June 27, 1933. F. S. WENDELKEN 1,915,636

TOOL FOR SLICING WALL BOARD AND THE LIKE

Filed Feb. 13, 1930 2 Sheets-Sheet 1

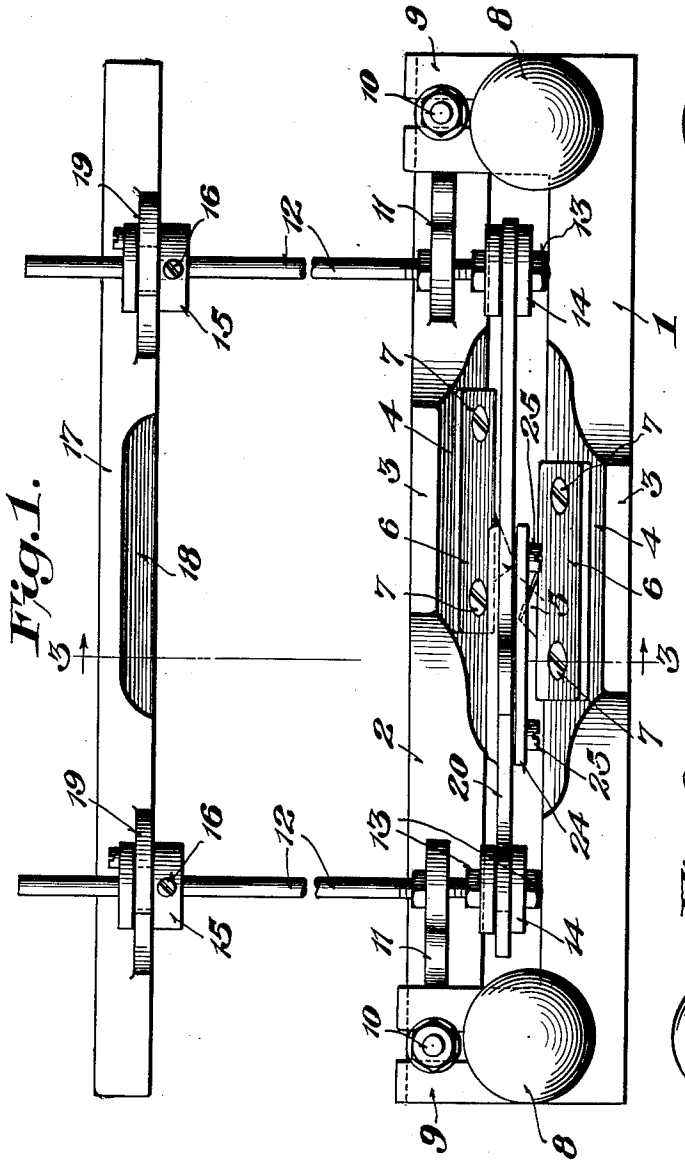


Fig. 1.

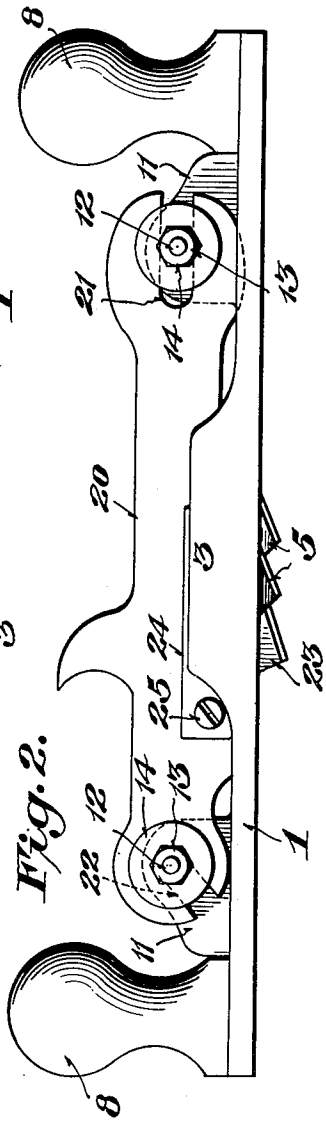


Fig. 2.

INVENTOR

F. S. Wendelken,

BY

Howard A. Coombs

ATTORNEY.

June 27, 1933. F. S. WENDELKEN 1,915,636

TOOL FOR SLICING WALL BOARD AND THE LIKE

Filed Feb. 13, 1930 2 Sheets-Sheet 2

Fig. 4.

