J. H. NEEDHAM.

EXTENSION TRY SQUARE.

APPLICATION FILED OCT. 13, 1915.

1,190,941. Patented July 11, 1916.

Fig. 1.

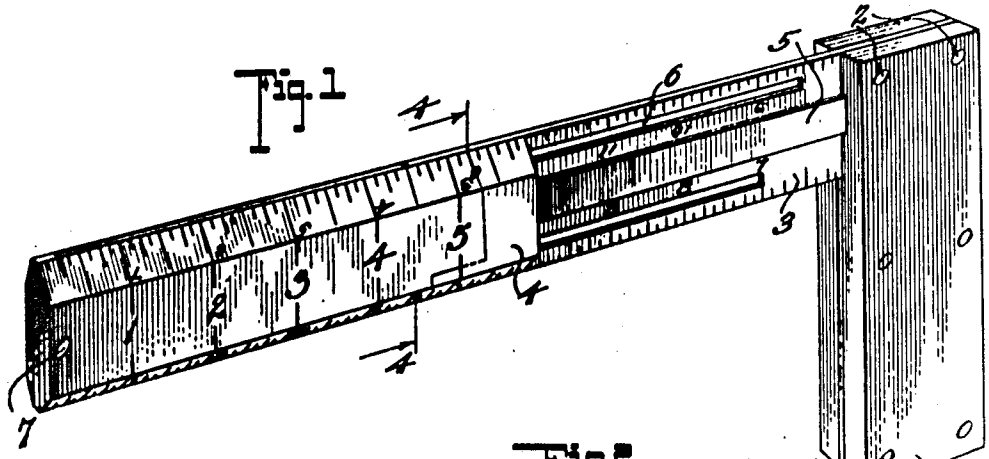


Fig. 2.

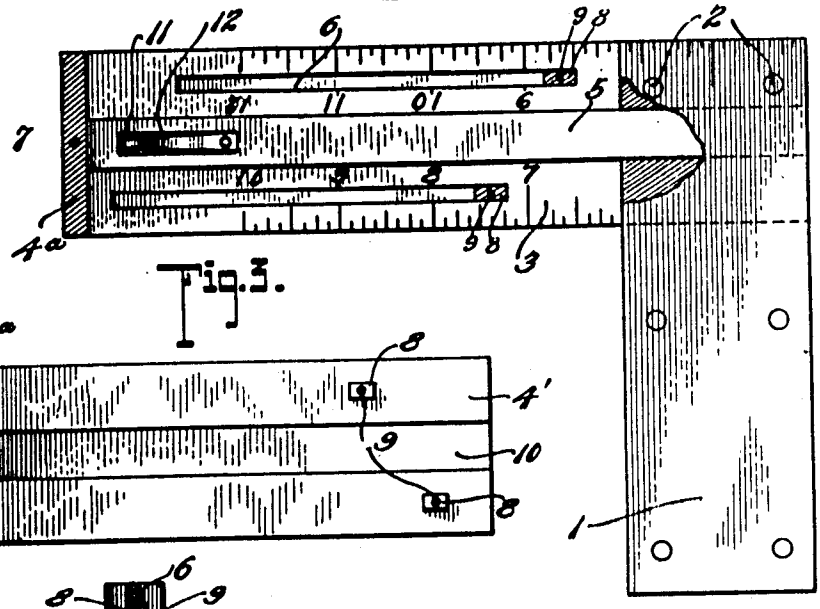
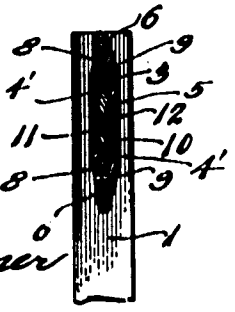


Fig. 3.

Fig. 4.



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EXTENSION TRY-SQUARE.

1,190,941. Specification of Letters Patent. Patented July 11, 1916.

Application filed October 13, 1915. Serial No. 55,678.

To all whom it may concern:

Be it known that I, JOSEPH H. NEEDHAM, a citizen of the United States, residing at Bristow, in the county of Butler and State of Iowa, have invented certain new and useful Improvements in Extension Try-Squares, of which the following is a specification.

The present invention relates to improvements in tools and in particular to those known as try-squares.

The essence of the invention lies in the provision for extension of the square blade so as to obtain a greater degree of measuring capacity for the tool while preserving a compact form.

