March 4, 1952 P. F. BOEHM 2,588,079

T SQUARE

Filed June 17, 1947 2 SHEETS—SHEET 1

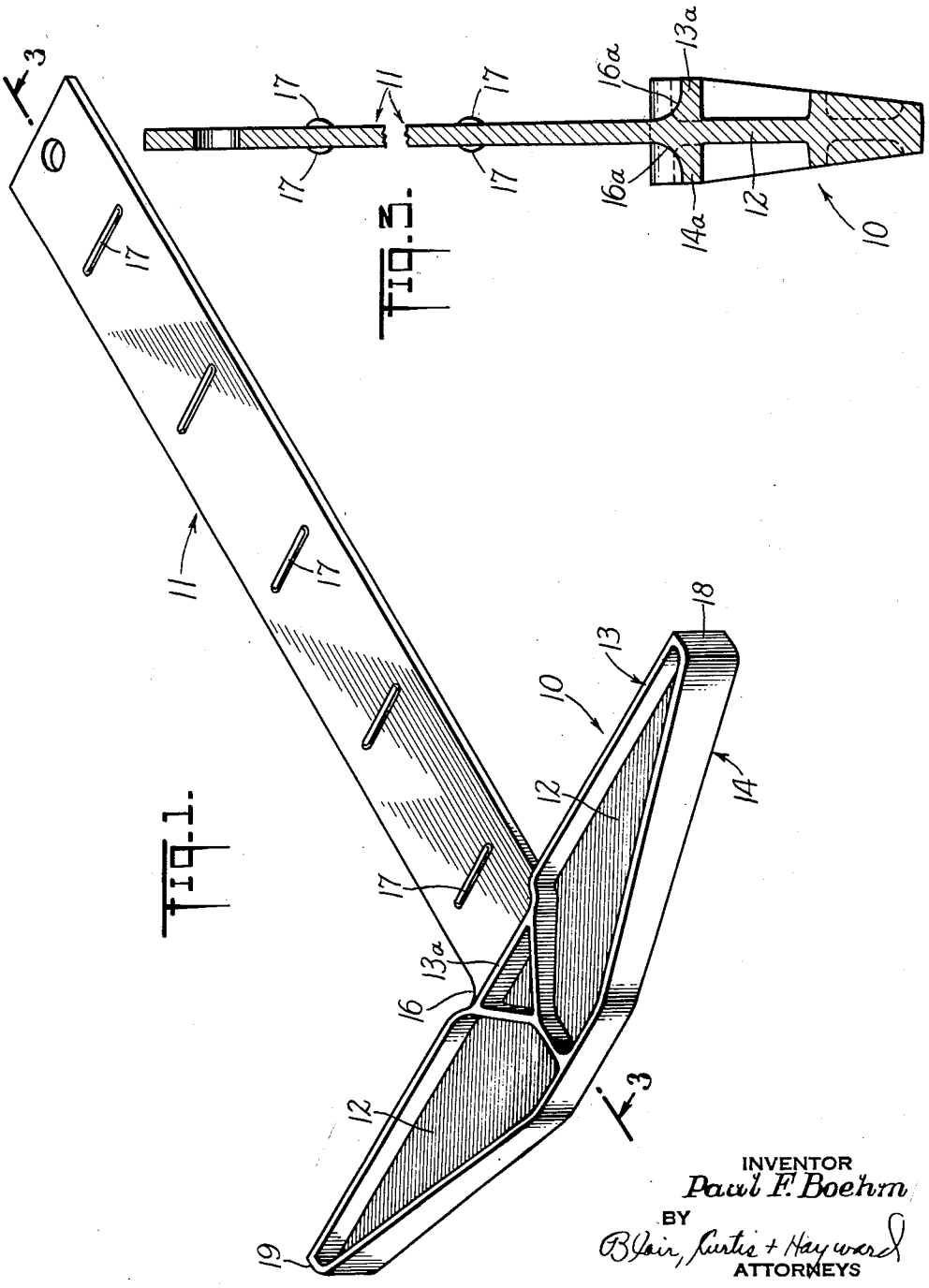


FIG. 2.

FIG. 1.

