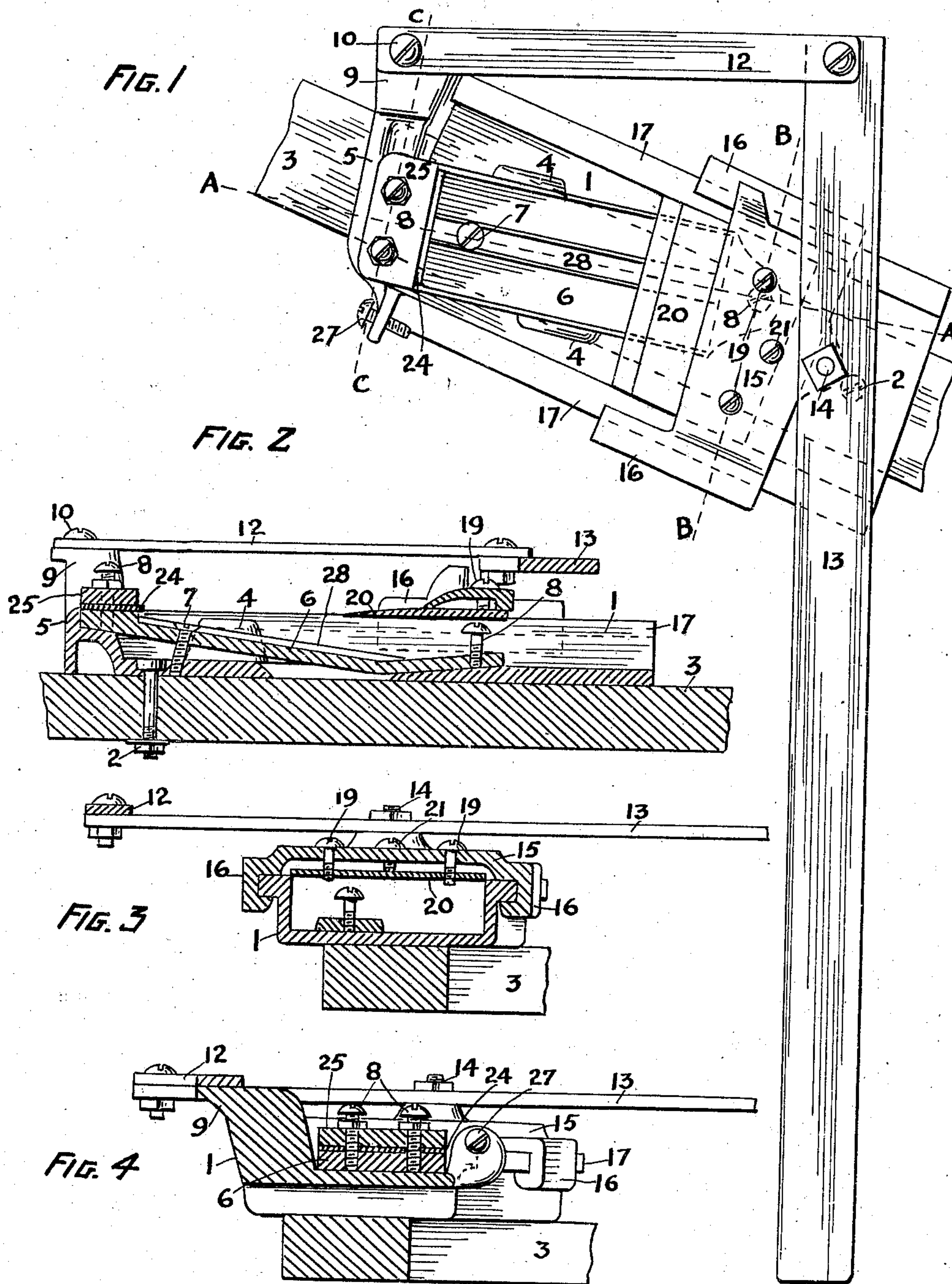


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PATENTED APR. 16, 1907.

F. B. SCHUYLER.
WEDGE SPLITTING AND SHAVING MACHINE.

APPLICATION FILED MAR. 14, 1905.



Witness
Boris Gofmekel
Leon Boillot

Inventor
F. B. Schuyler
By
J. M. Wright,
Attorney

UNITED STATES PATENT OFFICE.

FRANK B. SCHUYLER, OF SAN FRANCISCO, CALIFORNIA.

WEDGE SPLITTING AND SHAVING MACHINE.

No. 850,546.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed March 14, 1905. Serial No. 250,027.