To a not inconsiderable degree, the connections for the adjustable sections of this implement, constitute an important feature of this construction and with this in view the invention consists of a stock to which is rigidly secured a stationary blade, and upon which is mounted an adjustable extensible section, means being provided intermediate said sections for holding them at adjusted positions.

For a full understanding of the present invention, reference is to be had to the following description and the accompanying drawing, in which:

Figure 1 is a perspective view of an embodiment of my invention and showing the extensible section in extended position. Fig. 2 is a side elevation of the tool showing a longitudinal section of the blade. Fig. 3 is a side elevation of one half of the extensible section of the blade. Fig. 4 is a vertical sectional view taken about on the plane indicated by the line 4—4 of Fig. 1.

Throughout the following detail description and on the several figures of the drawings, similar parts are referred to by like reference characters.

Referring to the drawing, the numeral 1 designates the stock of the square which is provided, as customary, at one end with a slot to receive the end of the blade secured at right angles to said stock. The stock may consist of more than one piece of material, as shown in the drawing, said pieces being secured with the blade positioned therebetween by fastening members 2. The blade of this device is of special construction in that it consists of a relatively stationary section 3 and an extensible section 4 mounted thereon. The stationary section 3 is graduated at its longitudinal edges in a customary manner and provided with suitable indicia for indicating the measurements according to standard ruling. Extending longitudinally of this section on one side of the same is a rib or tongue 5, said tongue coöperating with the stock of the square to reinforce the connection of said blade to the stock as most clearly shown in Fig. 2 where the stock is broken away and shown in section. The blade section 3, furthermore, is provided with a slot 6 at each side of the tongue and said section is received within an open slot formed in the extensible section 4.

The section 4 may consist of two pieces of material secured together at one end by means of a fastening member 7, one of such pieces 4′ being shown in elevation in Fig. 3 of the drawing. At one end of the piece 4′ is formed, preferably integrally, a transverse stop projection 4^a which acts to hold the two pieces or layers of material in spaced relation so as to form an open ended slot to receive the stationary section 3 of the blade as hereinbefore described. It is within the purview of this invention, of course, that this extensible section 4 may be of an integral piece of material formed with a longitudinal slot which extends to a point adjacent to the extreme outer end, and I do not wish to be limited to an element which is made up of separate pieces, as just described. One side of the extensible section, that designated 4′, is provided with projections 8 which engage in the slots 6 of the stationary section 3. Fastening members 9 extend through these projections into the extensible section 4 whereby to connect the sides of said last-mentioned section together and prevent accidental separation of the side members. One of said side members of the extensible section 4 is formed with a longitudinal groove 10 in which is received the rib or tongue 5. This interlocking tongue and groove connection maintains the extensible section 4 relatively in alinement with the stationary section 3 throughout its longitudinal movement or adjustment. The positive interlocking connections formed by the connection of the projections 8 with the slot 6 coact with the tongue and groove to hold the sections in coöperative position. In the tongue 5 of the stationary section 3 is formed a recess 11 in which is secured a spring or similar friction means 12 frictionally engaging against one side of the exten-

sible section 4. The function of this spring is to cause a slight frictional binding between the blade sections so as to hold said sections in relative positions with respect to each other.

As shown in Fig. 1, the extensible section 4 is beveled at its lateral edges to the corresponding meeting edge of the stationary section 3 which facilitates reading of the graduations provided on the extensible section corresponding to the graduations hereinbefore mentioned provided on the stationary section. It will thus be appreciated that a compact measuring tool is provided by this construction and which is yet capable of extension to a sufficient degree to enable the use of the article for taking measurements or making marking lines of a greater length than the normal length of the blade.

Having thus described my invention, what I claim as new is:

1. A try-square comprising a stock, a blade secured thereto consisting of relatively stationary and movable sections, the movable section comprising spaced side members between which the stationary section is received, the stationary section having spaced longitudinally extending slots, and fastening members connecting the side members aforesaid and passing through the slots of the stationary member whereby to provide for sliding action of the movable blade member.

2. A try-square comprising a stock, a blade secured thereto and consisting of a relatively stationary section and an extensible section, the extensible section consisting of spaced side members between which the stationary section is received, a spacing member intermediate the side members at one end for holding the side members in spaced relation and constituting a stop coöperative with the extremity of the stationary section, said stationary section having spaced longitudinally extending slots, fastening means connecting the side members together and extending through said slots, and a tongue and groove connection for said sections arranged between the slots of the stationary section.

In testimony whereof I affix my signature.

JOSEPH H. NEEDHAM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."