G. H. WHITE.

T-SQUARE.

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1,243,786.

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Fig. 1

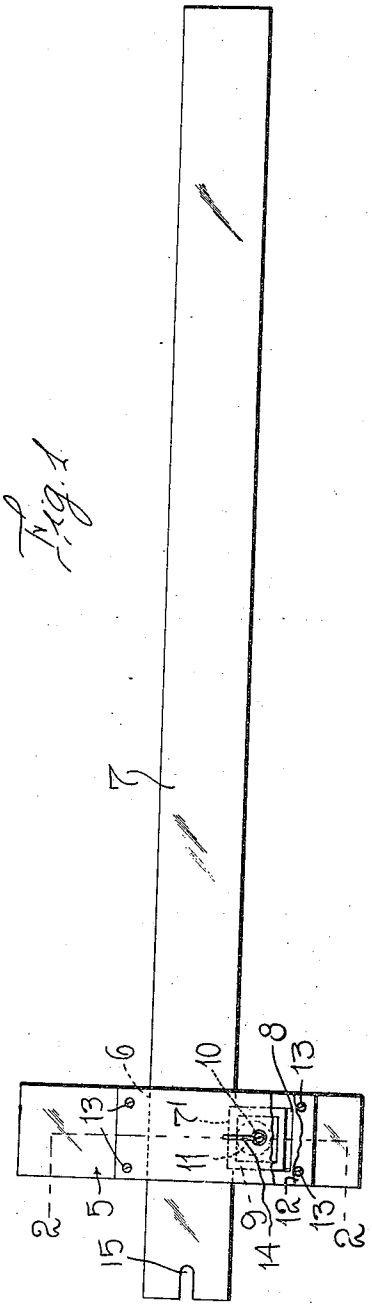


Fig. 3

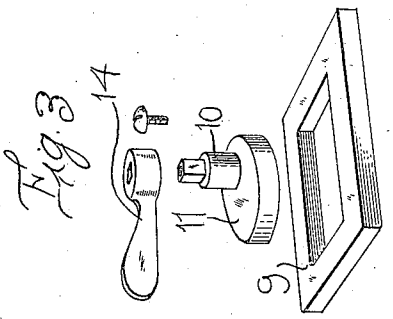
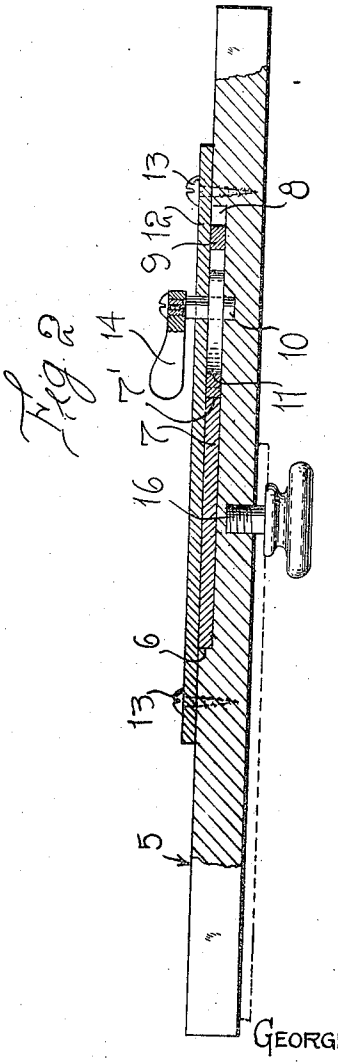


Fig. 2



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T-SQUARE.

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To all whom it may concern:

Be it known that I, GEORGE H. WHITE, a citizen of the United States, residing at Greeley, in the county of Weld and State of Colorado, have invented certain new and useful Improvements in T-Squares, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to an improved T-square, and has for its primary object to provide simple and effective means for detachably securing the blade to the head of the square.

It is a more particular object of the invention to provide a manually operable device mounted in the square head to co-act with the blade and rigidly hold the latter in connection with the head to effectually prevent displacement of the blade from its true position.

It is also an important object of the invention to provide a device for the above purpose which may be easily and quickly actuated to clamp the blade to the square head or release the blade so that it may be detached from the head, said device being of relatively simple construction and capable of manufacture at but slightly greater cost than the ordinary T-square.

With the above and other objects in view, my invention consists in the novel features of construction, combination and arrangement of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawing, in which,

Figure 1 is a plan view of a T-square constructed in accordance with my invention, a part thereof being broken away;

Fig. 2 is a section taken on the line 2—2 of Fig. 1; and

Fig. 3 is a detail perspective view of the cam device.

