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W. D. HENDERSON

1,801,668

STUDDING SHOE

Filed Aug. 22, 1928

Fig. 1.

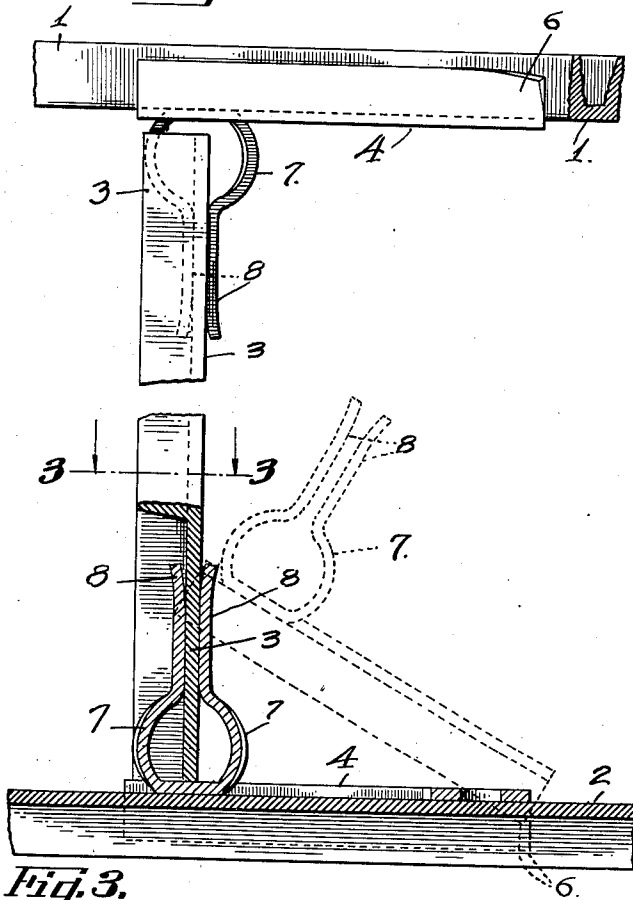


Fig. 2.

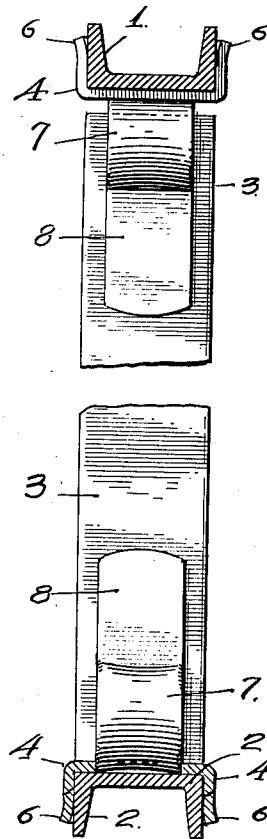


Fig. 3.

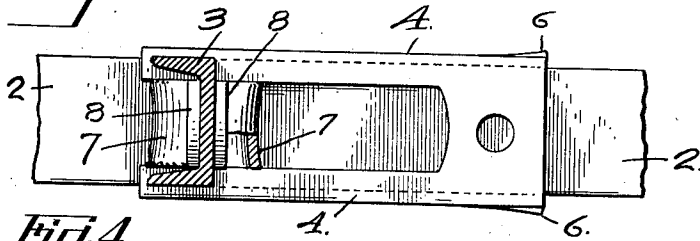
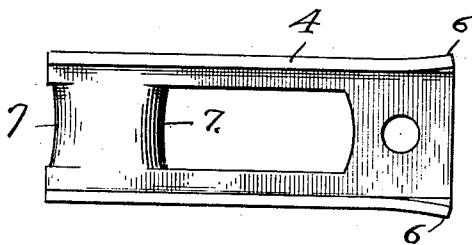


Fig. 4.



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STUDDING SHOE

Application filed August 22, 1928. Serial No. 301,362.

My invention relates to improvements in connections for partition studding of the type set forth in the United States Patent numbered 1,133,138, and issued to me on the 23rd day of March, 1915, reference to which patent is hereby made.

