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E. P. TOURNIER

1,818,659

CLAMPING DEVICE

Filed Jan. 28, 1927

Fig. 1.

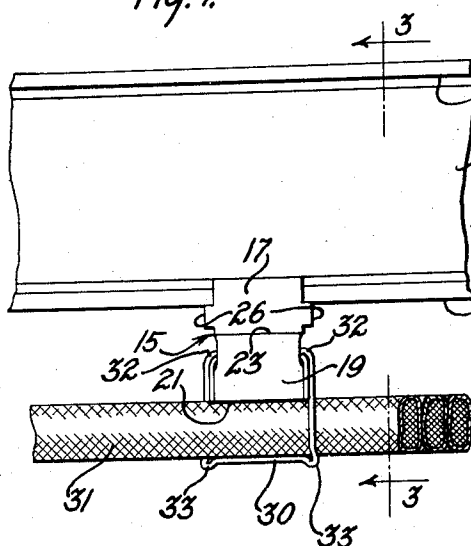


Fig. 3.

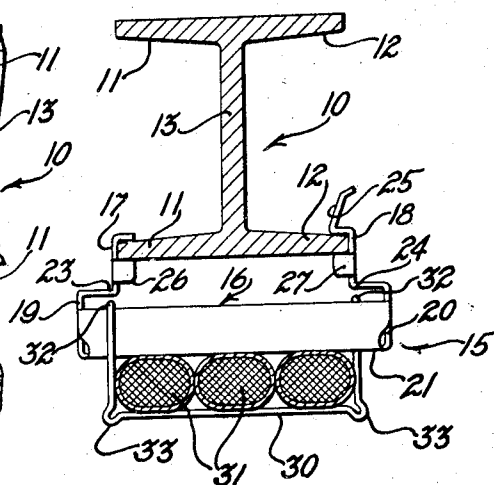


Fig. 2.

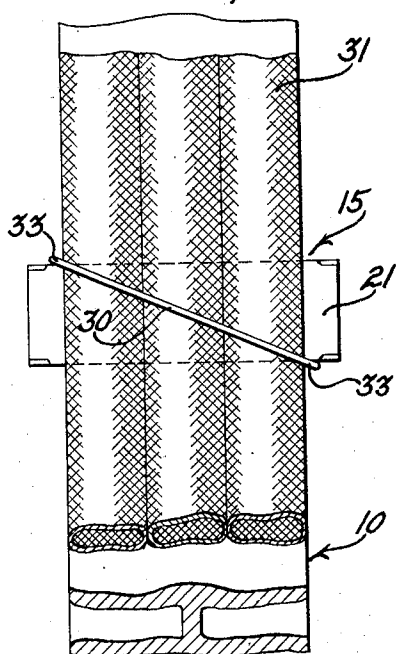
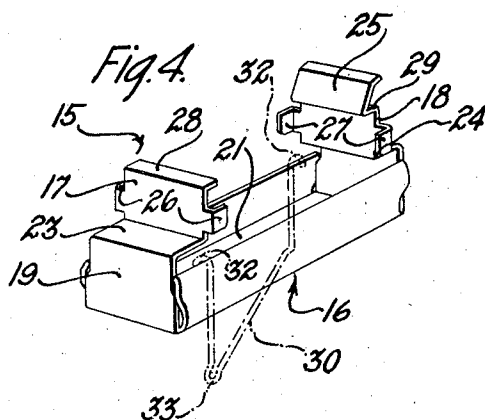


Fig. 4.



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UNITED STATES PATENT OFFICE

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CLAMPING DEVICE

Application filed January 28, 1927. Serial No. 164,270.

This invention relates to clamping devices, and more particularly to a device for securing strands or cables to supports therefor.

The principal object of the invention is to provide a simple and inexpensive device for readily and securely attaching strands or cables to supports.

In accordance with the general features of the invention, there is provided in one embodiment thereof a member having a pair of oppositely disposed jaws adapted to resiliently engage the flanges of an I-beam and maintain an intermediate channel portion spaced from the face of the I-beam. The strands or cables are clamped to the face of the channel portion by means of resilient members having hooked ends engaging the flanges of the channel. The resilient members are also provided with loop portions to which similar members embracing additional strands or cables may be attached.

Other features and advantages of the invention will become apparent in the following detailed description, reference being had to the accompanying drawings, wherein

Figs. 1 and 2 are fragmentary elevational views illustrating a cable clamping device embodying the features of the present invention;

Fig. 3 is a cross sectional view taken on line 3—3 of Fig. 1, and

Fig. 4 is a perspective view of the improved cable clamping device.

