

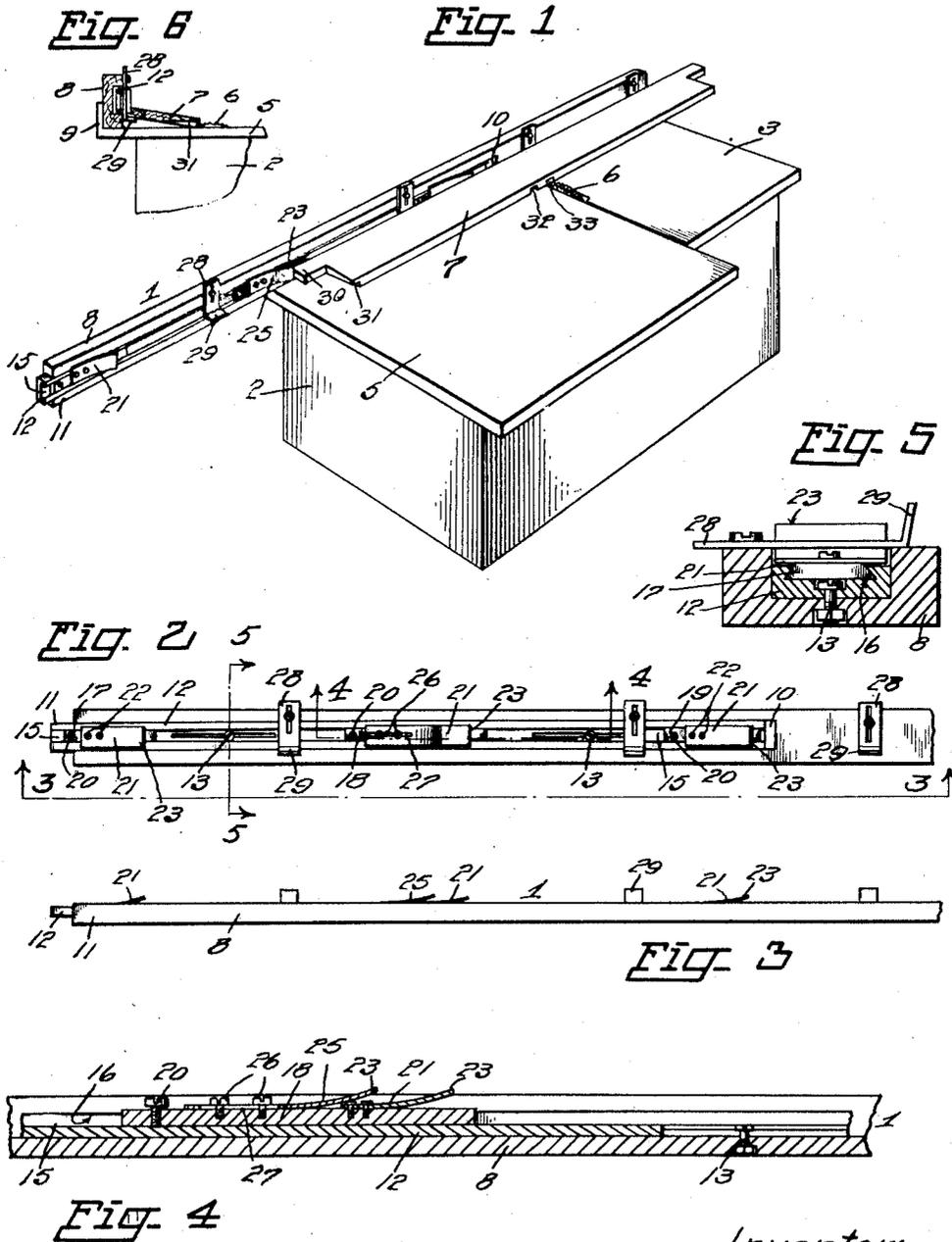
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CUTTING GAUGE

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CUTTING GAUGE

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This invention relates to improvements in wood-working apparatus, and particularly to improvements in adjustable gauges for dado-sawing machines and analogous apparatus.

5 The object of my invention is the provision of a gauge of simple construction that may be readily applied in connection with a dado-saw or the like and which is especially adapted for use in the grooving of dadoes in 10 the head and sill members of window frames or for other similar purposes where a plurality of pieces are to be grooved with similar spacings therebetween.

A further object of the invention is to provide apparatus of the above described type 15 including a plurality of flexible gauge-strips mounted upon slidable blocks within a holding-frame and wherein the strips are individually adjustable to vary the relative distances apart of the cuts to be made with little 20 trouble or delay enabling the utilization of a gauge where but a comparatively small number of operations are to be performed.

Other objects and advantages of the invention and objects relating to details of the invention will be readily apparent in the course 25 of the detailed description to follow.

The accompanying drawings illustrate by way of example one form of the invention, in 30 which:

Figure 1 is a perspective view of an embodiment of my invention mounted in operative condition upon a grooving machine.

Fig. 2 is a partial plan view of the invention, detached.

Fig. 3 is a view in side elevation of the same.

Fig. 4 is a view in longitudinal section upon line 4—4 of Fig. 2, upon an enlarged scale.

40 Fig. 5 is a view in cross section on line 5—5 of Fig. 2 upon an enlarged scale.

Fig. 6 is a view in end elevation of the invention mounted in operative position as in Fig. 1.

