(No Model.)

W. F. BRIGGS.

GAGE.

No. 371,417. Patented Oct. 11, 1887.

FIG. 1.

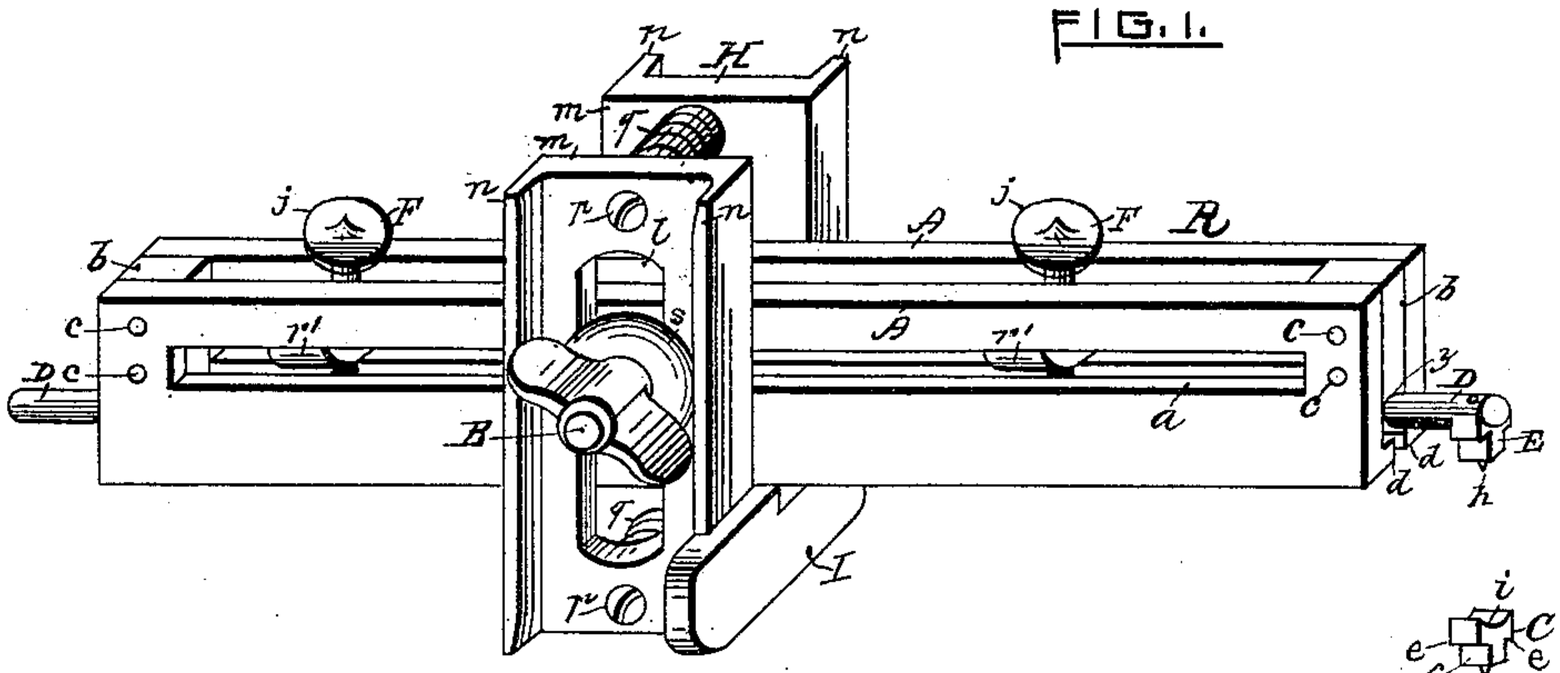

FIG. 4.

FIG. 2.

