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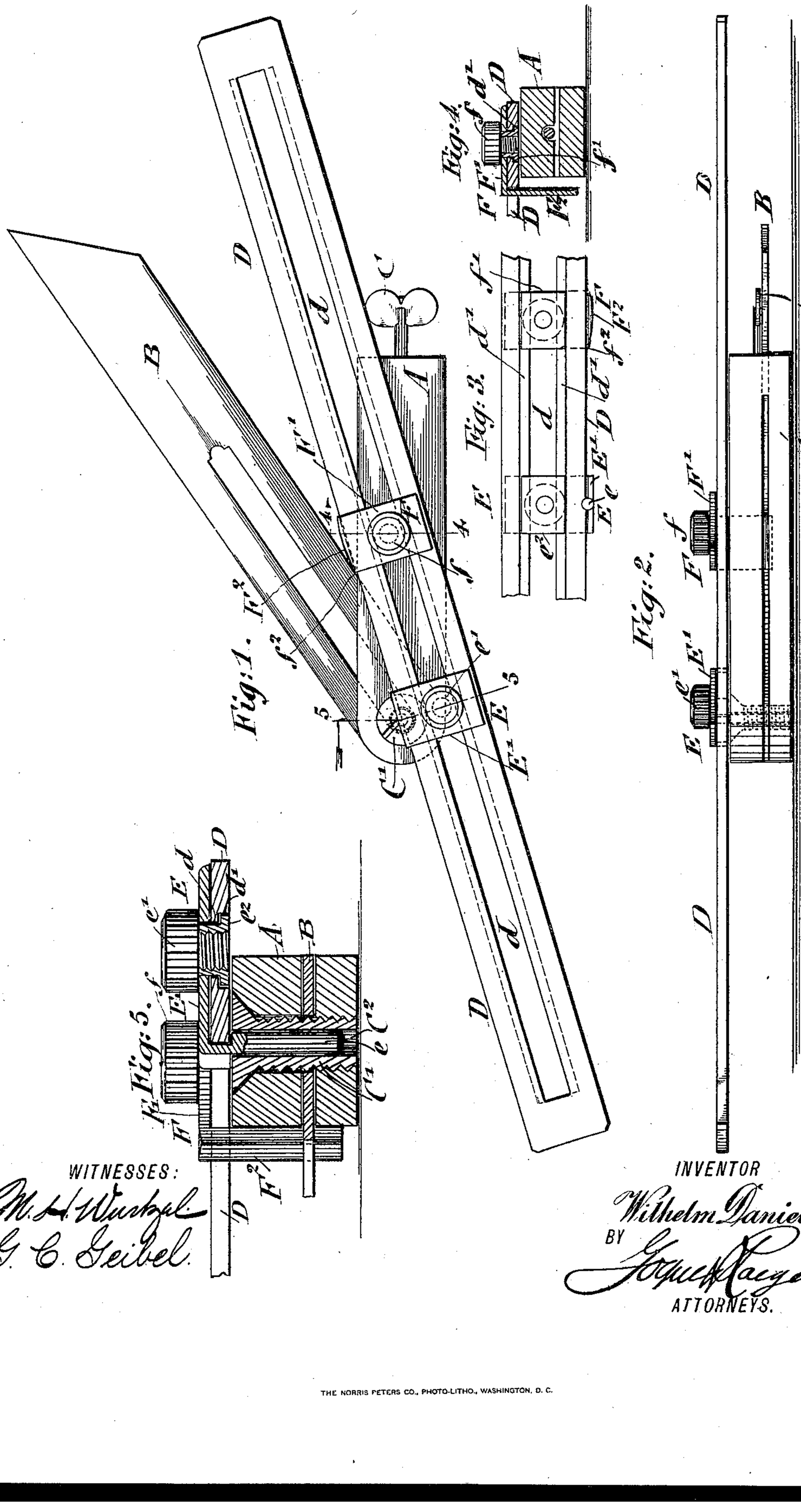
W. DANIELSON.

MITERING ATTACHMENT FOR BEVELS.

(Application filed May 24, 1899.)

(No Model.)



UNITED STATES PATENT OFFICE.

WILHELM DANIELSON, OF NEW YORK, N. Y.

MITERING ATTACHMENT FOR BEVELS.

SPECIFICATION forming part of Letters Patent No. 644,410, dated February 27, 1900.

Application filed May 24, 1899. Serial No. 717,992. (No model.)

To all whom it may concern:

Be it known that I, WILHELM DANIELSON, a citizen of the Kingdom of Sweden, residing in the city of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Mitering Attachments for Carpenters' Bevels, of which the following is a specification.

