J. A. ROBERTSON & G. W. ADAMS.

TRIMMING BOARD.

APPLICATION FILED SEPT. 21, 1915.

1,167,435. Patented Jan. 11, 1916.

Fig. 1

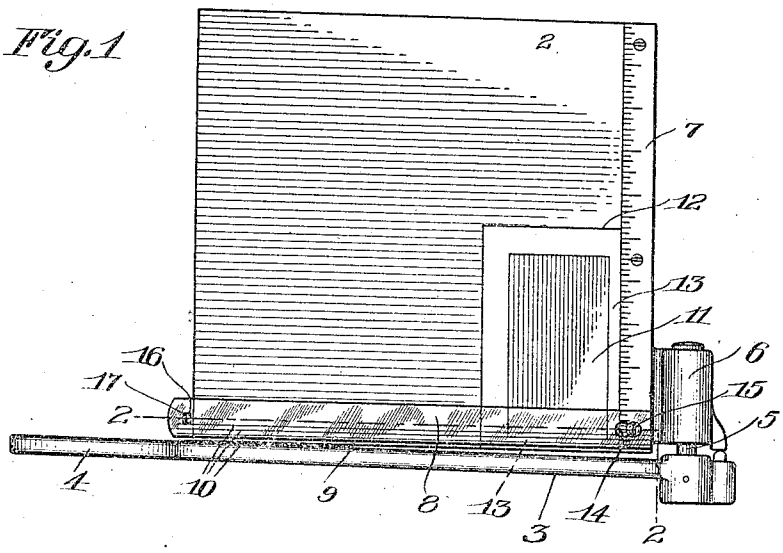


Fig. 2

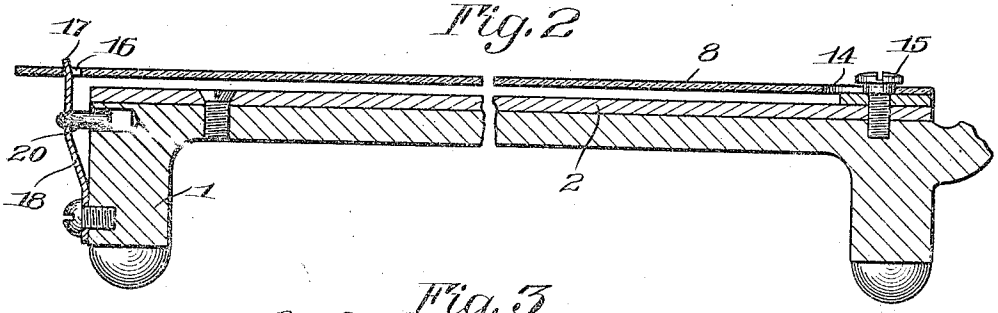


Fig. 3

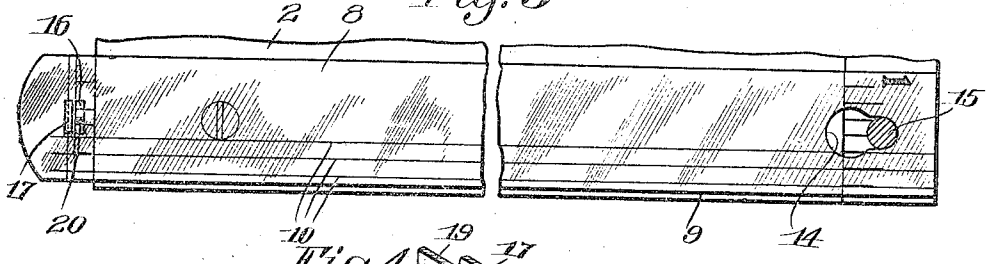
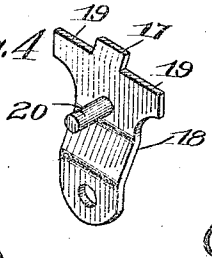


Fig. 4



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UNITED STATES PATENT OFFICE.

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TRIMMING-BOARD.

1,167,435. Specification of Letters Patent. Patented Jan. 11, 1916.

Application filed September 21, 1915. Serial No. 51,823.

To all whom it may concern:

Be it known that we, JOHN A. ROBERTSON and GEORGE W. ADAMS, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Trimming-Boards; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

Our present invention relates to machines for cutting or trimming sheet material and more particularly to trimming boards of the sort used in photography to trim photographic prints and it has for its object to provide a simple and inexpensive device of this character fitted with an improved gage plate of a nature greatly facilitating the positioning of the work and which may be readily removed and replaced.

A further object of the invention is to provide a simple and convenient means of mounting a flexible gage plate so that it will be kept taut and true and evenly spaced from the table under all conditions which is a particular advantage where the plate is composed of hygroscopic material ordinarily affected by changes in weather conditions.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a top plan view of a trimming board constructed in accordance with and illustrating one embodiment of our invention; Fig. 2 is an enlarged section taken substantially on the line 2—2 of Fig. 1; Fig. 3 is an enlarged plan view of the gage plate in detail together with a fragment of its support, and Fig. 4 is a detail perspective view of the tension device.

