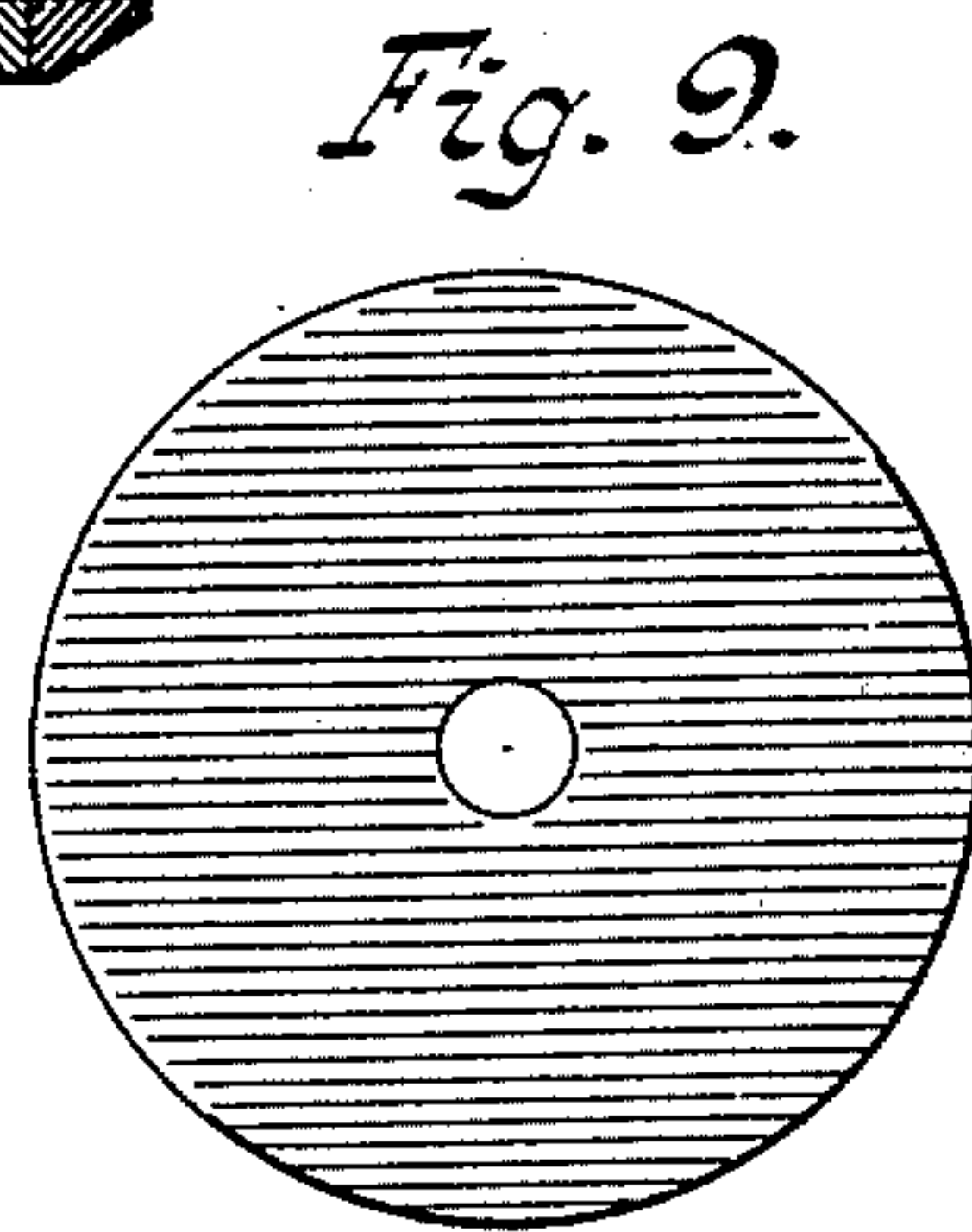
