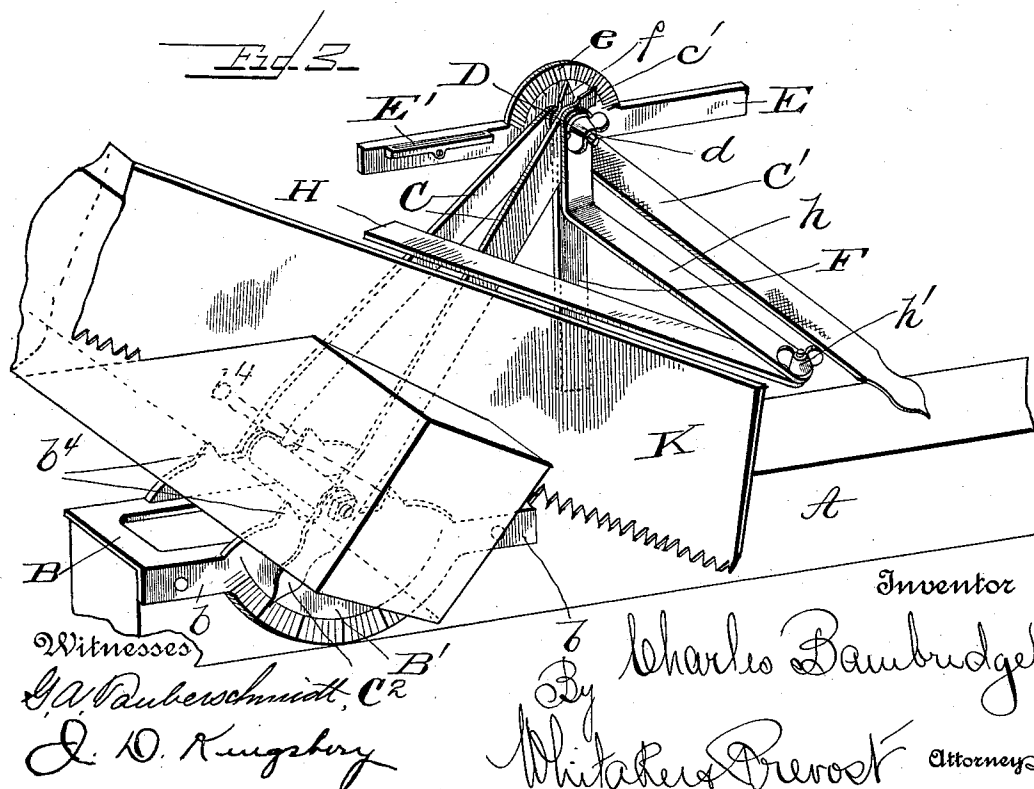
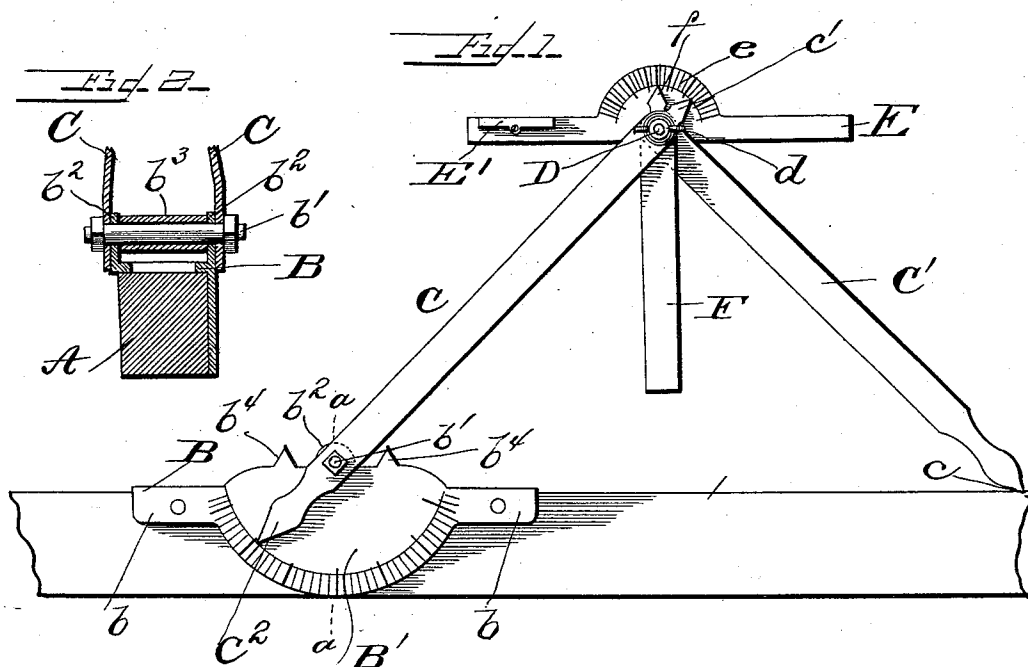


(No Model.)

