

Sept. 23, 1941.

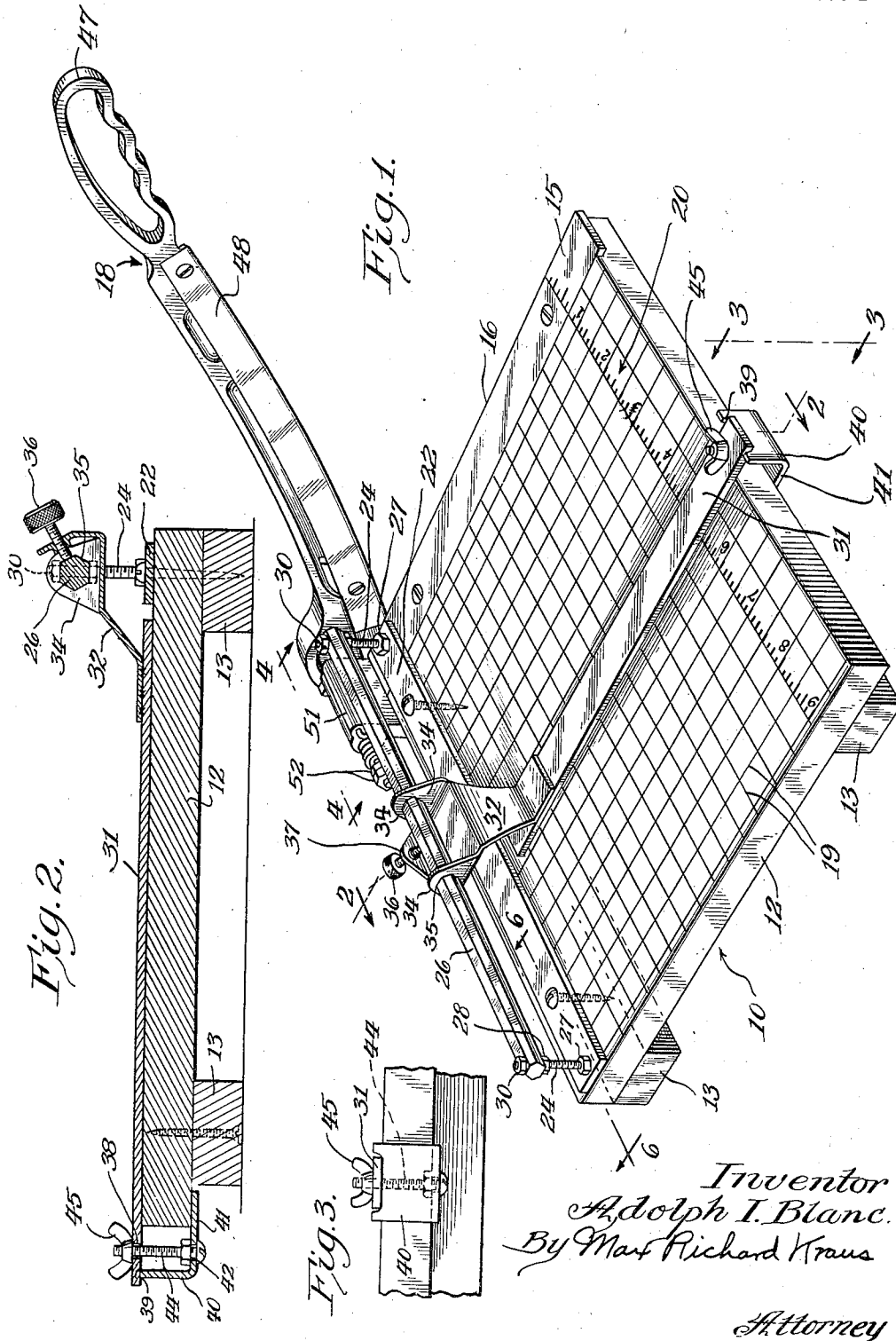
A. I. BLANC

2,256,606

TRIMMING BOARD

Filed Feb. 3, 1941

2 Sheets-Sheet 1



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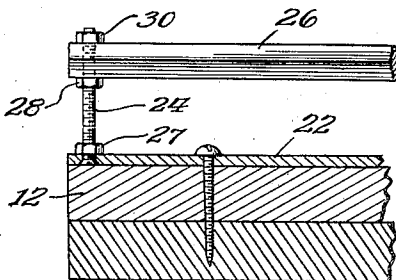
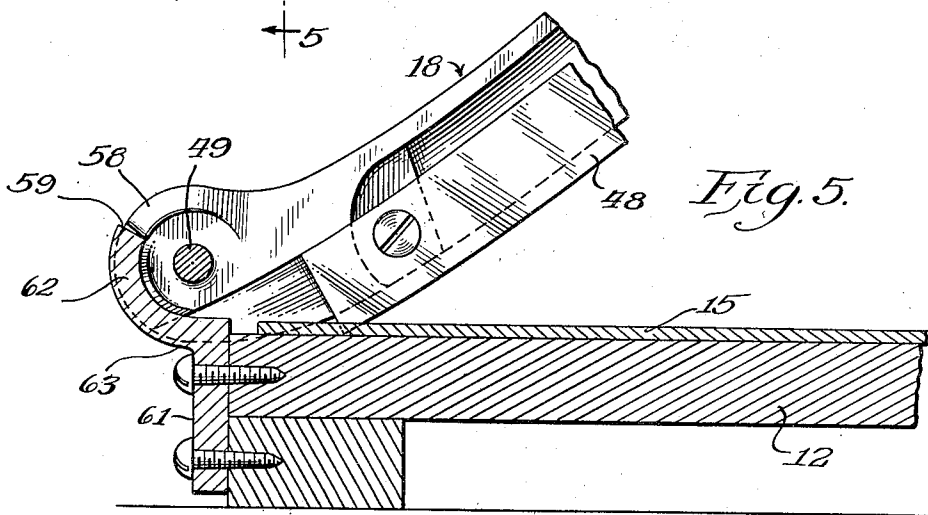
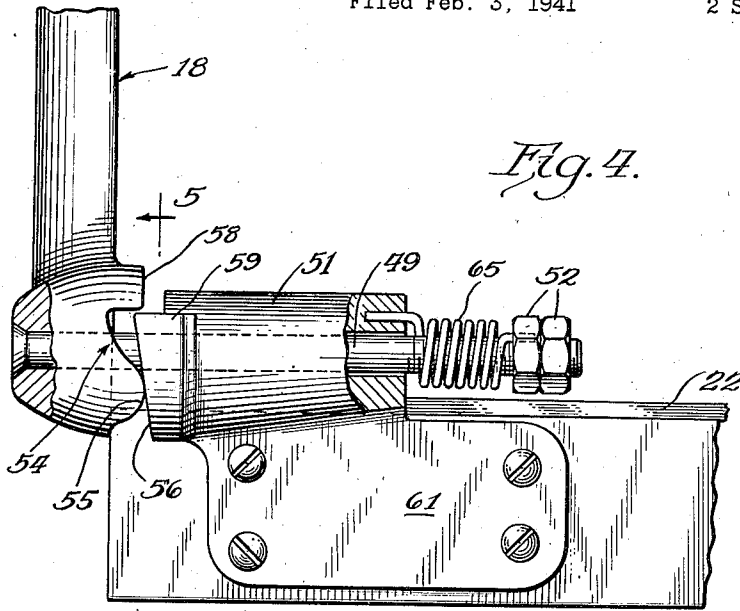
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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TRIMMING BOARD

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3 Claims. (Cl. 164—44)

This invention relates to trimming boards and the like. Trimming boards find considerable use in photographic work for trimming and cutting to size photographic materials. Because of the peculiar nature of the work all operations must be performed in a dark room and therefore, it is desirable to use equipment which may be adjusted very rapidly and with a minimum of effort to meet required conditions. With the trimming boards now generally in use, because of the inefficient means provided for trueing up the photographic materials, it is difficult to work both rapidly and accurately in making adjustments for a variety of conditions. Another fault common to trimming boards, presently used, is that no safety means is provided for preventing the cutting blade from accidentally falling down and injuring the operator while engaged in using the board.

In accordance with the foregoing it is, therefore, an object of this invention to provide a trimming board in which adjustments for a variety of conditions may be made very rapidly and very accurately with a minimum of effort.

