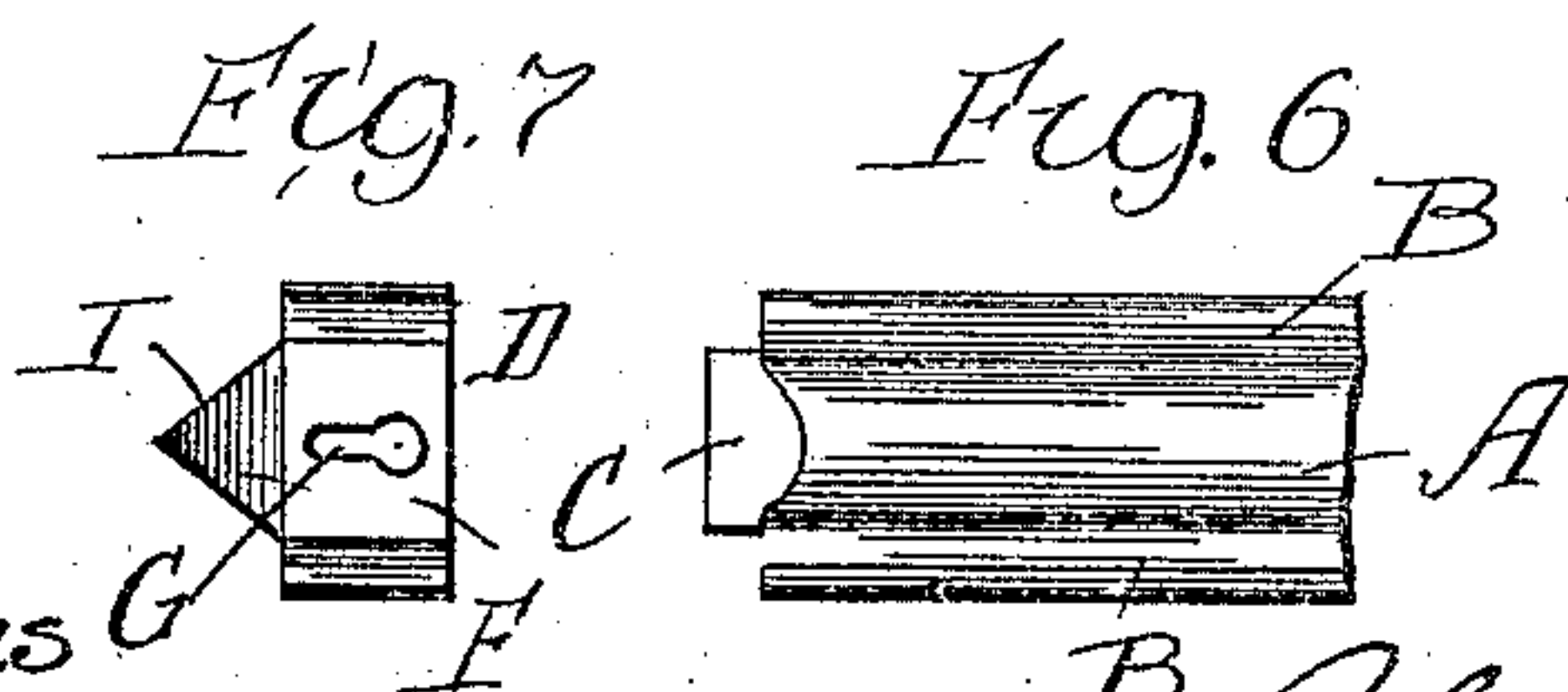