C. BAINBRIDGE.
CARPENTER'S WORK HOLDER AND GUIDE.

No. 529,235.

Patented Nov. 13, 1894.



UNITED STATES PATENT OFFICE.

CHARLES BAINBRIDGE, OF PHILADELPHIA, PENNSYLVANIA.

CARPENTER'S WORK-HOLDER AND GUIDE.

SPECIFICATION forming part of Letters Patent No. 529,235, dated November 13, 1894.

Application filed June 1, 1894. Serial No. 513,155. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BAINBRIDGE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Carpenters' Work-Holders and Guides; 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.

My invention is an improved guide and workholder for use by carpenters and builders and it consists in the novel features of construction and combination of parts hereinafter fully described reference being had to the accompanying drawings which illustrate one form in which I have contemplated embodying my invention and said invention is fully disclosed in the following description and claims.

Referring to the said drawings, Figure 1 is a side elevation of my improved device arranged as a gage. Fig. 2 is a section on line *a-a* of Fig. 1. Fig. 3 is a perspective view showing the device used as a work holder for sawing the ends of rafters, &c.

The object of my invention is to provide an adjustable device which can be used on the bench or trestles used by carpenters and builders, which can be made to represent on a small scale the pattern of the roof frame of the house to be built, so that the proper angles can be taken accurately therefrom for cutting the various parts of the frame work. The device is also adapted for use as a work holder, to hold the work while it is being sawed, and in sawing bevels the device can be adjusted so as to bring the saw as nearly as possible into a vertical plane and the device is also provided with a guide arm which serves to guide the angle of the saw.

In the drawings A represents one of the trestles or a part of the bench upon which the work is laid for marking, sawing, &c.

B represents the base plate of my improved device which is provided preferably at one edge with a downwardly extending web *b* by which it may be secured to the trestle with nails or screws.

C C represent a pair of pivoted work supporting arms, pivotally connected to said

block B by a bolt *b'* passing through said arms and ears *b² b²* formed on said block, the said arms being held apart by a sleeve or collar *b³* on said bolt as clearly shown in Fig. 2.

The arms C C are united at their upper ends by a bolt D provided with a wing nut *d* and to said bolt an arm C' is pivoted having its outer or free end provided with a point *c* which is sharp enough to stick into the wood of the trestle A, or work bench. One of the arms C is provided with an extension C² in the form of a pointer which extends downwardly from the pivot bolt *b'* and the central portion of the block B is provided with a downwardly extending semi-circular flange B' which forms a protractor and is provided with marks indicating the degrees adjacent to its peripheral portion.

By moving the arm C' away from or toward the arms C the device can be set to any desired angle, the angle being indicated on the sector B'. Upon the pivot bolt D I also secure a pivoted leveling arm E provided with a protractor *e* having the divisions marked or indicated thereon and a plumb line indicating arm F having a pointer *f* co-operating with the scale on the sector *e*. The arm C having the pointer C² is also provided at its upper end with a similar pointer *c'* which operates in connection with the sector *e* when it is convenient to use it.

By reference to the drawings it will be seen that the pointers *f* and *c'* will indicate upon the protractor *e* the angle formed by the plumb indicating arm F and the arms C C'. I prefer to provide the leveling arm E with a detachable level as indicated at E' so that said arm may be leveled, or I may level said arm by measuring from the work bench or trestle A to the ends of said leveling arm. The plumb indicating arm F is then adjusted by moving it until its pointer indicates ninety degrees on the scale, as will be readily seen.

The operator will set the device according to the plans and specifications from which he is to work and can obtain from this small handy device the measurements of the angles necessary for various parts of the roof so as to enable him to cut his timbers and have them fit accurately when put in place.

The operator will take his angular measurements from the gage by means of an adjust-

able "bevel-square," and mark them upon the timbers.

