

F. S. SHERMAN.
CUTTING BOARD.

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946,619.

Patented Jan. 18, 1910.

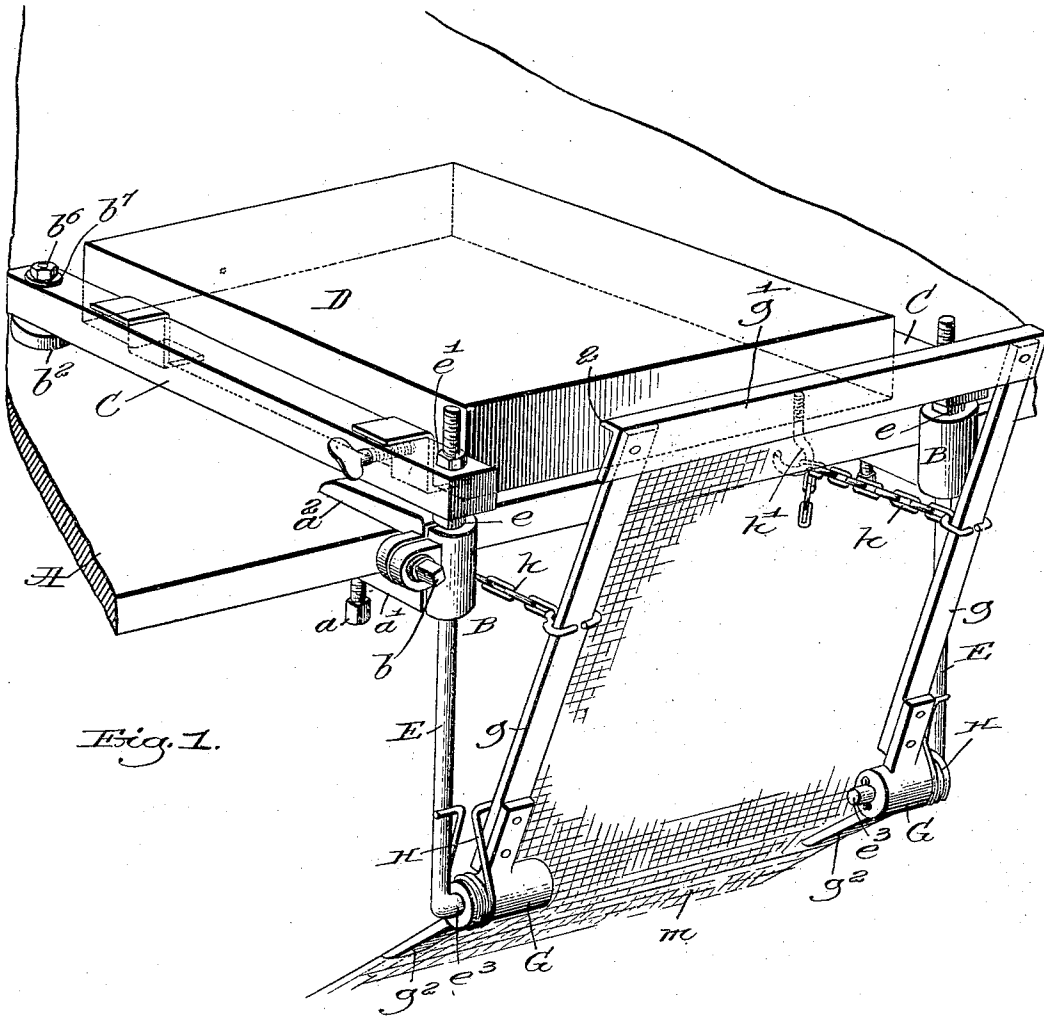


Fig. 1.

