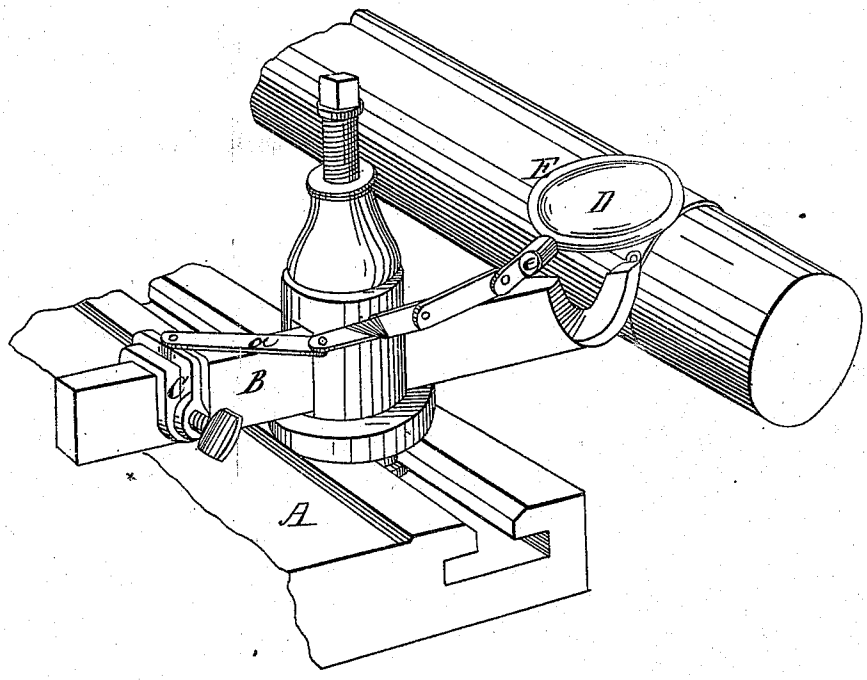
C. T. Lamphere.

Turning Lathe.

No. 79,766. Patented Jul. 7, 1868.



Witnesses
P. T. Dodge
L. Hailer

Inventor
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United States Patent Office.

CHARLES T. LAMPHERE, OF GREENFIELD, MASSACHUSETTS.

Letters Patent No. 79,766, *dated July* 7, 1868.

IMPROVEMENT IN EYE-PROTECTOR OR CHIP-ARRESTER FOR LATHES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHARLES T. LAMPHERE, of Greenfield, in the county of Franklin, and State of Massachusetts, have invented certain new and useful Improvements in Chip-Arresters for Turning-Lathes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

My invention relates to a certain new and improved device, which I term a chip-arrester, to be attached to turning-lathes, to prevent the chips of the material being turned from flying into the face or eyes of the operator.

In the drawings my chip-arrester is shown in perspective attached to the slide-rest of a lathe.

The arrester consists of a glass, D, attached to a clamp, C, by means of a series of bars, *a a*, as shown in the drawing, so that the glass may be turned or placed in any relative position to the clamp C.

This glass, D, is secured within a metal frame, F, which frame is so attached, either by a wrist, *e*, as in the drawing, by a pivot as are the bars, or by a ball-and-socket joint, to the bar or bars *a*, as to turn freely in any direction, said bars being pivoted to each other so as to form a flexible arm, which is pivoted to the upper side of the clamp C, at the end opposite that to which the glass is attached.

When in use, the clamp is secured to the cutting-tool, on either side of the tool-post, and the glass swung around over the point of the cutter, so that any chips cut from the metal, which may fly upwards, will strike against the under side of the glass and fall back upon the lathe.

The glass being transparent, the operation of the tool may be observed more closely than by the naked eye, as the head may be brought much nearer the tool than would otherwise be safe.

Instead of glass, mica may be used, and in some instances it may be preferable, as it is not liable to break, and the glass may be flat, or concave on the under side, so as to guard against the chips glancing off to one side.

For very fine work a lens may be used, instead of the ordinary glass, so as to more closely examine the tool and its operation.

It is obvious that instead of a thumb-screw to attach the clamp, a wedge or cam may be used, or the clamp may be dispensed with, and springs so attached as to spring over or straddle the tool, and thus hold the arrester in position.

It is also obvious that instead of the support for the glass being of jointed bars it may be made of one piece of wire, and may be attached to the tool-post instead of the tool, these changes being, however, unimportant.

The apparatus, as above described, is more especially adapted for metal-turning, but with very slight modifications may be used for wood. The glass in that case would be made longer one way than the other, and secured to the rest, as it would not be convenient to attach it to a hand-tool.

The arrester may also be used on iron planers, the only difference being in its attachment to a vertical instead of a horizontal tool.

Having thus described my invention, what I claim, is—

An apparatus, constructed and arranged for use, substantially as described, for protecting the eyes from chips or metal shavings and similar substances.

CHARLES T. LAMPHERE.

Witnesses:

ALMON BRAINARD,

LUTHER C. PRATT.