In the patent referred to partition studding channels were provided with parallel and spaced struck up lugs arranged at regular intervals within the upper and lower channels and arranged to engage the upper and lower ends of a vertical or studding channel.

In the present invention, a channel shaped shoe is provided, which embraces the back and sides of a channel to be connected, which channel thus becomes tightly nested therein, and which shoe operates in conjunction with integrally formed struck-up lugs extending laterally from the back of said shoe, to engage the ends of a studding channel extending laterally therefrom.

The primary object, then, of the present invention is to provide a new and improved studding shoe arranged to embrace and connect a pair of laterally extending studding channels, either at their ends or at any point intermediate one of said studding channels.

Another object of the present invention is to provide a new and improved studding shoe having improved and efficient means for facilitating the rigid and close engagement of said shoe with the back of a channel to be connected.

A further object is to provide a new and improved studding shoe for connecting the end of one channel at either end or at any point intermediate the ends of a second channel, to facilitate corner structure.

A still further object is to provide a new and improved studding shoe of the character described which is economical in cost and may be easily and quickly applied at any points intermediate the ends of one channel to connect the same to the end of a second channel extending laterally therefrom.

I accomplish these and other objects by means of the improved device disclosed in the drawings forming a part of the present

application wherein like characters of reference are used to designate similar parts throughout the specification and drawings, and in which—

Fig. 1 is a broken front elevation partly in section of upper and lower channels connected to a vertical studding channel by means of my improved studding shoe;

Fig. 2 is broken side elevation, partly in section, of Fig. 1;

Fig. 3 is a transverse sectional view taken on line 3—3 of Fig. 1 in the direction indicated; and

Fig. 4 is a bottom view of the studding shoe removed from the channel.

Referring to the drawings; the numeral 1 is used to designate an upper horizontally disposed channel and 2 a similar lower channel, generally resting upon the floor of a structure upon which a partition is to be erected. The numeral 3 indicates a vertical stud whose upper and lower ends are to be connected to the upper and lower channels 1 and 2 respectively.

The invention comprises a shoe consisting of a channel portion having the outer corners of one end flared as at 6 to facilitate engagement of the said shoe 4 with the back and sides of a channel 1 or 2, as the case may be. The channel portion of the shoe 4 is shaped to tightly and rigidly embrace the channel 1 or 2 when nested in said shoe 4, and the flaring portions or corners 6 provide a means whereby the said shoe may be readily applied to rigidly and tightly embrace said channel, in a manner hereinafter more fully set forth.

The end of the shoe 4 opposite the flared corners 6 is provided with a pair of integrally formed lugs 7 struck up from the web of back of the shoe 4, the immediately adjacent portions of said lugs 7 being substantially circular, to provide spring tension and also to prevent fracture of the metal immediately adjacent said back, said circular portions being also arcuate in cross section to impart further rigidity to said lugs. The circular portions of said lugs 7 terminate in straight extensions 8 arranged in parallel spaced relation to each other to engage op-

posite sides of the web of a vertical studding channel 3, as disclosed in the lower portion of Fig. 1 of the drawings, one of said extensions 8 lying or resting between the legs of the studding channel 3, whereby lateral movement of said channel in any direction relatively to the lower supporting channel 2, is prevented.

A similar shoe 4 is similarly attached to the upper horizontal channel 1 and engages the upper end of the studding channel 3.

In operation, the shoe is first placed with the flaring ends 6 astride the channel, as indicated in dotted lines in Fig. 1 of the drawings, and a few taps on said shoe with a hammer or other suitable tool will drive said shoe into place, rigidly and tightly embracing said channel. The shoe may be placed at any point intermediate the ends of the channels 1 or 2, and if not properly placed in correct alignment with the position of the studding channel 3 to be connected, by means of tapping with a hammer said shoe may be quickly and easily moved longitudinally of its channel 1 or 2 and thereby properly aligned.