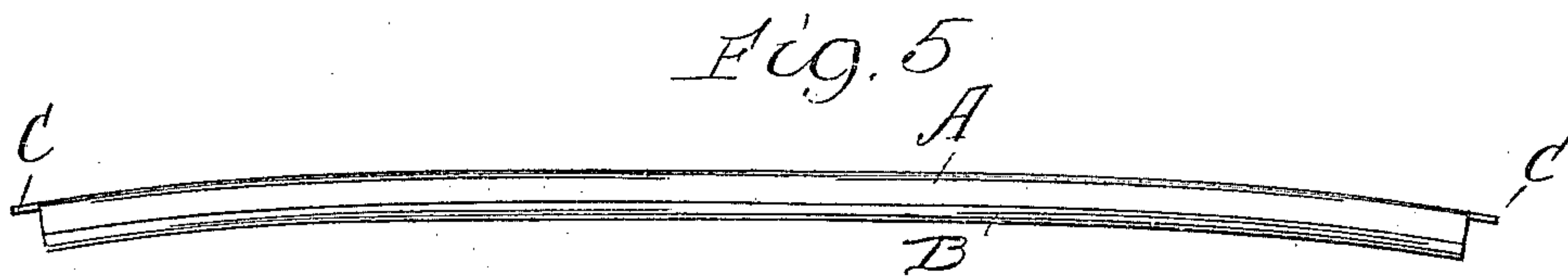
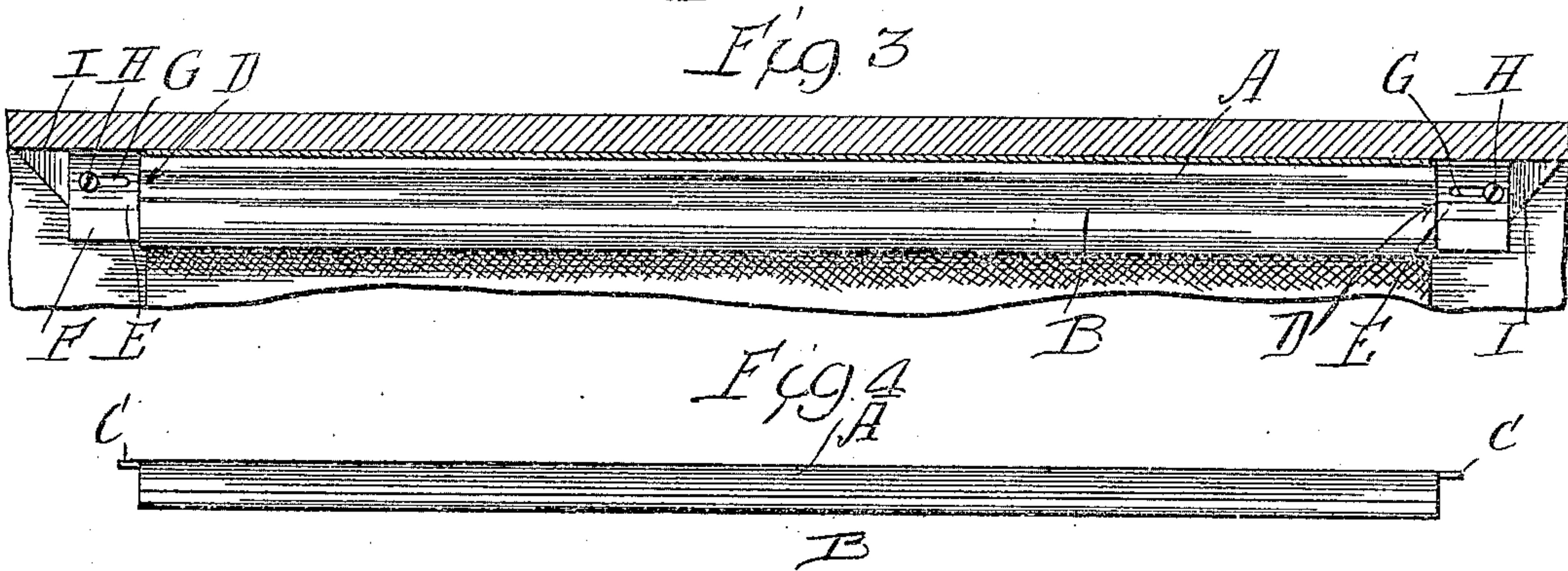
