

Feb. 19, 1924.

1,484,524

H. M. NAUGLE

METAL LATH CLIP

Filed Sept. 24, 1921

3 Sheets-Sheet 1

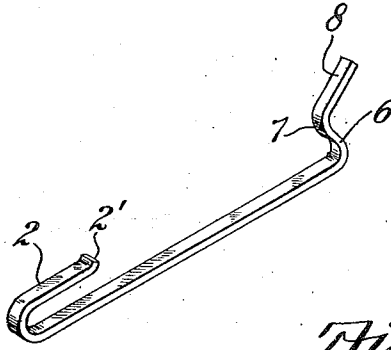


Fig. 1

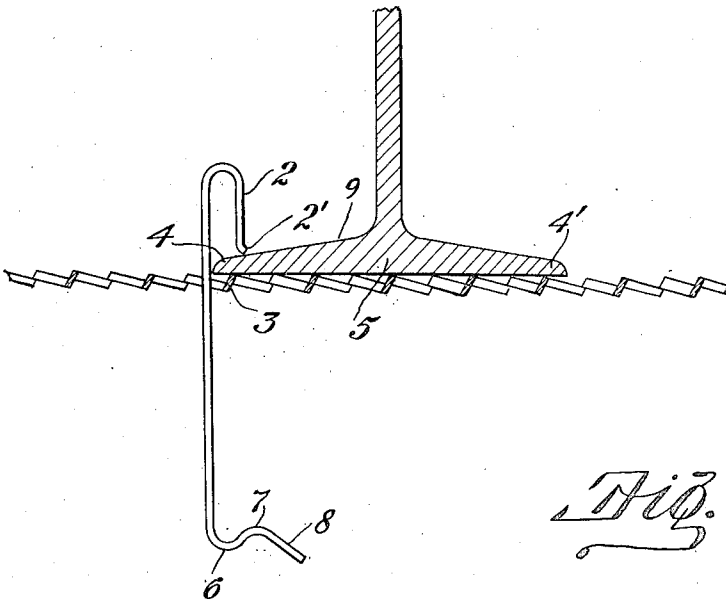


Fig. 2

Inventor

Harry M. Naugle

Freese and Bond

Attorneys

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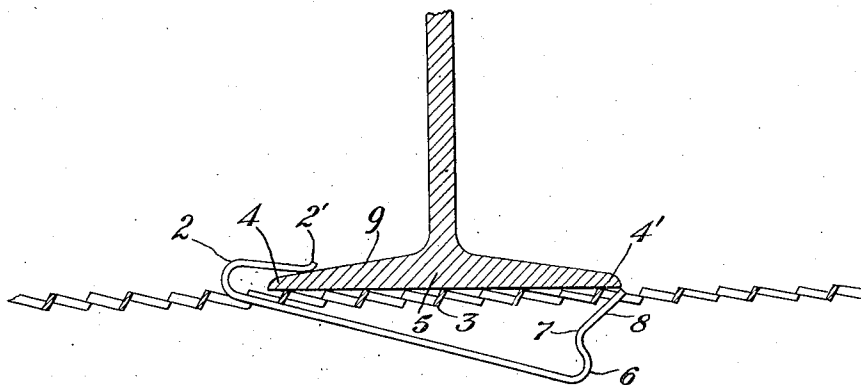


