March 23, 1948. G. F. DUNKELBERGER ET AL 2,438,362

WIRE CLEAT

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Fig. 1.

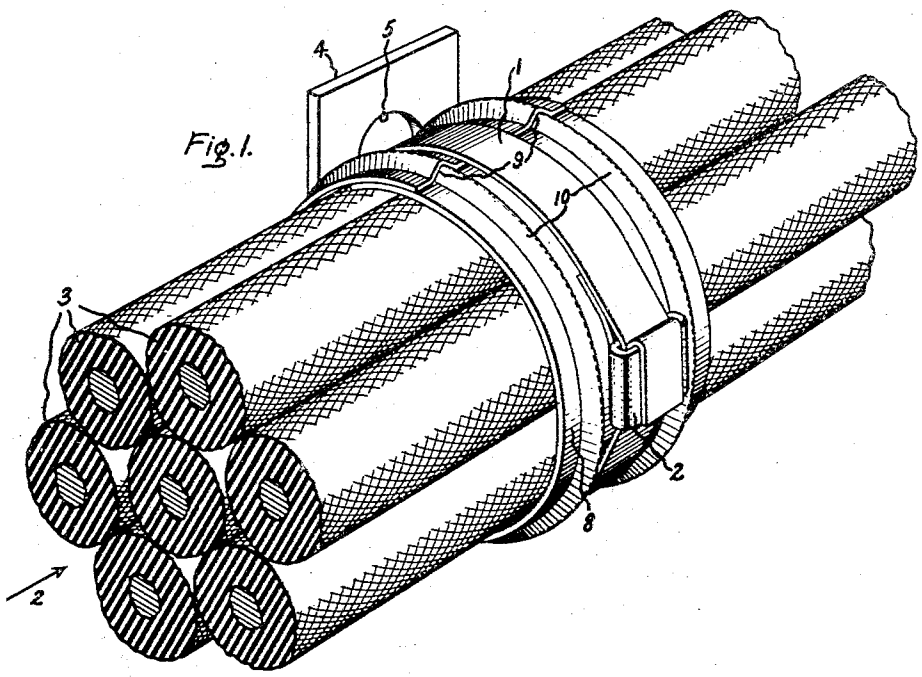
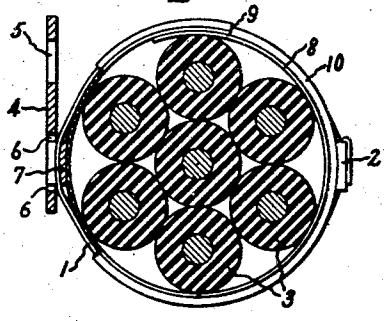


Fig. 2.



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WIRE CLEAT

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2 Claims. (Cl. 174—40)

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Our invention relates to a clamp and liner arrangement for use with a longitudinally extending body, as for instance a bundle of wires, whereby the body may be attached to a suitable support.

In connection with the wiring of electric panels and the like, it is often necessary to support bundles of wires from the panel or the like. The number of wires in the bundle may vary widely and in order to reduce the number of parts necessary it would be desirable to have a clamp and liner arrangement which is universally adaptable regardless of the number of wires in the bundle.

It is an object of our invention to provide a clamp and liner arrangement which is universally adaptable to bundles of wires of various sizes with the clamp and liner being infinitely adjustable and the liner provided with means for securely holding it in position beneath the clamp.

It is another object of our invention to provide a new and improved clamp and liner arrangement which is simple, inexpensive and completely satisfactory in every respect.

Further objects and advantages of our invention will become apparent as the following description proceeds and the features of novelty which characterize our invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

For a better understanding of our invention, reference may be had to the accompanying drawing in which Fig. 1 is an enlarged perspective view of the clamp and liner arrangement of our invention, and Fig. 2 is a small end view partly in section, looking in the direction of arrow 2 in Fig. 1.