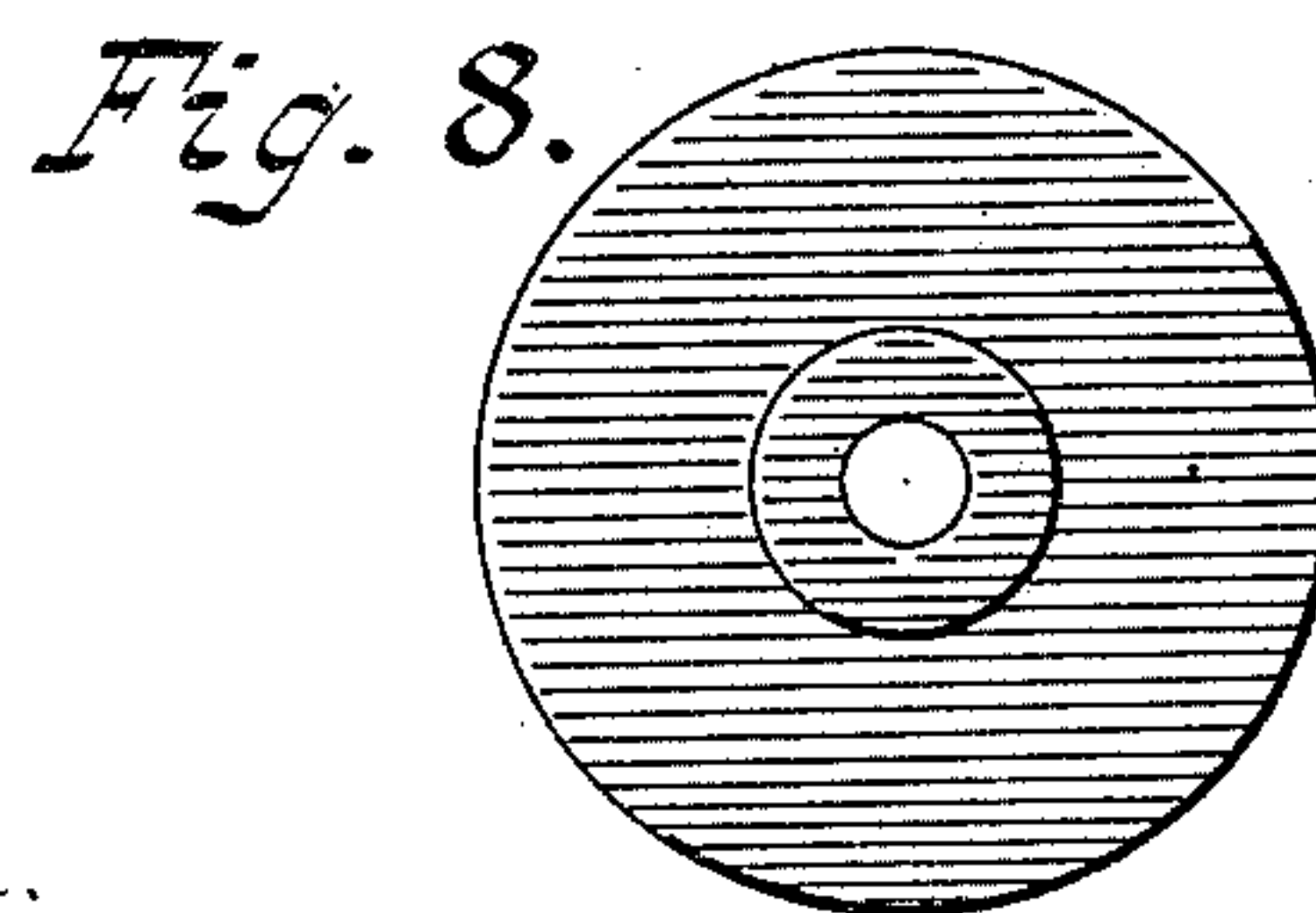
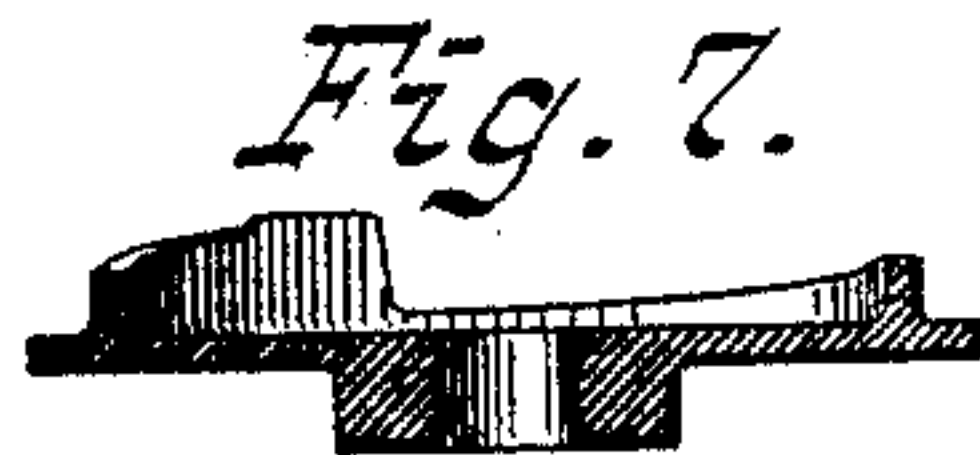
