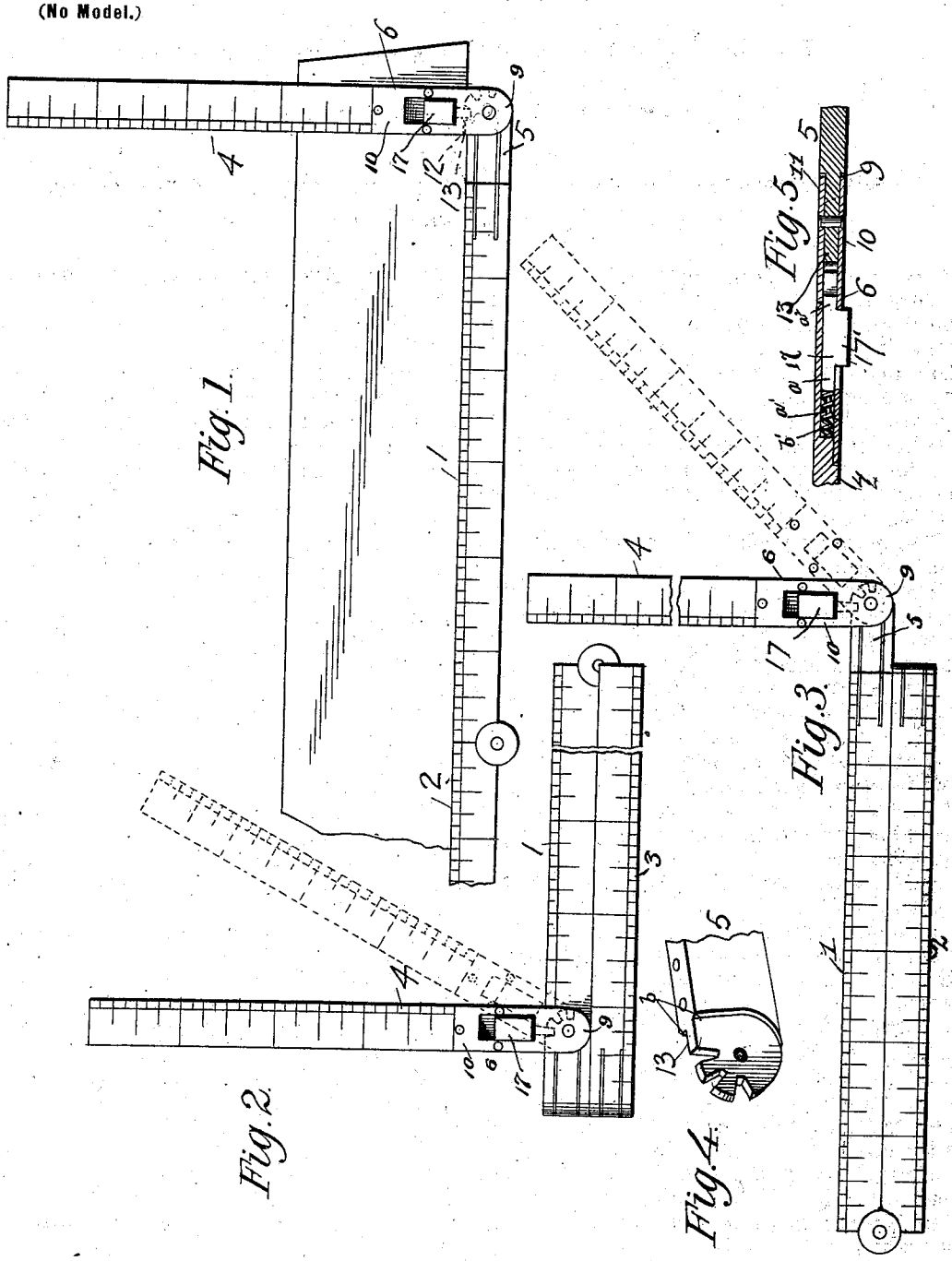
No. 700,304. Patented May 20, 1902.

F. J. COOMBS.

COMBINED RULE AND SQUARE.

(Application filed July 29, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

FRANK J. COOMBS, OF COLUMBIA FALLS, MONTANA.

COMBINED RULE AND SQUARE.

SPECIFICATION forming part of Letters Patent No. 700,304, dated May 20, 1902.

