Dec. 7, 1937. R. E. MARSH 2,101,552

CLIP

Filed March 13, 1937

Fig. 1.

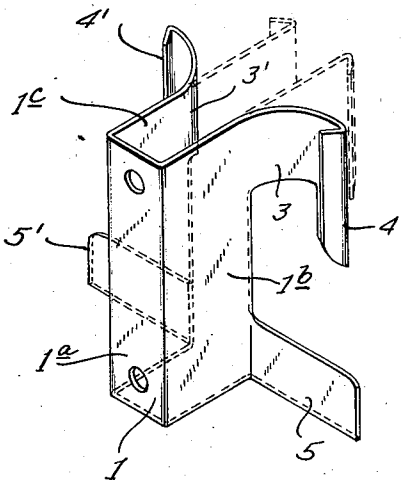
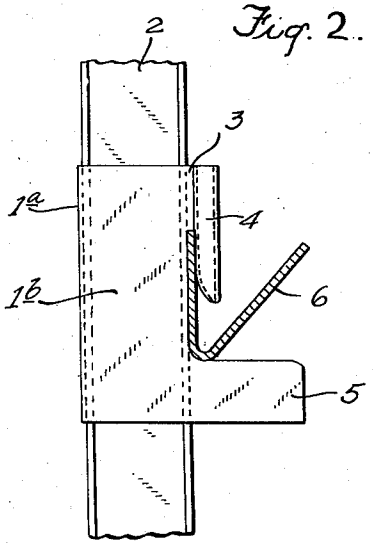


Fig. 2.



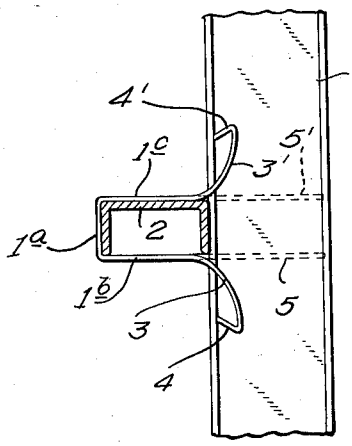


Fig. 3.

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CLIP

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Application March 13, 1937, Serial No. 130,674

3 Claims. (Cl. 189—35)

The invention herein disclosed relates to a clip for securing two angularly disposed members together. More particularly, the invention relates to a clip that is especially suitable as a furring clip for securing two furring strips together and it constitutes an improvement upon the clip disclosed and described in the copending application Serial No. 748,435, filed October 16, 1934, for Clip.

In the aforementioned application, there is disclosed a clip construction by means of which a vertical channel furring member is readily secured to a horizontal furring strip. This clip is made from a single piece of sheet metal that is formed to partially embrace one of two angularly disposed members and that is provided with extensions or flanges for effectively engaging the other of the two angularly disposed members. Where the clip is used for securing a channel iron forming the vertical furring strip to a horizontal furring strip, the clip is made to embrace the channel iron and includes laterally extending hook-shaped elements which extend over the edge of the horizontal angle member and frictionally engage the side thereof. The frictional engagement is such that the clip firmly holds the two members together.

In practice it has been found that these channel members vary in dimensions and it is not practical to have a large number of different sized clips and it is an object of this invention to provide a clip that is adjustable to meet all of the variations found in the usual channel irons.

By this invention the portions of the clip which extend to form hook-shaped elements are extended and curved. These portions of the clip are so curved that they are in adjustment for the smallest channel iron that is likely to be found in the size for which the clip is designed. By straightening out the curvature of this portion of the clip, the clip is enlarged to receive channels of greater dimensions and the amount of enlargement of the clip is sufficient to take the greatest size channel that is likely to be found in the size for which the clip is designed. Specifically, the clip is made from a single piece of sheet metal that is shaped to form an end wall and two side walls that partially embrace the channel-shaped member. At one end, each side wall has an extension that is of substantially lesser width than the width of the side wall. This extension together with an extension or flange that is parallel to the edge of the side wall, form a hook-shaped section. When the extended section of the side wall is in alignment with the side wall, there is a considerable distance between the flange parallel to the edge of the side wall, and the edge of the side wall. However, this portion of the clip is bent or curved so that the edge of the flange lies substantially in the plane of the edge of the side wall. Thus by reducing this curvature, the clip can be made to receive varying sized channel irons.

