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PATENTED APR. 23, 1907.

W. H. ASTON & W. W. MORRISON.
SHARPENING TOOL FOR LAWN MOWERS.

APPLICATION FILED MAY 4, 1906.

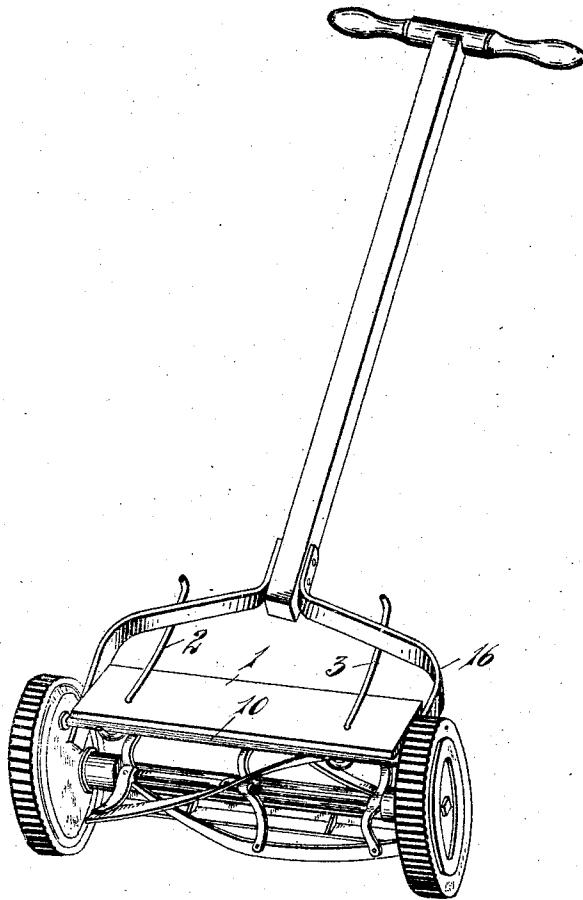


Fig. 1

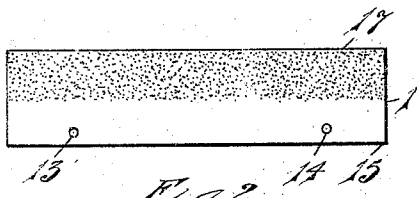


Fig. 2

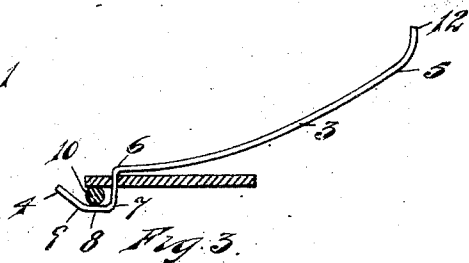


Fig. 3

WITNESSES

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WILLIAM H. ASTON, OF WINDSOR, ONTARIO, CANADA, AND WILLIAM W. MORRISON, OF DETROIT, MICHIGAN.

SHARPENING-TOOL FOR LAWN-MOWERS.

No. 851,053.

Specification of Letters Patent.

Patented April 23, 1907.

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To all whom it may concern:

Be it known that we, WILLIAM H. ASTON, a subject of the King of Great Britain, residing at Windsor, in the county of Essex, Province of Ontario, Canada, and WILLIAM W. MORRISON, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Sharpening-Tools for Lawn-Mowers; and we declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to sharpening-tools for lawn-mowers of the class in which the knives consist of a helical blade held to a revolving shaft.

The object of the invention is to provide a sharpener which can be attached to the frame of the mower and which will sharpen the edge of the blade by turning the blades on their axes in the same way that they are turned when in use.

In the drawings, Figure 1 is a perspective of the sharpener attached to a lawn-mower. Fig. 2 is a plan view of the sharpener. The sharpener is reversed from the position it occupies in Fig. 1. Fig. 3 is a cross-section through the sharpener and an elevation of one of the holding-springs by which it is attached to the mower.

The sharpener consists of an abrading-plate 1, preferably made by cementing abrading material, such as emery or corundum, to the face of the plate that is somewhat elastic. We have found that wood is a very satisfactory material.

The plate 1 is rectangular in outline and is held in position for use by holders 2 and 3. These are springs of heavy wire curved slightly between the ends 4 and 5, with the end 4 curved sharply twice, once curving sharply away from the body of the wire, so that the section of the wire between 6 and 7 is nearly on a radius of the curvature of the body part between 5 and 6. The part between 7 and 8 is nearly parallel to the general course of the body part of the wire, and the part between 8 and 9 returns toward the line which the body would take if extended,

forming a sharply-curved hook or loop between 6 and 9, that is adapted to engage around a cross-bar 10 on a mower of the usual construction. At the end 5 the terminal between 5 and 12 is turned sharply inward.

The plate 1 is provided with two holes 13 and 14, through which the hooked end of the wire is inserted, and the hook part of the wire is brought to one side of the plate and the body or more extended wire at the other side of the plate with the wire extending through the hole in the plate.

When the plate is placed in position on the mower, the cross-bar of the mower engages under the plate 1, between the edge 15 and the holes 13 and 14, and the looped part of the wire engages under the cross-bar, and the structure clamps the cross-bar tightly and is held quite rigidly and firmly in position by putting tension upon the body part of the spring, and this tension is placed upon the spring and held there by swinging the end 5 of the spring under the brace 16 of the lawn-mower. The sharpener is thus placed in position without the use of screws or bolts without disassembling the lawn-mower in any respect and is quickly and easily taken off when it has done its desired work. When in position, it bears against the faces of the revolving knives, and that portion of the plate between the holes 13 and 14 and the edge 17 on that side of the plate which is to be placed toward the knives is covered with an abrading substance secured to the plate by a suitable adhesive.

What we claim is—

A sharpener for lawn-mowers, having in combination a plate, an abrading substance cemented thereon, means for securing said plate to the frame of a lawn-mower, consisting of a spring member passing through the plate and provided at one side thereof with a loop, and at the other side thereof with an extended resilient member, substantially as described.

In testimony whereof we sign this specification in the presence of two witnesses.

WILLIAM H. ASTON.

WILLIAM W. MORRISON.

Witnesses:

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