

(No Model.)

A. A. WELSH.
CARPENTER'S GAGE.

No. 445,646.

Patented Feb. 3, 1891.

Fig. 1.

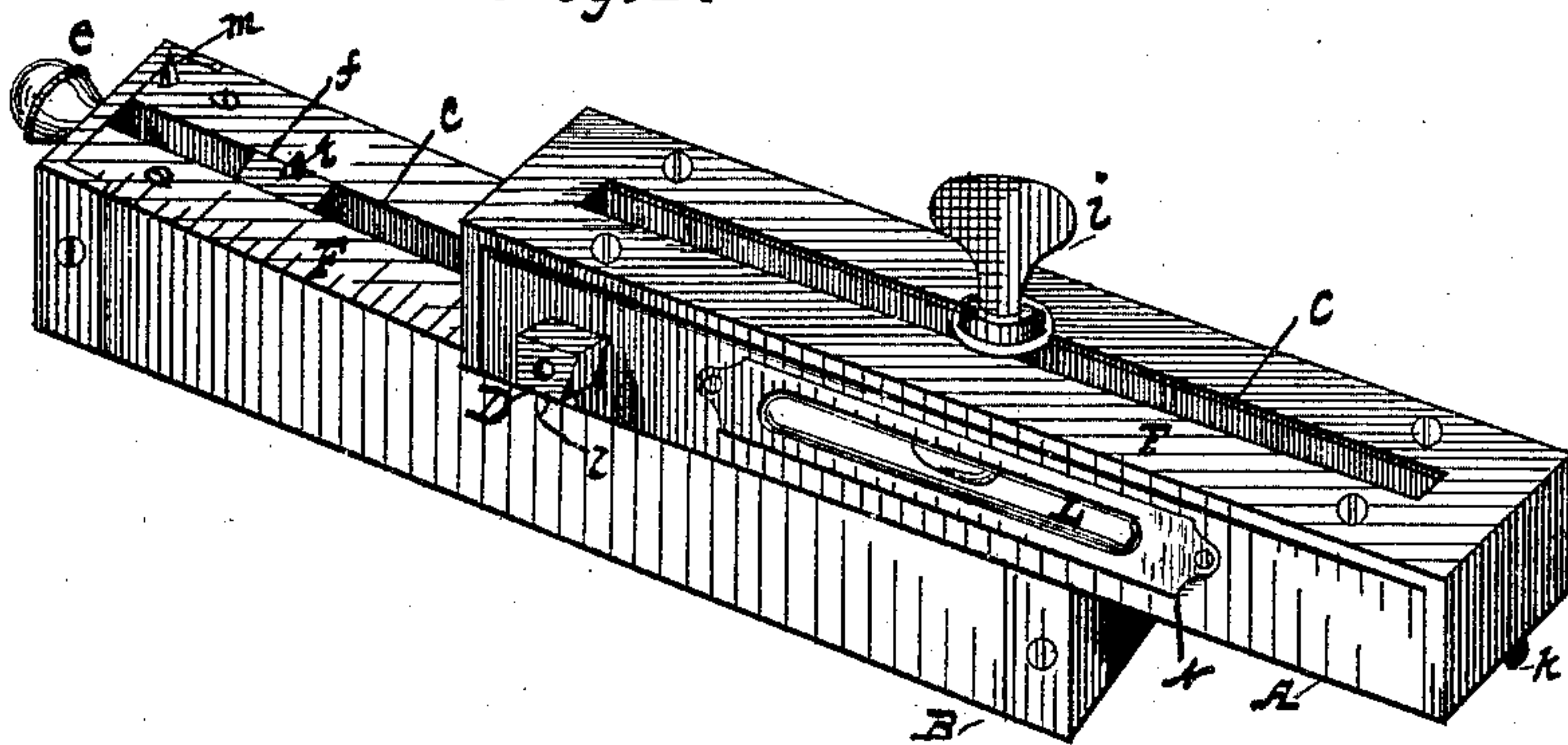


Fig. 2.