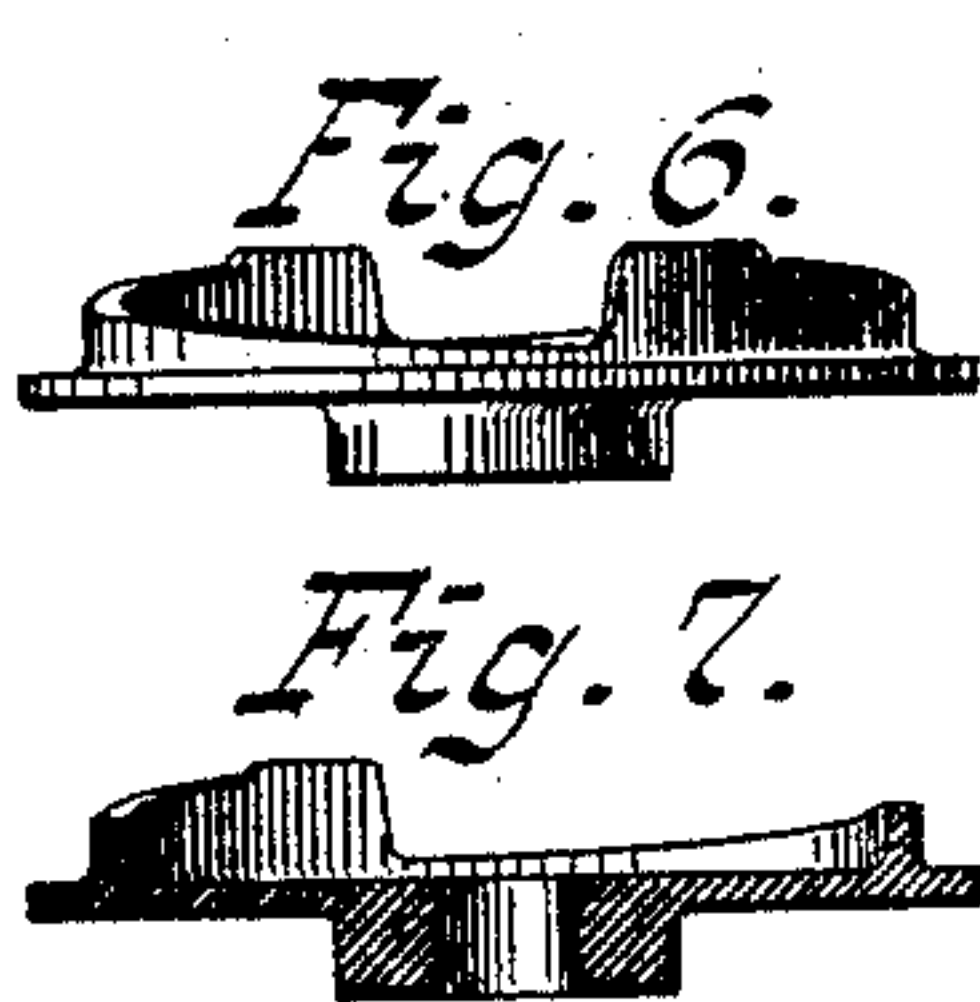