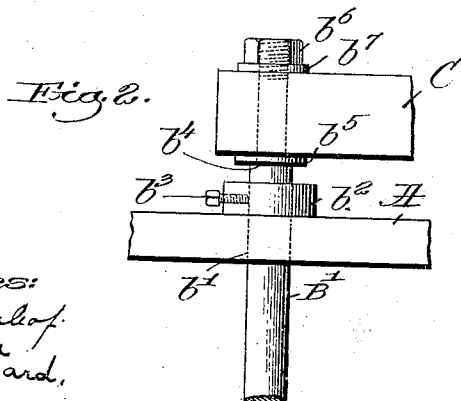


Fig. 2.

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UNITED STATES PATENT OFFICE.

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CUTTING-BOARD.

946,619.

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To all whom it may concern:

Be it known that I, FRED SEAMAN SHERMAN, a citizen of the United States, residing in Cambridge, county of Middlesex, and State of Massachusetts, have invented an Improvement in Cutting-Boards, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

This invention relates to cutting boards, and more particularly to an improved means for facilitating the disposal of the waste pieces, or scraps, resulting from the cutting of stock thereon.

An important object of the invention is to provide a cutting board, or similar work supporting device, with a guide to be sustained yieldingly in suitable proximity to an edge of the board, and so constructed and arranged as to stand normally when operative in open or waste-receiving position and when closed to move again automatically to its open or waste-receiving position as soon as it is released or the closing pressure is removed. Preferably the guide will be so arranged that it will be pressed toward the front portion of the board by the operator when the latter approaches the board or reaches over it, and that when the operator steps back it will move automatically to open or waste-receiving position, whereby when the cuttings are brushed from the board they will be directed by the guide into a receptacle located below the cutting board, or to any other desired point.

Under the embodiment of the invention herein selected for illustration, the waste guide is pivotally mounted at a convenient point below the front portion of the cutting board, and is normally maintained in over-balanced relation to its pivot in such manner that its upper edge is in open or spaced relation to the adjacent edge of the board. It will be obvious, however, that the invention, in this aspect, is not limited to such embodiment, but contemplates any equivalent arrangement for movably mounting the guide whereby its upper edge or portion nearest to the surface of the cutting board is normally when operative in open or receiving position relatively thereto, and which permits a free yielding movement to close the guide when pressure is imparted to the guide

as, for example, by the body of the operator as he moves up to the board to cut the stock, and causes it to return automatically to open position when the pressure against the guide is removed or the guide is released. In order to limit the extent of the opening movement of the guide, suitable connections, such as chains or cords, are preferably extended from the guide to some fixed part of the frame or support for the cutting board.

Another important object of the invention is to provide means for determining the relation of the upper or movable edge of a waste guide of the character herein described to the surface of a cutting board, irrespective of the thickness of the latter.

In this connection, an important feature of the invention comprises devices for sustaining a waste guide below the cutting board including means permitting adjustment of the guide relatively to the surface of the cutting board.

Other important features of the invention, including combinations of parts and details of construction, will be hereinafter more particularly described and claimed.

Figure 1 is a perspective view, showing a part of a table or support with a cutting board thereon, and a waste guide movably sustained from said table. Fig. 2 is a detail view, illustrating a portion of the adjustable devices for supporting the cutting board.

The letter A indicates a table, work bench, or other suitable support. To the outer edge of this table, in the embodiment of the invention herein selected for illustration, are attached in suitable manner, as by set screws *a*, a series of bearings B having projecting portions *a'*, *a''* to embrace the edge of the bench, the outer ends of each bearing being preferably split, as shown in the left hand bearing, Fig. 1, and having ears for the reception of a clamp or adjusting screw *b*. Back from the front edge of the bench are bored a series of holes *b'* for the reception of posts *B'* provided each with a collar *b''*, that may be fixed to the post by a set screw *b'''*. Above this collar the post is reduced in diameter to leave a shoulder *b''''* on which is laid a washer *b'''''*, the upper end of each post being threaded, as shown, to receive a clamping nut *b''''''*, the under side of the nut acting on a washer *b'''''''* which is sus-

tained, as shown, on a bar C. There are two such bars for each cutting board, the bars being practically parallel and separated one from the other according to the width of the cutting board D used. The front end of each bar has a hole, and said hole is fitted over the upper end of a rod E threaded at its upper end and provided with adjustable devices, herein shown as nuts e , e' . The side edges of the cutting board are preferably sustained on the lower arms of Z-shaped clips, the oppositely turned upper arms of which rest on the upper sides of the bars, as shown in Fig. 1. By turning the nuts e , e' , and changing the position of the collars b^2 on the rods B', the bars may be raised and lowered with relation to the table, the positions occupied by the bars enabling the top of the cutting board, whatever its thickness, to be placed at just the desired height to suit the workman who is to use the board.