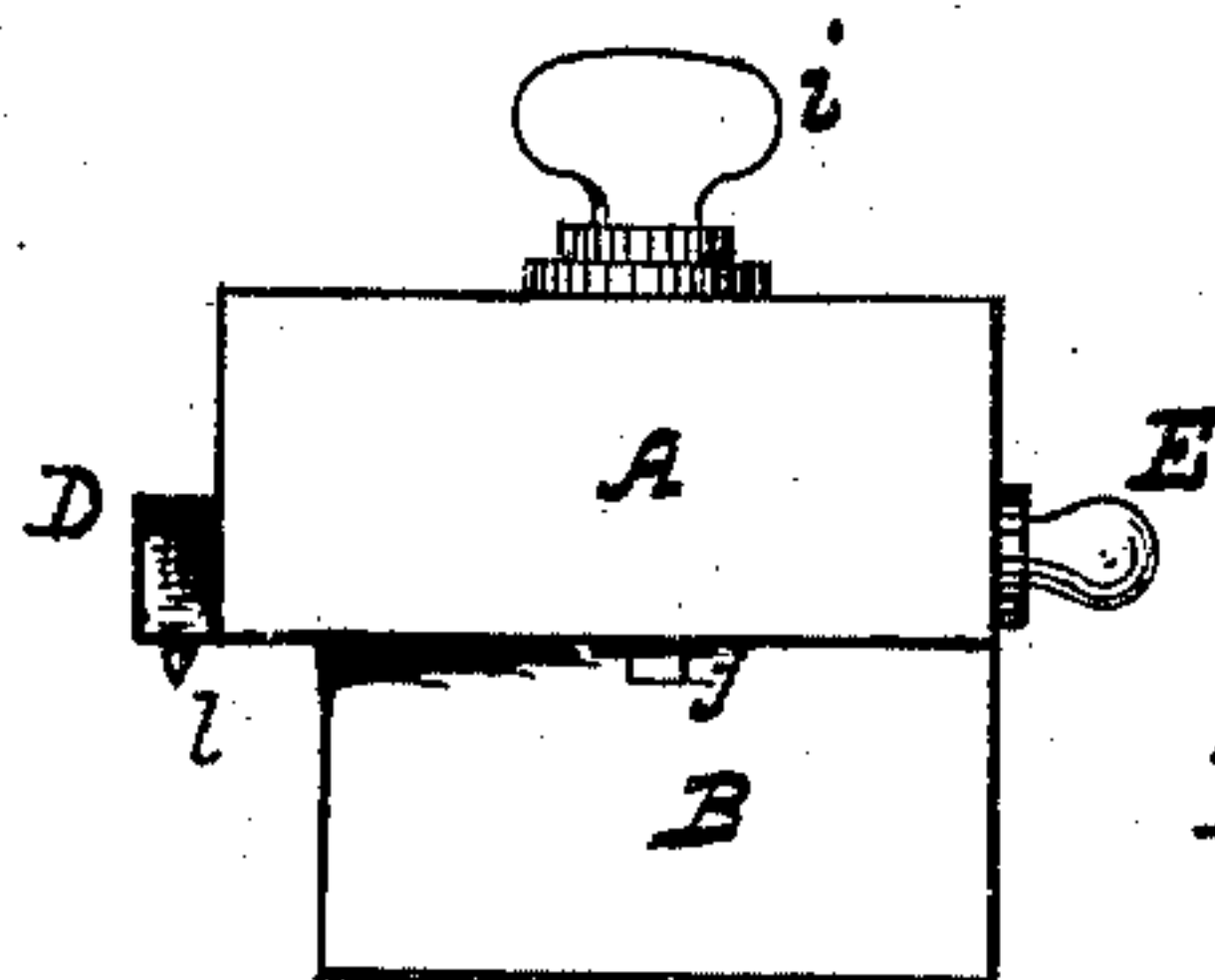