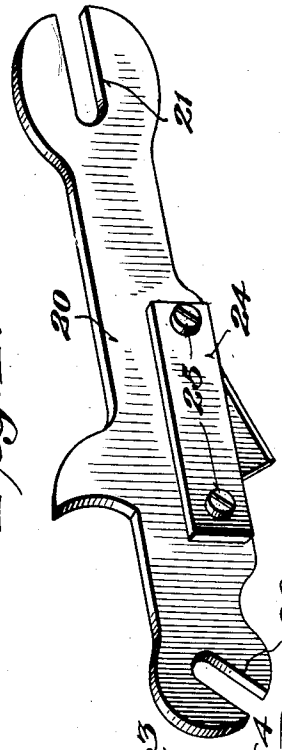


Fig. 5.

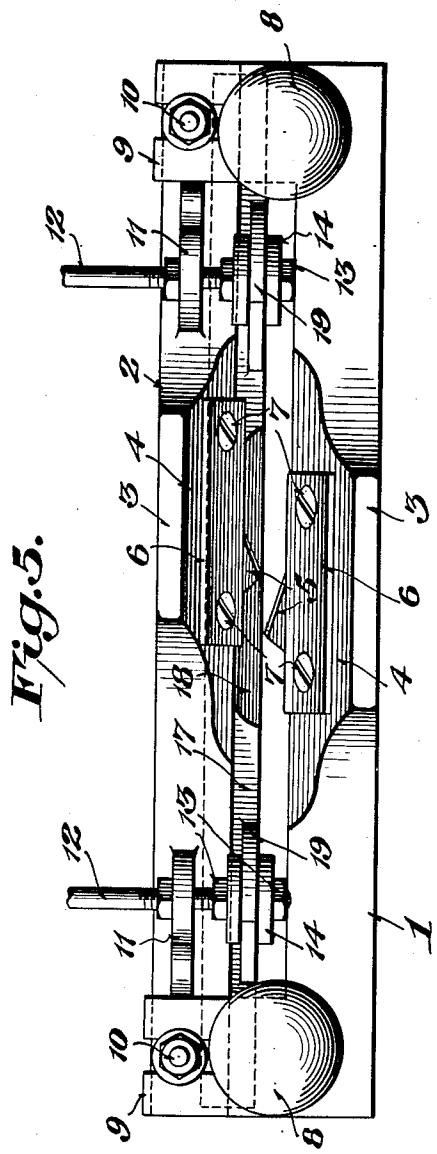
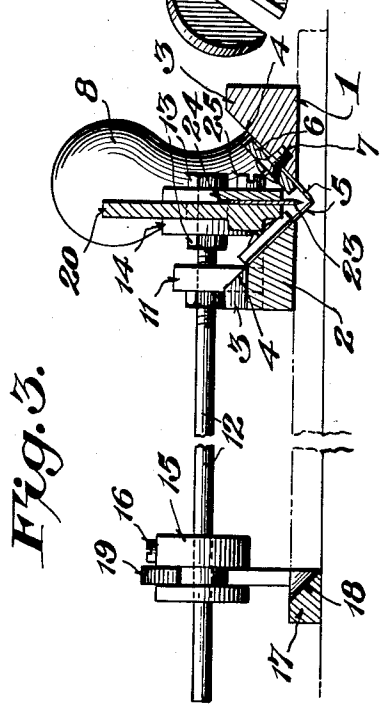


Fig. 3.



Inventor

F. S. Wendelken,

By Howard A. Coombs

Attorney

Patented June 27, 1933

1,915,636

UNITED STATES PATENT OFFICE

FREDERICK S. WENDELKEN, OF DENVER, COLORADO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO NICHOLAS G. PETRY, OF DENVER, COLORADO

TOOL FOR SLICING WALL BOARD AND THE LIKE

Application filed February 13, 1930. Serial No. 428,162.

This invention relates to slicing tools for cutting, grooving and beveling insulating or wall board of pulp or paper composition, such as Celotex and the like, and its object is to provide a handy tool for use by builders and carpenters by which such boards can be cut to size, grooved on their faces or beveled on their edges. It eliminates the use of hand-saws, planes and similar tools, and gives cleaner, smoother and more accurate results.