Application filed July 29, 1901. Serial No. 70,111. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. COOMBS, a citizen of the United States, residing at Columbia Falls, in the county of Flathead and State of Montana, have invented certain new and useful Improvements in a Combined Rule and Square; and I do 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.

The invention relates to a combined rule and square.

The object of the invention is to provide a device of this character which may be used as an ordinary folding foot-rule, a try-square, or a miter-square, and which shall be simple of construction, durable in use, and comparatively inexpensive of production.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side elevation of a two-foot rule, illustrating the application of the invention. Fig. 2 is a view illustrating the rule in its folded position, one of the outer legs of the rule being shown in full lines to form a try-square and in dotted lines to form a miter-square, the angle of the said miter being an acute angle. Fig. 3 is a similar view, showing the outer leg in full lines to form a try-square and in dotted lines to form a miter-square, the angle of the miter-square being an obtuse angle. Fig. 4 is a detail perspective view of the notched head, and Fig. 5 is a longitudinal sectional view through the inner end of that leg of the rule which forms the blade of the square and showing the bolt seated in one of the notches of the notched head.

Referring to the drawings, 1 and 2 denote the inner hinged legs of an ordinary two-foot rule, and 3 and 4 represent the outer legs hinged to the outer ends of said inner legs 1 and 2. To the inner leg 1 is hinged a boss or extension 5, having a head 13, provided with a series of notches, preferably three. Formed at the union or intersection of the boss and its head is a double angular shoulder *b*, constructed in vertical and curved shape for a purpose to be presently explained.

The numerals 10 and 11 represent two plates which constitute an indicator 6, to the outer ends of which is interposed and connected the leg or member 4 of the rule, which is provided with a recess therein, in which is seated a spring *b'*. A latch 17, having a lug *a*, and a bolt a^2 are also seated in the recess, the lug being provided with a pin *a'*, which extends into the coils of the spring, so as to retain the same in proper position. The plate 10 is provided with a slot, through which passes a projection 17' of the latch 17, by means of which the bolt a^2 of said latch, as shown in Fig. 5, is adapted to accurately engage or disengage any one of the notches in the boss when required. The inner ends of the plates 10 and 11 are spaced apart and made in semicircular shape, between which is pivotally mounted the head of the boss 5, the said semicircular-shaped ends of the plates being adapted to abut against the vertical circular-shaped shoulders and coact together whereby to adjust the member 4 of the rule at different angles by means of the bolt of the latch registering with the notches in the head of the boss.

When it is desired to use the device as a square, the parts are arranged as shown in full lines in Fig. 2—that is to say, with the boss folded down upon the leg 1 and the indicator swung at right angles to said leg.

When it is desired to use the device as a miter-square to lay off a line at an acute angle, the indicator is adjusted to the position shown in dotted lines in Fig. 2, in which adjustment of the indicator it is held in its position by the bolt engaging one of the notches of the head-boss.

When it is desired to lay off a miter at an obtuse angle, the boss is swung outwardly from the position shown in full lines in Fig. 3, which brings the indicator to the position shown in dotted lines in Fig. 3. When in this position, if it is desired to use the device as a try-square the bolt may be withdrawn from its notch and the indicator moved to the position as shown in full lines in Fig. 3.

It will thus be seen that I have adapted an ordinary two-foot rule to the laying-off of miters and squares without materially increasing the cost of production, and thereby I am

enabled from a single tool or instrument to secure, in addition to its function as a rule, three separate and distinct functions—to wit, the laying off of work at right angles, at acute angles, and at obtuse angles.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of my invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

The combination with an ordinary two-foot rule having on the outer end of one of its hinged members a boss with a notched head, and shoulders on opposite sides of the head formed at the intersection of said boss and said head, the shoulders being partly vertical and partly curved, and an outer member of the rule having at its inner portion a recess a spring-latch with a bolt mounted in the recess, of an indicator consisting of two plates with curved inner ends secured to the inner end of the outer member of the rule, a rectangular opening in one of the plates for the passage of a projection of the latch to operate the latch so that the bolt thereof will coact with the notches of the head of the boss, and the inner curved ends of the plates of the indicator pivoted on opposite sides of the head of the boss whereby said vertical and curved shoulders formed at the intersection of the boss and its head coact with the curved ends of the plates and the inner vertical edge walls thereof, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK J. COOMBS.

Witnesses:
THEODORE CHRISTENSEN,
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