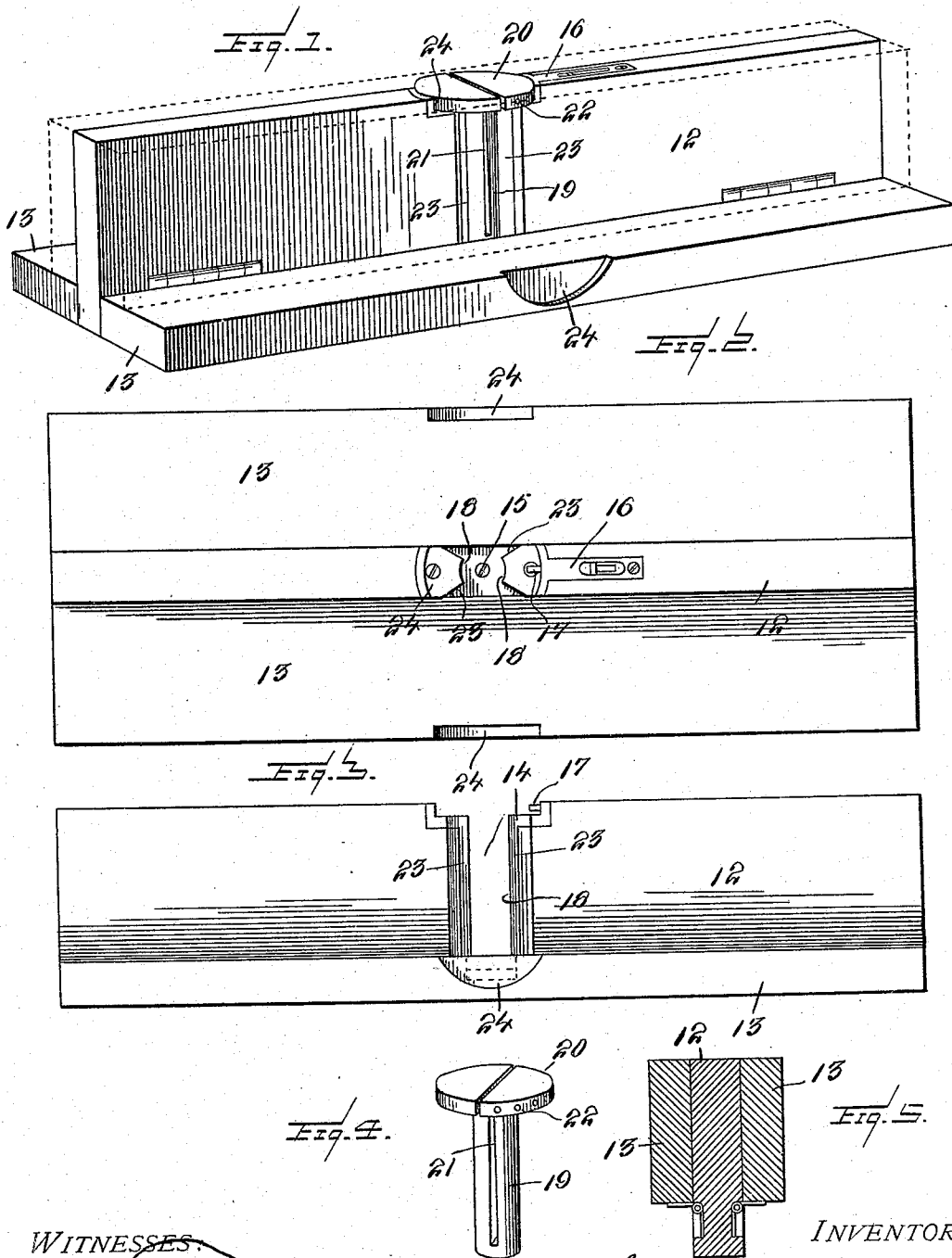


T. M. BIRKETT.  
MITER BOX.  
APPLICATION FILED DEC. 4, 1908.

937,044.

Patented Oct. 19, 1909.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

THOMAS M. BIRKETT, OF OTTAWA, ONTARIO, CANADA.

MITER-BOX.

937,044.

Specification of Letters Patent.

Patented Oct. 19, 1909.