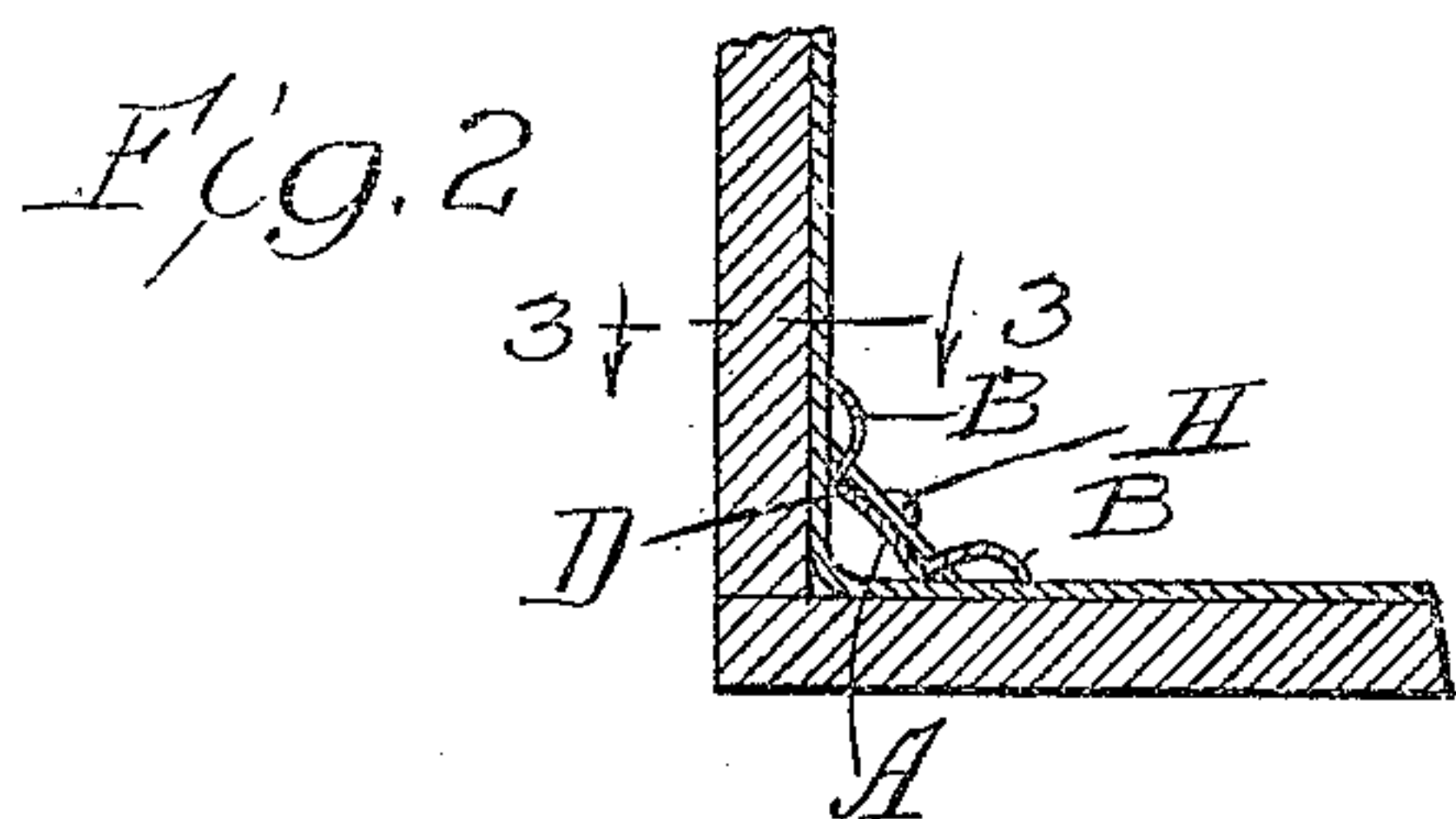