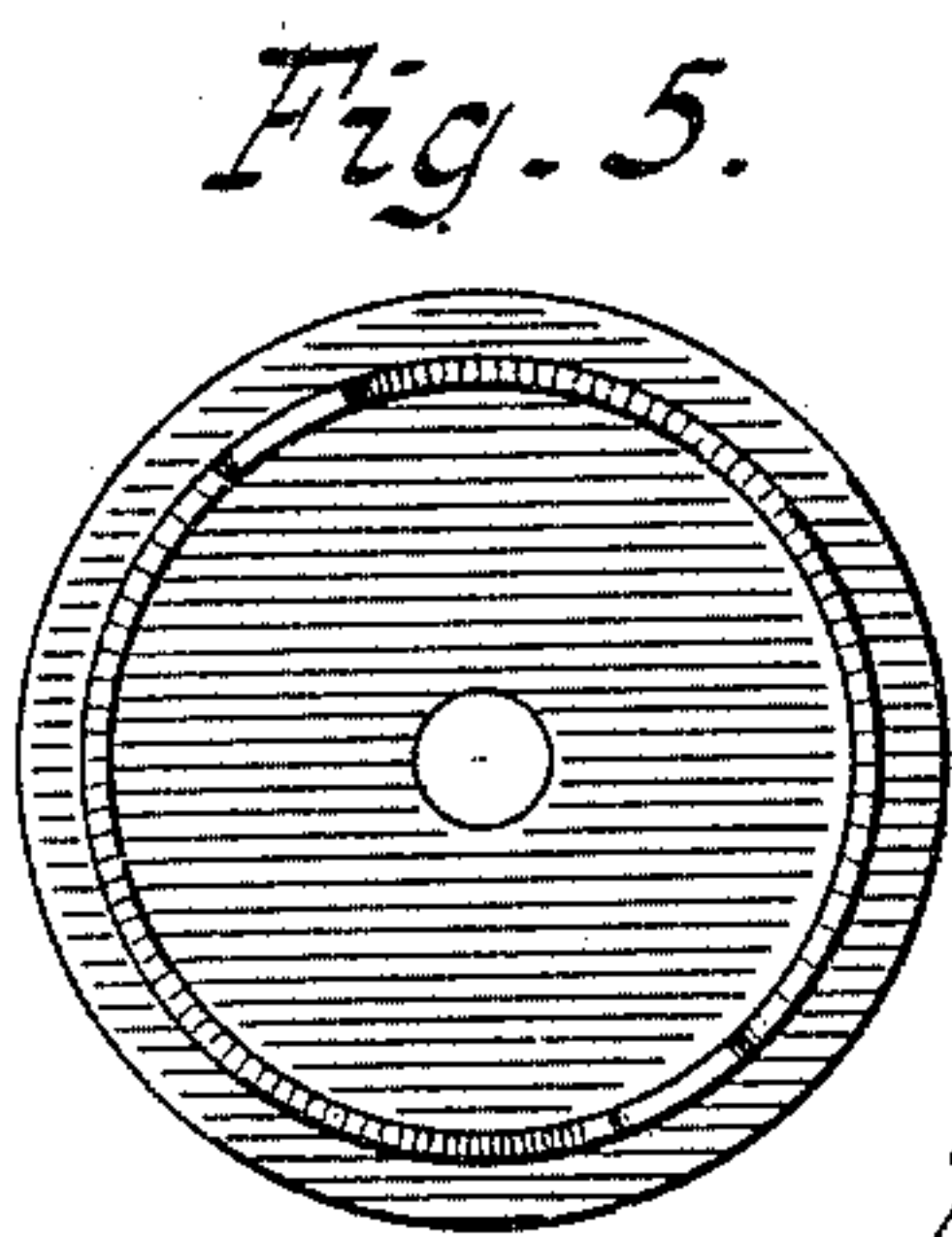