45 Referring to said views, the reference numeral 1 indicates generally a gauge-device of my invention and 2 the body of a machine upon which the same is adapted for use. 3 indicates a fixed table upon said machine and 50 5 a table horizontally movable on said ma-

chine in the same plane as the table 3 and operable in a well-known manner. A dado-saw 6 is mounted on said machine and is adjustable therein to make various depths of cuts. A board 7 is shown upon said tables 55 and is movable with the table 5 to and from said saw.

Numerial 8 designates the frame of my improved gauge device and is detachably secured upon the sliding table 5 abutting upon 60 the ledge 9. Said frame is formed with a recess 10 extending from one end 11 which may overhang the table 5 to the proximity of the saw. Said recess may be formed with rectangular walls and of the same dimensions 65 throughout.

Adjustably mounted in the recess of said frame is a slide-member 12 of approximately the length of the recess and arranged to be secured therein in set position by means of 70 set-bolts 13. A recess 15 is formed longitudinally of said slide having undercut or dovetailed side edges 16 in which gauge-blocks 17, 18 and 19 are adjustably mounted. Said 75 gauge-blocks are provided with inclined side walls corresponding to the side edges 16 of the recess 15 and may be secured in set positions by means of set-screws 20 bearing upon the bottom of the recess.

Upon each of said blocks a gauge-strip 80 21 is secured of relatively thin spring steel or other suitable material. Said strips are fastened to the respective blocks adjacent one end by means of screws 22 and have their opposite ends 23 resiliently deflected out- 85 wardly to protrude beyond the face of the frame 8. One or more of said blocks may be provided with an additional gauge-strip, as 25, which is adjustably secured thereto 90 by set-screws 26 received in slots 27 of the strip.

Brackets 28 are secured upon the face of said frame having sloping ledges 29 thereon upon which the board 7 is rested at an angle to the table 5 when cuts inclined to the 95 planes of the flat sides of the boards are to be made, as seen in Figs. 1 and 6. Said brackets are adjustable to various heights to vary the angle of the board, as indicated.

The parts and devices of the slide and 100

blocks are all disposed within the recess 10 and below the level of the frame face except the ends 23 of the strips 21 and 25 and these are deflected inwardly thereof when a board is laid against their outer sides and against the end of the one being utilized as a gauge-stop.

The mode of operation of the device is readily understood. The ends 23 of the gauge-strips 21 and 25 serve as stops for the boards 7 in determining the location of the dado-grooves to be made therein, the end 30 of the board engaging thereagainst and so held by the operator while a saw-cut is being made. The blocks 17, 18 and 19 are disposed and secured in the slide-recess 15 in positions so that such ends 23 of the respective strips will each locate precisely a groove to be made. This is done readily accordingly to the dimensions of the window-frame and the required location of the grooves for setting in the vertical frame members of the window-frame. The board 7 illustrated represents a sill-member of a window-frame and the blocks will be so set and secured in the slide that the strip-ends 23 will correctly position the cuts to be made when the end 30 is held thereagainst.

With the device mounted as described upon the machine and as seen in Fig. 1, the end of the board is first placed against the strip 21 of the block 19 and the groove 31 is formed by sliding the table 5, frame and board upon the saw. The board-end is then engaged with the strip 21 of the block 18 and the groove 32 is made in a similar manner while the board overlies the strip of the block 19 and depresses it within the frame recess 10. The board is then moved to engage the next strip, 25, of the block 18 to make the cut 33, and so on.

The provision of the two strips 21 and 25 upon the same block is intended to make convenient the location of the two grooves in relatively close order or in making a wider cut than that to be made at one stroke of the saw.

The provision of the sliding member 12 within the frame to carry the blocks upon which the strips are carried is designed to accommodate boards of different lengths but having the grooves cut therein with the same spacings therebetween. Ordinarily head-members and sill-members of window-frames are of different lengths but have their grooves for the accommodation of the vertical members with similar spacings. Thus the slide may be adjusted lengthwise of the frame and secured to compensate for the extra length of the sill-member and then moved back to take the end of the head-member without disturbing the relative spacing of the strips.

It will be understood that the device may be employed in a wide variety of uses other

than that to which it has been applied in the present illustrated example, such as in cut-off saws in cutting stock to various lengths and that with the foregoing description taken in connection with the accompanying drawings the advantages of the construction and operation of my improved gauge-device will be readily apparent. It will be understood that the structure shown is merely illustrative and that such changes may be made therein in adapting it to its various uses as are within the scope of the following claims.

Having described my invention, what I claim, is:—

1. A gauge-device of the class described, a frame having a longitudinal recess therein, a member slidable in said recess, and arranged to be adjustably secured therein, said slide-member having an undercut recess along its length, a plurality of blocks securable in said slide-recess and housed in said frame recess, and a resiliently flexible gauge-strip secured at one end to each said block and having its other end extending outwardly beyond the face of said frame to engage the end of a board.

2. A gauge-device of the class described, consisting in a frame having a longitudinal recess therein, a member slidable in said recess and arranged to be adjustably secured therein, said slide-member having a recess along its length, a plurality of blocks securable in said slide-recess and housed in said frame recess, and an outwardly curved, flexible gauge-strip secured at one end to each said block and extending normally at its opposite end outwardly beyond the face of said frame and adapted to be depressed by the board when not engaged as a stop to within the face of said frame.

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