April 29, 1947. A. M. BRUCE 2,419,761

CLAMP FOR CABLES AND THE LIKE

Filed Jan. 9, 1945

Fig. 1.

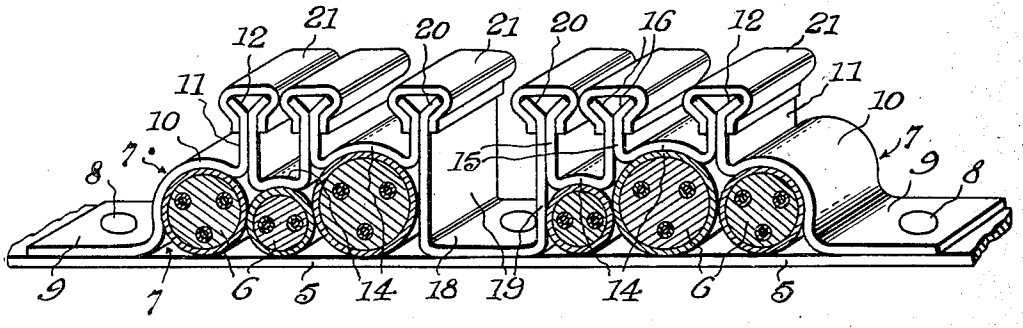


Fig. 2.

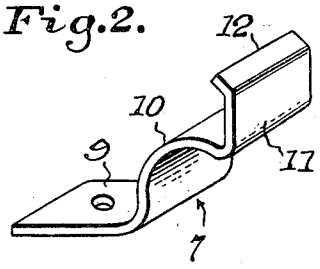


Fig. 4.

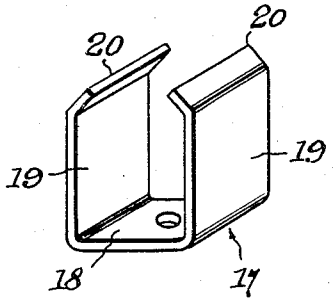


Fig. 3.

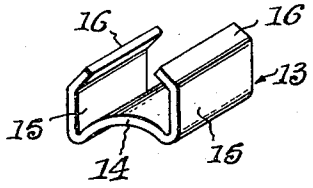
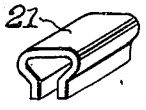


Fig. 5.



Inventor

Arthur M. Bruce

Fosick & Allen

Attorneys

Patented Apr. 29, 1947 2,419,761

UNITED STATES PATENT OFFICE

2,419,761

CLAMP FOR CABLES AND THE LIKE

Arthur M. Bruce, Long Beach, Calif.

Application January 9, 1945, Serial No. 572,071

6 Claims. (Cl. 248—68)

1

The invention relates generally to clamping devices adaptable for clamping groups of cables, pipes or similar generally cylindrical articles, and while subject to more general utility, is especially intended for clamping runs of cable in ship construction.

It is well known that in present day ship construction many electric conductor cables are included in the electrical installations, and in interest of symmetry and order and efficiency, as well as safety in light of the rolling and pitching of ships at seat, it is important that the cables be securely clamped in groups, and it is desirable that clamping means be provided which will enable the making of initial and replacement installations with facility and security. It is the purpose of the present invention to provide a novel cable clamping means of the character stated.

An object of the invention is to provide a novel cable clamping means of the character stated including a base bar and means for clamping cables of selected sizes and groupings thereon without the necessity of bending, cutting and fitting parts to fit the particular cable sizes and groupings and without use of bolts, wires or the like.

In its more specific nature the invention resides in providing a clamping means of the character stated wherein are provided a base bar across which the cables are laid in selected sizes and groups, end caps engaging in clamping relation over the endmost cables and secured to the bar and including upstanding wall portions terminating in angle bent head pieces, U-shaped clamp pieces shaped to engage in clamping contact over individual intermediate cables and having their upright wall portions terminating in angle bent head pieces, the head pieces of adjacent clamp pieces and end caps being associated in V-shaped cooperating pairs, and there being included channel clamp members slidable over said head piece pairs to secure the end caps and clamp pieces in assembly and in position for clamping the cables against the bar.

Another object of the invention is to provide clamping means of the character stated in which there are included U-shaped gap pieces placeable between cables or cable groups to form spaces therebetween and including angle bent head pieces for cooperating with the other head pieces and with clamp pieces in effecting the desired unit assembly.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more fully understood by following the detailed description, and appended claims and the several views illustrated in the accompanying drawings.

2

In the drawings—

Figure 1 is a perspective view illustrating the invention.

Figure 2 is a perspective view illustrating one of the end cap members.

Figure 3 is a perspective view illustrating one of the cable cap members.

Figure 4 is a perspective view illustrating a spacer member.

Figure 5 is a perspective view illustrating one of the clamping members.

In the practical development of the invention the improved clamping means includes a base bar 5 across which the cables 6 of selected sizes are laid in a single group or in selective grouping as illustrated in Figure 1. An end cap member generally designated 7 is riveted or otherwise secured as at 8 on the bar 5 at each end of the single or selective grouping of cables, and each said end cap includes a base portion 9 lying against the base bar, a clamp body portion 10 shaped to snugly engage over the adjacent endmost cable which abuts the upright main body from which curved body portion 10 extends, and an upstanding wall portion 11 terminating in an angle bent head piece 12.

