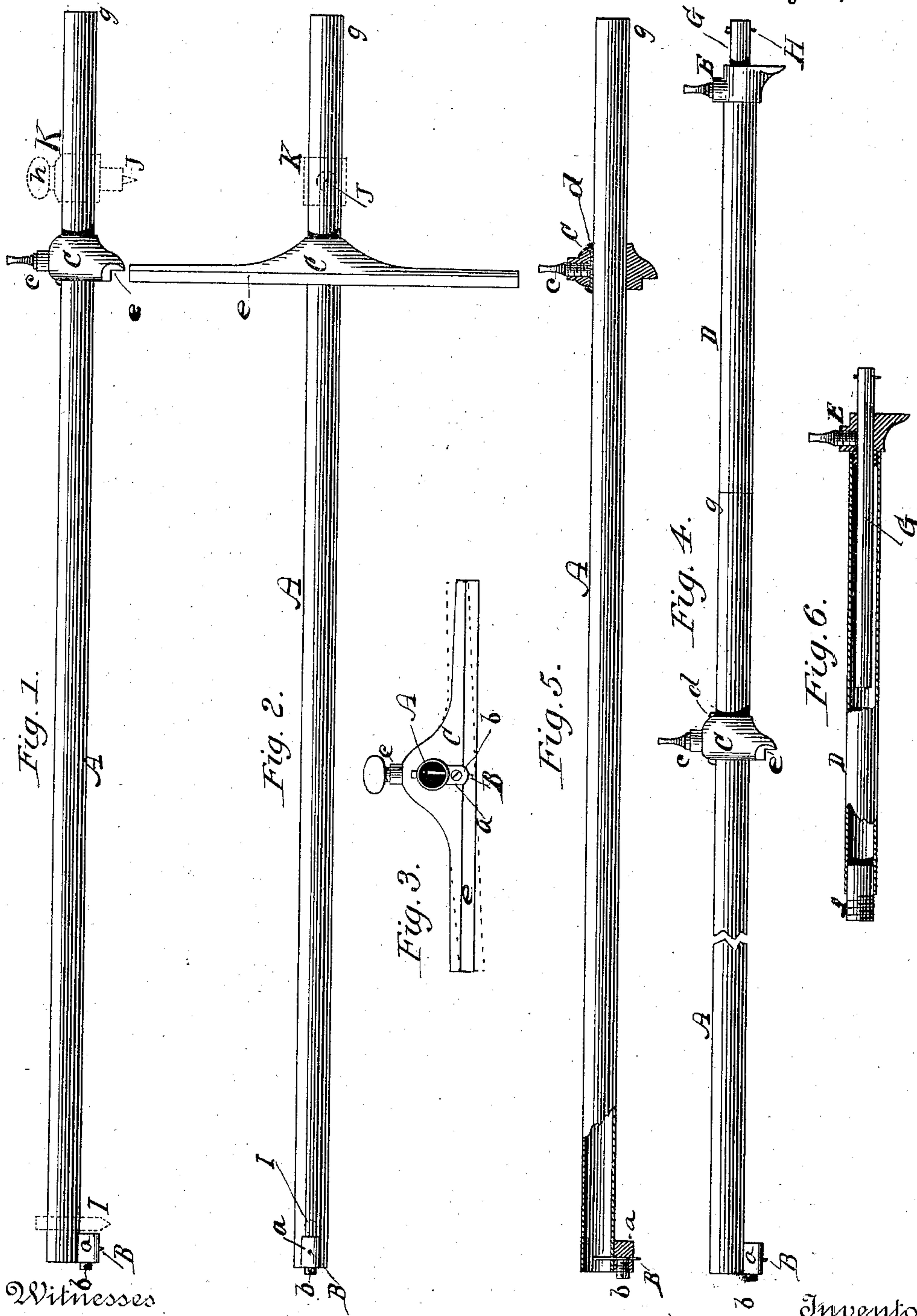


(No Model.)

A. FALES.
CARPENTER'S GAGE.

No. 365,804.

Patented July 5, 1887.



Witnesses
Torriss & Clark.

A. Brown

Inventor,
Amos Fales,

By his Attorney, *J. S. Brown.*

UNITED STATES PATENT OFFICE.

AMOS FALES, OF ROCKFALL, CONNECTICUT.

CARPENTER'S GAGE.

SPECIFICATION forming part of Letters Patent No. 365,804, dated July 5, 1887.

Application filed August 7, 1886. Serial No. 210,290. (No model.)