The base plate B is also provided on either side of the arms C C with a pair of work holding points or spurs b^4b^4 . The device can also be used very advantageously as a work holder while sawing timbers and will be placed with one side in engagement with the arms C C and one corner just between said arms and the points or spurs b^4b^4 as indicated in Fig. 3. I also provide a saw guide arm which can be attached to the bolt D by unscrewing the thumb nut. The guide arm H is pivotally attached to a bracket arm h which has a short arm engaging the bolt D as shown in Fig. 3 and held in position by the thumb nut d . The arm H is secured to the bracket arm h by a bolt and thumb nut h' so that said arm can be adjusted to any desired position with respect to the timber to be sawed and when adjusted will serve to guide the operator in sawing.

When sawing timber to produce cuts which make a different angle with the adjacent faces of the timber as indicated in the drawings, the lines which the saw K is to follow are marked in the timber and the timber is laid on the work holder as before indicated while the guide arm H is set to the required angle. It may be found that in order to saw on the said lines, the saw will be held in a vertically inclined position. To avoid this the position of the timber may be instantly changed by moving the arm C' nearer to or farther from the block B (see Fig. 3) so as to bring the saw into a vertical position and thus greatly facilitate the work and enable accuracy to be more easily obtained. In sawing the opposite angle cuts the device can be turned over and set on the opposite side of the base block B and adjusted to hold the work in the desired position.

I prefer to employ one of my improved devices at each end of the trestles or work bench but one can be used alone if desired. It will also be seen that when not in use the whole device can be folded into compact form to enable it to be carried from place to place.

What I claim, and desire to secure by Letters Patent, is—

1. A carpenter's work holder and roof gage comprising among its members, a base plate adapted to be placed on a work trestle or bench, a pattern arm pivoted to said base plate and adapted to be moved to any angle on either side of its point of pivoting and a second pattern arm pivoted to the end of said first named arm and adapted to engage the trestle or bench at its other end, to form with said first named arm a roof pattern, substantially as described.

2. A carpenter's work holder and roofing gage, comprising among its members a base plate adapted to be placed on a work trestle or bench and provided with a protractor, a pattern arm pivoted to said base plate in operative relation to said protractor and having

a portion adapted to travel over said protractor and a second pattern arm pivoted to the outer end of said first named arm, and having its free end provided with a point for engaging the trestle or bench, said second arm being of the same length as the length of the first named arm from its point of pivoting to its pivotal connection with said second arm, whereby said arms may be placed at any desired angle to form a roof pattern on either side of their pivotal connection with the base plate, substantially as described.

3. A carpenter's work holder and roofing gage, comprising among its members a base plate adapted to be placed on a trestle or work bench and provided with a protractor, a pattern arm pivoted to said plate in operative relation with said protractor, a second pattern arm pivoted to the outer end of said first named arm and having a point for engaging the trestle or bench to form with said first named arm a roof pattern, at either side of pivotal connection with said base plate, a protractor adjacent to the pivotal connection of said arms, and a plumb-indicating arm pivoted to said pattern arms at their pivotal point of union, said plumb-indicating arm having a part for engaging said protractor, substantially as described.

4. A carpenter's work holder and roofing gage comprising among its members a base adapted to be placed on a work trestle or bench, a jointed arm pivoted thereto, a leveling arm pivoted to the joint of the arm and a plumb indicating arm, substantially as described.

5. A carpenter's work holder and roofing gage comprising among its members a base adapted to be placed on a work trestle or bench, a jointed arm pivoted to said base, a leveling arm provided with a protractor, and a plumb indicating arm having a pointer to traverse the said protractor, the leveling arm and the plumb indicating arm being pivoted upon the pivot of the jointed arm, substantially as described.

6. A carpenter's work holder and roofing gage comprising among its members, a base plate adapted to be placed upon a trestle or work bench, a pattern arm pivoted to said base plate, said plate being provided with spurs at either side of said pivotal connection, a second pattern arm pivoted to the outer end of said first named arm, and provided with a point for engaging the trestle or bench whereby said pattern arms may be set at different angles to form a roof pattern, and also to support work, and a saw guiding arm detachably secured to said pattern arms and adjustable to different angles, substantially as described.

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

CHARLES BAINBRIDGE.

Witnesses:

L. P. WHITAKER,
J. D. KINGSBURY.