

E. S. Wright,

Cutter Head,

Patented Sept. 1, 1868.

No 81,859,

Fig. 3.

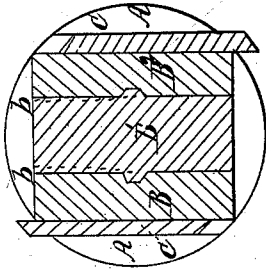


Fig. 2.

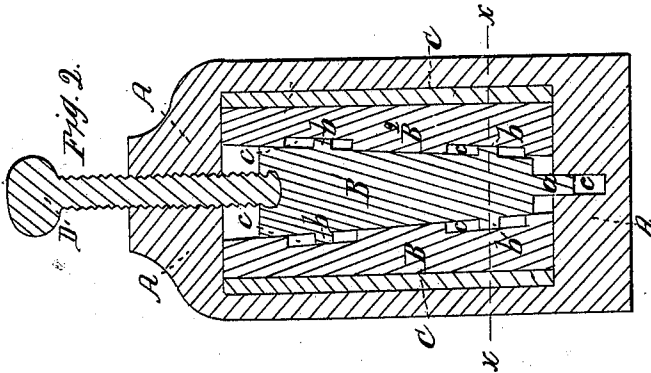
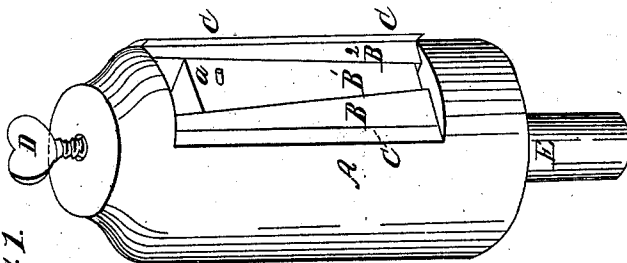


Fig. 1.



Witnesses.
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EDWARD S. WRIGHT, OF NEW YORK, N. Y., ASSIGNOR TO SAMUEL LEGGETT.
OF SAME PLACE.

Letters Patent No. 81,859, dated September 1, 1868.

IMPROVEMENT IN CUTTER-HEADS.

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, EDWARD S. WRIGHT, of New York, in the county of New York, and State of New York, have invented a new and useful Improvement in Chisel-Stocks or Knife-Holder, for securing the knives of wood-working and other machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a perspective view of the stock or head, showing the wedges and knives in position.

Figure 2 is a central sectional elevation, also showing the wedges, with the projections upon the central one, and the recesses in the outer ones for receiving said projections; and

Figure 3 is a view of the knives and wedges on the line *x x* of fig. 2.

Corresponding letters denote corresponding parts in the several figures.

This invention relates to a chisel-stock or knife-holder, for securing the knives of wood-working and other machines, within three stocks or revolving heads; and it consists in the construction of a series of wedges, (three being shown in this case,) placed within the stock or head, which carries the knives of such machine, which wedges are held in position by a screw, which passes through a portion of said head and bears upon one of said wedges, as will be fully described hereafter.

A is the head or stock, which carries the knives, and may be of any suitable form to adapt it to the work to be done. In the present case it is shown as being cylindrical in form, and of sufficient length to receive the knives and wedges, which are inserted into a slot cut through it in a direction transverse to its length; but it is apparent that the construction of the head may be very varied, and yet be adapted to receive the wedges for securing the said knives.

B, B¹, and B² are the wedges inserted into the slot in the head, as above described, those marked B and B² bearing against the knives C C, which are also within the slot, but outside of said wedges.

The above-described wedges have their lower or thickest end resting upon the inner end of the slot, or that portion which is farthest from the screw D, which holds them in position.

B¹ is the central wedge of the series, and is provided at its inner end with a projection, *d*, which enters into a recess, *e*, formed within the head to receive it, and which serves as a guide to keep the wedge in position. This wedge is also provided with projections, *b b*, upon its sides and near its ends, which projections pass into elongated slots formed in the inner faces of the wedges B and B², as shown at *c c*, fig. 2, of the drawings.

C C are the knives, which are placed within the slot formed in the head, and lean against the walls of said slot upon their outer surfaces, while their inner surfaces are in contact with the wedges B and B², by which they are pressed against said walls, and thus held in position while in use.

D is a screw, which passes through the outer wall of the head and enters a recess formed in the outer end of the wedge B¹. That portion of said screw which enters said recess has a groove turned in it, to receive the end of a pin, *a*, which passes into a hole drilled into said wedge for that purpose, as shown in fig. 1, the object of which is to retract or draw back the wedge B¹ when the screw is turned outwards, thus releasing the wedges and knives and permitting their removal from the head.

The operation of this device is as follows:

The cutter-head or stock, after having been constructed with reference to the work to be done, and in accordance with the foregoing description, the knives are placed in the slot, one upon either side thereof, and with the edge of one projecting in one direction and the other in the opposite direction, when the wedges B and B² are inserted between said knives, with their thin ends outward, and there the wedge B¹ is inserted between the other two, with its base or thickest end outwards, after which the screw D is inserted in the head, and screwed in until its grooved end rests upon the bottom of the recess formed in the wedge B¹. The pin *a* is then inserted, and the screw is still further turned inwards, thus facing the inclined surfaces of wedge B¹ upon the

corresponding faces of wedges B and B², whose opposite faces are parallel with the walls of the slots and with the faces of the knives with which they come in contact, and thus the whole are held firmly in their places.

The head is now ready for use, and may be applied to any machine to which it is adapted, which may be done by inserting the projection E of the head A into the mandrel of the machine, and securing it therein by a set-screw.

It is apparent that by making the body of the knives thicker, and giving their inner faces, or those which come in contact with the wedge, the form given to the inner faces of wedges B and B², said wedges B and B² may be dispensed with, and that this would not be a departure from my invention.

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

The construction of the wedges B, B¹, and B², as described, that is, with the elongated slots *c* or recesses in the inner surfaces of the outer ones, and the projections *b* upon the outer surfaces of the inner one, for the purpose of guiding said wedges in their movements, and also for preventing them from falling out of the cutter-head when the centre one is driven back for the purpose of releasing the knives.

EDWARD S. WRIGHT.

Witnesses:

ANDREW DE LACY,

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