Referring now to the drawings in detail, the numeral 10 designates a portion of an I-beam having the usual flanges 11 and 12 and a web portion 13. A member indicated generally by the reference numeral 15 is adapted to be attached to the flanges of the I-beam, as best shown in Fig. 3. The member 15 is preferably composed of resilient sheet metal and comprises a channel portion 16 having jaws 17 and 18 formed at each end thereof, the jaws being designed to firmly grip the flanges of the I-beam. The jaws 17 and 18 are formed from elongations 19 and 20, respectively, extending at right angles from the base 21 of the channel portion 16.

In the present embodiment of the invention, the portions 19 and 20 are offset as in-

dicated at 23 and 24, respectively, (Figs. 3 and 4), so that the jaws 17 and 18 resiliently engage opposite edges of the flanges 11 and 12 when the member is attached to the I-beam. The jaw 18 is provided on its upper lip (Fig. 3) with a sloped approaching surface 25 to facilitate the attachment of the member to the I-beam. Lugs or ears 26 and 27 projecting at right angles from the portions 19 and 20, respectively, engage the face of the I-beam and cooperate with the bent-over portions 28 and 29 of the jaws 17 and 18, respectively, to firmly grip the flanges of the I-beam support in such manner that the channel portion 16 is suitably spaced from the face of the I-beam.

When attaching the member 15 to an I-beam support the jaw 17 is engaged with one of the flanges of the I-beam and the opposite end of the member is then pressed towards the I-beam until the jaw 18 engages the opposite flange thereof. It is obvious that due to the sloped surface 25, the jaw 18 will move outwardly away from the jaw 17 when the member is pressed toward the I-beam and will tend to spring back to its normal position when it is in alignment with the flange of the I-beam, thereby cooperating with the jaw 17 to firmly grip the I-beam support.

A resilient clip 30 adapted to embrace a predetermined number of cables 31 is provided with oppositely disposed hook portions 32 designed to engage the flanges of the channel portion 16. The clip 30 is also provided with loop portions 33—33 by means of which a similar clip (not shown) embracing additional cables may be secured thereto.

When employing the improved clamping devices for attaching cables to an I-beam support, a plurality of members 15 are attached to the I-beam at suitable points therealong in the manner hereinbefore described. A predetermined number of cables are then placed in position upon the base or web portions 21 of the members 15 with their longitudinal axes parallel to each other and preferably at right angles to the channel portion 16 of the supporting member. Resilient clips 30 are then placed around predetermined numbers of these cables and spaced along

the cables in accordance with the positions of the members 15. The clips 30 are then attached to the member 15 by engaging the hook portions 32 thereof with opposite flanges of the channel portions 16. If desired, additional cables may be attached to the support by means of resilient clips engaging the loop portions 33 of previously mounted clips.

It is obvious that by employing clamping devices embodying the features of the present invention, strands, cables or the like may be attached to supports very quickly and without the use of any particular skill. Furthermore, the clips may be readily disengaged from the supporting members and the supported strands or cables may be quickly removed when desired. However, when installed the strands or cables are securely maintained in position.

Although the invention, as herein illustrated and described, is particularly adapted for attaching strands or cables to I-beam supports, it is obvious that the invention is capable of other applications within the scope of the appended claims.

What is claimed is:

1. In a device for attaching a strand to a support, a member having a unitary channel portion and a pair of oppositely disposed jaws for resiliently engaging the support, and means resting on opposite vertical sides of said channel portion for securing the strand thereto.

2. In a device for attaching a strand to an I-beam support, a member having a pair of oppositely disposed resilient jaws engaging opposite flanges of the support, one of said jaws having a sloped lip to facilitate the attachment of the member to the support, a channel portion interconnecting said jaws and spaced from a face of said I-beam support and a resilient clip for securing the strand to the channel portion, said clip having a portion substantially embracing the strand and a pair of oppositely disposed hook portions engaging the flanges of the channel portion.

3. In a device for attaching a strand to an I-beam support, a member having a channel portion and a pair of oppositely disposed jaws for resiliently engaging oppositely disposed flanges of the support, each of said jaws having a lug projecting therefrom for engaging a face of the I-beam to maintain the channel portion spaced from said face of the I-beam, and means resting on opposite vertical sides of said channel portion for securing the strand thereto.

4. In a device for attaching a strand to a support, a rectangular shaped element having angularly disposed lateral and longitudinal portions, the lateral portions having inwardly disposed extensions engaging the support, the longitudinal portions provided with inwardly curved upper edge surfaces, and

means having portions complementary to the inwardly curved edge surfaces and resting thereon for securing the strand to the element.

5. In a device for attaching a strand to a support, a member having spaced jaw portions for yieldably engaging opposite edges of the support and a portion interconnecting the jaw portions, one of the jaw portions having an outwardly extending inclined lip to facilitate the attachment of the member to the support, and means for attaching a strand to the interconnecting portion.

In witness whereof, I hereunto subscribe my name this 15th day of January, A. D. 1927.

EDWARD PAUL TOURNIER.