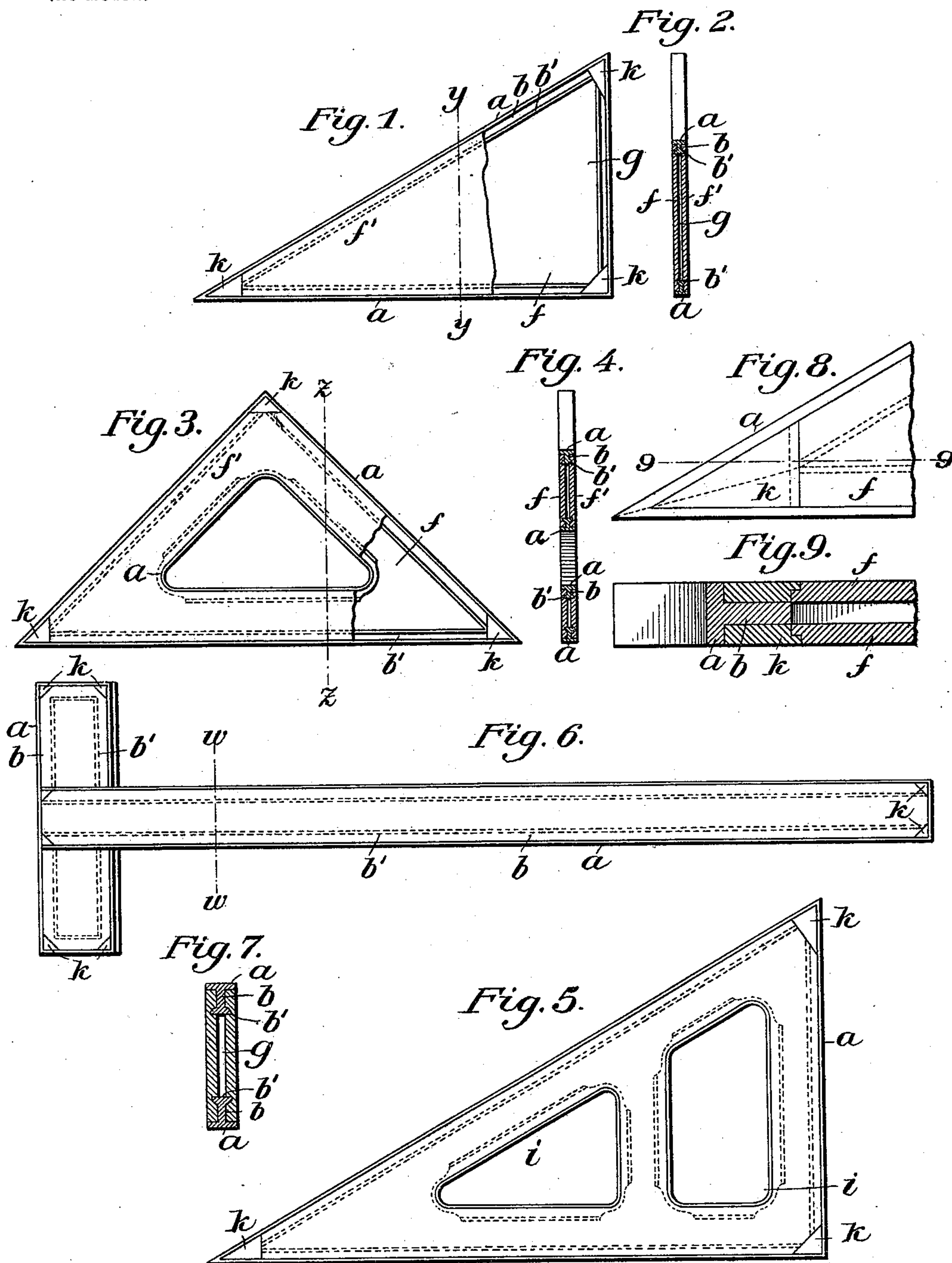


No. 614,175.

Patented Nov. 15, 1898.

A. MAURER.
DRAWING IMPLEMENT.
(Application filed Mar. 18, 1897.)

(No Model.)



Witnesses.
Geo. H. Jaekel.
Max H. Hutzler.

