No. 635,050. Patented Oct. 17, 1899.

W. W. MACFARREN.

DRAFTSMAN'S SQUARE.

(Application filed Nov. 25, 1898.)

(No Model.)

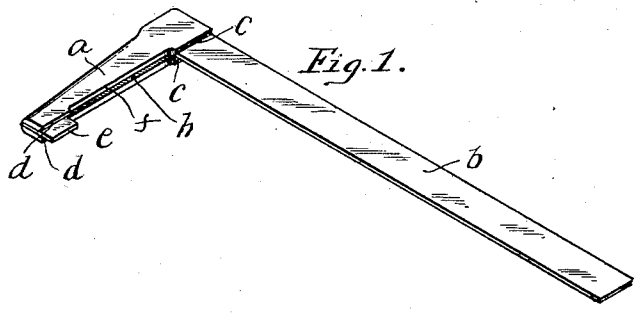
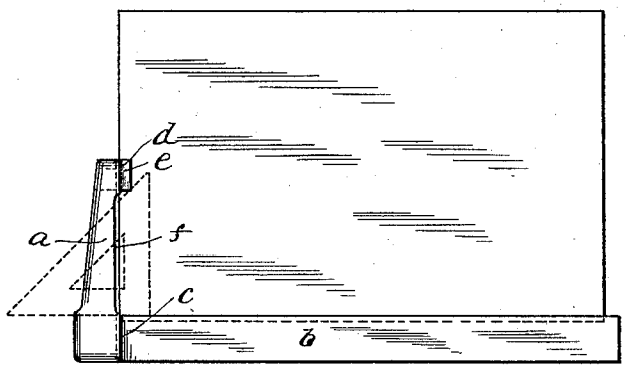


Fig. 1.

Fig. 2.



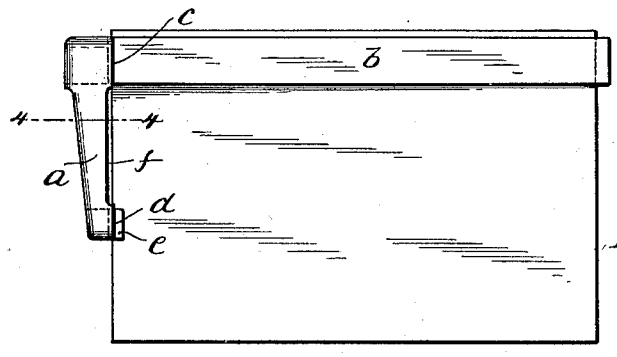


Fig. 3.

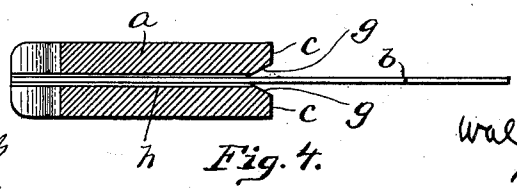


Fig. 4.

Witnesses
Walter Samaris
Robt. C. Totten

Inventor:
Walter W. Macfarren
By Kay & Totten
Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WALTER W. MACFARREN, OF PITTSBURG, PENNSYLVANIA.

DRAFTSMAN'S SQUARE.

SPECIFICATION forming part of Letters Patent No. 635,050, dated October 17, 1899.

Application filed November 25, 1898. Serial No. 697,373. (No model.)

To all whom it may concern:

Be it known that I, WALTER W. MACFARREN, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Draftsmen's Squares; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to draftsmen's squares.

The main objects of my invention are to provide a draftsman's square of such construction that it will be firmly supported in any position the tongue may have to assume with reference to the drawing-board, so that the annoyance occasioned by the wabbling or tilting of the draftsman's square when a line is to be drawn close to the upper or lower edges of the board will be avoided and one whose haft or head is not liable to lose its trueness with reference to the edges of the drawing-board and if it should one in which it can be readily corrected.

To these ends my invention comprises the novel features hereinafter set forth in claims.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of my draftsman's square. Fig. 2 is a view of the same as applied to a drawing-board. Fig. 3 is a like view in a different position. Fig. 4 is a cross-section on line 4 4, Fig. 1.

The letter *a* designates the haft or head, which may be formed of wood or metal, and *b* designates the tongue or blade. The tongue *b* is secured within the body of the haft *a* in such manner as to form shoulders or bearing-points *c* on each side of said tongue. At the outer end of the haft *a* are the shoulders or bearing-points *d* in accurate line with the bearing-points *c*. A projection *e* is secured to the outer end of the haft *a* intermediate of the shoulders *d* and on the same horizontal plane as the tongue *b*. The inner edge of the haft *a* intermediate of the shoulders *c* and *d* is cut away, as at *f*, so that it does not bear for its full length against the edge of the drawing-board when applied thereto. Formed within the shoulders *c* and *d* are the notches or grooves *g*, which reduce the width or bearing-faces of said shoulders for the purpose fully hereinafter set forth.

A slot *h* is formed in the haft *a* intermediate of the shoulders *c* and *d* to admit of the entrance of an ordinary draftsman's triangle, such as shown in dotted line, Fig. 2, whereby the said triangle can be moved over the board without interference on the part of said haft.

When my improved draftsman's square is in use, the shoulders *c* and *d* on one side of the tongue are in contact with the edge of the drawing-board *i*, and the projection *e* rests on the upper surface of said board. In this manner the haft is always supported, and the tongue *b* can be moved down to a point where its upper edge is close to the lower edge of the board, and a line can be drawn at that point, as the draftsman's square may be held steady without the wabbling or tilting of the haft, which is supported by the projection *e*, or, if desired, the draftsman's square may be reversed, as shown in Fig. 3, and a line close to the upper edge of the board may be drawn with equal facility. As the haft bears against the edge of the board at points at its inner and outer ends, it is not so liable to get out of true as in the case where the haft engages the board for its entire length. Even if one of said shoulders should get out of true by the use of sandpaper it can be quickly smoothed off and thus be readily corrected. By having the shoulders with the grooves *g* formed therein the shoulders themselves are more readily reached to be worked on by the sandpaper and more quickly reduced the necessary amount.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a draftsman's square, a haft projecting from one side only of the tongue, said haft having bearing-points at its inner and outer ends, the intermediate portion being cut away, and grooves formed in said bearing-points, substantially as set forth.

2. In a draftsman's square, a haft projecting from one side only of tongue, said tongue fitting into the body of the haft, shoulders formed on said haft above and below horizontal plane of said tongue, and a projection at the outer end of said haft, said projection be-

ing located between the upper and lower faces of said haft, whereby shoulders are formed above and below said projection on said haft, substantially as set forth.

3. In a draftsman's square, a haft projecting from one side only of the tongue, and a projection at the outer end of said haft adapted to rest on the drawing-board, said projection being located midway between the upper and lower faces of said haft, substantially as set forth.

In testimony whereof I, the said WALTER W. MACFARREN, have hereunto set my hand.

WALTER W. MACFARREN.

Witnesses:
ROBT. D. TOTTEN,
ROBERT C. TOTTEN.