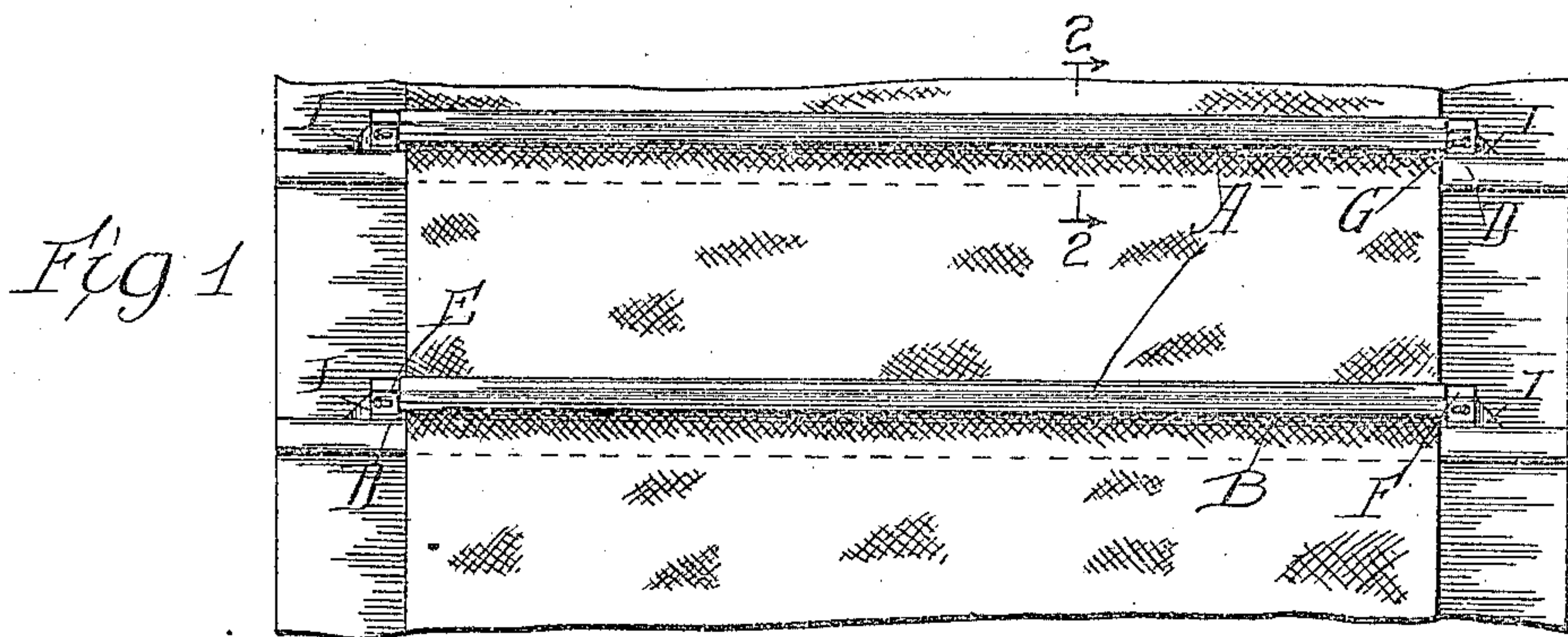


