

W. WALKINGTON.

Cutter-Holders for Planing-Machines.

No. 135,182.

Patented Jan. 21, 1873.

Fig. 1.

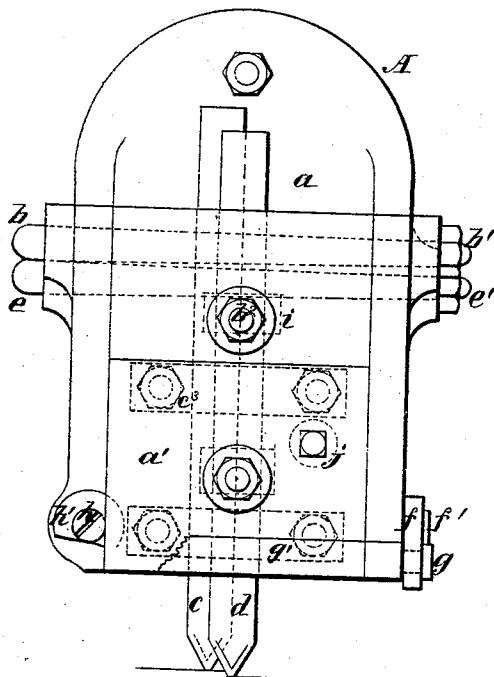
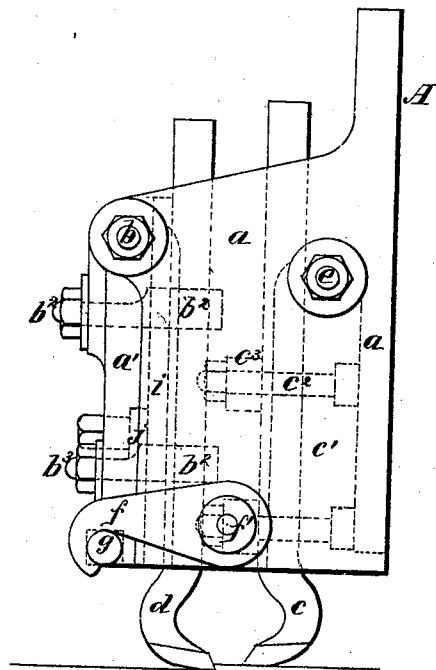


Fig. 2.



Witnesses:

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WILLIAM WALKINGTON, OF LEEDS, ENGLAND.

IMPROVEMENT IN CUTTER-HOLDERS FOR PLANING-MACHINES.

Specification forming part of Letters Patent No. 135,182, dated January 21, 1873.

To all whom it may concern:

Be it known that I, WILLIAM WALKINGTON, of Leeds, England, engineers'-tools maker, have invented an Improved Tool-Box or Cutter-Holder for Metal Planing and Shaping Machines, of which the following is a specification:

My said invention relates to the construction of a strong, simple, and convenient compound box or holder for the tools or cutters of metal planing, shaping, and slotting machines; and it is designed to render such machines double-acting in a more efficient manner than has heretofore been practicable without encumbering it with mechanism or appliances which are liable to derangement and require the constant supervision of a skilled operative. My said apparatus has two tools or cutters arranged to cut in opposite directions, so that one will operate when the machine table or head travels forward, and the other when the said table travels backward. One of these tools is attached to a hinged piece, which is firmly secured while the said tool is cutting, but may at other times be released and turned up to allow access to the interior of the box or holder for adjusting or securing or releasing the other tool or cutter.

Description of the Drawing.

Figure 1 is a front elevation of my improved compound tool box or holder, showing the tools arranged with one nearly in front of the other. Fig. 2 is a side elevation of the same.

Like letters indicate the same parts throughout the drawing.

A is the tool box or holder, made of cast-iron or other suitable metal, and designed to be secured by bolts or screws, in the ordinary manner, to the vertical side of a planing, shaping, or slotting machine. It will be seen by referring to the drawing that the body *a* of the said box or holder is of a convenient form to be fixed, as aforesaid, to the vertical slide of the machine, and the part *a'* is hinged or jointed to the said fixed part by the pin or bolt *b*, on which it swings. *c d* are the cutters. One of the tools or cutters *c* is secured in the part *a* of the box by the holder *c'*, which also swings on the pin *e*. This pin and the pin *b* are preferably made taper, as shown, and are

provided with screw-nuts *b¹ e¹*, whereby they are from time to time drawn further into their holes to compensate for the wearing of the swinging holders. *b², c², and c³* are the bolts and clamps whereby the tools are secured to the said swinging holders. It is necessary to provide the box with means for securing the swinging piece or front *a'* when the tool *d* is cutting, and releasing it when the said tool is to be turned up away from its work to allow access to the inside of the box. I have shown two contrivances for accomplishing this object, one of which is a hook or catch, *f*, turning upon a bolt or pin, *f'*, on the side of the part *a* of the box, the same being arranged to take hold of a pin or stud, *g*, formed on the end of the bar *g'* fixed on the swinging piece *a'*. I use two of these catches—one at each side of the box. When it is desired to liberate the swinging piece and turn the same up, it is only necessary to raise the catches *f* from the pins *g*. The other contrivance employed for the same purpose is a screw, *h*, with a head, *h'*, of the shape shown in Figs. 1 and 3. One of these screws is fitted into a tapped hole in each side of the part *a* of the box, in such a position that when the head is adjusted, as shown in Fig. 1, the circular part thereof overlaps the swinging piece and prevents its opening; but when the head is turned with its flat side parallel with the edge of the swinging piece, as shown in Fig. 3, it no longer overlaps the said swinging piece, and the latter may be opened or turned up, as above described. When this piece is turned up access may be had to the interior of the box, and by means of a box-key or other suitable implement the tool *c* may be fixed or released. In order that one of the tools may be capable of adjustment independently of the other with regard to the depth of its cut, I provide the swinging piece *a'* with a vertical slide, *i*, to which the tool is secured by the slotted bolts *b²*. The latter project through the swinging piece or front, and are provided with nuts *b³* outside the same, whereby the aforesaid slide may be made fast or released. For raising and lowering the slide *i*, I provide a small eccentric, *j*, which is fitted in the piece *a'*, and so arranged to act on the slide that by turning it the latter will be raised or lowered. The said

eccentric has a short spindle or stem projecting through the swinging piece, and the end thereof is made square to receive a box-key or wrench, whereby the said eccentric is operated.

When the tool is to be adjusted I first release the slide by slackening the nuts *b*³; then turn the eccentric till the tool is brought to the required position, and then tighten the said nuts to again secure the said slide.

If desired, I may use a screw instead of the eccentric for adjusting the slide *i*, the said screw having a square head projecting above the top of the swinging piece in a convenient

position to be operated by a box-key or spanner.

Claim.

The box *A* provided with the rigid portion *a* and swinging portion *a'* and clamps for holding the adjustable tools *c* *d*, in combination with the slide *i*, eccentric *j* or its equivalent, hook *f*, and stud *g*, all constructed and arranged substantially as herein shown and specified.

Witnesses: WM. WALKINGTON.

WM. ROBT. LAKE,

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