Aug. 2, 1966 T. KERTTUNEN 3,263,947

CLAMP FOR CONDUCTORS OR THE LIKE

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Fig. 1

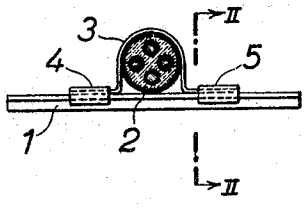

Fig. 2

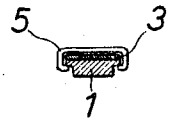

Fig. 3

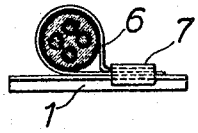

Fig. 4

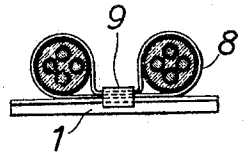

Fig. 5

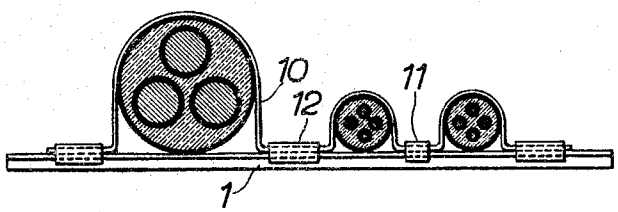

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Fig. 6

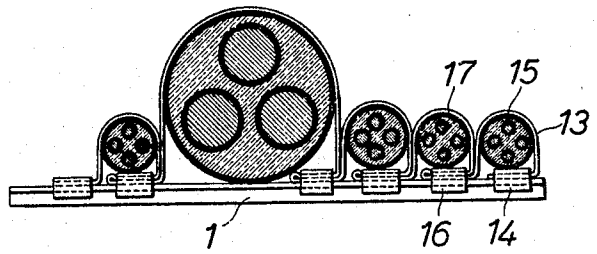


Fig. 7 Fig. 8 Fig. 9

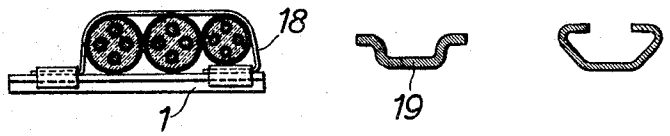
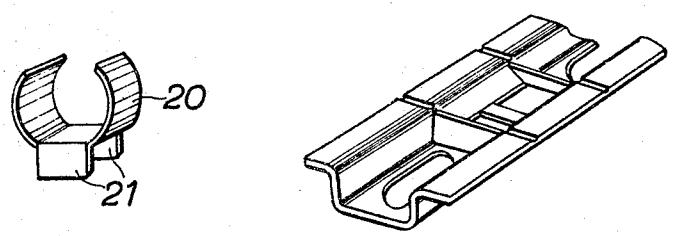


Fig. 10 Fig. 11



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CLAMP FOR CONDUCTORS OR THE LIKE

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Claims priority, application Finland, Mar. 20, 1964, 607/64
10 Claims. (Cl. 248—68)

The object of this invention is a wire holdfast, including for wires a foundation bar intended to be fastened to the wall or any other base crosswise in relation to the direction of the wire, the foundation bar having projecting borders at a distance from the base, and a pliant band which can be bent adaptably so that the band locks in the wire or wires and which is arranged to be fastened to the foundation bar with clamps. Wire means here electric conductors, cables, pipes and so on.

These kinds of holdfast are already known. They have crampshaped organs that are fastened by screw joints to the foundation slide rail. Due to the screw joints such holdfasts naturally are expensive. Another evil is that the cramps have to be dimensioned in advance to correspond to the diameter of the wire.

The purpose of the invention is to remove the above mentioned evils and the invention is mainly characterized in that the clamps can be bent around the projecting borders of the foundation bar.

A simple application form of the invention is characterized in that the band has been bent Ω-shaped locking in one or several wires and that its both ends have been fastened with clamps to the foundation bar.

According to another application form, the band has been bent to a closed ring of which both ends are projecting parallel so that they can be fastened to the foundation bar with only one clamp.

A corresponding holdfast for two wires is such one that the band has been bent to two closed rings the ends of the band being bent against the band part connecting the rings so that they are attachable together with the band part mentioned to the foundation bar with only one clamp, or both ones with their own clamp.

A holdfast for several wires can suitably be formed so that the band is bent at the point between two wires down to the bar and fastened with a clamp to the bar.

In order to make such a holdfast still steadier, we can proceed so that the band is bent at the point between two wires at least between one wire and the bar and that the band part between the wire and the bar is fastened with a clamp to the bar. This application form further grants the advantage that the wires are possible to be placed quite side by side so that space will be saved.

Especially that end of the band, which is first fastened to the foundation bar, can easily be bent against the opposite end of the band so remaining between the wire and the bar. In this way the end of the band becomes firmly tied to the foundation bar.

The foundation bar is suitably T-shaped, but it can also be in section like a low U the ends of which being bent outwards in order to have the clamps be bent around them.

The band and the clamps are possible to be of same body. This will come to question especially when one cable is fastened to the foundation bar.

On the other hand, if there is question of fastening several cables to the foundation bar, it is more expedient to use separate clamps, because it is hard to know beforehand the places of the clamps.