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*To all whom it may concern:*

Be it known that I, THOMAS M. BIRKETT, a subject of the King of Great Britain, residing at Ottawa, Ontario, Canada, have invented or discovered certain new and useful Improvements in Miter-Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to miter boxes, and has for its object to provide a folding adjustable miter box of compact and convenient construction, so that it may be folded into relatively small compass for transportation and readily opened for use when desired; the saw guide of said box being mounted so that it may be rotated horizontally to adapt the same for use in cutting miters at any desired angle, and the construction being such that the saw guide, while readily adjustable, may be rigidly fixed in any desired position of adjustment for the purpose of securing accurate work.

In the accompanying drawings, Figure 1 is a perspective view of the improved miter box in open position ready for use but showing the folded positions of the side leaves in dotted lines. Figs. 2 and 3 are plan and side views of the same, but with the adjustable saw guide removed. Fig. 4 is a detail view of the adjustable saw guide. Fig. 5 is a cross section of the miter box folded.

Referring to the drawings, 12 denotes the central leaf or member of the folding miter box, and to which are hinged, above the bottom of the said central leaf or member, the folding side leaves or members 13. The central leaf or member 12 is provided at or near its middle with a frame 14 preferably composed of a single casing of brass or other suitable metal, said frame being attached to said central member 12 by screws 15 and being provided at one side with an arm or extension 16 in which is mounted a sliding locking pin 17. The said metal frame is also provided with concave seats 18 for the reception of the cylindrical stem 19 of the saw guide which comprises said cylindrical stem and a top disk portion 20. The guide slot 21 of said guide extends through the top disk portion 20 and down into the cylindrical stem 19 nearly to the bottom of the latter, said slot being made narrow in said top disk portion, so as to afford a rather close sliding fit for the body of the saw, while the wider portion of the slot in said

cylindrical stem affords room for the teeth of the saw.

The disk 20 is provided with a series of holes 22 for the reception of the sliding locking pin 17 by which said guide may be secured in any desired angular position of adjustment. The frame 14 is provided, outside of the concave seats 18, with bevel faces 23 which permit the use, in mitering, of a wide range of adjustment of the saw guide in either direction, said bevel faces being in line with beveled or chamfered off adjacent portions of the central member 12.

The folding side leaves or members 13 are provided with concave seats or recesses 24 corresponding in shape and size to the overhanging parts of the disk portion 20 of the adjustable guide, so that when the said folding side leaves are in the folded position denoted in dotted lines in Fig. 1 said disk portion 20 will be housed in the said recesses and will be flush, or approximately so, with the tops of said folding leaves or members 13 and with the central leaf or member 12.

From the foregoing it will be apparent that the invention provides a compact and convenient miter box which may be readily folded for transportation and readily adjusted into position for use; while the adjustable guide mounted in the central leaf or member of the miter box adapts the same for use for a wide range of work in forming miters with bevels of largely varying angles; or, as will be understood, the guide may be adjusted to such a position that the guide slot will be at right angles to the body of the miter box, if the said box be desired for use in straight cross-cut sawing.

Having thus described my invention I claim and desire to secure by Letters Patent:

1. A miter box comprising a central leaf or member, and two folding side leaves or members, the said central leaf or member being provided with a metal frame having concave seats, in combination with an adjustable guide comprising a central cylindrical portion, adapted to fit between said seats, and a disk portion, said adjustable guide being provided with a guide slot extending from the top of said guide nearly to the bottom thereof, and means for securing said guide in different positions of adjustment.

2. A miter box comprising a central leaf

or member, and two folding side leaves or members, the said central leaf or member being provided with a metal frame having concave seats and with beveled faces adjacent to said seats, in combination with an adjustable guide comprising a central cylindrical portion, adapted to fit between said seats, and a disk portion, said adjustable guide being provided with a guide slot extending from the top of said guide nearly to the bottom thereof, and means for securing said guide in different positions of adjustment.

3. A miter box comprising a central leaf or member, and two folding side leaves or members, the said central leaf or member being provided with a metal frame having concave seats, in combination with an adjustable guide comprising a central cylindrical portion, adapted to fit between said

seats, and a disk portion, said adjustable guide being provided with a guide slot extending from the top of said guide nearly to the bottom thereof, and means for securing said guide in different positions of adjustment, said side leaves being provided with concave recesses to receive the overhanging parts of the disk portion of said guide, so that said disk portion may be flush with the upper surfaces of said leaves, or approximately so.

In testimony whereof I affix my signature, in presence of two witnesses.

THOMAS M. BIRKETT.

Witnesses:

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B. A. GRAVELLE.