Razor blades are used as the cutters, of which there are three, two set at an angle (usually 45°) for beveling and grooving, and the third set vertically and adapted to be mounted between the two angular cutters for slicing the board, either throughout its thickness or from the bottom of the groove previously formed by said angular cutters.

The tool also comprises a gage bar maintained parallel to the cutters and adjustable towards and away from the same. The bar carrying the vertical cutter is removable and the gage bar can be put in its place when the edge of a board is to be beveled.

An embodiment of the invention is illustrated in the accompanying drawings, in which,

Fig. 1 is a plan view of the tool with the vertical cutter bar in place between the angular cutters.

Fig. 2 is a front elevation.

Fig. 3 is a section on the line 3—3 of Fig. 1.

Fig. 4 is a perspective of the vertical cutter bar removed, and

Fig. 5 is a partial plan view with the gage bar inserted between the angular cutters in place of the vertical cutter bar.

The frame of the tool comprises two parallel bars 1 and 2, preferably of cast aluminium, spaced a short distance apart and each having central raised portions 3, 3, the inner faces of which are beveled off at 4 to receive the angular cutting blades 5, which are clamped to said faces, by plates 6 and screws 7, in such position that their cutting edges are presented at an angle to the work. The outer bar 1 carries hand knobs 8 and slotted extensions 9 at right angles to its ends. The inner bar 2 carries bolts 10 passed through said slots, whereby the width of the space between the bars can be adjusted to vary the width and depth of the groove cut. Bar 2 also carries upstanding lugs 11, having tapped holes in which the threaded ends of guide rods 12 engage. On each rod is a nut, bearing against the lug 11, to hold the rod from turning. On the inner ends of the rods 12 are mounted spools 14, held between nuts 13. These spools are peripherally grooved cylinders, and similar spools 15 are carried on the outer ends of rods 12, to which they are secured by set screws 16. The gage bar 17, which has a central beveled face 18, like those of bars 1 and 2, is provided with upstanding hook members 19, by which it can be mounted on either pair of spools, 14 or 15. The vertical cutter bar 20 has a longitudinal open slot 21 in one end and an inclined open slot 22 in its other end, by which it can be mounted on the spools 14. The cutter blade 23 is clamped to this bar by plate 24 and screws 25.

For slicing or grooving, the gage bar 17 is mounted on the spools 15 and engages the edge of the board to assure the parallelism of the cut. If the cut is too far from the edge of the board to enable the gage bar to engage the same, a strip or straight edge is fastened to the board temporarily and the gage bar is run against the same. When the operation is that of merely beveling the edge of a board, the gage bar 17 is mounted on the spools 14, from which the vertical cutter bar 20 has been removed. In this position, the bevel face 18 of said bar lies immediately under the blade on the inner frame bar 2 and the straight edge portion of the gage bar runs along the edge of the board being beveled by the blade on frame bar 1.

If the board is to be sliced through at the bottom of a groove, the latter is first cut with the center cutter bar 20 removed and then the latter is mounted on the spools 14 and the tool is run over the groove again, the vertical cutter blade being set, of course, so that it will pass through the board. For slicing through a board without preliminary grooving, the angular cutting blades 5 are removed. The guide rods 12 are made adjustable, as

described, in order to enable the grooves in the spools 14 to be brought exactly into the median plane between the angular cutters.

Having thus described my invention, what I claim is:

1. In a tool of the kind described, a frame comprising two adjacent but spaced parallel bars having beveled inner faces, means to clamp cutting blades to said faces so that together they will cut a V groove, guide rods carried by and extending at right angles to said bars, a gage bar adjustably and removably mounted on said rods, a cutter bar detachably mounted on said guide rods between said frame bars, and means to clamp a cutting blade to said cutter bar so that it will make a vertical cut, said gage bar being interchangeable with said cutter bar when only one of said grooving blades is to be used.

2. A tool for slicing, grooving and beveling wall boards and the like, comprising parallel frame members having inner beveled faces, means to clamp blades on said faces, a pair of guide rods carried by and extending at right angles to said members, a grooved spool on the inner end of each rod midway between said members, a grooved spool adjustably mounted on the other end of each rod, a bar having means for attachment of a vertical blade, means for removably mounting it on said inner pair of spools, and a gage bar slotted to fit on either pair of spools.