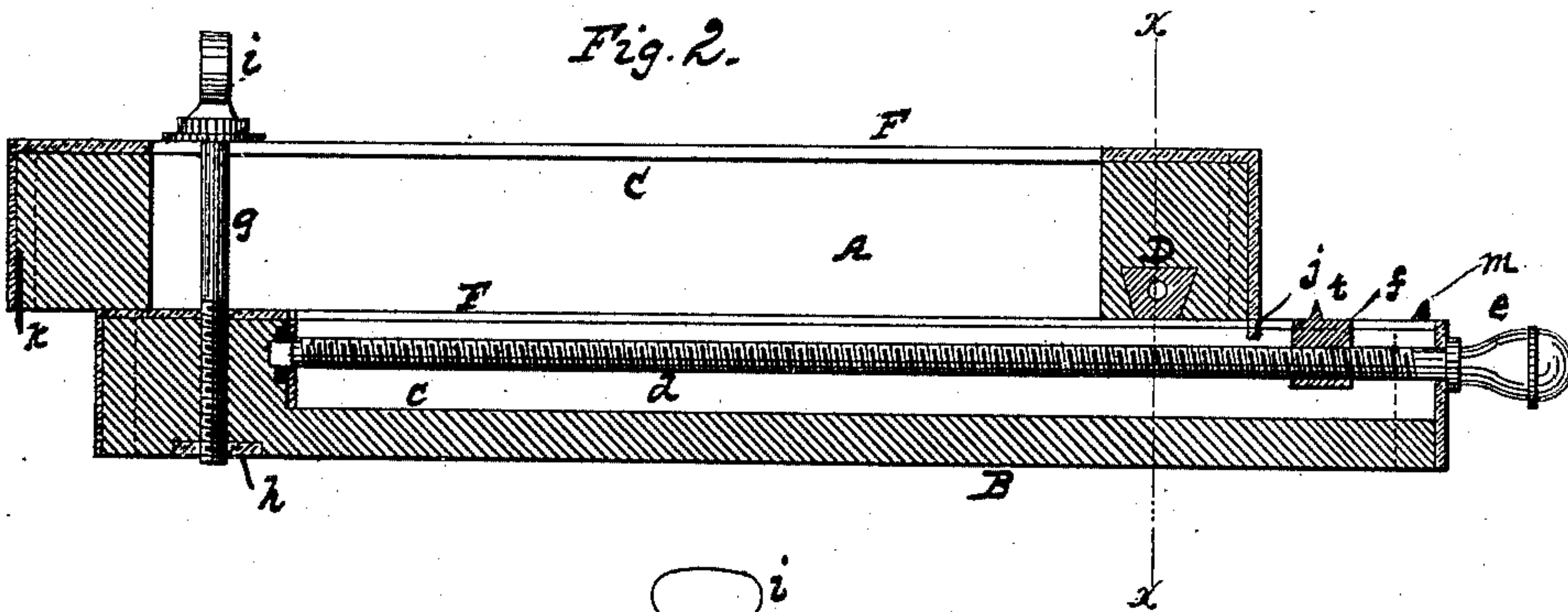