Fig. 3

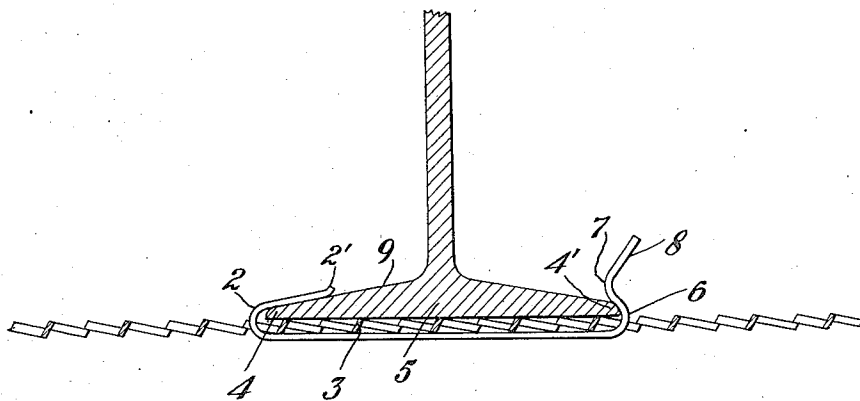


Fig. 4

Inventor

Harry M Naugle

By

Trease and Bond

Attorneys

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Fig. 5

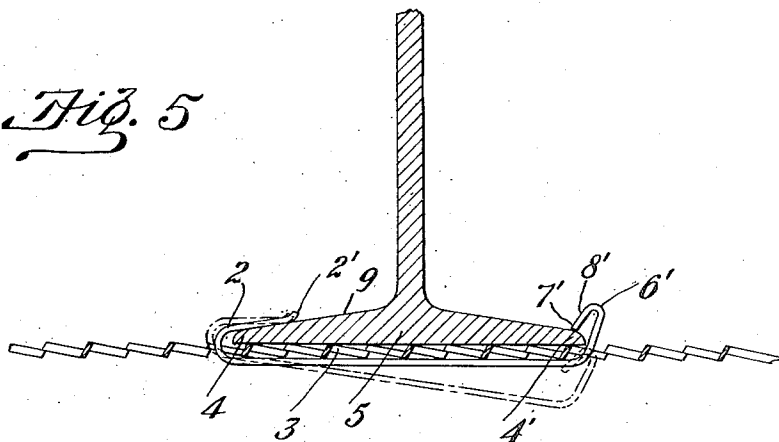


Fig. 6

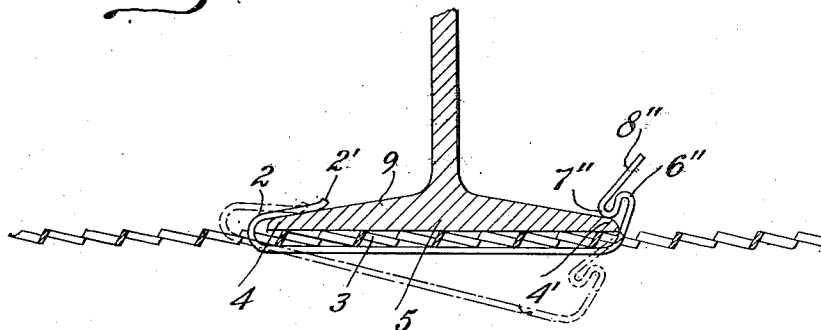
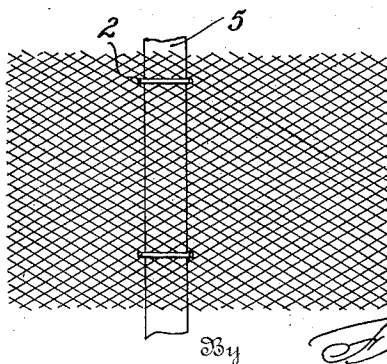


Fig. 7



Inventor

Harry M. Naugle
Freese and Bond

By

Attorneys

UNITED STATES PATENT OFFICE.

HARRY M. NAUGLE, OF CANTON, OHIO.

METAL-LATH CLIP.

Application filed September 24, 1921. Serial No. 502,976.

To all whom it may concern:

Be it known that I, HARRY M. NAUGLE, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented a certain new and useful Improvement in Metal-Lath Clips, of which the following is a specification.

The invention relates to a spring clip for securing reticulated metal lath or the like to the T-flange face of an I-beam joist or other structural supporting member; and the object of the improvement is to provide a clip of simple construction which can be readily placed in position to clamp the lath to the flange of the joist.

The unyielding character of sheets of metal lath and the rigidity of the supporting flange, render it difficult, if not impossible, to rigidly clamp the lath to the flange by a mere bending of a pliable clip; and the present improvement involves the use of a spring clip which will firmly clamp the lath across the face of the flange and especially at one edge thereof.

A preferred embodiment of the invention is illustrated in the accompanying drawings forming part hereof, in which—

Figure 1 is a detached perspective view of the spring clip;

Fig. 2, a fragmentary section of a flanged joist with expanded metal lath applied to the face of the flange, showing the clip in its first position;

Fig. 3, a similar section showing the clip in the second position;

Fig. 4, a similar section showing the clip in final position for clamping the lath to the supporting flange;

Figs. 5 and 6 are similar sections showing modified forms of clips; and

Fig. 7, a fragmentary under plan view showing the face of the lath applied to a flange by the improved clip.