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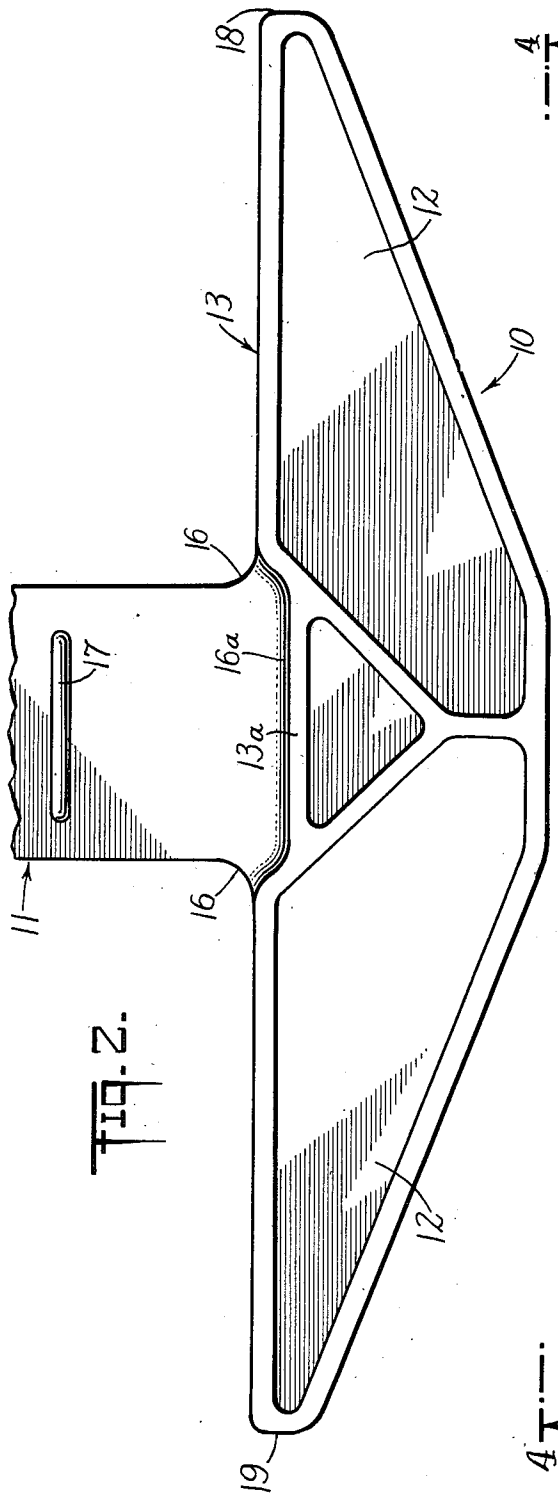


Fig. 2.

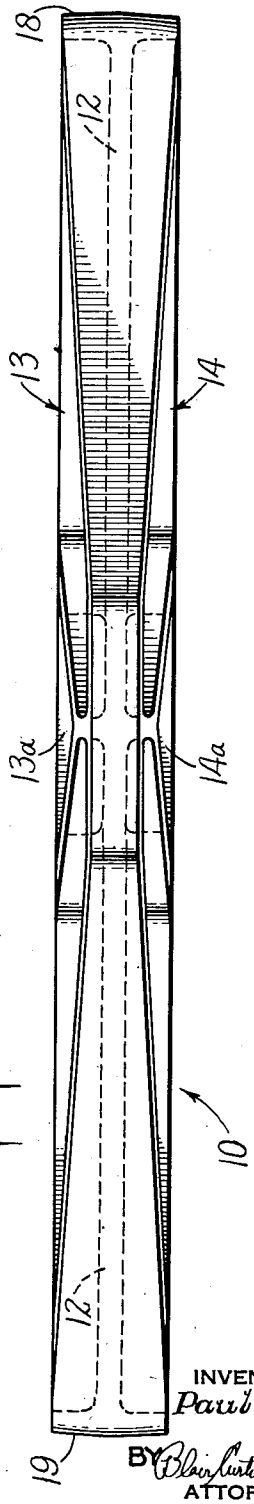


Fig. 4.

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T-SQUARE

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Application June 17, 1947, Serial No. 755,139

1 Claim. (Cl. 33—75)

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This invention relates to a T-square.

One of the objects of this invention is to provide a T-square which is simple, thoroughly practical, and durable in use. Another object is to provide a device of the above character which may be easily and economically manufactured. Another object is to provide a device of the above character which is particularly durable in withstanding shocks and strains resulting from extended use. Another object is to provide a new and improved T-square. A further object is to provide a device of the above character which increases the efficiency of the user. Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts as will be exemplified in the structure to be hereinafter described and the scope of the application of which will be indicated in the following claim.

In the accompanying drawings in which is shown one of the various possible embodiments of this invention,

Figure 1 is a perspective view of the T-square;

Figure 2 is a top plan view of a portion of the T-square shown in Figure 1;

Figure 3 is a vertical section taken on the line 3—3 of Figure 4; and

Figure 4 is an elevation of the head of the T-square taken from the line 4—4 of Figure 2.

Similar reference characters refer to similar parts throughout the several views of the drawing.