Another object of this invention is the provision, in a device of the character described, of safety means whereby accidental injury to the operator is avoided.

A further object of this invention is the provision of a trimming board, accomplishing the above described objects, which is simple and durable in construction and which is highly efficient in operation.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts herein-after more specifically described and illustrated in the accompanying drawings.

In the accompanying drawings

Fig. 1 is a perspective view of a preferred embodiment of my invention.

Fig. 2 is a cross sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary elevational view of a detail looking in the direction of the arrows 3—3 of Fig. 1.

Fig. 4 is an enlarged fragmentary elevational view, partly in cross section, of a detail of construction looking in the direction of the arrows 4—4 of Figure 1.

Fig. 5 is a cross sectional view taken on line 5—5 of Figure 4.

Fig. 6 is a cross sectional view taken on line 6—6 of Fig. 1.

Referring to the drawings wherein is shown a preferred embodiment of my invention, the numeral 10 designates, generally, my improved trimming board which comprises a rectangular base member 12 formed preferably of wood and having two or more strips 13 secured thereunder

to provide a support for the base member and to add rigidity thereto. The base member 12 is recessed along one side to accommodate the metal strip 15 provided with a cutting edge 16 adapted to cooperate with the cutting knife 18 to produce a shearing action. The surface face of the base member 12 is divided into one-half inch squares, the dividing lines 19 consisting of very narrow grooves cut into the face of the base member 12 and presenting a contrasting color. A graduated scale 20 is provided along one side of the base member 12. The provision of grooves as dividing lines is highly desirable, since they are permanent in character and cannot be worn off, as is the case with printed or painted lines which are now generally used in trimming boards.

A straight edge abutment comprising a metal strip 22 is secured as by screws along one edge of the base member 12, at right angles to the cutting edge 16. Countersunk holes are provided at the ends of the strip 22 to receive bolts or studs 24 which support a guide carrying rod 26 presently to be described. The bolts or studs 24 are vertically disposed and are secured as by lock nuts 27.

The guide carrying member 26 comprises an elongated member or rod hexagonal in cross section and is drilled at each end for the reception of a stud or bolt 24. It will be understood that rods having other geometrical cross sectional shapes may be used as well. As will be seen in Figures 1 and 6, the studs 24 carry nuts 28 on which the rod 26 is supported. The nuts 28 are movable axially of the studs for adjusting the height of the rod above the strip 22. Lock nuts 30 are provided for fixing the adjustment so made.

A guide member 31 formed of a metal strip is secured at one end to a member 32 shaped substantially as shown in Figures 1 and 2. The said member 32 is provided with upstanding ears 34 having aligned hexagonal apertures 35 for receiving the rod 26, and a rearwardly disposed ear 37 provided with a threaded aperture for receiving a knurled set screw 36. The member 31 is slidable on the rod 26 and is secured in position by the set screw 36 which is arranged to engage the said rod.

The other end of the guide member 31 which extends over the edge of the base member 12 is provided with an aperture 38 and is received in the recess 39 of an L shaped member 40. The horizontally disposed leg 41 of the member 40 has an aperture 42 therein and is adapted to engage the under surface of the base member 12. In assembled relation the apertures 38 and 42 are in alinement and a bolt 44 extends therethrough. By tightening the wing nut 45 on the bolt both the guide member 31 and the leg 41 of the member 40 are moved towards each other and as a result tightly grip the edge of the base member 12

and secure the guide member 31 in adjusted position. The guide member 31 is thereby maintained flat on the surface of the base member so that no paper will slip thereunder.

Referring particularly to Figures 1 and 2, it will be seen that by adjusting the height of the rod 26 above the abutment member 22, the elevation of the guide member 31 relative to the surface face of the base member 12 is correspondingly adjusted. It will of course be understood that the most desirable adjustment is that in which the member 31 lies on the surface face and is freely slidable thereover, it being apparent that a tight contact between the member 31 and the surface face would hinder or prevent the sliding of said member while a separation of the member 31 from the surface face would permit a sheet of material to slip under the said member and thereby cause it to be trimmed improperly.