To all whom it may concern:

Be it known that I, FRANK B. SCHUYLER, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Wedge Splitting and Shaving Machines, of which the following is a specification.

This invention relates to an improved machine for splitting and shaving wedges, the object of the invention being to provide a machine of this character in which the knife in cutting the wedge shall have a shearing action; also, having an adjustment whereby either the thin end or the thick end of the wedge may be cut of varying degrees of thickness, as may be desired; also, in which, in addition to the above adjustments, a still greater variation in size of wedges cut by the machine may be provided; furthermore, to provide means in such a machine for preventing the dulling of the knife-edge thereof.

In the accompanying drawings, Figure 1 is a plan view of the machine. Fig. 2 is a vertical section thereof on the line A A of Fig. 1. Fig. 3 is a transverse vertical section on the line B B of Fig. 1. Fig. 4 is a similar section on the line C C of Fig. 1.

Referring to the drawings, 1 represents a U-shaped frame, which may be secured in any desired manner, as by bolts 2, upon a piece of wood 3, which may be held in a vise when in operation. Between lugs 4 and against a boss 5, all cast upon said frame, is supported an inclined plane 6, secured to the frame by a screw 7, said plane being disposed at an acute angle with the frame. In addition there are adjusting-screws 8, and by screwing said screws 8 up or down either end of the inclined plane may be raised or lowered relatively to the frame. Into a bearing 9, cast upon the frame, is screwed a bolt 10, having a pair of nuts 11 on the lower end thereof, which bolt forms a pivot for a link 12, to the other end of said link being fulcrumed a lever 13, said lever being pivotally secured, as shown at 14, to a cutter-holder 15. Said holder 15 has underhanging sides 16, forming grooves which receive flanges 17, extending from the sides of the frame, and thus forming guides for the holder. Below said holder is secured by screws 19 a cutter 20, projecting forwardly from the edge of the holder, and centrally behind said screws 19 is a third screw 21, screwed through the holder and bearing down upon the top of the cutter. By

properly turning the screws 19, which pass loosely through the holder and are screwed through the cutter, the forward portion of the cutter may be raised or allowed to be dropped, and thus by turning also the rear screw 21 the cutter may be adjusted so as to cut in the same plane as that in which it moves, inclining neither above nor below said direction of movement.

The edge of the cutter, as likewise the front edge of the holder, is arranged obliquely to the edges of the holder and at right angles to the general direction of the inclined plane, which inclined plane is also disposed at an acute angle with the frame on the edges of which said holder slides. The result is that the cutter, sliding on the frame, has also a transverse motion across the wood which rests upon the inclined plane, thereby making a draw cut, which is very effective in the operation of shaving the wedge and reduces the power necessary to make the cut.

Upon the end of the inclined plane is secured a layer of paper 24, firmly pressed down onto the top of said inclined plane by means of a metal plate 25, forced down by screws 8. The edge of this paper receives the impact of the sharp edge of the cutter when it has shaved the wedge, and thus prevents the blunting thereof. To prevent the cutter cutting into the paper too much, the holder is arrested by a screw 27.

The inclined plane is formed with a raised central longitudinal portion or rib 28, the object being to allow for even greater variation in the size of the wedge than is permitted by the adjustment of the ends of the inclined plane. Thus if it is desired to cut a thin wedge the block is laid on said raised central portion; but to cut a thicker wedge the block is laid on a portion of the inclined plane to either side of and below said central portion.

To operate the machine, a thick or tall rectangular block of wood is held down upon the inclined plane 6 so that the grain of the wood is parallel therewith, and the knife is then reciprocated by means of the lever. At each reciprocation as soon as the knife enters the block it splits the block in a direction parallel with the grain or with the inclined plane 6. A small rectangular block is thus split off at the bottom of the main block. It is necessary to form this small rectangular piece into a wedge, and this is done by the continued advance of the knife in a horizontal plane at an angle with the bottom of said block resting on

the inclined plane. Thereby the small block is formed into a wedge, the upper portion thereof being discarded. The rest of the main block is then laid down again upon the inclined plane and the operation is repeated.

I claim—

In a machine of the character described, the combination of a frame having side flanges, a knife-holder having underhanging sides forming grooves engaging said flanges, a knife depending from said holder and secured thereto by means of screws, the holder being bent down at its front edge to form a lip bearing upon said knife, and an adjusting-screw

through said holder and bearing upon said knife behind said supporting-screws, whereby the inclination of the knife relatively to the holder can be varied, means for moving said holder on said frame and a support within the frame for the article to be cut by the knife, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

F. B. SCHUYLER.

Witnesses:

FRANCIS M. WRIGHT,
BESSIE GORFINKEL.