L. BARBER.

T-SQUARE KEEPER.

APPLICATION FILED AUG. 18, 1920.

1,404,000. Patented Jan. 17, 1922.

Fig. 1.

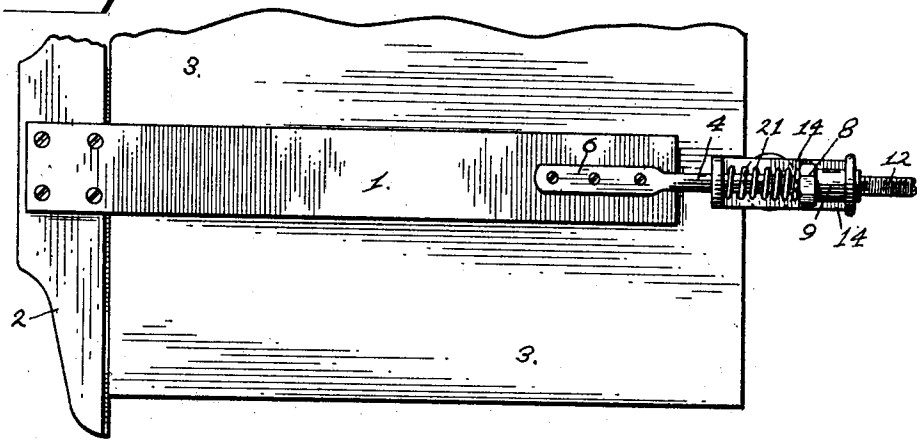


Fig. 2.

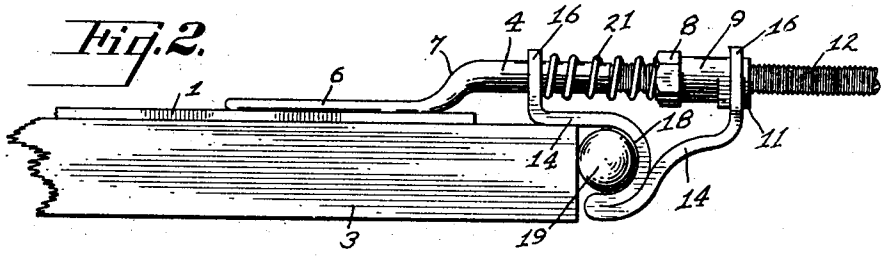


Fig. 3.

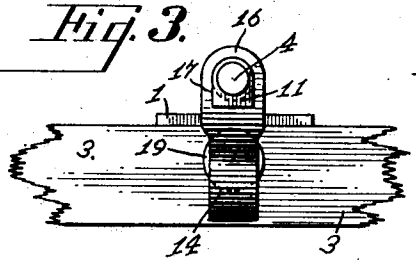


Fig. 5.

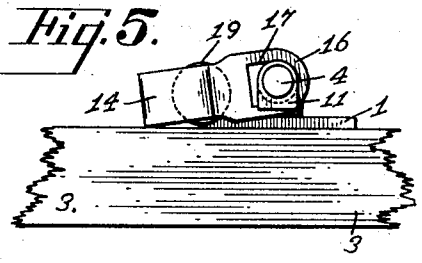
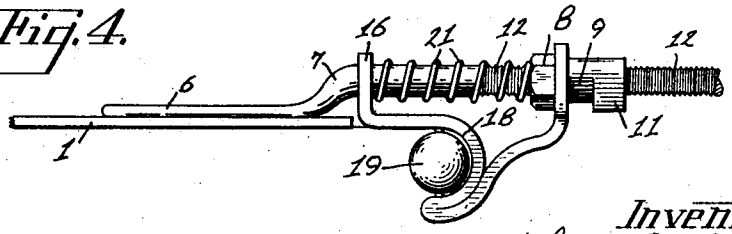


Fig. 4.



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UNITED STATES PATENT OFFICE.

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T-SQUARE KEEPER.

1,404,000. Specification of Letters Patent. Patented Jan. 17, 1922.

Application filed August 18, 1920. Serial No. 404,329.

To all whom it may concern:

Be it known that I, LEON BARBER, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented a new and useful Improvement in a T-Square Keeper, of which the following is a specification.

My invention relates to improvements in T square keepers wherein a bearing is mounted at the end of a T square to retain said T square in operative position.

The primary object of my invention is to provide an improved means for maintaining a T square in operative position on a drawing board.

Another object is to provide a device of the character described adapted for adjustment for use with boards of different lengths.