Similar reference numerals throughout the several figures indicate the same parts.

In the present embodiment of the invention, the board comprises a suitable base or support 1 upon which is mounted the relatively fixed work table 2. At one end of the table is the usual cutter or knife blade 3 which works in a vertical plane in conjunction with a fixed blade at the edge of the table to produce a shearing cut and remove such portion of a work sheet placed upon the table 2 as projects beyond said edge. The knife, the handle of which is shown at 4, is pivoted at its other end by means of a pin 5 to turn in a bearing lug 6 on the support 1.

At one side of the table is preferably arranged a stop or guide 7 raised above the surface thereof and marked off in measuring units as shown. The work sheet is placed with one edge against this stop or guide and fed beneath the knife a greater or less distance according to the finished length desired. The cut is at right angles to the guide so that when the operation is progressively repeated around the sheet a true rectangle is produced.

In the practice of our invention we place in spaced relation above the table 2 adjacent to the cutting edge thereof and abutting the plane of movement of the knife 3, a thin, flexible and transparent gage plate 8. By following the line of the outer edge 9 of this upon the work-piece, which is thrust beneath it, the exact line of cleavage may be determined and in addition, the plate is preferably divided by parallel lines 10 which when alined with the edge of a picture area 11 on a print 12 cause the trimming to be done at a known distance from such area and the production of a border 13 of uniform width around the picture.

We prefer to make the gage plate 8 of celluloid or similar material because it is transparent but yielding and not easily broken but this substance is hygroscopic to an extent causing it to warp and sag under certain atmospheric conditions. This would tend to bring the plate out of true or destroy its spaced relationship with the table and make it difficult to advance the edge of the work sheet beneath the knife. We therefore mount the plate in the following manner: One end is provided with a key-slot 14, the enlarged portion of which may be thurst over a headed pin 15 on the table so that by a following longitudinal movement the restricted portion may be drawn beneath the head and detachably secured as shown in the figures. The pin 15 is preferably mounted upon the gage 7 so that the plate 8 rests upon the latter and is thereby spaced from the table 2 as required. The other end of the plate is provided with an aperture 16 that is engaged over an abut

ment formed by a reduced portion 17 on a tension member 18. When so engaged, the plate rests upon shoulders 19 adjacent to the abutment which properly space this end of the plate from the surface of the work table.

In the present embodiment, the tension member 18 is in the form of a leaf spring secured to the base 1 at 19 and fitted with a guide pin 20 which coöperates with a recess 21 in the base to prevent lateral movement. The distance between the far sides of the slots or openings 14 and 16 is shorter than the normal distance between the pin 15 and the abutment 17 so that the latter has to be thrust inwardly to engage the opening 16 which places the spring 18 under tension while holding the plate. This, therefore, keeps the flexible plate 8 under longitudinal tension and maintains it straight and true under all conditions and compensates for such stretching as would result in celluloid from a damp atmosphere. The plate will yield under pressure without breaking and then resume its true position when the pressure is relieved.

It will be noted that the gage plate is readily detachable as the abutment 17 may be easily disengaged by pressing down the spring 18 and the other end in turn disengaged from the pin 15 by a longitudinal and then an upward movement. It is desirable to remove the gage at times as when it is required to operate upon a sheet or sheets too thick to slide beneath it.

We claim as our invention:

1. In a trimming board, the combination with a table and a cutter, of a gage plate overlying the table adjacent to the cutter and a spring arranged to hold the gage plate under longitudinal tension.

2. In a trimming board, the combination with a table and a cutter, of a flexible gage plate overlying the table adjacent to the cutter and means for normally maintaining said gage plate under longitudinal tension.

3. In a trimming board, the combination with a table and a cutter, of a flexible gage plate having hygroscopic properties overlying the table adjacent to the cutter and a spring arranged to hold the gage plate under longitudinal tension.

4. In a trimming board, the combination with a table and a cutter, of a transparent celluloid gage plate overlying the table adjacent to the cutter and a spring arranged to hold the gage plate under longitudinal tension.

5. In a trimming board, the combination with a table and a cutter, of a flexible gage plate overlying the table adjacent to the cutter, means for rigidly anchoring one end of the gage plate and a spring arm coöperating with the other end to hold it under longitudinal tension.

6. In a trimming board, the combination with a table and a cutter, of a spring arm extending transversely of the surface of the table at one side thereof and a flexible gage plate engaging with the spring arm at one end and connected to the other side of the table at the other whereby it is held under longitudinal tension.

7. In a trimming board, the combination with a table and a cutter, of a spring arm extending transversely of the surface of the table at one side thereof and provided with a shoulder and a flexible gage plate detachably engaging with the spring arm at one end and resting on the shoulder thereof and having its other end detachably connected to the other side of the table whereby it is normally held under longitudinal tension and may be removed by depressing the spring arm.

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