *b* and eye-pieces *c*. This platform is provided with an upwardly-projecting plate, D, having a thumb-screw, *d*, or other suitable fastening, to hold the sickle-bar securely to the said platform, which latter is further provided with upturned sides to hold the guards or teeth, which sides are cut away at their centers, as shown, to clear the finger or tooth being ground from the platform, and whereby the operator can more conveniently apply the grinding-wheel. The standards B have each a swinging arm or bracket, B′, to hold the outer end of the platform C in an elevated position at an angle to the top of the standards B.

The V-shaped emery-wheel E, having the pulley *e*, is journaled in the frame G, which latter swings on the shaft *h* of the frame H. The frame H swings on the grooved shaft I, journaled in the standards J. Keyed to this shaft I, as clearly shown in Fig. 5, is a large pulley, *i*, which, together with the small pulleys *h′*, *g*, and *e*, secured in the frames H and G, carries the belt F, as clearly shown in the drawings. The pulleys *h′* and *g* serve to give even tension to the belt F.

Attached to the shaft I is a pinion, K, meshing with the spur-wheel L, supported by the standard M. The spur L is provided with a handle, *l*, to operate the machine.

Secured to the inner side of the standard M is a hook or bent projection, *m*, which engages with the pin *g′*, secured to the frame G, for the purpose of holding the said frame when not in use.

The mode of sharpening the mower-knives is as follows: Secure the sickle-bar upon the platform, with the points of the knives extending outwardly, by the thumb-screw *d*, and, by means of the swinging bars B′, hold the platform in the position shown in Figs. 1 and 4; take hold of the frame G with the left hand, and with the right revolve the spur-wheel, when the emery-wheel can be applied.

To grind the finger-bars or knife-guards, place the platform C in a horizontal position by removing the bars B′; lay the guards upon said platform with the points extending inwardly, as shown in Fig. 3, when the same can be ground by passing the side of the emery-wheel along the guard or finger, as clearly shown in Fig. 2.

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

1. The adjustable platform hung to suitable standards, having upturned sides, reduced

or cut away in the centers, substantially as shown.

2. The adjustable platform having its upturned sides cut away, as shown, and hinged to the standards B, in combination with the supporting arms or brackets B′, substantially as shown.

3. In a machine for sharpening mower and reaper knives, and grinding the knife-guards, the combination, with an emery-wheel, operated by any suitable motor, of the adjustable platform, supported upon the standards B, provided with supporting-arms B′, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

CHAS. PRINCE.

Witnesses:
O. F. GRIFFITH,
J. B. VERNON.