Referring in detail to the drawing, 5 designates the head of the square which may be of wood or any other desired material. This head is centrally provided in one face with a channel or recess 6 adapted to receive the square blade indicated at 7. This square blade, if desired, may be suitably graduated, and in connection with the head 5, any number of square blades to be used for different purposes, may be interchangeably employed.

A relatively narrow recess or pocket 8 is formed in the face of the head 5 which communicates with one side of the channel 6, and in this pocket the rectangular metal frame 9 is mounted for sliding movement. A rod 10 is rotatably mounted in the head 5 and extends through the recess 8, and upon this rod a disk 11 is eccentrically fixed, said disk being disposed within the rectangular metal frame 9 and in the plane thereof.

A face plate 12 extends over the channel 6 and the recess 8, and retains the frame 9 and the eccentric 11 within said recess, said face plate being secured at its opposite ends by means of the screws indicated at 13, to the head 5. It will be understood that this plate is provided with an opening through which the rod 10 is loosely disposed. A suitable lever 14 is fixed upon the end of the rod 10, whereby the same may be rotated.

The square blade 7 is provided in one of its longitudinal edges and adjacent to one end thereof, with a recess 7′ to receive one end of the sliding frame 9.

In the use of the device as above described, it will be understood that when the frame 9 is in the dotted line position seen in Fig. 1, the end of the blade 7 may be inserted beneath the plate 12 and through the channel 9 in the head of the square until the recess 14 in the edge of the blade coincides with the recess 8. The lever 14 is then actuated to rotate the eccentric 11 and cause the same to move the frame plate 9 inwardly to the full-line position shown in Fig. 1 and engage the inner end of said plate in the recess 14. The sliding frame exerts a pressure against the edge of the blade to force the same laterally in the channel 6 and tightly bind the blade against the opposite side wall of the channel. The square blade will thus be securely held in connection with the head against all possibility of either longitudinal or lateral shifting movement and in its true angular relation to said head.

The square blade may be provided in either one or both of its ends with an opening shown at 15, to receive a set screw 16 which is threaded in the square head 5. It will be understood that when the set screw is used, the clamping device for the blade above described is not employed. The set screw is a serviceable adjunct, as it will permit the square blade to be disposed at various angles with respect to the head and fixed in position, whereby the blade may be used in measuring or marking guide lines for beveled or inclined cuts.

From the foregoing description, taken in connection with the accompanying drawing, the construction, manner of use and several advantages of the invention will be clearly and fully understood. The device, while exceedingly simple in its construction, is highly convenient and serviceable, as it enables any number of blades to be used in connection with a single head and any one of the blades very easily and quickly connected to the head or removed therefrom. It will be understood that the square blade, as well as the head, may be of any desired length and constructed of various materials. The form, proportion and arrangement of the several elements employed is also susceptible of considerable modification and I, therefore, reserve the privilege of adopting all such legitimate changes as may be fairly embodied within the spirit and scope of the invention as claimed.

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

1. A T-square including a head having a channel in one face, a blade adapted to be removably fitted in said channel, a clamping element longitudinally shiftable upon the head, and manually operable means mounted upon the head to co-act with said element and clampingly engage the same with one edge of the blade and hold the same against movement relative to the head.

2. A T-square including a head having a channel in one face, a blade adapted to be removably fitted in said channel, a hollow metal frame shiftable in the head, and a manually operable eccentric disposed within the frame and co-acting therewith to force the frame into clamping engagement with the blade and retain the latter in connection with the head against movement relative thereto.

3. A T-square including a head having a channel in one face, a blade adapted to be fitted in said channel, said head further having a recess communicating with one side of the channel, a hollow metal frame shiftable in said recess, a rod rotatably mounted in the head, an eccentric fixed on said rod and disposed within the hollow frame, and a lever connected to the rod to rotate the eccentric and cause the same to urge the frame into clamping engagement.

4. A T-square including a head having a channel in one face and a recess communicating with one side of the channel, a blade adapted to be fitted in said channel and having a recess in one edge to coincide with the recess in the head, a shiftable clamping member mounted in said recess, manually operable means to co-act with said clamping member and move the same into the recess in the edge of the blade to clamp said blade in the channel against movement relative to the head, and a plate secured to the head and extending over the blade and said shiftable clamping member.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

GEORGE H. WHITE.

Witnesses:
W. R. ADAMS,
GEORGE D. ADAMS.

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