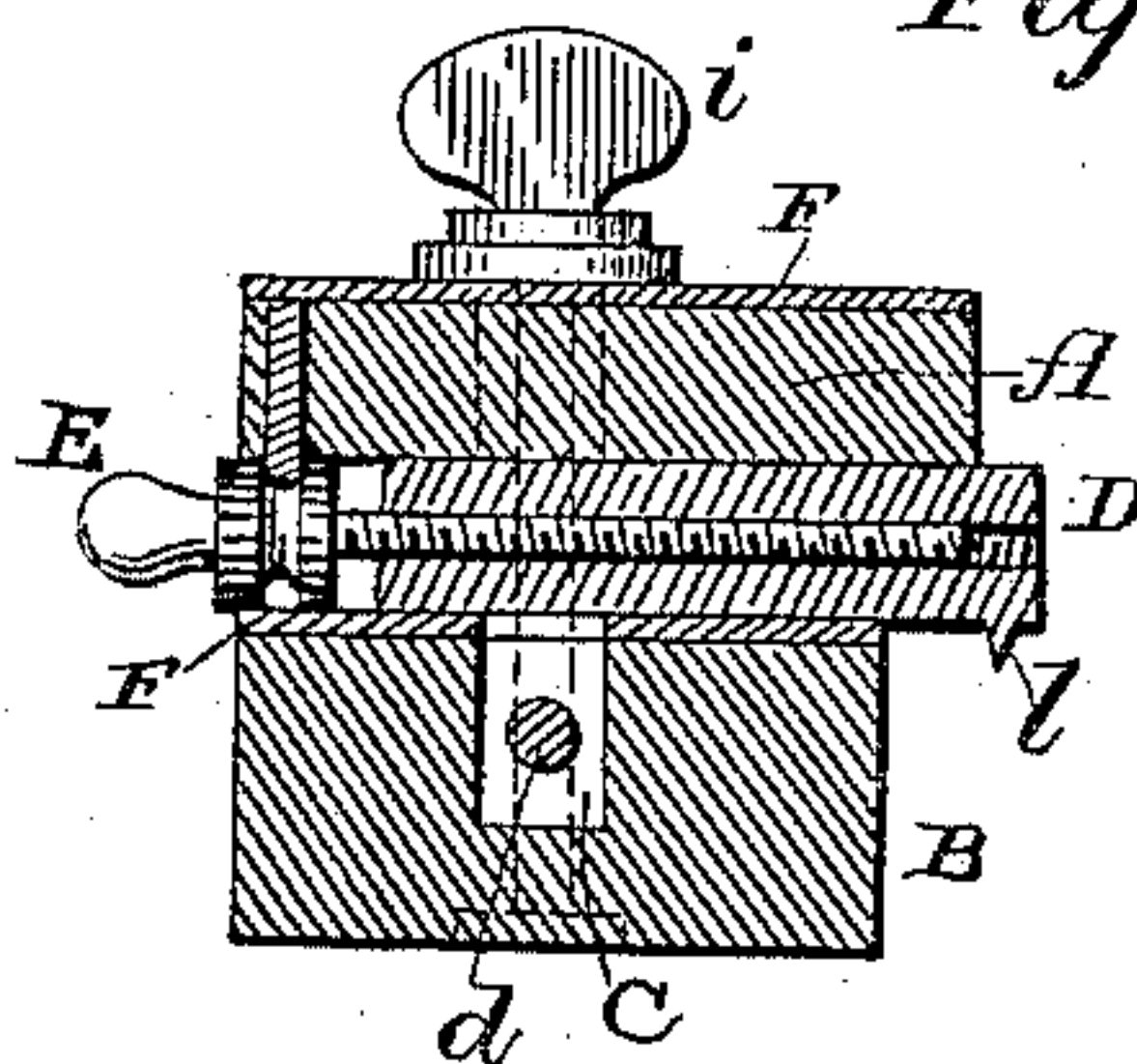


