

H. DE SMITH.
MITERING GAGE FOR CORNER CUTTING MACHINES.
APPLICATION FILED SEPT. 8, 1910.

1,018,699.

Patented Feb. 27, 1912.

Fig. 1

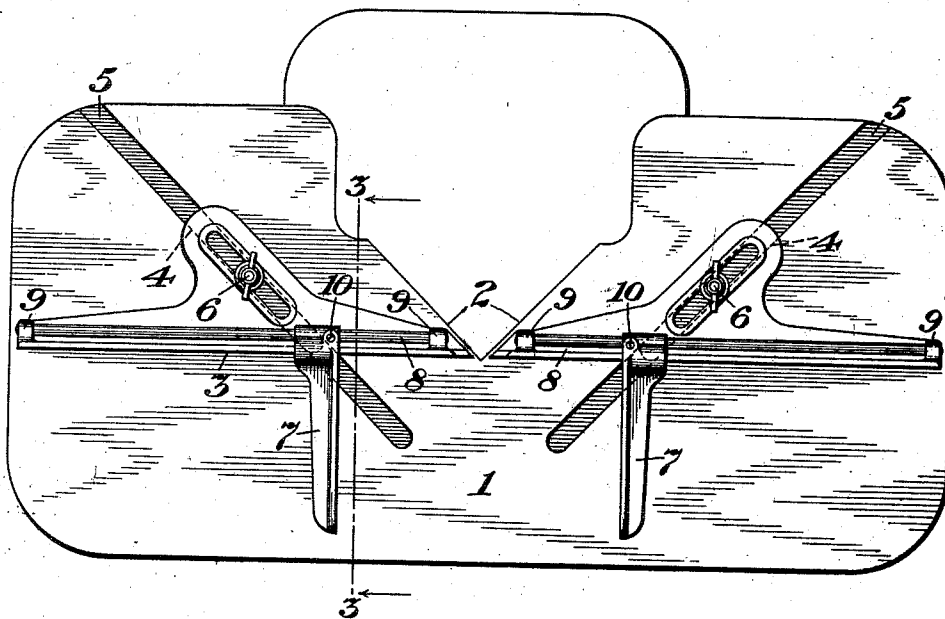


Fig. 2

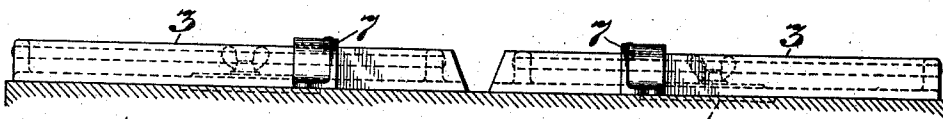
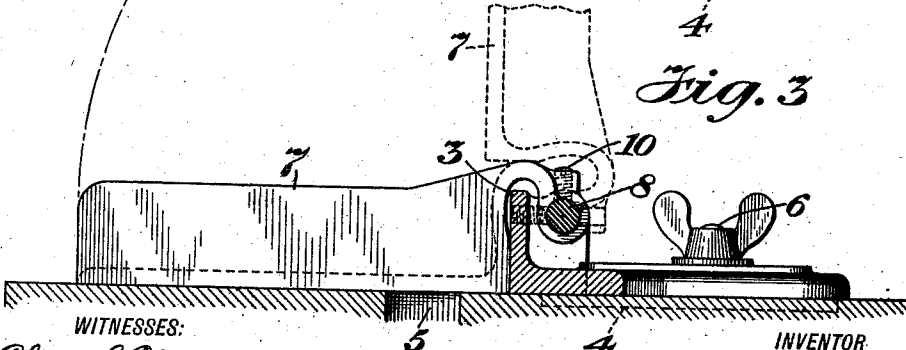


Fig. 3



WITNESSES:

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HENRY DE SMITH, OF ROCHESTER, NEW YORK, ASSIGNOR TO M. D. KNOWLTON COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

MITERING-GAGE FOR CORNER-CUTTING MACHINES.

1,018,699.

Specification of Letters Patent.

Patented Feb. 27, 1912.

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To all whom it may concern:

Be it known that I, HENRY DE SMITH, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Mitering-Gages for Corner-Cutting Machines, of which the following is a specification.