A plurality of selective V-shaped cable caps 13 are provided and each includes a base portion 14 dimensioned and shaped to snugly engage over the particular form and size of cable to be clamped thereby, and two parallel upright wall portions 15 terminating in angle bent head pieces 16. These upright wall portions 15 are adapted to lie against the similar wall portion 11 of one of the end cap members and an adjacent cable cap upright wall or another end cap upright wall, against the upright walls 15 of two similar cable caps 13, according to the nature of the particular installation, or against the upright wall of an end cap member and the upright wall of a spacer member 17 when one is employed to effect a spacing of cable groups as illustrated in Figure 1.

The spacer members generally designated 17 each include a base portion 18 which may or may not be secured to the base bar 5 between the groups of cables to be separated thereby, and upright wall portions 19 terminating in angle bent head pieces 20.

When the end caps 7 and cable caps 13, or the end caps 7, cable caps 13 and one or more spacer members 17 are assembled in cooperative relation

in the manner hereinbefore described, the angle bent head pieces of the abutting wall portions 11 and 15 or 11, 15 and 19 will be reversely directed so as to form V-pairs of head pieces each pair cooperating to receive channel-like clamp pieces 21 one of which is slipped over each said pair of head pieces to embrace and engage them with retaining friction effective to maintain the assembly of the clamping means in the manner illustrated.

It will be apparent from the foregoing that the assembly of parts herein disclosed provides a simple and efficient clamping means which can be selectively assembled, without the necessity of using special tools, to clamp various arrangements or groupings of cables of like or differing sizes.

It is to be understood that the details of construction of the cooperating parts can be variously changed without departing from the spirit and scope of the invention, as defined in the appended claims.

I claim:

1. Clamping means of the character described comprising, a base bar across which cables or other articles of generally cylindrical shape are laid in a group, end caps attached to the bar one in position for being disposed at each side of a group of cables and including a wall portion for abutting a cable side, a body portion adapted to overlie and clamp against said article and an upstanding wall portion terminating in an angle bent head piece, a U-shaped cap piece having a body portion adapted to engage in clamping contact over a cable and having upstanding wall portions for lying against end cap wall portions and terminating in angle bent head pieces bent reversely with respect to the end cap head pieces so that the end cap and cap piece head pieces will be associated in cooperating V-shaped pairs, and a channel clamp piece receivable over each cooperating pair of head pieces for holding the cap piece in cable clamping position between the end caps.

2. Clamping means of the character described comprising, a base bar across which cables or other articles of generally cylindrical shape are laid in a group, end caps attached to the bar one in position for being disposed at each side of a group of cables and including a wall portion for abutting a cable side, a body portion adapted to overlie and clamp against said article and an upstanding wall portion terminating in an angle bent head piece, a U-shaped spacer element having a base engageable with the base bar and upstanding wall portions for engaging between and against sides of two cables and terminating in angle bent head pieces, a U-shaped cap piece having a body portion adapted to engage in clamping contact over each cable and having upstanding wall portions for lying against end cap and spacer element wall portions and terminating in angle bent head pieces bent reversely with respect to the head pieces of said end cap or spacer element wall portion head pieces so that said head pieces will be associated in cooperating V-shaped pairs, and a channel clamp piece receivable over each cooperating pair of head pieces for holding the cap pieces in cable clamping position and the spacer element in cable spacing position.

3. Clamping means as defined in claim 1 in which there are provided a plurality of cap pieces of selective sizes for clamping cables of different sizes, the upstanding wall portions of all said cap pieces being of such length as to dispose the angle bent head pieces thereof at a common level with those of the upstanding wall portions of the end caps.

4. Clamping means as defined in claim 2 in which there are provided a plurality of cap pieces between each end cap and a spacer element wall portion, said cap pieces being of selective sizes for clamping cables of different sizes and the upstanding wall portions of all said cap pieces being of such length as to dispose the angle bent head pieces thereof at a common level with those of the upstanding wall portions of the end caps.

5. Clamping means as defined in claim 1 in which there are provided a plurality of cap pieces of selective sizes for clamping cables of different sizes, the body portion of each said cap piece being shaped to conform to and fit snugly against the cable clamped thereby and the upstanding wall portions of all said cap pieces being of such length as to dispose the angle bent head pieces thereof at a common level with those of the upstanding wall portions of the end caps.

6. Clamping means as defined in claim 2 in which there are provided a plurality of cap pieces between each end cap and a spacer element wall portion, said cap pieces being of selective sizes for clamping cables of different sizes, and the body portion of each said cap piece being shaped to conform to and fit snugly against the cable clamped thereby and the upstanding wall portions of all said cap pieces being of such length as to dispose the angle bent head pieces thereof at a common level with those of the upstanding wall portions of the end caps.

ARTHUR M. BRUCE.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,348,096	Schack	May 2, 1944
2,353,443	Carpenter	July 11, 1944