As conducive to a clearer understanding of certain features of this invention, it might be pointed out that there are certain difficulties now experienced with T-squares now used. Heretofore T-squares have been made in two parts, namely, a head and a blade. The two parts are secured together by rivets, screws or cement. When such a square is dropped or subjected to an undue strain, the connection between the blade and head loosens so that the correct setting is lost. Such a T-square cannot be used to make accurate drawings. Another difficulty experienced with T-squares now in use lies in the fact that they lie flat upon the working surface and thus when an ink line is drawn adjacent the blade, the ink may run beneath the blade, destroying the line. Another difficulty experienced with T-squares now in use lies in the fact that the blade of a T-square smudges the lines on a drawing as it is moved thereacross. Furthermore, considerable friction is created between the blade and the surface of a drawing as the

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blade is slid thereacross which impairs the efficiency of the user. It is another object of this invention to make a T-square which overcomes the above-mentioned difficulties as well as many others.

Referring now to the drawing, the T-square shown in Figure 1 includes a head and blade, generally indicated at 10 and 11, and is molded as an integral unit from a plastic material. Head 10 includes a flat center web 12 which lies in the same plane as blade 11. Two webs of ribs 13 and 14 extend upwardly and downwardly from web 12 to reinforce it. It will be noted that ribs 13 and 14 follow the periphery of web 12 and reinforce its center section.

To form a strong connection between blade 11 and head 10, ribs 13*a* and 14*a* (Figures 1 and 3) are preferably offset outwardly from the guide edge of the T-square. As is best shown in Figures 2 and 3, two pairs of fillets 16 and 16*a* are provided to join the inner end of blade 11 to the adjacent ribs on head 10. Referring to Figure 2, fillets 16 extend from the planes of the side edges of the blade to the surfaces of ribs 13 and 14 which constitute the guide surface for the T-square; and, (see Figure 3) fillets 16*a* extend from the top and bottom surfaces of the blade to the side surfaces of ribs 13*a* and 14*a*. This reinforces the connection of the blade to the head without interfering with the usefulness of the guiding edge of the head or the drawing edge of blade 11. With this construction, the head functions normally even when used on a drawing board having a sharp square edge as the fillets are so positioned that a right angle is formed between the plane of the guiding edge of the head and the plane of the blade.

The fillets 16*a* and to some extent the fillets 16 (Figures 2 and 3) are also of material importance in molding a strong and durable T-square. In molding a sudden transition from a narrow to a heavy section disturbs the flow of the liquid resin which could result in the creation of stresses at the juncture point between the blade and the head, making a weak connection which might ultimately break. In the present construction, the fillets form a gradual transition in thickness between the thin blade and the heavy head and thus the possibility of forming stress lines during molding is eliminated.

Referring to Figures 1 and 3, blade 11 is provided with a series of ribs 17 extending transversely across the blade. These ribs extend outwardly from both of the plane surfaces of the blade and serve to space the blade from the work-

ing surface. As the T-square in use is moved only with ribs 17 contacting said surface, these ribs serve to keep the T-square positioned above the drawing so that the drawing will not be smudged by the blade and also materially reduce friction so that the T-square may be easily moved over the drawing. These ribs are also of importance in that they hold the blade above the working surface so that when ink is being used capillary action cannot draw the ink beneath the edge of the T-square.

Thus, it will be seen that a thoroughly practical and durable T-square has been disclosed in which the blade is integrally connected to the head by a practical and efficient joint. Furthermore, the head is so constructed that it has the strength to withstand extended usage while at the same time it is light in weight. Also, the blade is provided with a series of transverse ribs which reduce friction as the blade is moved over the working surface, also substantially eliminate smudging of the drawing, and permit inking. The head of the T-square is also so shaped that the T-square may be raised to permit inking portions of the drawing on which the ink has not dried while leaving a substantial portion of the guiding edge of the head in contact with the edge of the board. It will thus be seen that the several objects hereinabove mentioned as well as many others may be successfully accomplished.

The term "plastic material" used in the specification and in the following claim is not to be construed as a limitation to any particular type of artificial resins which are commonly called "plastic material."

As many possible embodiments may be made of the above invention, and as many changes might be made in the embodiment above set forth, it is to be understood that all matter hereinabove set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

I claim:

In a T-square, in combination, a head formed

of plastic material and having spaced aligned edge sufaces which are adapted to engage a guide surface, and a blade formed of plastic material integrally with said head and having an edge at right angles to said edge surfaces, said edge surfaces being separated by a portion which is offset away from the blade in the zone of juncture between said blade and said head, and having fillets provided within said offset portion so as to constitute a gradual transition from the thickness of said blade to the thickness of said head in said offset portion.

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