Nov. 11, 1924. 1,515,159

D. G. MORRISON

STUDDING

Filed Nov. 17, 1922

Fig. 1.

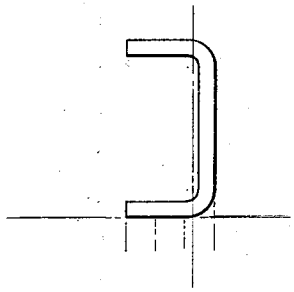


Fig. 2.

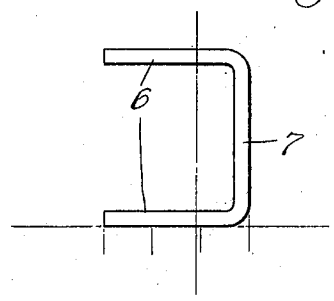


Fig. 3.

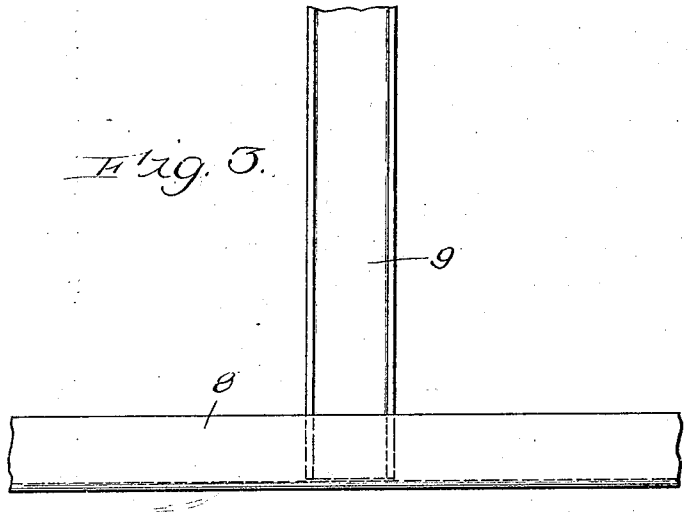


Fig. 4.

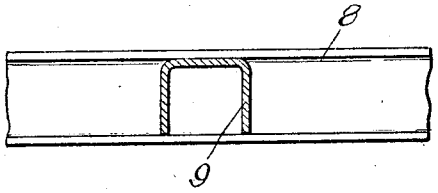
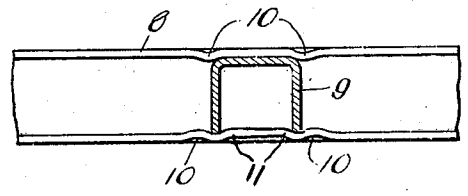


Fig. 5.



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UNITED STATES PATENT OFFICE.

DAVID G. MORRISON, OF WARREN, OHIO, ASSIGNOR TO YOUNGSTOWN PRESSED STEEL COMPANY, OF WARREN, OHIO, A CORPORATION OF OHIO.

STUDDING.

Application filed November 17, 1922. Serial No. 601,492.

To all whom it may concern:

Be it known that I, DAVID G. MORRISON, a citizen of the United States, residing at Warren, in the county of Trumbull and State of Ohio, have invented a new and useful Improvement in Studding, of which the following is a specification.

This invention relates to improvements in metal studding, particularly intended for the support of metal lath, and will be fully understood from the following invention, illustrated by the accompanying drawings, in which—

Figure 1 is a transverse section through metal studding of the form hitherto in use;

Figure 2 is a transverse section through a form of metal studding constructed in accordance with the present invention;

Figure 3 shows in broken elevation and assembly of metal studding in accordance with the present invention;

Figures 4 and 5 show in plan the assembly construction of Fig. 3, the upright being shown in section; Fig. 4 illustrating the assembly before constriction of the horizontal member and Fig. 5 after constriction.

It has hitherto been customary, in the manufacture of studding for the support of metal lath, to employ a cold pressed sheet metal channel form having the section illustrated in Fig. 1 of the drawing. In constructing this channel a fairly heavy gauge metal is necessarily employed to give the channel the required strength and to keep it within the necessary limit of weight. The relation of the sides of the channel to the web is such that the center of gavity of the channel, when lying on its side, falls outside of the middle third of the side of the channel, as shown clearly in Fig. 1. As a result of this construction the channel is unstable in equilibrium and the difficulty of handling it is greatly increased.

In accordance with the present invention, a lighter gauge metal may be employed to provide a channel of substantially the same or greater strength and of the same weight and the channel is constructed as illustrated in Fig. 2. The sides 6—6 of the channel are extended to such a distance relative to the web 7 that the center of gravity of the channel, when lying on its side, falls within the middle third of the side of the channel and back of the center of the side of the channel. In this form of construction, the channel is in stable equilibrium when lying on its side and its strength is materially increased.

In the particular form of construction shown in the drawings, the sides 6 of the channel are constructed of such a height as to be slightly less than the inside width of the web 7. By this construction, the channels may be assembled in the form illustrated in Figures 3, 4 and 5, the numeral 8 indicating a horizontal stud and the numeral 9 a vertical stud of the form shown in Fig. 2.

In assembling the studs in this manner, the vertical stud is placed within the sides of the horizontal stud so that the sides of the former extend transversely across the channel in the latter, the fact that the sides of the stud are slightly less in depth than the inside width of the web permitting this assembly. In order to hold the vertical stud 9 against lateral movement within the channel of the stud 8, the sides of the latter may be constricted, as illustrated, in Fig. 5. Constrictions 10 are provided in the sides of the channel 8, on each side of the upright channel 9, these being suitably made by a tool of the plier type, or by any other suitable means. If desired, constrictions may likewise be provided, as at 11, just within the side walls of the upright channel 9, these aiding further in holding the upright stud in position. This assembled form may be employed in construction of walls, partitions, or elsewhere, as desired.

I claim:

1. A cold pressed metal channel stud, the sides of which are of such depth relative to that of the web that the center of gravity thereof, when lying on its side, falls within the middle third of the side of the channel.

2. A cold pressed metal channel stud, the sides of which are of such depth relative to that of the web that the center of gravity thereof, when lying on its side, falls within the middle third of the side of the channel, and back of its center.

3. A cold pressed metal channel stud, the sides of which are of such depth relative to that of the web that the center of gravity thereof, when lying on its side, falls within the middle third of the side of the channel, the sides of the channel being slightly less in height than the inside width of the web thereof.

4. An assembled construction comprising

a channel stud, a second stud of like cross-section at right angles thereto, the second channel stud being fitted between the sides of the first channel stud and having its sides extending transversely and substantially entirely across the same.

5. An assembled construction comprising a channel stud, a second stud of like cross-section at right angles thereto, the second channel stud being fitted between the sides of the first channel stud and having its sides extending transversely and substantially entirely across the same, the sides of the first channel stud being constricted at each side of the second channel stud, thereby holding it against lateral movement.

6. An assembled construction comprising a channel stud, a second stud of like cross-section at right angles thereto, the second channel stud being fitted between the sides of the first channel stud and having its sides extending transversely and substantially entirely across the same, the sides of the first channel stud being constricted on each side of the second channel stud and within the latter, whereby the second channel stud is held against lateral displacement.

DAVID G. MORRISON