My invention relates to improvements in mitering gages for use in that class of paper box making machines commonly known as "corner cutters" and having two coöperating angular cutters for cutting corner notches in box blanks. These mitering gages are usually employed in pairs, one at each side of the lower or stationary cutter of the machine and each comprising a main gage and a secondary gage arranged at right angles to said main gage; the main gage being adapted to receive thereagainst that edge of the box blank in which the notches are to be cut and so position the blank relatively to the cutter as to determine the depth of notch to be cut, and the secondary gage being adapted to receive thereagainst one end of the blank and determine the distance of the notch from the end of the blank according to the depth of box to be made. These main and secondary gages are also adjustable relatively to each other and to the cutter in order to adapt the machine for operating on blanks for different sized boxes, and it is to such adjustable feature of the gages that my invention has particular reference; the object of my invention being to improve gages of the type referred to in a manner to render their use more convenient and desirable than heretofore.

To this end the invention consists in the novel features of construction and combinations of parts as hereinafter described and claimed and as illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the work supporting table of a corner cutter machine having a pair of my improved mitering gages mounted thereon. Fig. 2 is a front edge view of the same, and Fig. 3 is a sectional detail, taken on line 3—3 of Fig. 1, showing the secondary gage by full and dotted lines in operative and inoperative positions respectively.

Similar reference numerals indicate like parts in the several figures of the drawings.

As my improved gage may be applied to a corner cutter of any suitable or known construction, I have here shown only so much of such a machine as is necessary to illustrate my invention; the part shown being the work supporting table 1 and the lower angular cutter or die 2 in said table. For coöperating with this lower cutter of die 2 is a vertically reciprocating cutter (not shown) as understood by those familiar with the art.

As hereinbefore stated, a pair of mitering gages are usually employed, one at each side of the cutter 2, as shown in the present case, but as the construction and adjustment of both are the same, and furthermore, as only one may be employed if so desired, a description of one only will be given here.

The main gage, indicated at 3, is located on the table 1 in position to receive thereagainst that edge of the box blank which is to be notched by the cutters, and is adjustable in a direction toward and from the vertex of the cutter, according to the depth of notch to be cut. To provide for this adjustment, the gage has a tongue 4 slidably fitted in a longitudinal groove 5 in the table 1 and is adapted to be secured in adjusted position by a suitable fastening device, such as the clamp screw 6.

The secondary or end gage, indicated at 7, is adjustably connected with the main gage for the purpose hereinbefore stated in a manner as follows: The main gage is provided with a rod 8 supported at its opposite ends in ears 9, 9, on said gage, with which rod the secondary gage has a combined sliding and pivotal connection at its rear end, preferably by means of an opening therein receiving said rod therethrough. This connection permits of the end gage 7 being adjusted lengthwise of the main gage according to the shape and size of the box to be made, and also permits of said end gage being swung upwardly from the table, as indicated by dotted lines in Fig. 3, for the convenience of the operator in manipulating his work, or for cleaning off the table, etc. The said end gage is adapted to be secured in adjusted position by a suitable fastening device, such as a set-screw 10. The rod 8 as a means of connection between the two gages is also desirable in that it assures a sliding adjustment of the end gage with minimum likelihood of binding.

What I claim is:—

1. A mitering gage for paper board cutting machines, comprising two gage members coöperative in positioning a sheet, one of which members has a combined sliding and pivotal connection with the other.

2. A mitering gage for paper board cutting machines, comprising two gage members coöperative in positioning a sheet, one of said members having an attached rod and the other member having a combined sliding and pivotal connection with said rod.

3. In a paper board cutting machine, the combination with the work table thereof, of a mitering gage adjustably mounted on said

table comprising two gage members co-operative in positioning a sheet, one of said members having an attached rod and the other member having a combined sliding and pivotal connection with said rod whereby it may be adjustable in a direction parallel with the table and also in a direction upwardly from the table.

Signed at Rochester, in the county of Monroe, and State of New York, this 6th day of September, A. D. 1910.

HENRY DE SMITH.

Witnesses:

C. E. SANGER,
R. STOLTZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."