(No Model.)

G. F. HALL.

T-SQUARE AND GAGE ATTACHMENT FOR RULES.

No. 356,533. Patented Jan. 25, 1887.

Fig 5.

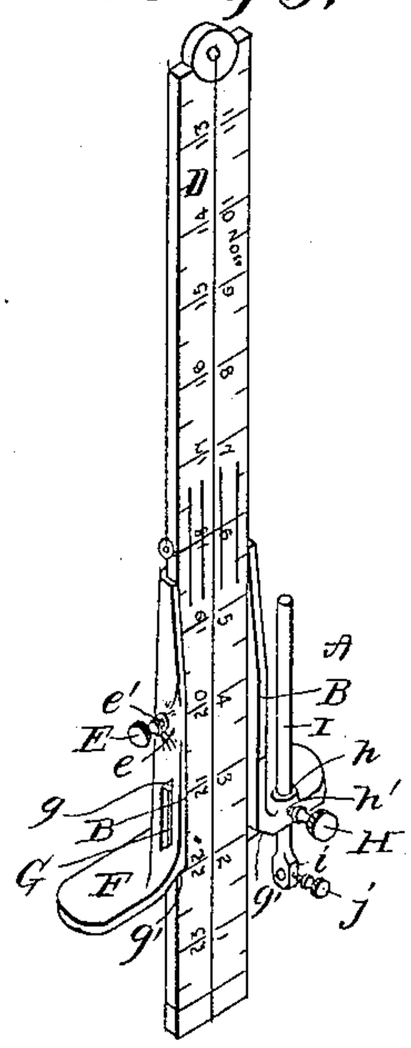

Fig. 1.

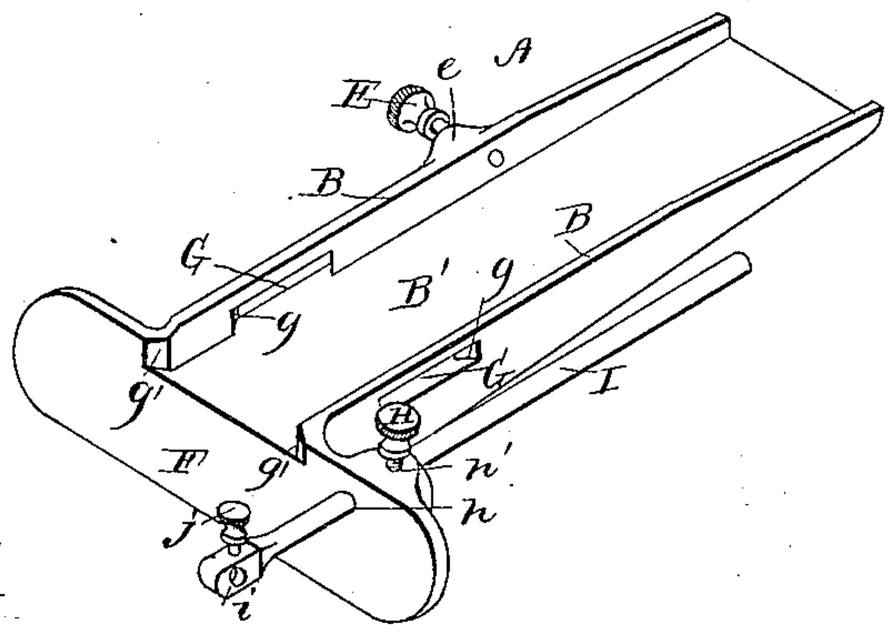

Fig. 4.

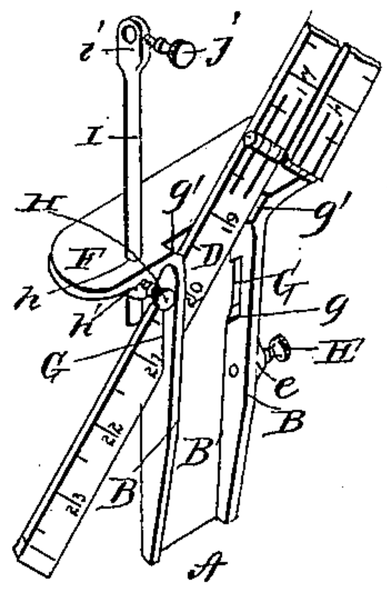

Fig. 2.