3. A tool of the class described, comprising two parallel frame bars having means for securing blades thereto at an angle to the plane of the work, a detachable cutter bar having means to secure a blade thereto at right angles to the plane of the work, means for mounting said cutter bar so that its blade is equally distant from said angular blades, and a gage bar detachably mounted parallel to said cutter bars and adapted to take the place of said vertical cutter bar when it is desired to merely level the edge of a board.

4. In a wall board cutting tool, a frame comprising parallel members for adjustably supporting a pair of inclined cutting blades, a vertical cutter bar, means for removably supporting the latter centrally between said members, a gage bar, and means for adjustably supporting said gage bar parallel to said members, said gage bar being constructed and adapted to be substituted for said cutter bar when it is desired to merely bevel the edge of a board.

5. In a tool for slicing, grooving and beveling wall board and the like, a frame comprising a bar having a central inner beveled surface, handles near its ends and slotted lugs at right angles to its ends; a second bar adjustably bolted to said lugs, having a central inner beveled surface and a pair of upright perforated lugs on its back; means on said bars to clamp cutting blades to said surfaces; a pair of guide rods passed through said lugs on the second bar, means to secure said rods in adjusted position, a third detachable bar having means to clamp a blade thereto, means on the inner ends of said rods to support said third bar with its blade midway between the other two blades, a gage bar, and adjustable means on said rods to support said gage bar in parallel relation to the other bars, said gage bar being interchangeable with said cutter bar.

6. A tool for cutting wall board and the like, comprising a base plate provided with handles whereby it can be slid on the work, means for supporting a pair of angular grooving blades on said plate so as to project downwardly therefrom in staggered relation, a gage bar, means carried by said plate for adjustably supporting said gage bar in parallelism with the planes of said blades, a member carrying a vertical slicing blade, and means for mounting said member on said plate with its blade in a plane midway between the planes of said grooving blades.

7. A tool for grooving, slicing and beveling wall board and the like, comprising a base plate provided with handles and having an opening therein the sides of which are beveled, means to hold grooving blades on said sides, guide rods projecting laterally from said plate, a gage bar adjustably mounted on said rods, a vertical slicing blade, and means to mount said slicing blade on the plate in a plane centrally between said grooving blades.

8. A device of the class described, comprising a hand tool slidable on the work and having an opening therethrough, grooving blades angularly mounted on the sides of said opening, parallel rods extending laterally of said tool, a gage bar mountable on said rods and having a face beveled at the same angle as that of said blades, a bar carrying a vertical slicing blade, and means on the tool to hold said bar so that its blade stands midway between said grooving blades, said gage bar being adapted to be removed from said rods and to be held by said means, after said slicing blade bar has been removed therefrom, so that its beveled face lies in close proximity to one of said grooving blades when it is desired to merely bevel the edge of the work.

9. A hand tool of the character described comprising a frame slidable on the work, a gage bar carried by said frame and adapted to engage an edge of the work, and a cutter cooperative with the gage bar to bevel the edge of the work engaged by the gage bar.

10. A hand tool of the character described comprising a frame slidable on the work, a gage bar carried by said frame and adapted to engage an edge of the work, a cutter cooperative with the gage bar to bevel the edge of the work engaged by the gage bar, and

holding means for the cutter permitting of its adjustment relative to said edge.

11. A hand tool of the character described comprising a frame slidable on the work, a gage bar carried by said frame and adapted to engage an edge of the work, a cutter cooperative with the gage bar to bevel the edge of the work engaged by the gage bar, and a plate pressing against the cutter whereby to hold the cutter in selected positions relative to said edge.

12. In a hand tool of the character described, a frame having an opening therein, and having an inclined edge adjacent the opening, a cutter supported by said inclined portion, and a plate holding the cutter adjustably in place by pressure upon a face thereof.

13. In a hand tool of the character described, a frame having an opening for the insertion of cutters, grooving cutters, a slicing cutter, and means for mounting said cutters interchangeably on the frame to project through said opening.

14. A hand tool of the character described, comprising a frame having an opening, a cutter on the frame projecting through the opening, guide rods fixed on the frame, a gage bar slidable on the rods to vary its distance to any desired degree, and means for fixing the gage bar on the rods.

15. In a hand tool of the character described, a frame having an opening and converging faces at opposite sides thereof, flat cutter blades bearing against said faces and projecting through the opening, and plates fastened beyond the blades for clamping them in place.

Signed at Denver in the county of Denver and State of Colorado this 10th day of February A. D. 1930.

FREDERICK S. WENDELKEN.