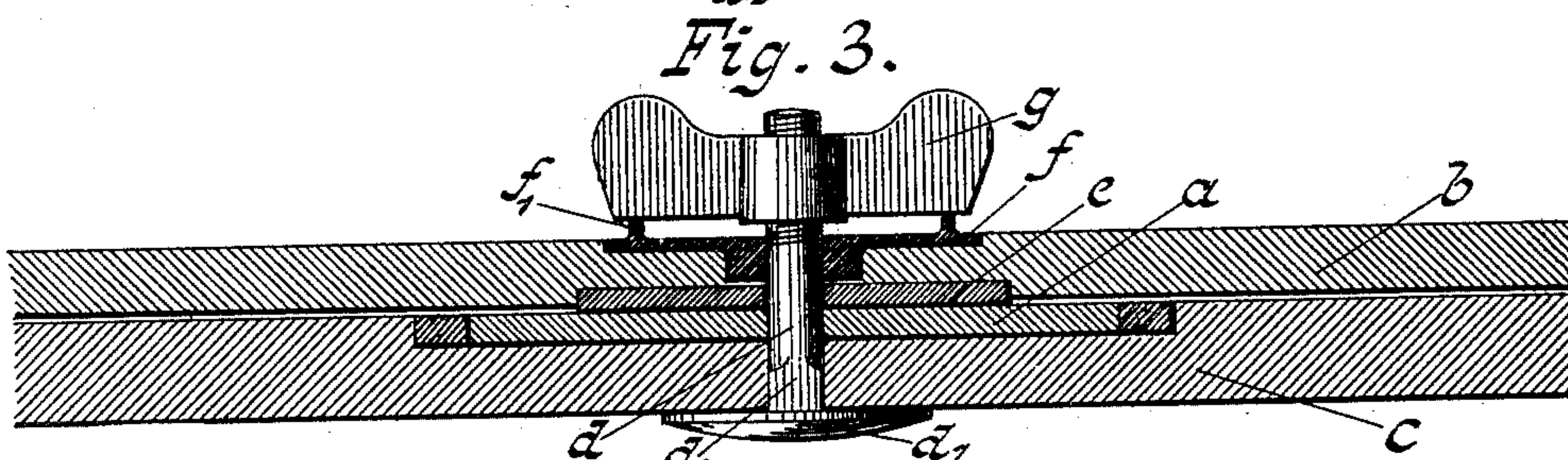
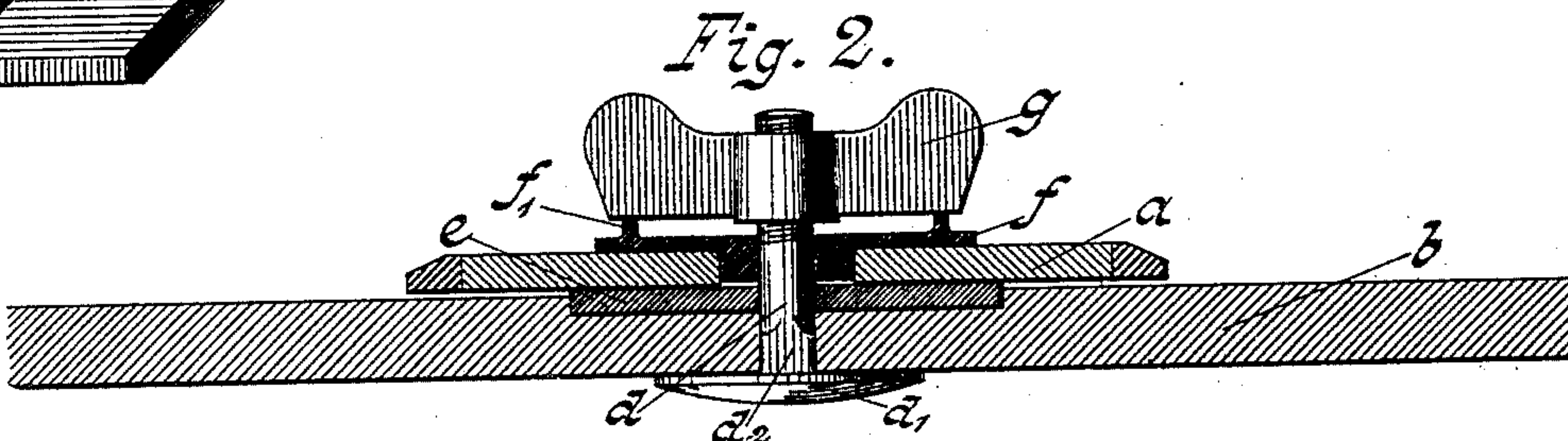
