No. 707,307. Patented Aug. 19, 1902.

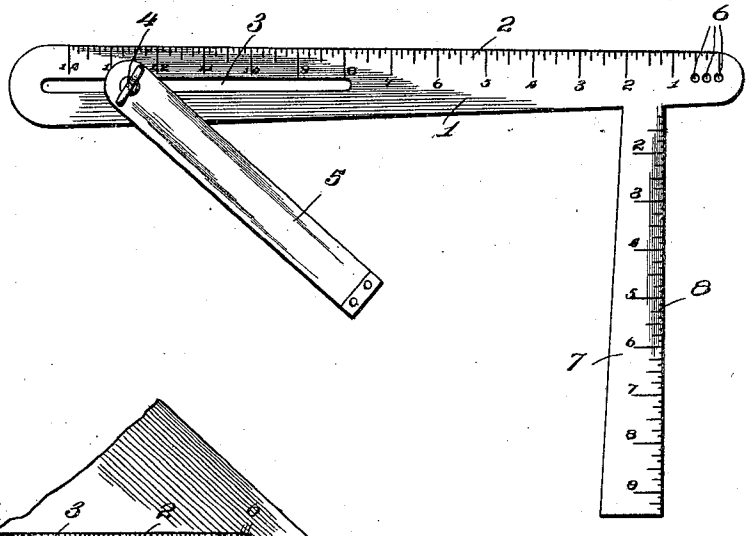
M. F. DOYLE.

CARPENTER'S TOOL.

(Application filed Mar. 26, 1902.)

(No Model.)

Fig. 1.



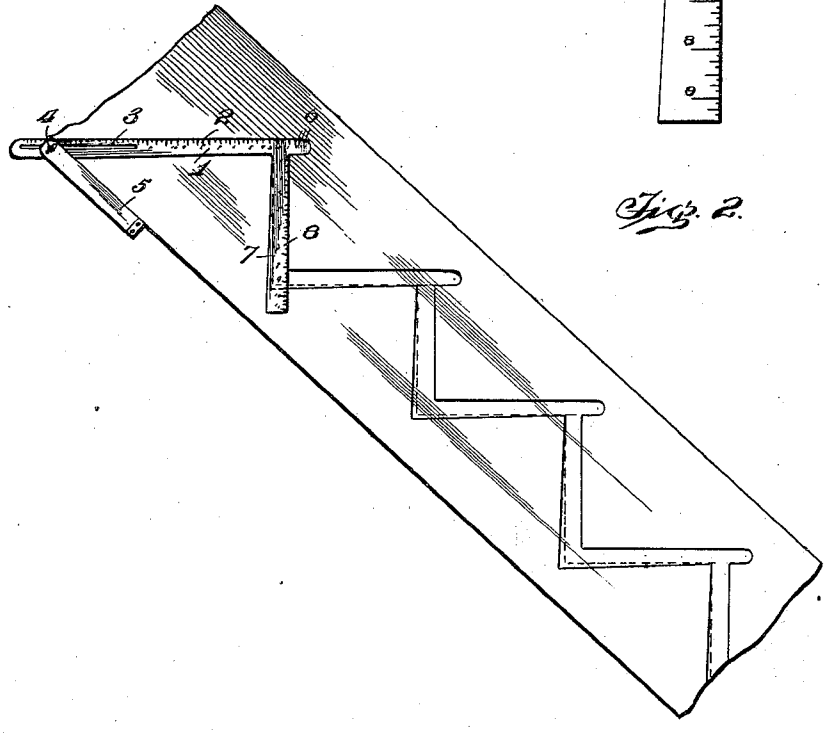


Fig. 2.

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UNITED STATES PATENT OFFICE.

MICHAEL F. DOYLE, OF SCRANTON, PENNSYLVANIA.

CARPENTER'S TOOL.

SPECIFICATION forming part of Letters Patent No. 707,307, dated August 19, 1902.

