E. L. HOY.

COMBINED RULE, TRY SQUARE, AND CALIPERS.

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Fi = 1. Fig 2_ 11 - 15 压量3. 10 Fi=4

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UNITED STATES PATENT OFFICE

ERMIA L. HOY, OF LE ROY, IOWA, ASSIGNOR OF ONE-HALF TO CAREY B. DAVIS, OF LE ROY, IOWA.

COMBINED RULE, TRY-SQUARE, AND CALIPERS.

No. 827,239.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ERMIA L. HOY, a citizen of the United States, residing at Le Roy, in the county of Decatur and State of Iowa, have invented certain new and useful Improvements in a Combined Rule, Try-Square, and Calipers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others 10 skilled in the art to which it appertains to make and use the same.

This invention is a combined rule, trysquare, and calipers; and it consists of the novel construction, combination, and ar-15 rangement of parts hereinafter described and

claimed.

The object of the invention is to provide a device of this character which will be simple and inexpensive in construction and durable 20 and efficient in use.

The above and other objects are accomplished by the construction illustrated in the

accompanying drawings, in which-

Figure 1 is a perspective view of the device 25 in its closed position. Fig. 2 is a plan view of the same in its open position. Figs. 3 and 4 are sectional views through the device, and Fig. 5 is a detail view of one end of the device.

My combined rule, try-square, and calipers 3° comprises two folding blocks or rule-sections 1 and 2, which are hingedly connected at their ends, as shown at 3, to fold upon each other. Said sections are of rectangular form and have upon their free ends metal caps 4 5. 35 Along one or more of the edges of the sections are provided scale-graduations 6, as

Slidably mounted in an undercut longitudinal groove 7, formed in the flat outer face of the section 2, is a graduated bar 8, which has upon its outer end a cross piece or head By adjusting the bar 8 in its groove 7 the head 9 may be moved toward and from the cap 5 to permit the device to be used as a pair 45 of calipers.

Formed in the outer face of the section 1 is a right-angular groove, the long portion 10 of which extends longitudinally and the short

portion 11 of which extends transversely at the outer end of said section and its cap 4. 50 This right-angular groove has its walls undercut and is adapted to receive the ends or arms 12 13 of a right-angular bar, as clearly shown in the drawings. When the device is in its closed position, the long arm 12 of the 55 bar is seated in the portion 10 of the groove and the short arm 13 is seated in the portion 11 of the groove, as shown in Fig. 1. the arm 13 is slid into the outer end of the groove 10 and the arm 12 is seated in the 60 transverse groove 11, as shown in Fig. 2, it will be seen that the device may be used as a try-square. Both ends or arms 12 13 of the right-angular bar are marked with scalegraduations, as shown, very fine graduations 65 being provided upon the short arm 13 to permit of the use of the device as a pair of calipers, as shown in Fig. 5 of the drawings. The head 9 and cap 4 5 are also formed with graduation lines or marks 14 15 16, respectively, to 70 be used when the device is used as shown in

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the inven- 75 tion will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the prin- 80 ciple or sacrificing any of the advantages of this invention as defined by the appended

Having thus described my invention, what I claim as new, and desire to secure by Let- 85

ters Patent, is-

The herein-described combined rule, trysquare and calipers, comprising the pair of rule-sections hinged together at one end, one of said sections having a longitudinal groove 90 in its outer side, a graduated bar slidable in said groove and having a transverse head at its outer end, the other rule-section having a right-angle groove on its outer side, one arm of which groove extends longitudinally of 95 said rule-section from end to end, and the

other arm of which groove extends transversely on the free end of said rule-section and communicates with said longitudinal arm of said groove, and a right-angular bar having graduated arms, either of which may be inserted in either arm of the groove of the last-mentioned rule-section.

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

ERMIA L. HOY.

Witnesses: W. B. Munch. E. B. Smith.