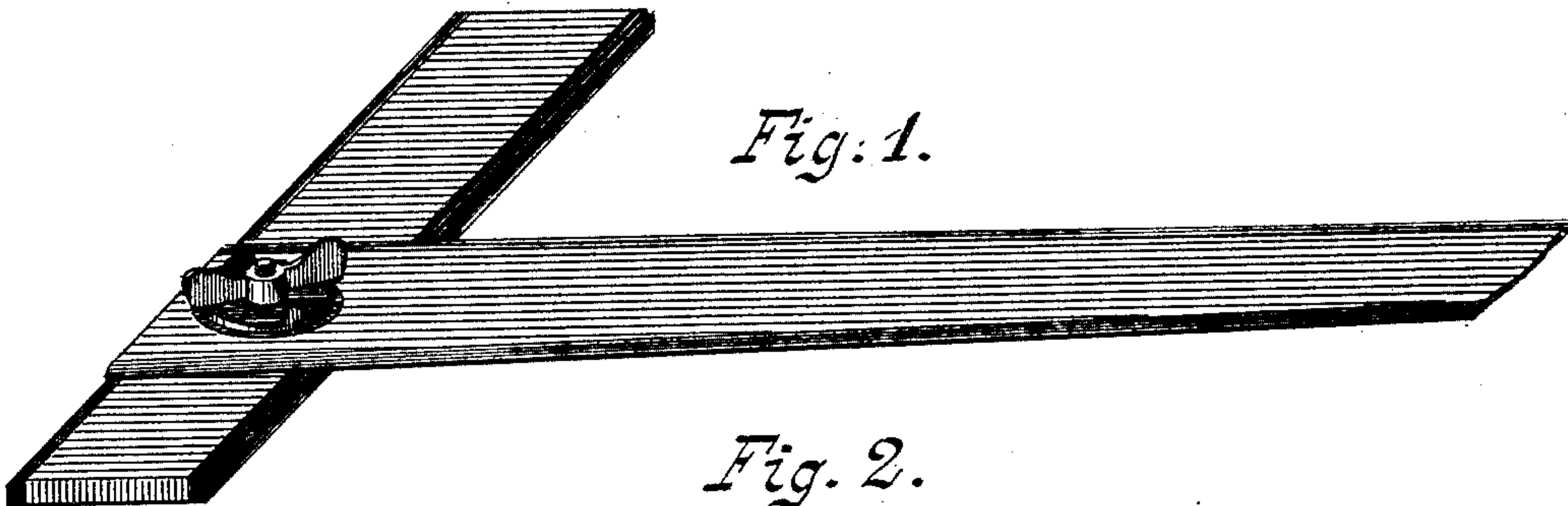