This invention relates to a mitering attachment for carpenters' bevels or bevel-squares by which the bisecting of any angle taken by the bevel may be quickly and accurately accomplished, so that the plane of the joint to be made will bisect the angle of the bevel and the usefulness of the bevel increased and convenient means supplied the carpenter for the mitering of moldings or any other stock at the required angle.

The invention consists of a carpenter's bevel and a straight-edge pivoted in line with the pivot of the bevel and provided with a gage for setting the straight-edge so as to bisect the angle of the bevel, all as will be hereinafter described in detail and then particularly claimed.

In the accompanying drawings, Figure 1 is a plan of a carpenter's bevel provided with my attachment. Fig. 2 is a side or edge elevation of the same. Fig. 3 is a broken detail view of the under side of the straight-edge. Fig. 4 is a transverse section on the line 4 4, Fig. 1; and Fig. 5 is an enlarged section on line 5 5, Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A indicates the base, and B the adjustable leg or rule, of a carpenter's bevel of the usual construction, and C the usual thumb device for changing the angle to which its base and leg are set. These parts need not be described in detail, as they are too well known.

The attachment comprises a straight-edge or rule D of reasonable length provided with an adjustable slide E, consisting of an angular plate E′, provided with a downwardly-extending pivot *e*, and of a set-screw *e′*, which passes through a longitudinal slot *d* of the straight-edge and screws into a nut e^2, the side edges of which are rabbeted, so as to slide on the walls of the undercut rabbet grooves *d′*, formed at each side of the slot *d*. By moving the slide E along the straight-edge and tightening up the set-screw *e′* the slide may be set at any desired point on the straight-edge. The parts of the slide form a clamp.

A sliding gage F constructed, with one exception exactly like the slide E, is also adjustable along the straight-edge D, F′ being the slide-plate, *f* the thumb-screw, and *f′* the nut of the sliding gage. The exception mentioned is a laterally and downwardly extending stop-finger F^2 of flat form having a knife-edge f^2 directed toward the slide E. The parts of the gage also form a clamp.

The attachment is applied to the bevel in the manner shown in Fig. 1—that is to say, the pivot-pin *e* is inserted in axial bore C^2 in the countersunk connecting screw and pivot C′ of the bevel, while the stop-finger F^2 is placed between the two members of the bevel. Now when a miter-joint is to be made the plane of which is to bisect a given angle determined by the position of the members of the bevel the pivot of the slide E is inserted into the bore of the pivot of the bevel and the gage moved upon the straight-edge until the knife-edge of its finger F^2 fits into the inner angle of the bevel, after which the set-screw *f* is tightened. The portion of the straight-edge extending beyond the stop-finger F^2 is then used as a guide for drawing the mitering-line on the molding, dado, or other piece to be mitered, after which the piece is sawed or cut in two on this line, and an exact miter-joint of the pieces can be made. It will be observed from Figs. 1 and 3 that the axis of the pivot-pin *e* and the knife-edge of the gage are both approximately in the plane of the ruling edge, so that a mathematically-exact bisection of the angle formed by the bevel can be accomplished.

The attachment is very simple and can be readily applied to carpenters' bevels and used without difficulty.

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

1. A mitering attachment for carpenters' bevels, the same consisting of a straight-edge provided with a projecting pivot-pin for application to the pivot of the bevel, and a stop-gage, adjustable on said straight-edge and provided with a finger said finger and pivot-pin

being in line with the edge of said straight-edge, substantially as set forth.

2. A mitering attachment for carpenters' bevels, the same consisting of a straight-edge with a projecting pivot-pin for applying it to such bevels, and a sliding gage provided with a stop-finger having a knife-edge said finger and pivot-pin being in line with the edge of said straight-edge, substantially as set forth.

3. A mitering attachment for carpenters' bevels, the same consisting of a straight-edge having two adjustable slides, one of which is provided with a projecting pivot-pin for connecting it with the bevel, and the other with a stop-finger said finger and pivot-pin being in line with the edge of said straight-edge, substantially as set forth.

4. A mitering attachment for carpenters' bevels, the same consisting of a straight-edge having a longitudinal slot, means for connecting the straight-edge with the bevel, a sliding gage, a nut, and a set-screw passing through the gage, slot and nut for adjusting the slide, substantially as set forth.

5. The combination, with a carpenter's bevel, of a straight-edge having a pivot, the axis of which and the axis of the pivot of said bevel are in line with the edge of said straight-edge, and an adjustable gage on the straight-edge, adapted to fit into the inner angle of the bevel, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

WILHELM DANIELSON.

Witnesses:

PAUL GOEPEL,

M. H. WURTZEL.