A clip so constructed is illustrated in the accompanying drawing in which:

Fig. 1 is an isometric of a clip embodying the invention;

Fig. 2 is a side elevation of the same showing the clip engaging two angularly disposed channel irons, and

Fig. 3 is a plan of the same.

As shown in Fig. 1, the clip is made from a single piece of sheet metal. This piece of sheet metal is shaped to form a substantially channel-shaped section 1 that includes an end wall 1*a* and two side walls 1*b* and 1*c*. It is in this channel-shaped section that the channel iron 2 is received. A narrow strip 3 integral with the side wall forms a continuation of the side wall 1*b*. At the end of this strip, there is a bracket or flange 4 the edge and axis of which extends parallel to the edge of the side wall 1*b*; the edge of the side wall 1*b*, the strip 3 and the bracket 4 forming a hook-shaped section. It will be noted that the portion of the metal forming the bracket 4 is bent upon itself so that the bracket 4 is in the form of a V-shaped section. This constitutes a reinforcement for this portion of the bracket and provides the requisite strength necessary to withstand a large force exerted by the resiliency of the metal between the members which are secured together by the clip. At the opposite end of the side wall 1*b* there is a flange 5 that is normally lateral to the side wall 1*b*. The side wall 1*c* is identical in all respects with the side wall 1*b* and the portions forming the hook-shaped section have been numbered accordingly and distinguished by being primed.

It will be noted that the sections 3 and 3′ are curved. The curvature of these sections is such that the edges of the brackets 4 and 4′ lie almost within the plane of the edges of the walls 1*b* and 1*c*. In such position, the clip is such that it will receive and forcibly secure a channel iron 2 to a trough-shaped iron 6 which channel iron is approximately of the width of the side wall 1*b*. From this size, the clip will take greater sizes to the extent of straightening out the sections 3 and 3′ as indicated in broken lines in Fig. 1.

In use, the channel-iron 2 is placed against

a flange of a V-shaped angle-iron 6. The clip is then positioned to embrace the channel-iron 2 at a point above the V-shaped angle-iron 6. The sections 3 and 3' are then adjusted by squeezing them together with the fingers so that the brackets 4 and 4' extend over and embrace the adjacent flange of the angle-iron 6. The clip is now moved along the channel-iron 2 until the brackets 4 and 4' embrace the flange of the V-shaped angle-iron 6, to the position illustrated in Fig. 2. The clip is then released, and the flanges 5 are bent so as to form continuations of the side walls 1b and 1c of the clip and thus extend under the V-shaped angle-iron 6. The resiliency of the metal effects a frictional engagement of the brackets 4 and 4' of the clip with the flange of the V-shaped angle-iron 6 which firmly secures the channel-iron 2 to the V-shaped angle-iron 6. The wings 5 hold the clip from movement longitudinally of the channel-iron 2 and thus secure the two angle-irons together. The formation of the brackets 4 and 4' by bending the metal back upon itself results in a strong reinforced construction through which considerable force may act.

It is obvious that various changes may be made by those skilled in the art in the details of the embodiment of the invention illustrated in the drawing and described above within the principle and scope of the invention as expressed in the appended claims.

I claim:

1. A furring clip for securing a channel-shaped furring strip to another furring strip angularly disposed with respect thereto comprising a piece of sheet metal shaped to form an end wall and two side walls, one extending from each edge of the end wall, the side walls having curved diverging sections and each side wall having an extension at the end of the diverging section of substantial length united to the wall adjacent one end and otherwise disconnected from the wall and extending substantially parallel to the axis of the slot formed by the end and side walls, the disconnected portion of the extensions and the edges of the walls forming slots to receive the flange of a trough-shaped member.

2. A furring clip for securing a channel-shaped furring strip to another furring strip angularly disposed with respect thereto comprising a piece of sheet metal shaped to form an end wall and two side walls, one extending from each edge of the end wall, each side wall having a curved section of lesser width than the side wall extending from the side wall, and an extension of substantial length parallel to the edge of the side wall on the end of the curved extension.

3. A furring clip for securing a channel-shaped furring strip to another furring strip angularly disposed with respect thereto comprising a piece of sheet metal shaped to form an end wall and two side walls, one extending from each edge of the end wall, each side wall having an extension of substantial length united to the wall adjacent one end and otherwise disconnected from the wall and extending substantially parallel to the axis of the slot formed by the end and side walls, the extension being bent upon itself to form a reinforced flange adapted to form with the edge of the side wall a hook-shaped section to receive the flange of a trough-shaped member.

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