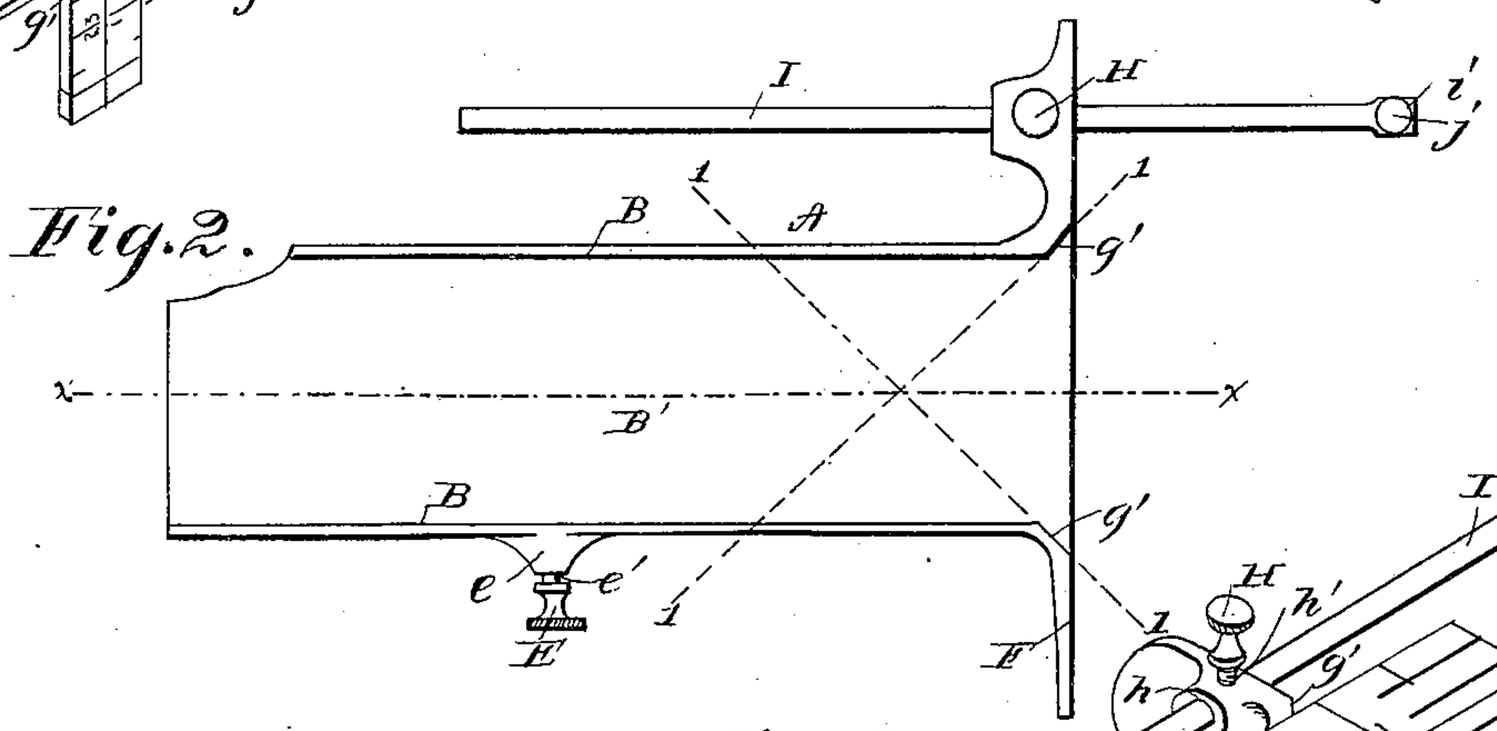

Fig. 6.

Fig. 3.

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T-SQUARE AND GAGE ATTACHMENT FOR RULES.

SPECIFICATION forming part of Letters Patent No. 356,533, dated January 25, 1887.

Application filed May 7, 1886. Serial No. 201,477. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. HALL, a citizen of the United States, residing at Long Branch, in the county of Monmouth and State of New Jersey, have invented a new and useful Improvement in Rule Attachments, of which the following is a specification.

My invention relates to a rule attachment; and it consists of the peculiar combination and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

The object of my invention is to provide an attachment for rules of that class used by carpenters and other workmen, whereby a miter or angle of forty-five degrees (45°) can be conveniently obtained or formed; to provide means whereby a try-square is obtained, and which shall obviate the employment of a separate or independent square of the usual well-known class, and which shall admit of the adjustment of the rule to different lengths, and to provide the attachment with an adjustable gage.

A further object of my present invention is to provide an improved attachment for rules which can be very compactly folded, so that it can be very conveniently and readily carried by the workman in his pocket or packed for storage, and which shall furthermore be simple and durable in construction, thoroughly effective, and reliable for the purposes designed, and cheap and inexpensive of manufacture.

In the accompanying drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a longitudinal sectional view thereof on the line *x x* of Fig. 2. Fig. 4 is a perspective view of my device, showing a rule fitted and adjusted therein to form a miter. Fig. 5 is a like view, showing it adjusted on a rule to provide a try-square. Fig. 6 is a similar view of the device adapted for use as a gage.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates my attachment, which is preferably made rectangular in form and provided at its side edges with right-angled flanges B, which extend longitudinally thereof, and provide a longitudinal channel or groove, B′, in which a folding rule, D, is fitted when the device is adjusted for use as a try-square, as presently described. One of the side flanges of the attachment is provided with an integral enlargement, *e*, which has an interiorly-threaded opening, *e′*, in which works the exteriorly-threaded shank of a binding-screw, E, that bears against the edges of the rule D to bind or clamp the same therein. One end of the attachment is provided with a right-angled flange or head, F, that is arranged transversely across the same, and the upper edges of the flange lie flush with the edges of the side flanges, B, while the lower edge of the flange F projects below the edges of the attachment, and the ends thereof are projected or extended beyond the sides of the attachment, as shown. Near the head or flange F of the attachment the flanges B are provided with longitudinal slots G, the ends of which are inclined or beveled, as at *g*, and the ends of the flanges B are likewise inclined or beveled, as at *g′*, the ends of the slots of one flange being inclined or beveled in the plane of the beveled end of the flange B on the opposite side of the longitudinal channel B′, and the said beveled ends lying at an angle of forty-five degrees (45°) to the longitudinal axis of the attachment, as indicated by the dotted lines 1 1 in Fig. 2.

