# J. A. Welsh,

## Bench Plane.

No. 52,473. Patented Feb. 6, 1866.

Fig. 1.

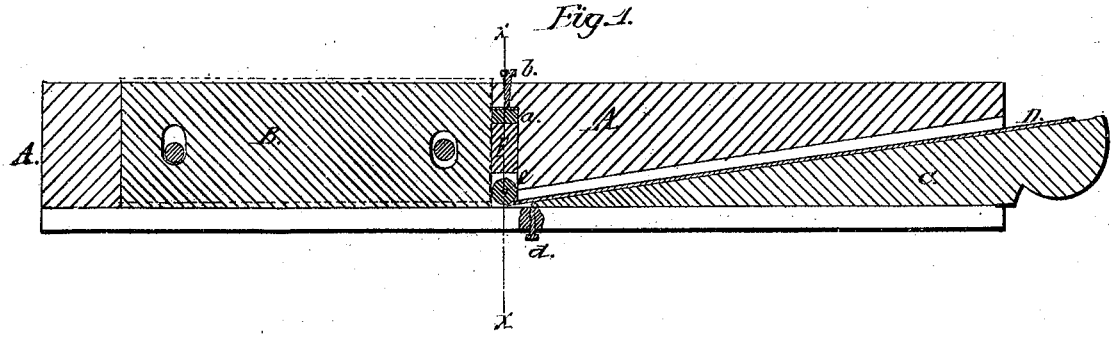
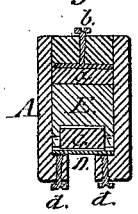



Fig. 2.

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# UNITED STATES PATENT OFFICE.

J. A. WELSH, OF XENIA, OHIO.

## IMPROVEMENT IN BLIND-SPLINT MACHINES.

Specification forming part of Letters Patent No. **52,473**, dated February 6, 1866.

*To all whom it may concern:*

Be it known that I, J. A. WELSH, of Xenia, Greene county, in the State of Ohio, have invented certain new and useful Improvements in Tools for Cutting Splints for Window-Shades and Similar Uses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification, similar letters in both figures referring to like parts.

Figure 1 is a longitudinal vertical section, and Fig. 2 a transverse vertical section of the same, taken on the line *x x* of Fig. 1.

The nature of my invention consists in providing an adjustable throat-piece, having a roller mounted in its lower end immediately over the point of the knife, and using, in connection therewith, a spring and adjusting-screws.

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

A represents the body of the tool, which is constructed of wood, in the usual manner, having the sides projecting down below the body, and leaving a channel on its under side of the width of the splint to be cut, as shown clearly in Fig. 2.

A plane bit or knife, D, is secured in the rear portion of the implement in an inclined position, and having its point projecting down into the channel about midway of its length, as shown in Fig. 1, a channel being formed above the knife for the splint to pass through as cut. This knife D is secured in place by a wedge, C.

The front portion of the tool is recessed and provided with an adjustable block, B, to regulate the thickness of the splint to be cut. At the rear of block B and directly over the point of the knife D, I locate an adjustable block or frame, E, having a roller, *c*, mounted in its lower end transversely of the body A. Upon the top of this frame E, I place a rubber spring, *a*, and upon the upper surface of which rests a metal plate, against which the end of a screw, *b*, presses. By this screw *b* the frame E, with its roller *c*, can be adjusted higher or lower, and thus made to press upon the splint over the point of the knife with more or less force, as may desired.

A screw, *d*, is also inserted in the projecting sides or flanges of the tool, so as to impinge against the under side of the knife near its point, to prevent its springing, and also to assist in adjusting it as may be necessary.

The object of the friction-roller is to prevent the grain of the splint from being injured or broken, as it is apt to be when it has to slide past a stationary piece, as is usual in tools of this character. There is also less friction, and consequently less power is required to operate it. By the use of the spring *a* the adjustable block or frame E is allowed to yield slightly when there is a curl or knot in the wood, and thus prevent the splint from sticking in the throat and becoming broken and choking the tool.

By these improvements I am enabled to furnish a tool that performs its work with great ease and perfection.

Having thus described my improvements, what I claim is—

1. The sliding block E, provided with the roller *c*, arranged and operating as shown and described.

2. The spring *a*, and set-screw *b*, in combination with the movable block E and roller *c*, arranged and operating in the manner and for the purposes set forth.

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Witnesses:

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