The rods E have their lower ends inturned as shown at e^3 to receive the hubs G of the scrap guide, comprising in the construction illustrated said hubs, arms g connected at their upper ends with a cross bar g' , and a scrap-arresting surface between said arms and bar, said bar when made of metal being, for sake of lightness in weight and strength provided with a flange or lip 2. The hubs G are shown as having extensions g^2 , and combined with the hubs and rods are shown the springs H that act normally to maintain the upper portion of the guide a suitable distance from the front edge of the cutting board D, the distance being governed or controlled by any suitable connections, as for instance flexible chains or cords h which extend from the guide to the hooks h' or to any fixed point on the supporting frame or the table thereon and are thereby made adjustable in length. By the arrangement described the guide is normally maintained in such manner as to yield and move toward the cutting board when pressure is brought to bear upon it, as, for example, when the operator steps up to the board, and to assume automatically its normal or open position when the pressure is removed or when it is released, in order to receive the scraps as they are brushed from the board. In the construction shown, the guide frame is provided with a scrap-receiving surface m , preferably of some light and flexible material. This surface may be of any usual textile or woven material and be extended from the bar g' past the hubs G and thence led into or connected with whatever receptacle under the bench A that is to receive the scrap or waste resulting from cutting the leather or other stock. It will be understood that the operator, knife in hand, will step up to the front end of the board, and if he is to cut on the rear part of the board, his body will

contact with the outer side of the bar g' , moving said bar toward or against the front end of the cutting board, and when he is cutting stock on the front of the board, and steps backwardly away from the board, or as he steps back from the board after having cut the stock thereon, may readily sweep with his hand the pieces of stock left on the board toward him, said stock entering the open space at the front of the board, and between the front end of said board and the movable part of the guide, the scrap so swept from the board following along the surface m and being diverted thereby to the spot or receptacle provided for the reception of the scrap.

By way of example I have shown the springs H as a means to effect, automatically, the movement of the guide away from the cutting board, but it will be obvious that this is merely illustrative of an embodiment of the invention which, though effective to accomplish this result, is subject to variation. In this connection it will be understood that any suitable disposition of the pivotal support whereby said guide will be yieldingly sustained with a constant tendency to move to open position, or is overbalanced, is well within the scope of my invention, and I therefore intend to claim this feature broadly. Nor do I intend to be limited to the precise form or to the structural details of the several parts as shown and described herein, as these may well be varied without departing from the spirit of the invention.

This invention may be combined with any cutting board now in use, and as these boards differ in thickness, provision should be made to locate the top of the board practically at the level of the top of the bar g' . This may be accomplished by turning the nuts e , e' on the rods E and by changing the position of the collar b^2 on the rod B', and when the top of the board has been correctly located, the screw b^3 may be turned to lock the collar to the rod which it surrounds. Now in case it is desired to lift the entire board and scrap guide more or less above the bench according to the height of the operator, this may be done by first loosening the clamp screw b and the screw b^3 , raising the bed with its connected rods E, B' until it has been brought to the proper height when the clamp screw b will be set up to lock the rod E, and the collar b^2 will be positioned on the rod B' to contact with the top of the table and will be there fixed in position by said screw b^3 .

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

1. The combination with a support, a plurality of rods and a cutting board sustained by said rods, of a waste guide pivotally sus-

tained by said rods below the top of said cutting board and capable of being moved at its upper end toward and from said cutting board.

5 2. The combination with a support, a plurality of rods and a cutting board sustained by said rods, of a waste guide movably connected with said rods, said rods and board being adjustable with relation to said support.

