

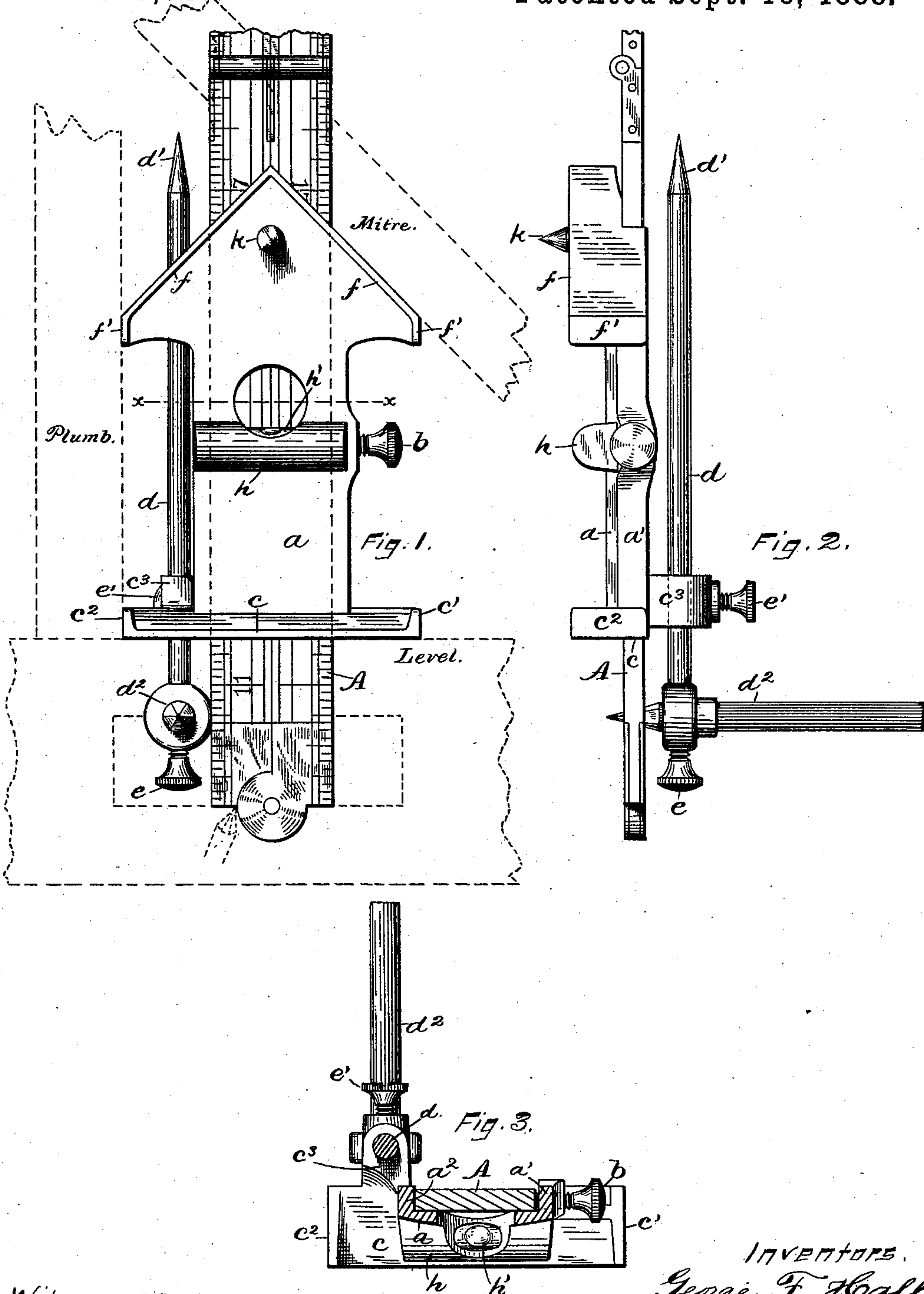
(No Model.)

G. F. HALL & J. A. TRAUT.

ATTACHMENT FOR CARPENTERS' RULES.

No. 389,647.

Patented Sept. 18, 1888.



WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE F. HALL, OF NEWARK, NEW JERSEY, AND JUSTUS A. TRAUT, OF NEW BRITAIN, CONNECTICUT, ASSIGNORS TO THE STANLEY RULE AND LEVEL COMPANY, OF NEW BRITAIN, CONNECTICUT.

ATTACHMENT FOR CARPENTERS' RULES.

SPECIFICATION forming part of Letters Patent No. 389,647, dated September 18, 1888.

Application filed April 26, 1888. Serial No. 271,905. (No model.)

To all whom it may concern:

Be it known that we, GEORGE F. HALL, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, and JUSTUS A. TRAUT, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Attachments for Carpenters' Rules, which improvements are fully set forth and described in the following specification, reference being had to the accompanying sheet of drawings, in which—

Figure 1 is a plan view of our said attachment, and shows also in dotted outlines certain diagrams, hereinafter referred to, to illustrate some of the uses to which said attachment may be applied. Fig. 2 is a side view of our said device, and Fig. 3 is a cross-section of the same on line *xx* of Fig. 1.

Our purpose is to provide a tool of simple construction which may be used either alone or in combination with a carpenter's rule to perform a multiple of functions. As here illustrated, said tool may be successfully used as a try-square, miter-square, T-square, marking-gage, mortise-gage, depth-gage, scratch-awl, beam-compass, spirit-level, plumb, miter-level, and inside square.

