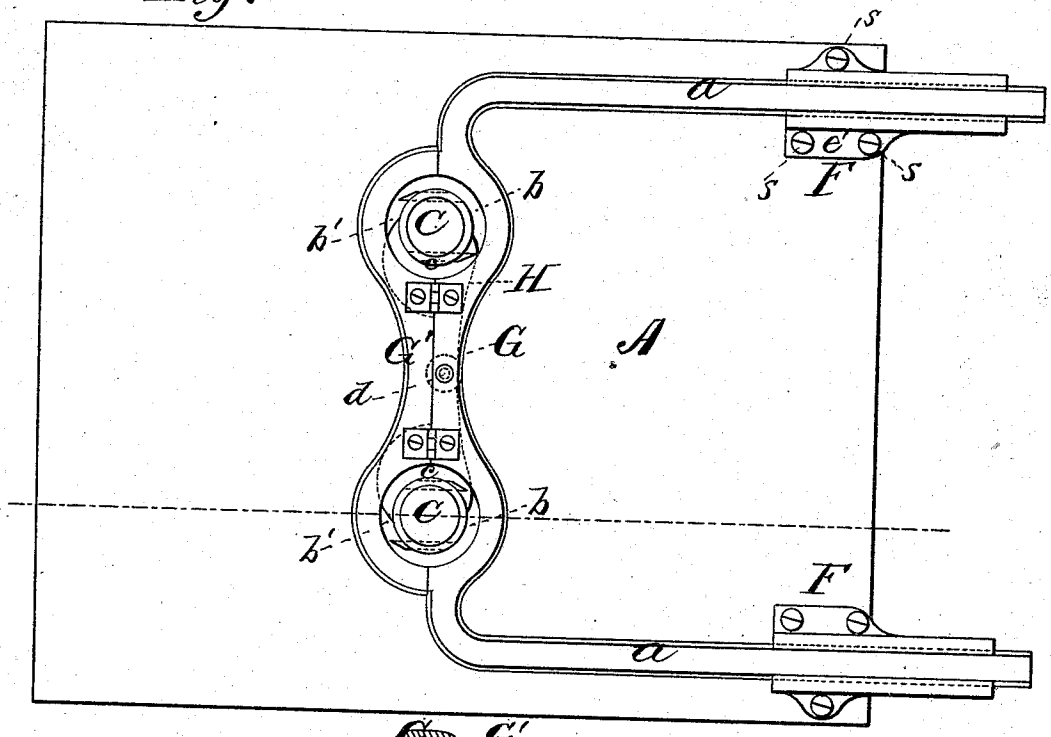
T. H. WOOD.

SAFETY-GUARDS FOR WOOD-SHAPING MACHINES.

No. 172,236. Patented Jan. 11, 1876.

