No. 812,078. PATENTED FEB. 6, 1906.

M. H. NORTON.

KNIFE HOLDER FOR VENEER LATHES.

APPLICATION FILED MAY 26, 1902.

2 SHEETS—SHEET 1.

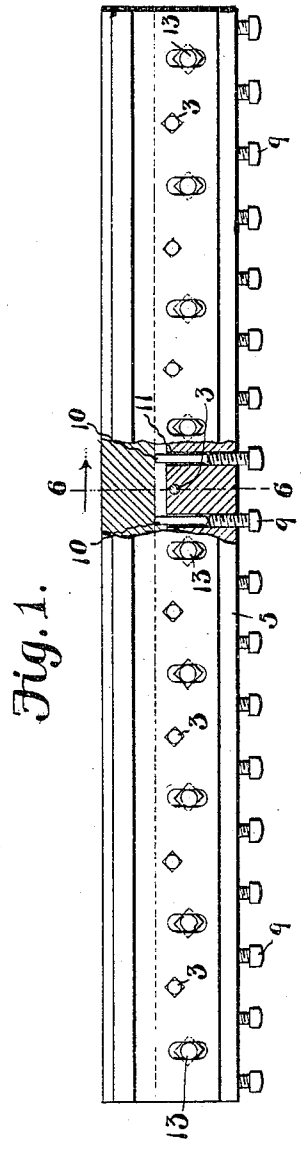


Fig. 1.

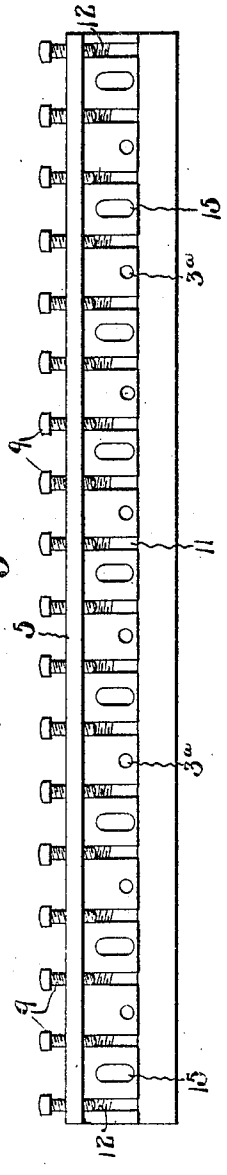


Fig. 2.

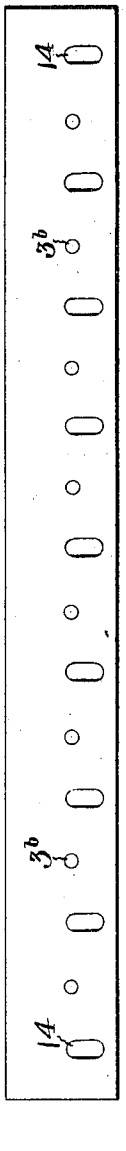


Fig. 3.

SCALE ⅜ in. = 1in.

Witnesses:

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2 SHEETS—SHEET 2.

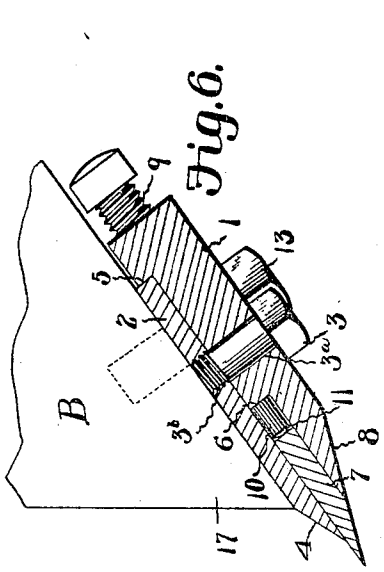


Fig. 6.

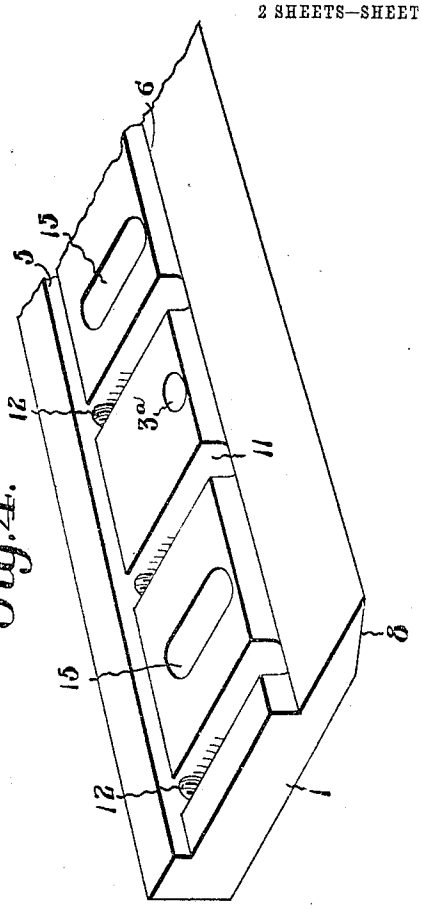


Fig. 4.