Fig. 3.

Fig. 4.



WITNESSES:

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ATTORNEYS

UNITED STATES PATENT OFFICE.

ALEXANDER A. WELSH, OF ALLEGHENY, PENNSYLVANIA.

CARPENTER'S GAGE.

SPECIFICATION forming part of Letters Patent No. 445,646, dated February 3, 1891.

Application filed March 17, 1890. Serial No. 344,180. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER A. WELSH, of Allegheny, in the county of Allegheny, State of Pennsylvania, have invented a new and useful Improvement in Carpenters' Gages; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The construction of my new and improved gage will be readily understood from the following description, taken in connection with the accompanying drawings, wherein—

Figure 1 represents a perspective view of my improved sliding gage. Fig. 2 is a longitudinal vertical section. Fig. 3 is an end view of the same. Fig. 4 is a cross-section taken upon the line *xx* of Fig. 2.

To construct my improved sliding gage, I prepare two rectangular blocks A B, of equal length, of hard wood, one of which is of greater width than the other. Longitudinally down through the center of each block is formed a long and narrow channel C, in one of which B, and extending nearly the whole length of the block, is arranged a finely-threaded screw *d*, provided with a knob *e* at its exterior end for rotating the same. Within this slot or channel provided with such screw is arranged an oblong nut *f*, adapted to slide therein, and through this nut the longitudinal screw passes, by which the nut *f* may be moved and adjusted with the greatest degree of accuracy back and forth along the slot. Superimposed or arranged on top of the block B, containing the longitudinal screw *d* aforesaid, is another and wider block A, of about the same length. This upper block A is also provided with a longitudinal slot C or hole entirely through it corresponding in size and position to that in the block B beneath. These two blocks are adjustably held together by means of a vertical screw *g*, having a fixed nut *h* in the bottom and near one end of the lower block. This screw is provided with a collar and a thumb-knob *i* at that end projecting above the face of the upper block. The turning of the screw in one direction will release the blocks, so as to enable them to be easily slid one on the other to any desired point, and secured there by tightening of the

vertical screw *i*, and insure the parallelism of the blocks. The upper block is fitted with a tongue *j*, that slides in the groove of the adjoining block.

In one end of the upper block, nearest the knob *e* of the longitudinal screw *d* in the lower block B, is transversely formed a deep dovetail-shaped groove, wherein is fitted a long nut D, of corresponding shape and size, and this nut is provided with a male screw having a knob E on the opposite side of the block, whereby the dovetail-shaped nut may be drawn in flush with the side of the block or made to project therefrom by the screw adapted to operate it. The ends and top wearing-surfaces of both blocks are covered with a metallic plate F, held thereon by suitable screws.

About the middle and on the under side of that end of the upper block A farthest distant from the knob *e* on the longitudinal screw is a downwardly-projecting steel tooth K, having a sharp cutting-edge and of a character used in most of carpenters' gages, so that on moving and setting that end of the upper block provided with the tooth K a suitable distance outward and beyond the approximate end of the lower block B, and securing the blocks together by means of the thumb-screw *g*, a score or mark may be made parallel with and along and near the edge of a board against which the end of the gage is drawn. The transverse dovetail nut D is also provided on its under side with a similar tooth *l*, whereby the gage may, when moved lengthwise along the edge of the board, produce the same effect. A little to one side of the slot in the lower block B and close to that end thereof supporting the knob *e* of the horizontal screw *d* is an upwardly-projecting tooth *m*. The sliding nut *f* of this horizontal screw *d* is also provided with a sharp tooth *t*, which projects above the plain surface of the block B, wherein it is made to move.

The construction of this improved gage and the relation of the several parts are such as that the several points or teeth may be adjusted and fixed independently at different distances from the rubbing or sliding part of the gage, either at the ends or side thereof, whereby the gage is fitted for forming scores or marks parallel with the edge of a board,

some of which may be near the edge of the same and others farther removed therefrom, so that the gage when set for different kinds of work may be used without readjusting it
5 for different lines, and to adapt the gage for use as a level the same is provided with a spirit-bulb embedded in one side thereof and held therein by means of a suitable plate N.

Having thus described my improvement,
10 what I claim is—

A new and improved gage consisting of two rectangular blocks provided with a longitudinal channel therein, a thumb-screw and nut for adjusting the blocks with respect to each
15 other in the direction of their length, a hori-

zontal screw extending lengthwise along the slot of the lower block for adjusting therein a sliding nut, a transverse dovetail nut provided with a screw for moving the same, a tooth on said nut, a downwardly-projecting
20 tooth on the projecting end of the upper block, and a fixed tooth on the opposite end of the lower block.

In testimony whereof I have hereunto set my hand this 6th day of March, A. D. 1890.

ALEXANDER A. WELSH.

Witnesses:

A. C. JOHNSTON,
LOUIS KRAMER.