A further object of my invention is to provide an improved device of the character described wherein the T square holding means may be rotated to an inoperative position.

I accomplish these and other objects by means of the novel device disclosed in the drawings forming a part of the present specification wherein like characters of reference are used to designate similar parts throughout said specification and drawings and in which:

Fig. 1 is a broken plan view of a drawing board and T square with my improved holding device attached thereto.

Fig. 2 is a broken side elevation of the device disclosed in Fig. 1 on a larger scale.

Fig. 3 is a broken end view of Fig. 2.

Fig. 4 is a side elevation of the device when disengaged from the drawing board, the yoke being advanced to the rotatable position.

Fig. 5 is an end view disclosing the holding means rotated to permit the T square to rest flatly upon a surface.

Referring to the drawings the numeral 1 is used to designate a T square blade provided with the usual head 2 arranged to engage the edge of a drawing board 3 in the ordinary manner. A rod 4 is secured to the end of the T square blade 1 remote from the head 2, said rod being arranged in alignment with the longitudinal axis of the T square 1 and extending beyond the end of the T square blade. The rod 4 is provided with a flattened end 6 arranged to be screwed or otherwise secured to the T square and is offset as at 7 to elevate the outer end of the rod 4 for a purpose hereinafter explained.

A nut 8 provided with a shank 9 of circular section having a rectangular lug 11 formed upon the lower side adjacent the end thereof is adjustably mounted upon the rod 4 by means of threads 12.

A yoke 14 formed from a single strip of metal or other suitable material shaped as disclosed in the drawings is apertured at the ends 16 for mounting upon the rod 4, the aperture 17 at the rearward end 16 of the yoke 14 being shaped with a rectangular lower portion and circular upper portion to fit the shank 9 and lug 11 of the nut 8. Below and between the ends 16 the yoke is shaped to form a concave recess 18 arranged to receive a spherical bearing 19 rotatably mounted therein and adapted to engage the end of the drawing board 3. A coil spring 21 is mounted about the rod 4 between the forward end 16 of the yoke 14, and the nut 8, under sufficient compression to cause the bearing 19 to be retained against the drawing board 3 with a suitable pressure.

In operation my invention is as follows: The T square 1 provided with my improved keeper is applied to the drawing board 3 in the usual manner and the nut 8 adjusted longitudinally upon the bar 4 to such a position as will cause the rearward end 16 of the yoke 14 to engage the lug 11 of the nut shank 9 when said yoke is forced back against the pressure of the spring 21 to bring the bearing 19 in engagement with the drawing board 3. In this position sufficient pressure is applied through the bearing 19 at one end of the board 3 to cause the T square 1 to be held in operative position with the head 2 in true contact with the other end of said drawing board. The spherical bearing 19 permits the T square 1 to be readily moved laterally along the drawing board 3, and the lug 11 engaging the aperture 17 of the yoke 14 prevents rotative movement of the yoke when in operative position.

When released from the operative position described, the spring 21 causes the yoke 14 to be moved forward along the rod 4, the aperture 17 being advanced out of engagement with the lug 11 to the circular portion of the shank 9, thereby permitting the yoke 14 to be freely rotated about the rod 4. In this position the yoke 14, normally

held pendent for engagement with the drawing board 3, may be displaced to either side to permit the T square to rest flatly upon a surface and to permit the T square to be shifted to positions other than the horizontal without elevating the end or necessitating the removal of any portion of the holding device.

The offset 7 of the bar 4 permits the forward portion of the yoke 14 to rest upon the surface of the drawing board 2 when in operative position, thereby affording stability to the keeper and also supports the yoke 14 at an elevation sufficiently above the T square blade 1 to accommodate the width of the yoke when rotated in the inoperative position to allow the T square to rest flatly upon a surface.

It is readily seen from the foregoing description that I have provided a device of simple construction readily attached to any T square blade whereby operation of the T square is greatly facilitated without interfering with its use as a straight edge in other than the operative position. I have disclosed the preferred form of my invention but as the details of construction are susceptible to wide variation I do not wish to limit myself to the specific construction disclosed but prefer to avail myself of such modifications as fall within the scope of the appended claims.

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

1. A T square keeper comprising a bar adapted for attachment to the end of a T square blade; and adjustable means slidably and rotatably mounted upon said bar arranged to engage one end of a drawing board for holding the T square in operative position.

2. A T square keeper comprising a bar adapted for attachment to the end of a T square blade; a yoke slidably and rotatably mounted upon said bar; and a bearing rotatably mounted upon said yoke and arranged to engage one end of a drawing board for holding the T square in operative position.