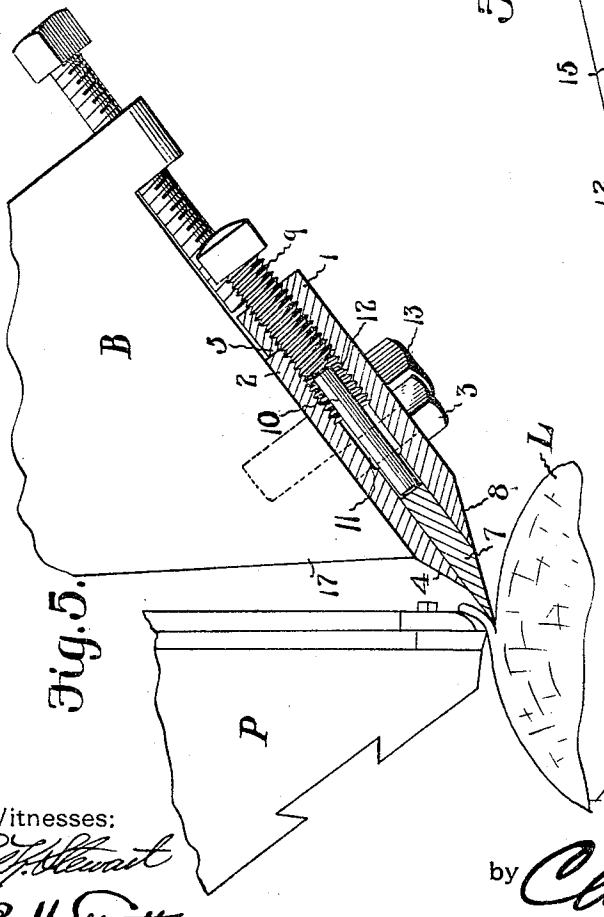


Fig. 5.

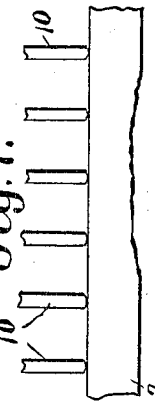


Fig. 7.

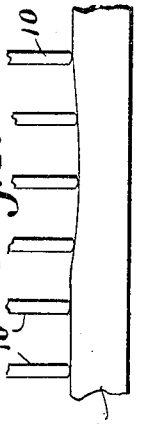


Fig. 8.

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UNITED STATES PATENT OFFICE.

MARTIN HENRY NORTON, OF NEWPORT, VERMONT.

KNIFE-HOLDER FOR VENEER-LATHES.

No. 812,078. Specification of Letters Patent. Patented Feb. 6, 1906.

Application filed May 26, 1902. Serial No. 109,033.

To all whom it may concern:

Be it known that I, MARTIN HENRY NORTON, a citizen of the United States, residing at Newport, in the county of Orleans and State of Vermont, have invented a new and useful Knife-Holder for Veneer-Lathes, of which the following is a specification.

This invention relates generally to veneer-cutting machines, and more particularly to a novel form of knife-holder therefor.

The object of the invention is to provide a knife-holder for veneer-lathes in which in a thoroughly practical manner any irregularity in the cutting edge of the knife may be corrected without regrinding its whole length, whereby a material reduction in the cost attending the procedure is effected and a measurable increase in the life of the knife is secured.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a knife-holder for veneer-cutting machines, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a view in elevation, partly in section, of a knife-holder constructed in accordance with the present invention. Fig. 2 is a similar view of one of the knife-holding elements viewed from its inner face. Fig. 3 is a view in elevation of the other member of the knife-holder. Fig. 4 is a perspective detail view of a portion of the member shown in Fig. 2 on an enlarged scale. Fig. 5 is a view in transverse section through the holder and its support, and exhibiting also a portion of the presser-plate and of the log from which the veneer is cut. Fig. 6 is a view in transverse section taken on the line 6 6, Fig. 1, and looking in the direction of the arrow thereon. Figs. 7 and 8 are diagrammatic views illustrating the manner in which a nick or mutilated portion of a knife is removed.