10 3. The combination with a support, a plurality of rods, and a cutting board sustained by said rods, of a waste guide connected with said rods, and means to limit the extent of movement of the upper end of said guide away from said cutting board about its pivots.

15 4. The combination with a cutting board, rods having connected devices for sustaining said board, a pivotally mounted waste guide, and means to change the position of the pivotal points of the waste guide with relation to the upper side of the cutting board.

20 5. The combination with a cutting board and a waste receiver or guide, of a spring acting normally to move said receiver or guide away from the end of the board to permit waste swept off the board to be guided by the surface of said receiver or guide.

25 6. The combination with a cutting board and a waste receiver or guide of a spring acting normally to move said receiver or guide away from the end of the board to permit waste swept off the board to be guided by the surface of said receiver or guide, and means to control the extent of opening movement of said receiver or guide.

30 7. The combination with a cutting board, of a waste guide pivoted below the top of said board at its front edge, said waste guide standing with its upper edge normally at a distance from the front edge of said cutting board and capable of being moved temporarily up to the front end of said board by the body of the operator in cutting a skin.

35 8. The combination with a cutting board and means for sustaining said board adjustably, of a waste guide connected with the means sustaining said board.

40 9. The combination with a work support, of a waste guide yieldingly sustained in proximity to an edge of said support with a constant tendency to move to open position and constructed and arranged to be moved from open position to closed position and to return automatically to open position when released.

45 10. The combination with a work support of a normally open waste guide constructed and arranged to be moved to closed position and to return automatically to open position when the closing pressure is removed.

50 11. The combination with a cutting board,

of a normally open waste guide located in proximity to an edge of the cutting board and constructed and arranged to be moved to closed position and when the closing pressure is removed to return automatically to open position.

12. The combination with a work support, of a yieldingly mounted waste guide arranged to be moved to closed position as the body of the operator comes in contact therewith in approaching said support, and to automatically move to open position as the operator moves away from said support.

13. The combination with a cutting board, of a movable waste guide supported near the front thereof, and arranged to yield and close against said board as the operator approaches the same, and to automatically open for the reception of waste as the operator steps back from the board.

14. The combination with a cutting board, of an overbalanced, pivotally mounted scrap guide constructed and arranged to be moved toward closed position by the body of the operator as he leans over the cutting board, and to automatically move to open position as he steps back to brush the scraps into the space between said guide and cutting board.

15. The combination with a cutting board, of a waste guide arranged in operative relation thereto, and means for determining the relation of said waste guide to the surface of the cutting board irrespective of the thickness of the cutting board.

16. The combination with a cutting board, of a waste guide movably supported adjacent the front edge of said board, and means for effecting a relative adjustment of said parts in a plane transverse to the plane of the cutting board.

17. The combination with a cutting board, of a waste guide arranged for movement toward and away from the edge of said board, said parts being arranged for relative adjustment in the direction of the thickness of the cutting board.

18. The combination with a cutting board, of a waste guide having an edge movable relatively to said board to form a space therebetween, said parts being arranged for relative vertical adjustment.

19. The combination with a table, of a cutting board and waste guide sustained thereby and arranged for vertical adjustment relatively to said table.

20. The combination with a support, of a cutting board and a waste guide sustained thereby, means for adjusting the cutting board relatively to the support and waste guide and means for adjusting the cutting board and waste guide relatively to the support.

21. The combination with a cutting board, of a movable waste guide supported in proximity thereto and arranged to yield and

close against said board as the operator approaches the same and to automatically move away from said board for the reception of waste as the operator steps back from
5 the board, and means to limit the extent of opening movements of said guide.

22. The combination with a support, of spaced bars adjustably mounted thereon and sustaining a cutting board, rods adjustably
10 supported by said bars, a waste guide piv-

oted to said rods, and means for adjustably securing the rods to the support.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

FRED SEAMAN SHERMAN.

Witnesses:

GEO. W. GREGORY,

EMILY C. HODGES.