(No Model.)

R. GODEFFROY.
T-SQUARE:

No. 467,764.

Patented Jan. 26, 1892.



WITNESSES:

John M. Noble
Emil Diebitzsch.

INVENTOR

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UNITED STATES PATENT OFFICE.

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T-SQUARE.

SPECIFICATION forming part of Letters Patent No. 467,764, dated January 26, 1892.

Application filed September 19, 1890. Serial No. 365,517. (No model.)

To all whom it may concern:

Be it known that I, RICHARD GODEFFROY, a citizen of the Empire of Germany, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in T-Squares; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention consists, essentially, of a T-square with an adjustable head, which is firmly held in any required position by a brass bolt, plate, and swivel, and an intermediate ring or disk of some material fit to increase the friction caused by the pressure of the swivel on the plate, as rubber, leather, cork, &c.

In the accompanying drawings, Figure 1 represents the single-headed T-square in perspective view showing the swivel and plate in fixed position. Fig. 2 represents a section through the center of the head of a single-headed adjustable T-square; and Fig. 3, a section through the center of the head of a double-headed adjustable T-square, both showing the manner in which the brass fixtures and friction-ring are applied. In these figures, *a* is the blade; *b*, the adjustable head, and *c* (only in Fig. 3) the firm head fixed to the blade. *d* is the bolt with round head *d'* and square *d''*. *e* is the intermediate friction-ring, and *f* the plate with projecting ring *f'*, formed of two semicircular inclined parts rising from left to right with a projection at the higher end to prevent the swivel *g* from slipping over.

Fig. 4 represents a section through the blade of the double-headed T-square close beyond the head.

Figs. 5, 6, 7, and 8 represent, respectively, the top view, side view, cross-section, and inverted view of the plate *f* in Figs. 2 and 3.

Fig. 9 represents the top view of the friction-ring *e* in Figs. 2 and 3.

The turning-point of the shifting parts is arranged in such a manner that the main drawing-edge of the square when fixed at right angles to the head will be on the center line of the latter, the adjustable head being straight on both edges and reversible around the turning-point it will allow a firm bearing against the drawing-board at whatever part of the same the T-square may be used. With the double-headed T-square the fixed head allows a firm bearing of the square against the board when used near the lower edge of the same. The tapered shape of the blade gives it a wide base and great resistance against spring by small weight.

When the T-square has to be adjusted to any angle, the swivel *g*, Figs. 2 and 3, is turned from right to left, thus releasing the pressure between the adjustable head *b* and the blade *a*. The latter then may be turned to the desired angle and the swivel turned from left to right, thus securing the head and blade absolutely firm in the desired position. In turning the swivel *g* it slides up the inclined ring *f*, pressing the plate downward, at the same time the center part of the swivel containing a thread fitting the bolt *d*, and, acting as a nut, screws down on the bolt and pulls the same upward. By this double action the blade and adjustable head in Fig. 2, or the adjustable head and the blade with fixed head in Fig. 3, are firmly drawn together and create a strong pressure on the ring *e*. The friction between the single parts—viz., blade *a*, ring *e*, and adjustable head *b*—is thus increased in such a manner as to absolutely prevent any involuntary or accidental change in their positions to each other.

I am aware that the single and double headed T-square with adjustable head and the described shape of the same are not new; but

What I claim as my invention, and wish to secure by Letters Patent, is the following:

In a T-square, the combination of the following elements, to wit: an adjustable head the pivot or turning point of which is formed by a metallic screw-bolt with flat head, a metallic thumb nut or swivel for the screw-bolt,

a metallic pressure-disk with projecting ring, consisting of two semicircular parts with inclined surfaces, the pitch of which runs in opposite direction to that of the thread of the bolt and on which inclines the flanges or wings of the thumb-nut bear, the two said inclines being provided with projections at the upper ends, and a friction-ring between the adjust-

able head and the blade of the T-square, all substantially as set forth and described. 10

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

RICHARD GODEFFROY.

Witnesses:

JOHN M. NOBRÉ,
EMIL DIEBITSCH.