Fig 1



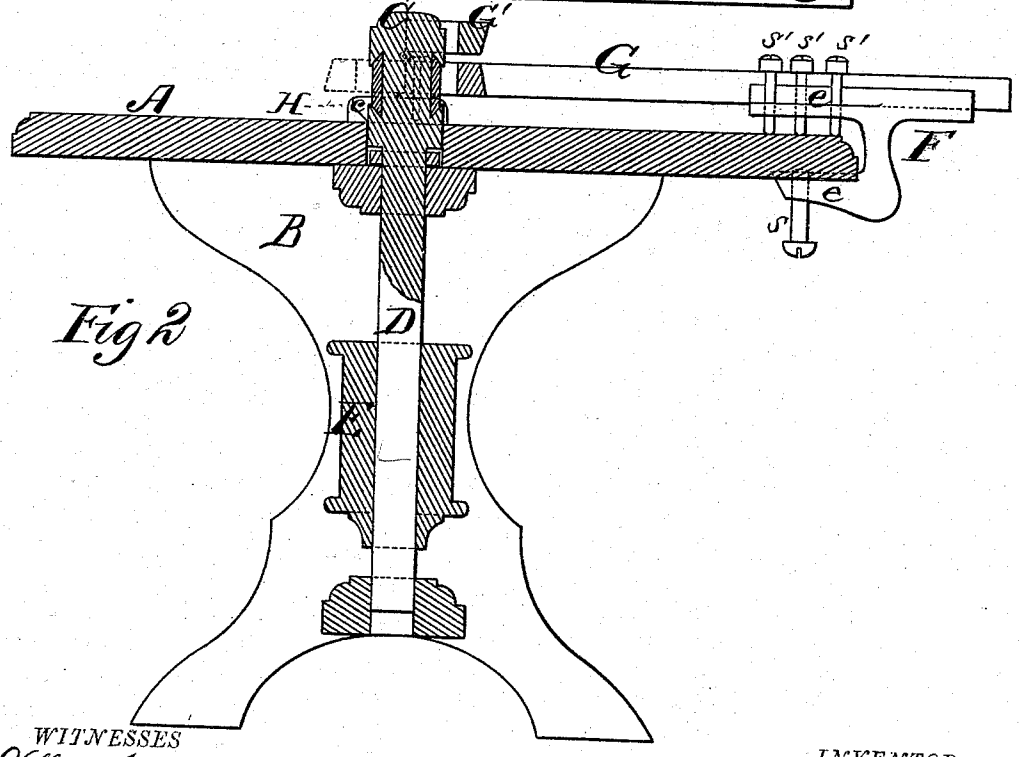


Fig 2

WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS HAMPTON WOOD, OF YORK TOWNSHIP, SANDUSKY COUNTY, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES B. WOOD, OF SAME PLACE.

IMPROVEMENT IN SAFETY-GUARDS FOR WOOD-SHAPING MACHINES.

Specification forming part of Letters Patent No. **172,236**, dated January 11, 1876; application filed November 20, 1875.

To all whom it may concern:

Be it known that I, THOMAS HAMPTON WOOD, of York township, in the county of Sandusky and State of Ohio, have invented a new and valuable Improvement in Safety-Guards for Shaping-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my safety-guard attachment to shaping-machines, and Fig. 2 is a longitudinal vertical sectional view of the same.

This invention has relation to improvements in wood-shaping machines; and it consists in combining with a table and the cutter-heads a detachable guard, whereby during the rotation of the heads the fingers of the operator are prevented from coming in contact with the knives in guiding the stock to be shaped, as will be hereinafter more fully explained.

In the annexed drawings, the letter A designates an ordinary table, supported by standards B, and having cutter-heads C extending through it, as shown in Fig. 2. These heads are secured to the upper ends of shafts D, which receive motion through the medium of pulleys E, communicating with a suitable motor, or by a suitable system of gears. F represents strong metallic tail-blocks, which are attached to the table after the manner of clamps. These tail-blocks are vertically adjustable by means hereinafter explained, and their upper surfaces are provided with a dovetailed groove, in which are received the legs *a* of a U-shaped metallic guard, G, which is provided at its arch with a number of semicircular recesses, *b*, adapted to receive the cutter-heads C, as shown in Fig. 1. The circuit of the heads is completed by means of a metallic plate, G′, having semicircular recesses *b*′, which is hinged to guard G, so as to be capable of being thrown up upon it when not needed. H represents a preferably metallic cross-bar, arranged between the cutter-heads, and having at each end concave recesses *c*, which aid in holding it in position by embracing the heads. It is also supported by means of a metallic pin, *d*, which passes through guard G and the said bar into the table A. As shown in Figs. 1 and 2, tail-blocks F are attached to the table by means of a screw, *s*, passing through an arm, *e*, of the said blocks, and bearing against the under side of the table, and of upper screws *s*′, which pass through the upper jaw *e*′ of the tail-block clamp, and bear against the upper side of the said table. When these screws are forcibly set up the tail-blocks will be rigidly secured to the table, and if the lower screws *s* be loosened, and the upper screws *s*′ proportionately set up, the interval between the table and guard will be lessened. A reversal of these movements will increase the interval between them, thus providing a means of adjustment, whereby stock of greater or less thickness may be brought in contact with the knives when thrust under the guard. The free end of guard G G′ will be supported by cross-bar H when used, but it may be dispensed with when the operator is working by a pattern, being principally designed to start the knives into the molding when no pattern is used. The guards G G′ extend considerably beyond the cutting-edges of the knives, and will, consequently, prevent the operator from accidentally bringing his hand in contact therewith, and when not needed may be pushed back out of the way through tail-blocks, or may be detached from the table by removing pin and loosening screw *s*.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the rotary cutters C, the guard G, guard-plate G′ hinged thereto, and cross-bar H, substantially as specified.

2. In combination with the rotary cutters C, the guard-plate G, having semicircular recesses *b*, and the hinged plate G′, having recesses *b*′, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

THOMAS HAMPTON WOOD.

Witnesses:

P. N. SCHUYLER,

H. M. SINCLAIR.