C. W. KIRSCH.  
STAIR CARPET FASTENER.  
APPLICATION FILED MAY 10, 1909.

958,138.

Patented May 17, 1910.



Witnesses  
R. A. White  
J. R. L. White

Inventor:  
Charles W. Kirsch  
By *Rudolph M. [Signature]* Atty.



# UNITED STATES PATENT OFFICE.

CHARLES W. KIRSCH, OF STURGIS, MICHIGAN, ASSIGNOR TO KIRSCH MANUFACTURING COMPANY, OF STURGIS, MICHIGAN, A CORPORATION OF MICHIGAN.

## STAIR-CARPET FASTENER.

958,138.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed May 10, 1909. Serial No. 495,143.

*To all whom it may concern:*

Be it known that I, CHARLES W. KIRSCH, citizen of the United States, residing at Sturgis, in the county of St. Joseph and State of Michigan, have invented certain new and useful Improvements in Stair-Carpet Fasteners; and I do hereby 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.

This invention relates to a novel construction in a stair carpet fastener, the object being to provide a device of this character which is easily and quickly mounted and removed and which when in place will not only hold the carpet securely in place but will provide a beveled corner at the junctions of tread riser portions of the carpet which is easily maintained clean, and consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings illustrating this invention: Figure —1— is a fragmentary view in front elevation of a carpeted stairway equipped with fasteners constructed in accordance with my invention. Fig. —2— is a fragmentary detail vertical section on an enlarged scale on the line 2—2 of Fig. —1—. Fig. —3— is a plan section on the line 3—3 of Fig. —2—. Fig. —4— is a side elevation of my said fastener showing it straight as it appears when mounted. Fig. —5— is a view similar to Fig. —4— showing the shape of the fastener before mounting. Fig. —6— is a fragmentary face view of one end portion of the fastener. Fig. —7— is a detail view in elevation of the fastening device securing the ends of the device.

My invention has for its main object to provide a stair carpet fastener which is very simple in construction, cheap, neat in appearance, easily and quickly applied and removed, and which, when applied, will bear with substantially uniform pressure on the carpet throughout the width thereof, and which further presents a beveled corner at the junctions of the tread and riser portions of the carpet and which is easily maintained clean and offers no obstruction.

The device consists of a strip A of sheet metal, the edge portions of which constitute flanges B, said flanges being concavo con-

vex. The free edges of the respective flanges are adapted to rest and bear upon the tread and riser portions respectively of a stair carpet as are also the corners formed by the meeting of said flanges with the middle portion of the strip. The said middle portion of the strip is also concavo convex, the convex face thereof being disposed on the exposed face of the strip. The said middle portion of said strip is disposed at an angle of forty-five degrees to the flanges and to the tread and riser portions of the stairway. The said strip A is bent longitudinally to form a bow as shown in Fig. —5—, the convex faces of the middle portion and flanges being disposed on the concave side of said bow. The said middle portion of said strip terminates in projections C by means of which said strip is secured, said projections being adapted to be received under and engaged by fastening devices D one of which is shown in detail in Fig. —7—. Said fastener D consists of a piece of sheet metal comprising the plane middle portion E and side flanges F extending at an angle of forty-five degrees to the middle portion and ninety degrees to each other. In said middle portion is a longitudinal slot G through which the shank of a screw H is adapted to pass, the latter entering the corner formed by the meeting of tread and riser of the stairway and being disposed at an angle of ninety degrees to each of said parts. A triangular tail flange I at one end of each fastener is disposed at an angle to the middle portion E thereof and the side edges thereof lie in contact with the tread and riser respectively of the stairway.

In applying the device it is necessary to first secure the fasteners D in proper relative positions equi-distant from the center of the stairway, their distance apart being determined by the width of the carpet. Stair carpets are made in three standard widths and accordingly the fasteners are made in three different lengths corresponding to the various widths of carpet. In mounting the fasteners D they are so disposed that their opposed inner edges will lie in contact with the side edges of the carpet and the screws H are passed through the outermost ends of the slots G therein, the points of said screws being passed into the corners formed by the meeting of



treads and risers. The screws securing the fasteners on one side are passed in sufficiently far to cause the heads thereof to bear on the fasteners with sufficient pressure to prevent movement thereof. The fasteners on the other side are left sufficiently loose to permit them to be moved longitudinally until the carpet has been secured. To effect this the fasteners D on one side are moved to the rearward limits of their movement and one of the projections C of the strip or rod A is then inserted into each of the fasteners D on the opposite side and the free end portion of the rod is then forced down until the projection C at said end lies below the portion E of the slidable fastener, the latter being then moved to the forward limit of its movement to engage said last named projection C and thus hold the rod A securely in place.

The rod or strip A is preferably made of steel and by reason of its being bowed the last named projection C must be forced down by bending the strip which will yield like a stiff flat spring. In this manner the middle and end portions of said strip A are caused to bear with substantially uniform pressure on the carpet thus preventing the latter from bulging at its middle portion or crowding in that direction.