Similar numerals refer to like parts throughout the drawings.

The improved clip is made of spring metal and may be formed of a flat strip or wire as shown in Fig. 1.

The body portion of the clip may be formed flat or straight as shown in the drawings and one end 2 is curved backward a substantial distance parallel with itself to form a long hook at a spaced interval from the body portion, substantially equal to the thickness of the metal lath 3 and one thin

edge 4 of the T-flange 5. The end of the hook is preferably curved slightly upward to more readily slide upon the flange to form a runner for sliding upon the flange when the clip is being placed in position.

The other end of the clip is curved upward and inward upon itself to form a relatively flat hook 6 whence it is reversely curved and extended upward and outward to form a rounded protrusion or detent 7 to engage by springing over the other edge 4' of the T-flange, and an inclined extension 8 for guiding and deflecting the protrusion around the edge of the flange.

When the metal lath 3 is placed against the face of the flange 5, the longer hook end of the clip is inserted endwise through an opening in the lath along one edge of the flange, and the clip is then moved sidewise so that the end of the hook will rest upon the flange and the body of the hook will abut the side thereof as shown in Fig. 2.

The shorter hook end of the clip is then swung toward the other side of the flange and its extended end is inserted through an opening in the lath, the parts being proportioned so that the extended end will engage the edge of the flange as the runner end 2' of the longer hook begins to ride upward along the inclined inner face 9 of the flange as shown in Fig. 3.

The shorter hook end of the clip is then pressed upward and as the extended end portion slides upward along the edge 4' of the flange, the long hook end of the clip will be drawn inward so that the end of the hook will ride upward along the inclined face of the flange, the departure of which from the plane of the lath, will cause this hook to spring away from the body of the clip and firmly clamp the lath to the intervening edge portion of the flange as shown in Fig. 4. At the same time, the shorter hook will spring outward around the other edge 4' of the flange, until the protrusion or detent 7 thereof passes around the same, whereupon the inclined lower side of the detent will engage by sliding around the edge and will clamp the lath against the face of the flange, as shown in Fig. 4.

The lath is thus firmly secured and clamped to the flange at one edge thereof, and the intervening body portion of the clip holds the lath firmly against the face of the flange from the one edge to the other edge

thereof; and it is evident that when plaster, cement or concrete is applied to the metal lath, a sufficient portion thereof will find its way around the short hook of the clip, thereby rigidly locking it in clamping position, and preventing a detachment of the clip from the flange.

In the modified form of the clip shown in Fig. 5, the short hook 6' has its end 7' curved downward and inward to form a detent for engaging around the edge of the flange, the inclined inner side 8' of the hook serving to guide and deflect its end around the edge of the flange; and in the further modified form of clip shown in Fig. 6, a similar form of short hook 6'' is shown with its inner end 7'' reversely curved upward and outward to form an extension 8'' which serves to deflect the end of the hook around the edge of the flange, as before described.

In all forms of the clip, the clamping action of the hooks results from the resilience of the metal when the hooks are bent or deflected from normal position as distinguished from an inward bending of the hooks into engaging position; and furthermore, the long hook is drawn into clamping engagement by the endwise movement of the clip caused by the wedge action of the shorter hook in springing around the other edge of the joist.

I claim:

1. The combination of a T-flange of a steel joist or the like with reticulated metal lath on the face of the flange, and a spring metal clip for securing the lath to the flange, comprising a body portion for abutting the face of the lath, a relatively long hook on one end for spring engaging one edge portion of the flange by an endwise movement to clamp the lath thereto and a relatively short hook at the other end for spring engaging the other edge of the flange to clamp the lath thereto and to draw the longer hook into clamping engagement.

2. The combination of a T-flange of a steel joist or the like with reticulated metal lath on the face of the flange, and a spring metal clip for securing the lath to the flange, comprising a body portion for abutting the face of the lath, a relatively long hook on one end for spring engaging one edge portion of the flange by an endwise movement to clamp the lath thereto and a relatively short hook at the other end for spring engaging the other edge of the flange to clamp the lath thereto and to draw the longer hook into clamping engagement, there being an inclined face on the shorter hook for deflecting the same around the edge of the flange.

HARRY M. NAUGLE.