The letter *a* denotes the main frame or principal section of our device made, preferably, of cast metal with projecting longitudinal walls *a'* *a''*, the space between said walls being sufficient to receive a twenty-four-inch pocket-rule, A, of ordinary construction, said rule being clamped therein by a thumb-screw, *b*.

One end of frame *a* is formed as a cross-head, *c*, at right angles to the rule A. This cross-head and its laterally-projecting end *c'*, taken in connection with rule A, provide both a try-square and a T-square whose blade may be varied in length by adjusting said rule in frame *a*. The projecting end *c'* of cross-head *c* is formed with a lug, *c''*, that is perforated in a line parallel with the rule to receive a bar, *d*, one of whose ends is pointed to provide a scratch-awl, *d'*, and the opposite end drilled at right angles to receive a lead-pencil, *d''*.

Said pencil is held in place by a thumb-screw, *e*, and bar *d* is securely clamped by a similar screw, *e'*. By loosening screw *e'* the bar *d* may be moved longitudinally in its seat and pencil *d''* adjusted relative to the cross-head *c*. The rule, cross-head, and pencil *d''* may then be jointly used as a marking-gage, or by operating said device by one hand and simultaneously holding the point of a second pencil in the angle formed by the hinge of the rule, as indicated in dotted lines in Fig. 1, a mortise-gage is provided.

The end of frame *a*, opposite cross-head *c*, is formed with ribs or ledges *f*, projecting from the center of rule A laterally, each at an angle of forty-five degrees to said rule, and terminating in parallel ends *f'* in the same plane with the ends of the cross-head first above described. The inclined faces *f f*, in combination with rule A, provide a convenient form of miter-square, and with said rule removed may be used as an inside square.

Near the center of frame *a* is a transverse projecting rib, *h*, inclosing a spirit-level tube, *h'*, that is parallel with the cross-head *c*. By resting said cross-head on the work to be leveled, as illustrated in Fig. 1, a practical level is provided.

We have stated that the inclined walls *f* terminate in sections *f'*, parallel with each other and in the same plane with the ends of cross-head *c*. When it is desired to plumb a piece of work, it may be satisfactorily and accurately done by holding said work in engagement with said sections, as explained by the diagram in dotted outline at the left hand of of Fig. 1.

k indicates a steel point inserted in frame *a*, near the angle of the described miter-square, to be used as a center, on which our device may be swung as a beam-compass. When so used, the pencil *d''* is adjusted until its point projects slightly below the cross-head *c* and engages the paper, board, or other surface on which a circle is to be described. Circles of various diameters, from one and one-half inch up to thirteen inches, may then be produced by adjusting bar *d* longitudinally, as will be

best understood by reference to Fig. 2. In making circles of small diameter, bar d should be turned "end for end," thus bringing the pencil nearer the center point, k .

5 A graduated depth-gage is furnished by reversing the position of rule A in frame a , and by extending it down from the cross-head c .

The pointed end d' of bar d may be used as a scratch-awl by removing said bar from its clamp and using it as an independent or separate tool.

The several described results are reached by means of our combination devices in as effect-
ual a manner as if a separate tool were used for
15 each, and by thus combining a number of tools in one device of simple construction we are able to reduce materially the cost of construction, and thus bring such a tool within the reach of many who could not purchase a
20 corresponding set of thirteen separate tools.

We are aware that an attachment has been applied to carpenters' rules by means of which a T-square, depth-gage, and marking-gage have been provided, as, for example, in the
25 patent to Hall, one of the signers hereto, No. 356,533, of January 25, 1887, and such device, as therein shown, we do not now claim.

We are also aware that prior patents for try-squares and combination-squares show at-
30 tachments for steel rules having a mortise to receive the rule, a right-angular arm, one or two miter-arms, and a spirit-level. Such features of themselves we do not claim.

We claim as our invention—

35 1. As a new article of manufacture, the herein-described rule attachment, consisting of a body portion having on one broad side projecting longitudinal walls $a' a'$, with a space between them to receive a rule, a screw for

clamping said body portion to the rule, a right-
angular cross-head, as at c , formed at one end
of said body portion and projecting laterally
each way, and the miter-ribs $f f$ at the other
end of said body portion and projecting each
way therefrom, substantially as described, and
45 for the purpose specified.

2. The herein-described article, consisting of the body portion adapted to be attached to a rule, the right-angular cross-head formed at one end of said body portion and projecting
50 laterally each way, the miter-ribs $f f$, formed at the other end of said body portion, and projecting each way therefrom, said ribs $f f$ having their projecting ends $f' f'$ parallel with each other and in the same plane with the ends
55 of said cross-head, and a spirit-level set at right angles to the plane across said projecting ends, substantially as described, and for the purpose specified.

3. In combination with a rule, an attach-
60 ment adapted to be clamped thereto, as set forth, the body of said attachment being formed with a right-angular cross-head, and with a projecting center point, k , and adjust-
65 able-rod secured to one side of said body, carrying a pencil and screw for clamping the same, and a screw for clamping said adjustable rod, all being substantially as and for the purpose specified.

GEO. F. HALL.

JUSTUS A. TRAUT.

Witnesses to G. F. Hall's signature:

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