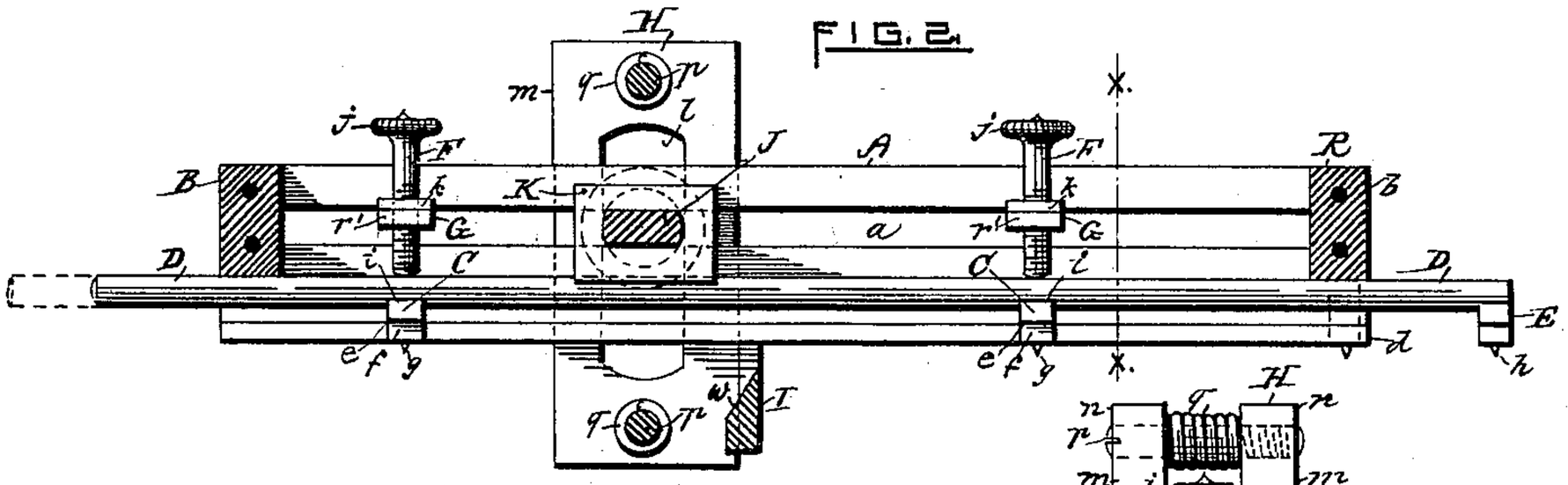

FIG. 5.

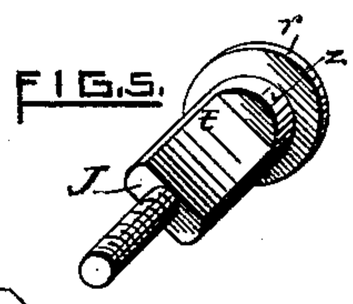

FIG. 9.

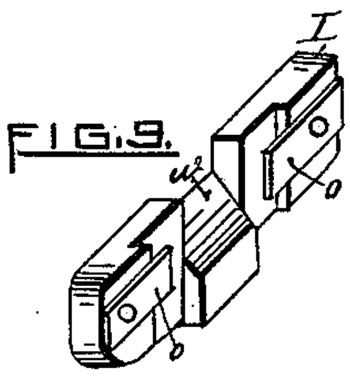

FIG. 3.

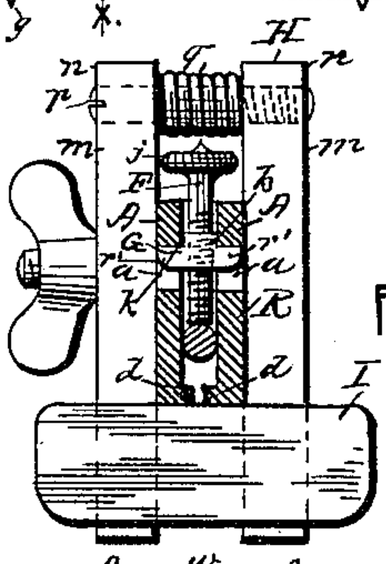

FIG. 6.

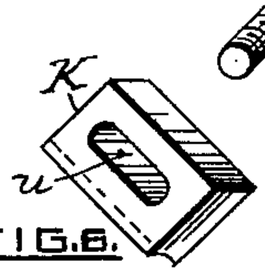

FIG. 10.

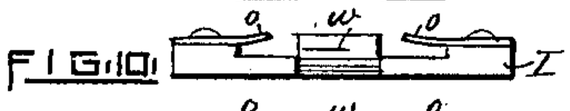

FIG. 7.

FIG. 11.

FIG. 8.

WITNESSES.

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GAGE.

SPECIFICATION forming part of Letters Patent No. 371,417, dated October 11, 1887.

Application filed February 2, 1887. Serial No. 226,314. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. BRIGGS, a citizen of the United States, and a resident of Bristol, in the county of Bristol and State of Rhode Island, have invented a new and useful Improvement in Gages, of which the following is a specification.

My invention relates to an improvement in carpenters' gages, by means of which such gages are made conveniently adjustable and also adapted for extended use; and it consists in the improved construction and arrangement of the several parts of the same, as hereinafter fully set forth.

Figure 1 is a perspective view of my improved carpenter's gage. Fig. 2 is a longitudinal section of the same. Fig. 3 is a transverse section taken in the line *x x* of Fig. 2. Fig. 4 is a perspective view showing the adjustable sliding block for holding a spur of the gage. Figs. 5, 6, 7, and 8 are detail views, in perspective, showing the parts of the screw-clamping mechanism. Fig. 9 is a perspective view of the adjustable and removable guide-plate. Fig. 10 is a top edge view of the same. Fig. 11 is a top edge view showing the same with a curved face.