The member 32 when secured by the set screw 36 is automatically aligned so that the guide member 31 is positioned exactly at right angles to the abutment strip 22 and parallel to the cutting edge 16. Since the member 32 is self aligning on the rod 26, an operator may make an adjustment of the guide member using only one hand, if his other hand is occupied.

The cutting knife 18 is provided with a handle 47 and a cutting blade 48 removably secured to the knife shank. The said knife is pivotally mounted, as will be presently described and is arranged to cooperate with the cutting edge 16 to produce a shearing action. As shown particularly in Figure 4, the end of the knife shank is drilled to accommodate a spindle 49 which is affixed thereto, the spindle being rotatably supported in a bearing member 51, hereinafter to be described, and being threaded on its free end to receive a pair of lock nuts 52. A cam surface 54 including an elevated portion 55 is provided at the end of the knife shank and is adapted for engagement with a cooperating cam surface 56 on the bearing member 51. An abutment portion 58 on the end of the shank projects from the cam surface 54 and is adapted to engage the abutment 59 of the cooperating cam surface 56 to limit the pivotal movement of the knife 18.

The bearing member 51 includes a bracket portion 61 and the cam surface 56, hereinbefore referred to, the said bracket portion being secured to the rear wall of the base member 12. The said cam surface comprises a portion 62 which increases progressively in elevation from its lower-most portion 63 to the abutment 59, as shown in Figure 4.

A coil spring 65 carried on the spindle 58 abuts the journal member 51 and the nut 52, and has its ends anchored in suitable holes provided in the opposing faces thereof. The said spring therefore serves two-fold function, that of maintaining the cutting edges of the knife and strip in constant operative engagement and that of opposing the downward movement of the knife, so that accidental falling of the knife is completely avoided at any position occupied by the knife. The cam surfaces 54 and 56 are so proportioned that the cutting edges of the knife 18 and the strip 15 are progressively engaged when the knife is swung downwardly.

When the knife 18 is swung downwardly, as when a cutting operation is to be performed, the elevated portion 55 of the cam surface 54 engages the cam portion 62 and causes the knife

18 and spindle 49 to move to the left, as viewed in Figure 4. This movement is opposed by the spring 65 which acts to maintain the cooperating cam surfaces, as also the cutting edges, in engagement, to produce an efficient shearing action.

It will thus be seen that I have provided a trimming board which by its construction overcomes the undesirable features of like devices now generally in use. The present construction includes means for rapidly and accurately trueing up, with a minimum of effort, photographic material to be trimmed, as also other means for preventing the accidental dropping of the knife, thereby preventing serious injury to the operator.

It is to be understood that the form of my invention, herewith shown and described, is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to, without departing from the spirit of my invention or the scope of the appended claims.

I claim:

1. A trimming board of the character described comprising a rectangular base member having a metal cutting edge along one side thereof, a cutting knife pivoted to said base member and adapted to cooperate with said metal cutting edge to produce a shearing action, a rod mounted along one side of said base member at right angles to said cutting edge, a guide member slidably but substantially rigidly associated with said rod to maintain the guide member in contact with the base member and arranged for sliding movement in a direction parallel thereto, and means associated with said knife for opposing the downward pivotal movement thereof whereby accidental falling of said knife is avoided.

2. In a trimming board of the character described, a rectangular base member having a metal cutting edge along one side thereof, a cutting knife pivoted to said base member and arranged to cooperate with said metal cutting edge to produce a shearing action, a rod mounted along one side of said base member at right angles to said cutting edge, a guide member having one end slidably associated with said rod and extending at right angles thereto, said guide member being substantially rigidly mounted on said rod to maintain the guide member in contact with the base member but being slidable axially thereof, and clamping means at the other end of the guide member means for locking said guide member in position.

3. A trimming board of the character described comprising a rectangular base member having a plane surface and a metal cutting edge along one side thereof, a cutting knife pivoted to said base member and arranged to cooperate with said metal cutting edge to produce a shearing action, a rod mounted along one side of said base member at right angles to said cutting edge, a guide member engageable with said plane surface, said guide member having one end rigidly associated with said rod to maintain the guide member in contact with the base member but slidable axially thereof, means for adjusting the height of said rod relative to said plane surface whereby the relative distance of said guide member to said plane surface is correspondingly adjusted.

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