Referring now to the drawing, there is illustrated a clamp which comprises a strap of metal 1 which is flexible and is adapted to be looped about a longitudinally extending body, such as a bundle of wires. The strap 1 is provided with any suitable infinitely adjustable fastening means, such for example as is illustrated by the numeral 2 in Fig. 1. The particular fastening means employed forms no part of our invention so long as it is infinitely adjustable. By "infinitely adjustable" is meant that it may be used to clamp a bundle of wires of any size from two wires to a large number of wires. The individual wires forming the bundle are designated by the reference numeral 3 in the drawing. Strap 1 is adapted to be removably fastened to a suitable plate 4, which has an opening 5 for mounting plate 4 on a suitable support. Strap

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1 is fastened to plate 4 by any suitable means, such for example as a plurality of spaced openings 6 in plate 4 through which strap 1 may be looped. If desired, a portion of plate 4 between the openings 6 may be raised as indicated at 7.

For purposes of insulation and to be sure that the clamp is perfectly smooth on its interior it has been customary to employ a liner of insulating material. Heretofore, such liners have either been of complicated and expensive shapes and unsuitable for an infinitely adjustable loop clamp, or they were constructed so that there was great likelihood of the liner slipping out from beneath the clamp or the ends of the liner becoming laterally displaced.

In accordance with our invention we preferably provide a liner 8 formed of insulating material which may be made in thin strips so as to be sufficiently rigid to hold its shape and yet flexible enough to fit around a variable sized bundle of wires. We have found that a very desirable insulating material for this purpose may be purchased on the market under the trade name Vinylite (vinyl acetate-vinyl chloride copolymer). In accordance with our invention liner 8 comprises a strip of flexible insulating material of substantially uniform cross-sectional area provided with a pair of parallel arranged longitudinally extending indentations 9 on one side thereof with corresponding raised portions or ridges 10 on the other side thereof. The ends of the liner are overlapped so that the indentations 9 of one end interfit with the ridges 10 on the reverse side of the strip at the other end thereof. It is obvious that the indentations 9 and ridges 10 form interlocking means for preventing lateral displacement of the overlapping ends of the insulating strip forming the liner. The interlocking means function regardless of how large or how small the bundle of wires is so long as the ends of the liner overlap to some extent. It is obvious that the liner is truly infinitely adjustable. The ridges 10 formed on the side of the strip opposite the indentations are arranged on the clamp side of the liner so that strap 1 cannot slide off nor can liner 8 move out from beneath the clamp. In other words, the interlocking means also serves to hold the liner beneath the clamp.

It is obvious that with the arrangement described above a new and improved clamp and liner arrangement is provided wherein the clamp and liner are infinitely adjustable and yet interlocking means are provided which prevent lateral displacement of the overlapping ends of the

strip and which interlocking means also serves to hold the liner beneath the clamp.

While we have shown and described a particular embodiment of our invention, it will be obvious to those skilled in the art that various changes and modifications may be made without departing from our invention in its broader aspects and we, therefore, aim in the appended claims to cover all such changes and modifications as fall within the true spirit and scope of our invention.

What we claim as new and desire to secure by Letters Patent of the United States is:

1. In an arrangement for holding a bundle of wires together for attachment to a support, a strip of insulating material adapted to surround the bundle of wires with the ends of the strip overlapping, a pair of parallel arranged longitudinally extending indentations on one side of said strip and corresponding ridges on the other side of the strip, said ridges on one end of the overlapping portions of said strip being adapted to interengage with the indentations on the other end of the strip to prevent lateral displacement of the overlapping ends thereof and an adjustable loop clamp around the outside of said strip between said ridges for preventing relative lateral movement of the clamp and the strip.

2. In an arrangement for holding a bundle of wires together for attachment to a support, a strip of flexible insulating material of substantially uniform cross-sectional area provided with two spaced substantially parallel longitudinal indentations and adapted to be wrapped around the bundle of wires with the ridge side of the indentations out and the ends of the strip overlapping and the corresponding indentations in register and an adjustable loop clamp around the outside of said strip between the ridges of said indentations.

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