(No Model.)

C. G. POULSON.

DEVICE FOR SHARPENING MOWING MACHINE KNIVES.

No. 343,726. Patented June 15, 1886.

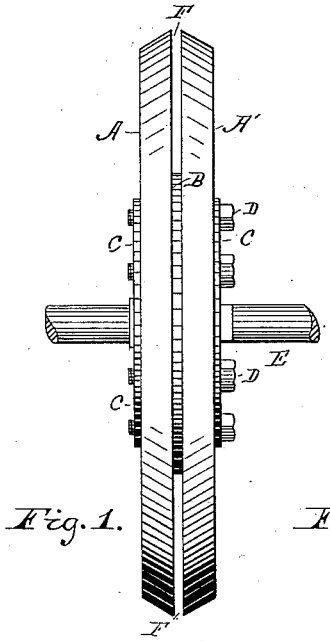

Fig. 1.

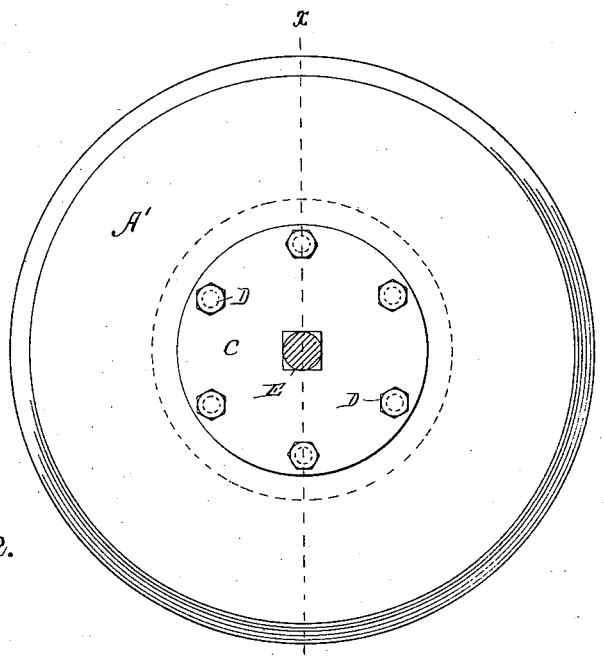

Fig. 2.

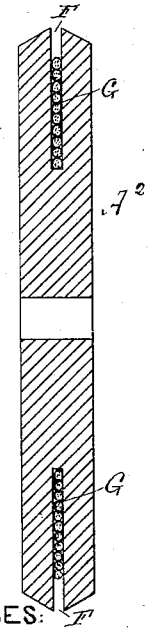

Fig. 4.

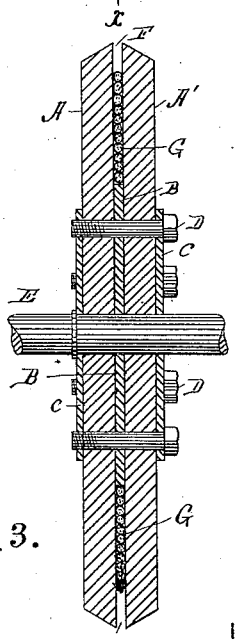

Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES GURNEY POULSON, OF LINWOOD, PENNSYLVANIA.

DEVICE FOR SHARPENING MOWING-MACHINE KNIVES.

SPECIFICATION forming part of Letters Patent No. 343,726, dated June 15, 1886.

Application filed March 8, 1886. Serial No. 194,495. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GURNEY POULSON, a citizen of the United States, and a resident of Linwood, in the county of Delaware and State of Pennsylvania, have invented a new and useful Improvement in Devices for Sharpening and Grinding Reaping and Mowing Machine Knives, of which the following is a specification.

The object of my invention is to furnish a device which will grind the two adjacent edges of two mowing-machine blades at once, grinding the blades to a perfect bevel without any danger of grinding into and weakening the bar to which the blades are attached.

In the accompanying drawings, forming part of this specification, and in which similar letters of reference indicate similar parts throughout the several views, Figure 1 is an end elevation of my improved device; Fig. 2, a side elevation; Fig. 3, a section of Fig. 2 on the line *x x;* and Fig. 4 is a central sectional elevation of a modification of my invention.

Referring to Figs. 1, 2, and 3, A A′ are two circular grindstones, the edges of which are beveled, so as to correspond with the bevel to which the knives are to be ground.

B is a flat piece of wood or metal, placed between the stones A A′.

C are plates, and D bolts, for securing the stones together, and E is the shaft upon which the stones are secured.

The stones A A′ may be of any convenient diameter, and are of such a thickness and are furnished with such a bevel as to grind the two knife-edges at one operation. The stones being separated from each other by the flat piece of wood or metal B, it is not possible for the knife-bar of the machine to be ground into while grinding the edges of the knives, as is the case when a grindstone of the ordinary form is used, for the central part of the stone is the only part that can come in contact with the knife-bar, and as this part is occupied by the open space F it is impossible for the knife-bar to be injured.

Instead of the two stones A A′, a single stone, A^2, Fig. 4, may be used. This stone has its edge furnished with a double bevel, as shown, and a circumferential groove, F, is cut in the middle of its face, in order that the stone will not come in contact with the knife-bar while the knives are being ground.

By means of my device it is possible to grind the adjacent edges of two mowing or reaping machine knife-blades at once, and in such a manner that the proper bevel will be given to both blades, and all tendency to grind into the knife bar upon which the blades are fastened is overcome.

The stones are mounted in the usual manner, and may be driven by any convenient means.

The shape or number of the pieces of wood or metal B, which are employed to separate the stones A A′, Figs. 1, 2, and 3, is immaterial, as are also the devices used to secure these two stones and the center piece, B, together.

As the stones A A′ are very thin—in practice about one inch and a half thick—it may be necessary to place in the groove or slot F some substance to partly fill it, in order to prevent vibration and to make its sides move firm. I prefer to use for this purpose tarred rope, the diameter of which is equal to the width of the slot, and which I wind around the center piece, B. As the stone wears down, a certain amount of this rope may be removed, in order to preserve a proper depth of slot. In Figs. 3 and 4 this tarred rope is indicated by the letter G. It will be understood, however, that I do not desire to confine myself to tarred rope for this purpose, for any other suitable rope or substance may be used.

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

1. The herein-described grindstone for grinding mowing or reaping machine knives, consisting of a circular disk having its edges beveled off and a groove or slot in its face, all substantially as and for the purposes set forth.

2. The combination, in a grindstone, of the circular disks A A′, having their edges beveled off, as shown, and the plate B, of smaller

diameter than said stones, said plate separating said stones and forming a space, F, between them, substantially as and for the purposes set forth.

3. The combination, in a grindstone, of the stones A A′, having beveled edges, plate B, of smaller diameter and separating said stones, and rope G, partly filling the slot F between said stones, all substantially as and for the purposes set forth.

C. GURNEY POULSON.

Witnesses:
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