My improved studding shoe is particularly useful for constructing light partitions constructed from light structural iron such as three quarter inch channel iron. In this connection channels defining the partition may be first secured upon the floor and ceiling of a room and the shoes applied at intervals along said channels, the shoes of the upper and lower channels being adjusted into alinement as above described. The upright studding members are then mounted with their ends engaged by the struck up lugs of the shoes, the light structural channel iron commonly used being bowed sufficiently to permit one end to be inserted into its seat upon the adjacent shoes after the opposite end has been inserted into the opposite shoe. If the studding members cannot be conveniently bowed sufficiently to permit the ends to be inserted in this manner, opposite shoes may be initially set in offset relation so that the studding members may be inclined sufficiently to engage the ends of the struck up lugs, one of the shoes then being driven along its channel member to force the lugs onto the ends of the studding member and to move the shoes into vertical alinement.

For heavier structures, the shoes and studding may be assembled onto the upper and lower channel members as a fabricated frame which is thereafter raised into place and the upper and lower channels then secured in place upon the adjacent ceiling and floor. When thus assembled, the shoes may be driven longitudinally along the channels until the shoes are vertically alined and the studding spaced in desired relation.

By means of this improved studding shoe

it is obvious that vertical studding channels may not only be connected at the ends of the channels 1 and 2, but may also be adjusted to any position intermediate the ends of said channels without cutting, boring or otherwise altering said channels.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is—

1. A studding shoe for seating studding channels, comprising a channel member shaped to engage the back and sides of a channel to be connected, the outer corners of one end of said channel-member being flared to facilitate engagement of said shoe with a channel, and likewise having lugs formed at right angles to said shoe for engaging both sides of the web of a channel extending at right angles to said shoe.

2. A studding shoe for seating studding channels, comprising a channel member to straddle the back and sides of a horizontal channel to be connected, the legs of said member being pressed into gripping engagement with the sides of the horizontal channel, and said member being provided with struck up lugs formed at one end of said shoe for engaging the inner and outer faces of the web of a vertical channel between the legs thereof one of said lugs thereby resting between the legs of the vertical channel to prevent lateral movement of said channel.

3. A studding shoe for seating studding channels comprising a channel member shaped to engage the back and sides of a horizontal channel to be connected, the outer corners on one end of said shoe being flared to facilitate engagement of said shoe with said channel, and struck-up lugs formed on the other end of said shoe for engaging both sides of the web of a vertical studding-channel, one of said lugs resting between the legs of said vertical channel, whereby lateral movement of said vertical channel relative to the horizontal channel may be prevented.

4. A studding shoe for seating studding channels, comprising a channel portion shaped to engage the back and sides of a channel to be united, and having struck-up lugs formed upon one end thereof at right angles to the back of said shoe to engage the inner and outer faces of the web of a second channel at right angles to the first channel, the lugs engaging the second channel between the legs thereof to prevent lateral movement of said vertical channel.

5. A studding shoe comprising a channel portion having the corners of one end thereof flared to facilitate engagement of said shoe with the back of a channel, and likewise having struck-up lugs formed integral with the other end of said shoe at right angles to the back of said shoe to engage the end of a channel to be connected thereto.

6. A studding shoe comprising a channel member having legs spaced to be pressed into gripping engagement with a mounting channel and having struck-up lugs formed integral with one end of the back thereof, said lugs comprising arcuate portions adjacent the shoe and extensions on said arcuate portions arranged in parallel spaced relation to engage the inner and outer faces of the web of a channel extending at right angles to said shoe.

7. A studding shoe comprising a channel portion having struck-up lugs formed integral with one end of the back thereof, said lugs comprising arcuate portions adjacent the shoe and extensions on said arcuate portions arranged in parallel spaced relation to engage both sides of the web of a channel extending laterally from said shoe; the outer corners of the legs at one end of said shoe being flared to facilitate engagement of said shoe with a channel.

8. A studding shoe comprising a channel portion having struck-up lugs formed integral with one end of the back thereof, said lugs comprising arcuate portions adjacent the shoe and extensions on said arcuate portions arranged in parallel spaced relation to engage the inner and outer faces of the web of a channel extending at right angles to said shoe, said arcuate portions being also arcuate in cross section to impart rigidity to said lugs.

In witness whereof, I hereunto set my signature.

WILBERT D. HENDERSON.