The invention is specified in the following with reference to the enclosed drawings, where

FIG. 1 shows a holdfast according to an application form of the invention, is section crosswise in relation to the wire.

FIG. 2 shows a section along the line II—II in FIG. 1.

FIGS. 3–7 show a holdfast according to same application forms in sections corresponding to FIG. 1.

FIG. 8 shows a section of an application form of the foundation bar used in the invention.

FIG. 9 shows further an application form of the invention.

FIG. 10 shows an application form of the clamp.

FIG. 11 shows an application form of the foundation bar perspectively.

In the drawings, **1** refers to the foundation bar to be fastened to the base e.g. with screws, the bar being in section T-shaped so that the bar has projecting borders that are situated at a distance from the base. According to FIGS. 1 and 2, a wire or cable **2** has been fastened to foundation bar **1** by aid of a pliant strip which is formed into an inverted U-shaped band **3** having lateral ears or ends which extend outwardly on each side of the central wire **3**. The band **3** is fastened at its ends to the foundation bar by clamps **4** and **5**. The band **3** is of any pliant material, such as metal, plastic, textile, or anything like that, so that it can be bent easily around the wire **3** adapting to the shape of the wire. Clamps **4** and **5** have been made in cutting off from a pliant band, for example, of metal. The ends of the clamps have been bent with suitable pliers around the borders of the foundation bar **1**.

According to FIG. 3 the band **6** has been bent to closed ring, the both ends of the band projecting parallel. The ends of the band have been fastened to the foundation bar **1** by only one clamp **7**.

According to FIG. 4, the band **8** has been bent to two closed rings, the ends of the band being bent against the band part connecting the rings. The ends of the band **8** have been placed one on the other and fastened with clamp **9** to the foundation bar **1**. Each of the ends of the band, naturally, can be fastened with its own clamp to the foundation bar.

According to FIG. 5, three wires have been fastened to foundation bar **1** with one continuous band **10**. At the points between the wires the band **10** has been bent down to the bar **1** and fastened to the same with clamps **11** and **12**.

According to FIG. 6, fastening several wires to the foundation bar **1** has taken place as follows: the one end of band **13** has been bent towards the opposite end of the band and fastened to the foundation bar **1** with clamp **14**. The wire **15** has been placed on the clamp **14** and the band **13** bent around this wire. The band has been further folded double and fastened to the foundation bar **1** with clamp **16**. On this clamp, wire **17** has been placed and the installation has been continued in the same way.

FIG. 7 shows fastening of three wires to the foundation bar **1** with band **18** that has not been bent at the points between wires to the foundation bar. It is self-evident that, in application forms according to FIGS. 1–6, one band ring can encircle several wires.

FIG. 8 shows a section of foundation bar **19** that is like a low U the ends of which have been bent outwards to have the clamps bent around them.

In FIG. 9, the ends of U-bar have been bent inwards. The sides of the bar, however, have been pressed from on the top towards centre so much that the sides become suitably into an inclined position for the clamps.

In the above application forms, the band and the clamps have been of separate bodies. They can also be of one body, as illustrated in FIG. 10. The band **20** in this application form is open on the top but in any case such that it includes in itself the wire locking it in its place. The clamps **21** are flanges projecting from the border of band **20** and can be bent around the borders of

the foundation bar. It is clear that also in the application forms illustrated in the above figures the band and the clamps can be of one body.

In FIG. 11 a completion form of the foundation bar has been illustrated where there are grooves on the top surface of the borders and openings in the bottom of the bar. With these the bar is easier to be cut off in certain lengths without any tools at the installation place. The material has been bent at the edges of the openings to projecting parts between the sides of the foundation bar to give support to them.

The usefulness of the invention appears among other things in that the band is not necessary to be cut off into pieces beforehand, but the cutting is carried only when the fastening of wires has taken place. In this way the band will be used economically.

The above specification and the relative drawing are intended only to illustrate the invention idea. The different application forms of the invention may of course vary within the limits of the patent claims given further on.

I claim:

1. A device for clamping electrical conduits, cables and the like comprising a foundation bar, a wire to be clamped positioned across said bar, a band of pliant material extending along said bar and around said wire and having its ends extending away from said wire along said bar, and at least one clamp extending across said band adjacent its ends and around each edge of said band and around said bar and clamped to said bar.

2. A device for clamping electrical conduits according to claim **1**, wherein the ends of said bands extend in opposite directions away from said wire.

3. A device according to claim **1**, wherein the ends of said bands extend in the same direction away from said wire and are overlapped, said clamp being positioned over both of the ends of said band.

4. A device according to claim **2**, including a separate clamp for each end of said band.

5. A device according to claim **2**, including a plurality of wires at spaced locations extending across said bar, said band extending over each of said wires and a clamp extending across said band and around the ends thereof and clamped to said bar at locations at each end of said band between each of said wires.

6. A device according to claim **5**, wherein said band is bent back upon itself between said wires.

7. A device according to claim **2**, wherein one of the ends of said band is directed inwardly toward said wire.

8. A device according to claim **2**, wherein said foundation bar includes ends which extend upwardly and outwardly.

9. A device according to claim **2**, wherein said foundation bar includes ends which extend upwardly and outwardly and then inwardly.

10. A device according to claim **2**, wherein said clamp and said band are made of a single piece.

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