A knife such as is ordinarily employed upon veneer-cutting machines is usually about seven inches wide, one inch thick, and eighty-eight inches long and is supported upon a heavy cross-bar in order to enable it to withstand the severe strains to which it will be subjected in use. In the event of any unequal wearing of the cutting edge or of its nicking by knots or from other causes the whole length of the knife must be ground to a new and uniform edge before it will be fitted for service. This procedure is laborious and expensive, results in the waste of a large proportion of the knife, and materially reduces its period of usefulness.

With the holder of the present invention a knife that is comparatively thin and narrow is employed which is supported in such manner as to impart to it the necessary rigidity for use, so that when the knife is worn out or rendered unfit for further service it may be replaced by a new one at but slight cost. There is furthermore provided a novel form of flexing means, whereby any portion of the knife that is damaged, as from nicking or the like, may be flexed to bring the lowest wall of the injured part in alinement with the remainder of the operative edge of the knife, so that by grinding only a very short length of the knife its entire cutting edge will be restored to its normal and perfect condition.

The holder comprises an under clamping-plate 1, an upper clamping-plate 2, and a plurality of assembling bolts or screws 3, that pass through unthreaded orifices 3^a in the clamping-plate 1 and engage threaded orifices 3^b in the clamping-plate 2, and operate positively to secure the two plates together. The upper clamping-plate 2 is made of a flat piece of metal, preferably of steel, and has its upper forward end beveled at 4. The under clamping-plate has its inner face, or that which opposes the plate 2, provided with a longitudinal shoulder 5, against which the plate 2 normally bears. The clamping-plate 1 is further channeled at 6 to form a recess or seat to receive the knife 7, which is thin and narrow and thus capable of being transversely flexed by mechanism presently to be described. The under forward end of the clamping-plate 2 is beveled at 8 and forms, in effect, a continuation of the beveled cutting edge of the knife. By the beveling of the two plates the knife is reinforced throughout its entire width, while there will be no obstruction presented whatever to the sheet of veneer that is cut from the log L, as shown in Fig. 5.

The means for deflecting the knife to effect truing of its cutting edge comprises a plu-

rality of pressure bolts or screws 9 and a like number of presser-pins 10, the latter being of less cross diameter than the pressure-bolts, and being seated in recesses 11 on the inner face of the clamping-plate 1 and constituting a continuation of the threaded orifices 12, in which the pressure-screws are seated, as clearly shown in Fig. 5. As shown in Fig. 2, the pressure-screws are comparatively close together, so that any portion of the length of the plate may be deflected or flexed for the purpose of correcting any irregularity therein.

The holder is rigidly attached to the usual supporting-bar B of the machine by clamping bolts or screws 13, that pass through transversely-elongated orifices 14 and 15 in the two plates 1 and 2 and engage threaded orifices in the bars 17. As usual, there is a presser-bar P employed in advance of the knife to prevent the veneer from splitting.

In the operation of repairing the edge of the knife that has been damaged, the clamping-bolts 3 and 13, adjacent to the damaged portion, are slightly loosened and one or more of the pressure-bolts on each side and opposite the nick or gap are turned by a suitable wrench, thereby causing the presser-pins to impinge the back of the knife, and thus flex it transversely, which will result in forcing out or bowing the cutting edge of the knife sufficiently to bring the deepest portion of the nick or gap in alinement with the perfect edge of the knife on each side thereof. When this has been effected, the bolts 3 and 13 that were loosened are again tightened and the deflected portion of the knife at the cutting edge is then dressed down and sharpened, thereby restoring the entire cutting edge to its normal conditon.

Having thus described the invention, what is claimed is—

1. A knife-holder embodying a pair of clamping elements, a knife held between the elements, and means for transversely flexing a length of the knife edgewise or in the plane of the knife.

2. A knife-holder comprising a pair of clamping elements, a knife disposed between the elements, presser-pins engaging the rear edge of the knife, and means for exerting pressure on the pins to effect transverse flexing of a length of the knife.

3. A knife-holder embodying a pair of clamping elements, a knife disposed between the elements, clamping-screws for connecting the elements and locking the knife in position, presser-pins engaging the rear edge of the knife, and pressure-bolts coacting with the presser-pins to effect transverse flexing of the length of the knife.

4. A knife-holder embodying a pair of clamping elements, one of which is provided with spaced threaded orifices and open-sided recesses communicating therewith, a knife disposed between the elements, means for clamping the two elements together, presser-pins disposed within the recesses and engaging the rear edge of the knife, and pressure-bolts engaging the threaded orifices and coacting with the presser-pins to effect flexing of the knife.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MARTIN HENRY NORTON.

Witnesses:
W. E. De Larm,
E. A. Spooner.