Inventor.
August Maurer
by Geo. H. Jaekel
his Attorneys

UNITED STATES PATENT OFFICE.

AUGUST MAURER, OF BRUNSWICK, GERMANY.

DRAWING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 614,175, dated November 15, 1898.

Application filed March 18, 1897. Serial No. 628,131. (No model.)

To all whom it may concern:

Be it known that I, AUGUST MAURER, mechanic, of 2 Königstrasse, Brunswick, in the Duchy of Brunswick, German Empire, have invented certain new and useful Improvements in Drawing Implements, of which the following is a specification.

This invention relates to improvements in the construction of drawing implements—such as set-squares, T-squares, straight-edges, curves, and the like—which are made of wood, papier-mâché or similar material; and it consists in reinforcing said implements by a metallic frame which serves to protect the same from injury and from the effects of damp or heat.

In the accompanying sheets of drawings, in which various drawing implements containing my improvements are shown, Figure 1 shows a set-square. Fig. 2 is a section taken on the line $y y$ of Fig. 1. Fig. 3 shows a set-square with an opening through it. Fig. 4 is a section taken on the line $z z$ of Fig. 2. Fig. 5 shows a set-square with two openings through it. Fig. 6 shows a T-square; and Fig. 7 is a section taken on the line $w w$ of Fig. 6, on an enlarged scale, showing the webs b with the ribs b' . Figs. 8 and 9, respectively, are a broken side elevation and a longitudinal section on line 9 9, Fig. 8, showing the corner of a set-square.

Similar letters of reference indicate corresponding parts.

The metal frame a is provided on each of its sides with one web b , Figs. 1 to 6, which extends at right angles from the sides and on which the wood or other covering part of the implement rests when in place. The webs may be provided with ribs, such as b' in Figs. 1 to 6. The object of these ribs will be explained below.

In the set-square, Figs. 1 and 2, the side of the metal frame a has only one inwardly-projecting flange or web b , which is provided with ribs b' , which take into the two covering-plates $f f'$, made of wood or other suitable material, and effect thus a firm connection of the frame with the said plates. The adjacent ends of the sides forming the corners of the frame a are connected by means of corner-pieces k , soldered to the sides and let into

recesses in the covering-plates. The space g , between the plates $f f'$, may be filled with cork shavings.

The set-square, Figs. 3 and 4, has two frames a of a different size provided with flanges or webs, the smaller of which frames is placed within the larger. The webs of the outer frame project inward, while the webs of the inner frame project outward, and are not, like the webs of the outer frame, connected together at the ends. The covering-plates $f f'$ are fixed to the webs by means of the ribs b' , fitted to the latter.

The set-square, Fig. 5, is provided with two openings i , formed by two inner frames, being constructed in the same manner as the inner frame of the set-square of Figs. 3 and 4. This construction will be used in manufacturing set-squares of great size for facilitating the manipulation of the same.

The T-square (shown in Fig. 9) is formed of two frames a , placed at right angles to each other, each of which frames is provided with webs b , which receive the covering-plates, of wood or other suitable material. The corner-pieces k , in combination with the ribs b' at the inner ends of the webs b , effect the firm connection of the frame with the covering-plates.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In drawing implements, the combination, with metal frames arranged one within the other, webs arranged on the adjacent sides of the frames so as to extend toward each other, covering-plates supported on said webs, and means for connecting the frames with the covering-plates, substantially as set forth.

2. In drawing implements, the combination, with a metal frame, of webs arranged angularly to the sides of the frame and provided with ribs, covering-plates supported on said webs, and corner-pieces connecting the sides of the frame and let into recesses in the covering-plates, as and for the purpose set forth.

3. In drawing implements, the combination, with an outer and inner metal frame, of webs arranged angularly to the sides of the frames, covering-plates supported on said

webs, ribs on the webs, and corner-pieces fitted to the sides of the frames and let into recesses in the covering-plates, as and for the purpose specified.

- 5 4. In drawing implements, the combination, with an outer and inner metal frame arranged one within the other, of webs arranged angularly to the sides of the frames, ribs on said webs, covering-plates supported on said
10 webs, and pieces fitted to the sides of the

outer frame and let into recesses of the covering-plates, as and for the purpose described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

AUGUST MAURER.

Witnesses:

ROBERT STUDTE,
PAUL GRUBE.