In the accompanying drawings, R is the gage-bar, which is formed of the two parallel side plates, A A, which are each provided longitudinally with a slot, *a*, which is adapted to receive the adjusting and clamping bolt J, the said side plates being secured to each other in parallel planes by means of the intermediate end blocks, *b b*, and rivets *c*. The side plates, A, are also provided at their lower edges with an inwardly-projecting flange, *d*, which is adapted to support the sliding spur-blocks C, by means of their projecting ears *e e*, which rest upon the inner surface of the flange *d*, the square shank *f* of the said spur-blocks being made to pass downward between the adjacent edges of the said flanges *d d*, and the lower face of the said shank is provided with the marking-spur *g*.

The blocks *b b*, which serve to hold the side plates, A A, at the proper distance from each other in parallel planes, are provided at their lower ends with a semicircular groove, *y*, which is adapted to fit the upper side of the wire rod D, the outer end of which is provided with a downwardly-projecting head, E, made in similar form to the sliding spur block C, and which is provided at its under side with the marking-spur *h*. The rod D is first passed endwise through the gage-bar R, under the semicircular grooves *y* of the end blocks, *b b*, in which the upper surface of the rod D is made to rest. The spur-blocks C C are then passed into the space between the flanges *d d* and the under surface of the rod D, so that the under surface of the said rod will rest in the hollowed upper surface *i* of the said spur blocks, and both the rod D, which carries the marking-spur *h*, and the spur-blocks C may be clamped in any desired position for use by means of the screws F F, provided with the milled heads *j*, and which pass through the sliding nuts G, the laterally-projecting arms *r' r'* of which enter the slots *a a* of the side plates, A A, the said nuts being prevented from turning with the movement of the screw by means of the shoulders *k k*, which fit between the plates A A.

The adjustable gage-head H is formed of the two plates *m m*, provided with slots *l*, and with flanges *n n*, the said flanges being adapted to receive the adjustable guide-plate I, which is frictionally held upon the opposite flanges of the plates *m m* by means of the flat springs *o o*. Upon studs *p p*, between the plates *m m*, are placed the spiral springs *q q*, which serve to press the said plates outward against the head *r* and collar L of the clamping-bolt J, and thus serve to hold the head H in its proper angular position when loosened upon the sides of the plates A A for movement along the same for the purpose of adjustment.

The bolt J has a cylindrical portion, *z*, which fits the slot *l* of the plate *m*, a flattened portion, *t*, which fits the opposite slots *a* of the side plates, A, and is thus prevented from turning, and upon the flattened portion *t* of the bolt, between the plates A A, is placed the bearing-piece K, which is provided with a slot, *u*, adapted to receive the said flattened portion of the bolt, and exteriorly of the plate *m* of the gage-head H on the bolt is placed the collar L, the cylindrical portion *z'* of which fits the groove *l* in the plate *m*, the said collar being provided with the groove *v*, adapted to receive the end of the flattened portion *t* of the bolt. The said collar is thus held with the bolt, and also prevented from turning, and upon the bolt, exteriorly of the collar L, is placed the thumb-

nut M, which serves to tighten the head H adjustably upon the gage-bar, and by means of the bolt J and slotted plates *m m* the head H may be adjusted to any desired angular position with the lower face of the gage-bar, the said head being represented at right angles to the gage bar in the drawings. The bevel surface *w* of the guide-plate I allows the gage-head H to be set at the desired backward inclination with the face of the gage-bar, and the face of the guide-plate I may be made either plane or curved, as shown in Figs. 10 and 11. The guide plate I is removably adjustable to either side of the gage-head H, and by means of the said removable guide p'ates the gage is made adapted for gaging lines from either plane or curved surfaces.

It is to be understood that while the gage-head is shown and described as being made adjustable both lengthwise of the gage-bar and angularly of the same, yet when made capable only of the former adjustment, it will still embody valuable features of my invention, and therefore I do not confine myself to the employment of the slots *l* in the plates *m m*, or to other devices for obtaining an angular adjustment of the gage-head. It is also to be understood that when the head E of the rod D is brought back within the gage-bar R, as shown by the dotted lines in Fig. 2, then the said rod may be properly clamped in position by means of one of the screws F without the employment of either of the spur-blocks C, and either one or more of the said spur-blocks may be employed in combination with the spur-rod D. The spur upon the rod D may also be omitted, the said rod and screw serving as a clamping means for the spur-block.

I claim as my invention—

1. In combination, the gage-bar comprising the slotted plates arranged in parallel planes, and having inwardly-directed flanges, a spur-block adapted to slide upon the flanges, the clamping-screw, the clamping-nut, which engages with the slots of the bar, the rod arranged between the point of the screw and the spur-block, and the gage head, substantially as described.

2. In combination, the gage-bar comprising the slotted plates arranged in parallel planes, and having inwardly-directed flanges, a spur-block adapted to slide upon the flanges, the clamping-screw, the clamping-nut, which engages with the slots of the bar, the rod provided with a marking spur at its end and arranged between the point of the screw and the spur-block, and the gage-head, substantially as described.

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Witnesses:

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