3. A T square keeper comprising a bar adapted for attachment to the end of a T square blade; a yoke slidably and rotatably mounted upon said bar; and a bearing rotatably mounted upon said yoke and arranged to engage one end of a drawing board for holding the T square in operative position; and means for preventing rotative movement of said yoke when said bearing is in engaging relation with the end of said drawing board.

4. A T square keeper comprising a bar adapted for attachment to the end of a T square blade; a yoke slidably and rotatably mounted upon said bar; and a bearing rotatably mounted upon said yoke and arranged to engage one end of a drawing board for holding the T square in operative position; and means for preventing rotative movement of said yoke when said bearing is in engaging relation with the end of said drawing board; and means for retaining said bearing in engaging relation with the end of said drawing board.

5. A T square keeper comprising a bar adapted for attachment to the end of a T square blade; a yoke slidably and rotatably mounted upon said bar; and a bearing rotatably mounted upon said yoke and arranged to engage one end of a drawing board for holding the T square in operative position; and means for preventing rotative movement of said yoke when said bearing is in engaging relation with the end of said drawing board; and means for retaining said bearing in engaging relation with the end of said drawing board; and means for adjusting the longitudinal position of said yoke upon the bar.

6. A T square keeper comprising a bar adapted for attachment to the end of a T square blade; a nut adjustably mounted upon said bar; a yoke slidably and rotatably mounted upon the bar, one end of said yoke being arranged to engage the nut; and a bearing rotatably mounted upon said yoke and arranged to engage one end of a drawing board for holding the T square in operative position.

7. A T square keeper comprising a bar adapted for attachment to the end of a T square blade; a nut adjustably mounted upon said bar; a yoke slidably and rotatably mounted upon the bar, one end of said yoke being arranged to engage the nut; and a bearing rotatably mounted upon said yoke and arranged to engage one end of a drawing board for holding the T square in operative position; and means for retaining said bearing in engaging relation with the end of said drawing board.

8. A T square keeper comprising a bar adapted for attachment to the end of a T square blade; a nut adjustably mounted upon said bar; a yoke slidably and rotatably mounted upon the bar, one end of said yoke being arranged to engage the nut; and a bearing rotatably mounted upon said yoke and arranged to engage one end of a drawing board for holding the T square in operative position; and a spring mounted upon the rod between the nut and one end of the yoke to retain the bearing thereon in engaging relation with the end of said drawing board.

9. A T square keeper comprising a bar adapted for attachment to the end of a T square blade; a nut adjustably mounted upon said bar; a shank formed upon said nut; a yoke slidably and rotatably mounted

upon the rod, one end of said yoke being arranged to engage the rod and the other end arranged to engage the shank of the nut thereon; a bearing rotatably mounted upon said yoke and arranged to engage one end of a drawing board for holding the T square in operative position; means for retaining said bearing in engaging relation with the end of said drawing board; and means for preventing rotation of the yoke when the bearing is in said engaging relation with said drawing board.

10. A T square holder comprising a bar adapted for attachment to the end of a T square blade; a nut threaded upon said bar; a shank formed upon said nut, said shank being circular in section; a rectangular lug formed upon the lower side of said shank at the end remote from the nut; a yoke apertured at the forward end thereof to slidably and rotatably engage the rod, and at the rearward end to slidably engage the shank and lug; a bearing rotatably mounted upon said yoke and arranged to engage one end of a drawing board for holding the T square in operative position; a spring interposed between the nut and the forward end of the yoke for maintaining the head of said T square and said yoke in engaging relation with the ends of said drawing board, and for advancing said yoke to rotative position in advance of the lug upon the shank when said T square is disengaged from the drawing board.

11. A T square holder comprising a bar adapted for attachment to the end of a T square blade; a nut threaded upon said bar; a shank formed upon said nut, said shank being circular in section; a rectangular lug formed upon the lower side of said shank at the end remote from the nut; a yoke apertured at the forward end thereof to slidably and rotatably engage the rod, and at the rearward end to slidably engage the shank and lug; a spherical bearing rotatably mounted upon said yoke and arranged to engage one end of a drawing board for holding the T square in operative position; a spring interposed between the nut and the forward end of the yoke for maintaining the head of said T square and said yoke in engaging relation with the ends of said drawing board, and for advancing said yoke to rotative position in advance of the lug upon the shank when said T square is disengaged from the drawing board.

In witness whereof I hereunto set my signature.

LEON BARBER.