In forming the strip the planes in which the inner and outer edges of the flanges B lie are disposed at an angle greater than ninety degrees, so that in mounting the device the free edges of the flanges first engage the stair carpet and in forcing the end portions down into engaging relation to the fasteners D the flanges B are caused to converge more toward each other on their convex faces. Thus said edges press so firmly on the carpet as to provide dust proof joints, and further to so firmly engage the carpet as to prevent movement thereof.

The slots G in the fasteners D are preferably key hole slots to enable the fasteners to be easily removed when desired for the purpose of readjusting the carpet, or for the purpose of removing dust which may have found its way through said slots.

The tail flange I of the fasteners form beveled corners which enable the corners formed by meeting of treads and risers and not covered by the carpet to be easily cleaned.

The drawings illustrate a thoroughly practical embodiment of the invention but I contemplate varying and modifying the specific form shown without departure from the underlying principle. I also contemplate the use of suitable material other than steel, the latter being preferred on account of its low cost and ease of working.

I claim as my invention:

1. A stair carpet fastener comprising a laterally corrugated normally bowed strip

of spring metal capable of being bent straight and adapted to bear on its normally convex face upon the carpet to be secured, the end portions of said strip being adapted to be depressed into engagement with said carpet, and fastening means disposed on the stairway beyond the side edges of the carpet engaging the end portions of said strip to maintain the same in their depressed positions.

2. A stair carpet fastener comprising in combination a normally bowed strip of spring metal bearing on its normally convex side upon the stair carpet, the end portions thereof being adapted to be depressed to straighten said rod and force the same into engagement with said carpet, fastening devices mounted on the stairway on either side of the carpet, the fasteners on one side being movable toward and away from the adjacent side edge of the carpet, and projections at the ends of said member adapted to be engaged by said fastening devices to secure said member.

3. A stair carpet fastener comprising a strip of spring metal provided on its side edges with flanges diverging at an angle greater than ninety degrees to each other, and at substantially equal angles to the middle portion of the strip, and fastening means engaging said strip, the convex side of the latter opposing the carpet and the free edges of the said flanges engaging the latter, the middle portion of said strip being forced downwardly by engagement with said fastening means with a force sufficient to decrease the divergence of said flanges.

4. A stair carpet fastener comprising a normally bowed strip of spring metal provided on its side edges with diverging flanges, the edge portions of said flanges engaging the tread and riser portions respectively of a stair carpet, the normally convex side of said strip opposing the carpet, said strip being straightened by depressing the end portions thereof into engagement with the carpet, and fastening means engaging said end portions of said strip and holding same in their depressed positions, the depression of said end portions of said strip decreasing the divergence of said flanges.

5. A stair carpet fastener comprising a normally bowed strip of spring metal provided on its side edges with diverging flanges, the edge portions of said flanges engaging the tread and riser portions respectively of a stair carpet, the normally convex side of said strip opposing the carpet, said strip being straightened by depressing the end portions thereof into engagement with the carpet, and fastening devices mounted on the stairway beyond the side edges of the carpet and engaging the ends of said strips to hold same in their



depressed positions, the depression of said end portions of said strip decreasing the divergence of said flanges.

5 6. A stair carpet fastener comprising a normally bowed strip of spring metal provided on its side edges with flanges diverging at an angle greater than 90 degrees to each other and at substantially equal angles to the middle portion of the strip, the con-  
10 vex side of the latter opposing the carpet and the free edges of said flanges engaging the latter, said strip straightened by depression of the end portion thereof into

engaging relation to said fastening means, whereby the divergence of said flanges is 15 decreased and pressure on the middle and edge portions of the carpet substantially equalized.

In testimony whereof, I have hereunto signed my name in the presence of two sub- 20 scribing witnesses.

CHARLES W. KIRSCH.

Witnesses:

RUDOLPH WM. LOTZ,  
W. M. BOYLE.