It will be seen by reference to Fig. 2 of the drawings that the inclined ends of the slot in the flange B, on one side of the longitudinal channel B′, coincides with the inclined end *g′* of the flange on the opposite side of the said channel, and by passing one of the sections of the folding rule through one slot and transversely and diagonally across the longitudinal channel, so that the side edges of the rule are in contact or engagement with the inclined ends *g g′* of the slot G and the flange B, a miter or angle of forty-five degrees can be drawn or marked off on the work.

It will be seen that a right or left hand miter can be readily obtained by passing the rule through the slots from the right to the left, and vice versa, and so that the edges of the rule will abut against the beveled ends *g g′*; and these adjustments can be very easily and readily performed to suit the requirements or nature of the work, as more clearly shown in Fig. 4 of the drawings.

In Fig. 5 of the drawings the rule D is shown

fitted and clamped in the longitudinal channel B′ of the attachment by means of the binding-screw E; and one end of the rule projects beyond the edges of the head or flange F to adapt the device for use as a try-square. The flange F and the projecting end of the rule lie at right angles to each other, so that they can be fitted to bear against and test the regularity of the work; and the rule can be extended beyond the flange or head of the attachment any desired distance to accommodate work of different sizes by merely loosening the binding-screw E and sliding the rule longitudinally of the attachment. The distance which the rule projects beyond the head or flange of the attachment can be very easily ascertained, and the rule can be readily adjusted and removed.

One end of the head or flange F is provided with an opening, *h*, and another opening, *h′*, at right angles thereto. These openings communicate with each other, and the opening *h′* is interiorly threaded and receives a binding or thumb-screw, H; and through the opening *h* passes a gage-rod, I, that is free to slide longitudinally therein, and is clamped in place by the binding-screw H. This rod is detachable from the attachment A, and it is adjustable longitudinally thereof to accommodate different widths of work; and the free end of the gage-rod carries a removable scoring-pin, J, that is pointed and detachably carried by the enlarged outer end, *i*, of the gage-rod, the pin being clamped in place by a binding-screw, *j*, that bears thereon.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the drawings.

It will be observed that by the use of my invention a right and left hand miter can be easily and readily obtained, a try-square is provided which can be readily adjusted, and a scoring adjustable gage is supplied. A single instrument is thus provided which combines all of the above-named instruments which are essential to a workman, and a single rule serves efficiently to provide the mitering and squaring devices, while at the same time the rule can be readily detached to adapt it for its ordinary uses.

The attachment and device can be very easily and compactly folded, so that it can be carried conveniently in the pocket, and the device is simple and cheap.

The attachment and its flanges B and F are formed or cast in a single piece of metal, and the device is finished in any tasteful or desirable manner, preferably nickle-plated, to present a handsome appearance.

Various slight changes in the form and proportion of parts and details of construction may be made without departing from the principle of my invention.

My invention will be found to be particularly useful in short work, as in cutting mortises and fitting locks to doors.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, an attachment for rules provided with the angular flanges having the slots and the inclined ends, the ends of the slots and flanges being inclined or beveled so that they lie in the same plane, substantially as described, for the purpose set forth.

2. As a new article of manufacture, an attachment for rules having the slotted angular flanges arranged parallel with and a short distance from each other to provide an intermediate channel, the ends of the slots and flanges being inclined or beveled in the same plane and at an angle of substantially forty-five degrees, substantially as described, for the purpose set forth.

3. As a new article of manufacture, a rule attachment having the longitudinal slotted flanges provided with a binding-screw, E, and the inclined ends, and a channel intermediate of the said flanges, a transverse integral head or flange at right angles thereto and having a binding-screw, H, an adjustable gage-rod carrying a removable scoring-pin and a binding-screw, and a rule, as D, substantially as described, for the purpose set forth.

4. The combination of a body having a guiding-head, a rule carried by the body, an adjustable gage-rod supported on the body and having a scoring-pin, and means for holding the gage-rod in place, substantially as described.

5. The combination of a body having a guiding-head and a rule, a gage-rod passing through an opening in the head of the body and arranged to one side of the rule, a binding-screw for clamping the gage-rod in place, and a scoring-pin fitted in the gage-rod, substantially as described.

6. The combination of a body having an angular guiding-head, a rule, an adjustable gage-rod supported on the body, an adjustable scoring-pin carried by the gage-rod, and a binding-screw for clamping the scoring-pin to the gage-rod, substantially as described, for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

GEO. F. HALL.

Witnesses:
WILLIAM H. VAN DEWEN,
ELISHA E. LIPPINCOTT.