Application filed March 26, 1902. Serial No. 100,128. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL F. DOYLE, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Carpenters' Tools; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in squares, and more particularly to such as are designed for marking or laying off the angles of steps upon the side beams of a staircase.

The object in view is the production of a tool designed to facilitate marking off the steps of a stair in the proper relation to each other without the necessity of any adjustment of the tool after the operation is begun.

With this and other objects in view the invention consists in certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

Referring to the drawings, Figure 1 represents a view in side elevation of a tool embodying the features of the present invention. Fig. 2 represents a similar reduced view of the same in operation.

In the art to which my invention relates it has been found desirable to extend the horizontal portion of a step beyond the vertical portion, and in order to facilitate marking off steps formed in this manner I employ a ruler-bar, as 1, preferably formed with suitable graduation indications, as 2, upon its ruling edge and provided with a longitudinal slot, as 3, extending from near one end inwardly and designed to have passed therethrough a set-screw, as 4, carrying a suitable guiding-block, as 5, said set-screw thereby pivotally connecting said block to the bar 1 and being capable of locking the said parts at any given angle relative to each other. The end of bar 1 opposite slot 3 is preferably formed with a series of apertures, as 6, for purposes hereinafter mentioned. That end of bar 1 provided with apertures 6 may be rounded or given any desired shape, according to the shape of the outer edge of the horizontal portion of the step to be employed.

Spaced a suitable distance inwardly from the last-mentioned end of bar 1, carried thereby and preferably formed integral therewith, is an auxiliary laterally-extending ruler-bar, as 7, preferably formed with suitable graduation indications, as 8, upon its ruling edge, said ruling edges extending at that angle to the ruling edge of bar 1 which it is desired that the vertical portion of the step shall have to the horizontal portion thereof, which is shown in the instance disclosed in the drawings as a right angle.

The operation of the present tool will be readily apparent. The block 5 is adjusted to that angle relative to bar 1 which a horizontal plane has to the diagonal plane of the under edge of the stair-casing. The said block 5 is then brought against said edge, and the tool is in position for operation, the operator only finding it necessary to outline the ruling edges of bars 1 and 7 and connect the same by a line about the projecting end of bar 1 extending beyond bar 7, and if it is desired to make the projecting part of the horizontal portion of the step of less width than the length of that portion of bar 1 extending beyond bar 7 it is only necessary to make an indicating-point by passing the marking instrument through the desired aperture 6 and afterward by moving the tool backward connect the lines formerly made on the ruling edges of said tool on the given indication. When one step has been indicated, the tool is moved longitudinally of the casing until the ruling edge of bar 1 is brought in the horizontal plane of the lower end of the line formerly ruled upon bar 7 as a guide, and the former operation is repeated.

As will be seen from the drawings, the block 5 is of a length less than that of the bar 1 and that its point of pivotal connection is substantially close to one end thereof, it being connected only to the outer end of said bar 1. Being pivotally mounted, it may be moved through an arc to a point to and beyond the longitudinal center of said bar, thus permitting of the use in other connections—such,

for instance, as an ordinary square, in which case the block may be located on either side of said bar as may be found most convenient.

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

A carpenter's tool, comprising a horizontal ruling-bar having a slot adjacent to one end thereof, said slot extending longitudinally of the bar to a point approximate the center thereof, a guiding-block having an adjustable connection with said bar, the length of adjustment being limited by said slot, and a vertical auxiliary bar extending laterally from said bar at a point adjacent to the non-slotted end thereof, the portion of the horizontal bar beyond the point of connection with the auxiliary bar forming an extension of the horizontal bar and in alinement therewith, whereby a straight edge will be formed along the outer side of said horizontal bar and extension, said extension having a plurality of openings, said block being of a length less than the length of the horizontal bar and movable to a point on either side thereof and free from contact with said auxiliary bar, substantially as and for the purposes set forth.

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

MICHAEL F. DOYLE.

Witnesses:
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