To all whom it may concern:

Be it known that I, AMOS FALES, a citizen of the Dominion of Canada, residing in Rockfall, in the county of Middlesex and State of Connecticut, have invented an Improved Carpenter's Gage; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a side view of the improved gage; Fig. 2, a bottom view of the same; Fig. 3, an end view of the same; Fig. 4, a side view of the gage provided with an improved extension; Fig. 5, a central longitudinal vertical section of the outer end cross-section of the head and side view of the remainder of the main gage; Fig. 6, a partial central longitudinal vertical section of the extension part of the gage.

Like letters designate corresponding parts in all of the figures.

This instrument is a combination extension panel-gage, and adapted to various other uses. The main stem or stock A of the gage is tubular and cylindrical. It may be made of a brass tube of the proper diameter. The spur B is held in a bolster, *a*, secured to the outer end of the main stem. It is held in place by a set-screw, *b*, and is adjustable out or in. The head C is preferably made of metal, and may properly be made of cast-iron. The stem A, being of tubular form and of uniform size, fits accurately in the head, which, however, slides easily thereon. The head is held to the stem by a set-screw, *c*, which bears at its inner end against a gib, *d*, Fig. 5, which is interposed between the screw and stem. Thus the stem is not liable to be marred or scratched by the screw in adjusting the head to different positions. The head C has a rabbet or shouldered groove, *e*, in its front gage corner, which fits on any straight edge or corner of the material to which it is applied, whereby the gage-stem is kept at right angles to the gage-line and at the proper angle upon the work in relation to the axis of the gage-stem. One advantage of the round tubular stem is that the head may be set to any angle around it, and this adjustment of the head, in connection with the spur B, enables the spur to cut at various depths without adjusting the spur itself out and in.

To illustrate this point, reference is made to Fig. 3, wherein the head is shown in full lines as tangential on the line of the spur, so that the latter will cut to the full depth of its projecting point; but in dotted lines the head is shown as turned partly round, so that the spur cannot cut to the full depth of its point. Thus the depth of cut is readily varied.

In combination with the main stem of the gage I employ an extension or extension-stem, D, which is also tubular, cylindrical, and of just the same diameter as the main stem. It has a screw-thread, *f*, which screws into the interiorly screw-threaded end *g* of the main stem. Thus the head will slide upon this extension with as good a fit and as easily as on the main stem, there being no wooden part to shrink or swell. Again, I provide the outer end of the extension with another head, E, which may screw into the interiorly screw-threaded extension-stem; and in this head is another auxiliary stem, G, which is adjustable lengthwise therein and held in any position by a set-screw screwed into the head. The inner end of this auxiliary stem enters the tubular extension D, and may be as long as desired without taking up additional room. This auxiliary gage-stem has a spur, H, at its extreme outer end. It is preferably made of steel, and thus may be made very small in diameter. It thus becomes very useful for many purposes to which the ordinary gages are not adapted—as, for instance, for pattern-makers' use, since from its small size it may be inserted in very small spaces. At the same time the gage is handled by the large or main stem, which is large enough to be grasped firmly in the hand.

By being made all of metal the parts of the gage are made to fit very accurately, and never bind or work hard, as wooden gages do, from swelling. By being made tubular the gage is made light and also admits the smaller auxiliary stem of the extension. By being divided by the extension near the middle a long gage is made for use, and yet comparatively short for carrying or packing, and really two gages are made by separating the extension from the main stem.

In addition to the gage proper, I provide the instrument with a curve gage or circle marker, as shown by dotted lines, Figs. 1 and

2, consisting of a pencil or marker, I, inserted through a hole in the stock A just inside of the spur-bolster *a*, and a center point, J, in a sliding sleeve, K, on the stock, and held by a set screw, *h*.

I claim as my invention—

1. In a carpenter's gage, the combination of a cylindrical stem, A, fixed spur B, projecting laterally from the stem, and a straight-edged rabbeted head, C, encompassing the stem and adjustable to any position around the stem, substantially as and for the purpose herein specified.

2. The combination of a cylindrical stem, A, provided with a bolster, *a*, on one side, a spur, B, projecting from the outer edge of the bolster, and a straight-edged rabbeted head, C, encompassing the stem and adjustable to different positions around the stem, substantially as and for the purpose herein specified.

3. The combination of a main stem, A,

main head C upon the same, extension-stem D, removably attached to the rear end of the main stem, additional head, E, upon the said extension-stem and facing in the opposite direction to that of the main head, and rod G, provided with a spur, H, on its outer end and adapted to slide in the said extension-stem, substantially as and for the purpose herein specified.

4. The combination of a main cylindrical tubular stem, A, straight-edged rabbeted head C on the same, tubular extension-stem D, removably secured to one end of the main stem, and an extension-rod, G, adapted to slide and being adjustable in the said tubular extension-stem, and provided with a spur, H, substantially as and for the purpose herein specified.

AMOS FALES.

Witnesses:

LYMAN A. MILLS,
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