July 3, 1956 H. TJADER 2753,536

CLAMPS FOR HOLDING ELECTRIC CONNECTORS TOGETHER

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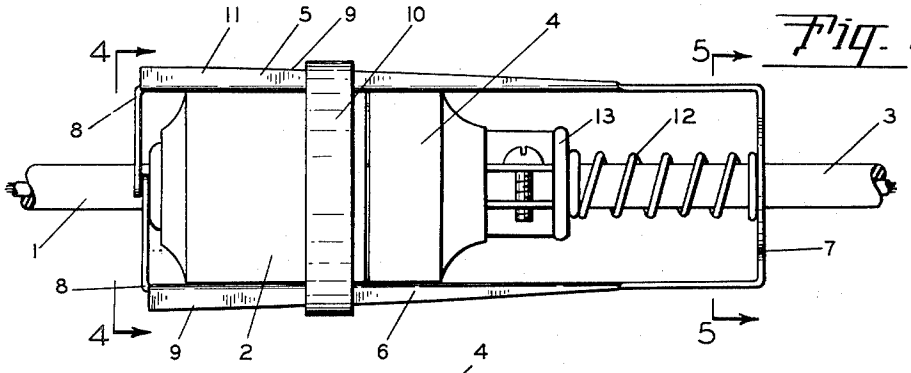


Fig. 2

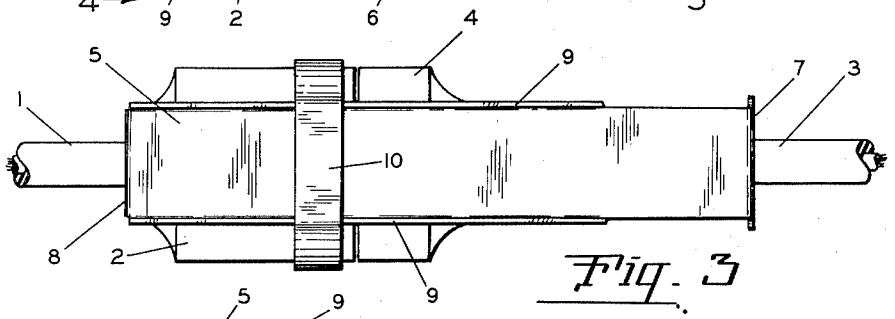


Fig. 3

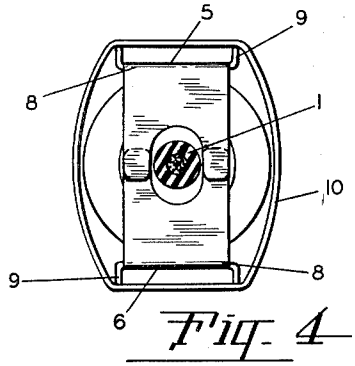


Fig. 4

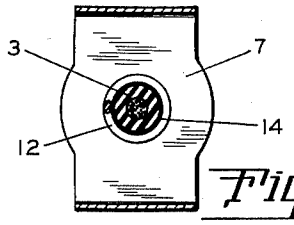


Fig. 5

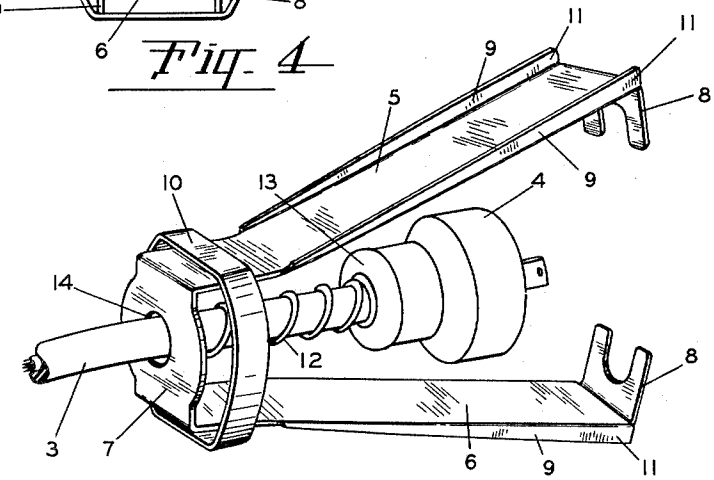


Fig. 1

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2,753,536

CLAMPS FOR HOLDING ELECTRIC CONNECTORS TOGETHER

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Application July 27, 1953, Serial No. 370,353

3 Claims. (Cl. 339—75)

This invention relates to clamps for holding electric connectors together, and is particularly adapted to be used in connection with electric extension cables used in connection with electric motors on portable equipment and the like.

The primary object of the invention is to provide a holding clamp that will embrace the female and male plug of the connectors, preventing the plugs from separating.

Another object of the invention is to provide a clamp that will permit a slight movement of the plugs, but will return them back together on releasing the cable. The purpose of this object is to protect the plugs from a sudden jerk, which in many cases would separate the cables from the plugs, but with my resilient feature incorporated with the clamp a sudden jerk can be absorbed by this resilient connection.

These and other incidental objects will be apparent in the drawings, specification and claims.

Referring to the drawings:

Figure 1 is a perspective view of my new and improved holding clamp associated with one of the electric plug terminals of a connector.

Figure 2 illustrates the clamp holding the plug terminals together.

Figure 3 is a side view of Figure 2.

Figure 4 is an end view, taken on line 4—4 of Figure 2 of the clamp installed on the plugs.

Figure 5 is a sectional view, taken on line 5—5 of Figure 2.

Referring more specifically to the drawings:

The electric cable is indicated by numeral **1**, having the usual female terminal or plug **2** thereon. Another cable **3** has the usual male plug **4** forming part thereof.

The invention consists of a pair of jaws **5** and **6** connected together by the cross member **7** forming part thereof at their one end. The jaws **5** and **6** consist of bifurcated right angled bends **8** at their opposite ends, which are adapted to embrace the electric cable **1** at the rear end of the terminal or plug **2**, as best illustrated in Figures 2 and 4.

Sloping cams **9** are bent up at right angles to the jaws or bars **5** and **6** and are adapted to cooperate with the ring or keeper **10**. As the keeper **10** is pushed towards the ends **11** of the cams they will compress or bring together the bifurcated ends **8** embracing the electric cable **1** behind the plug **2**. A spring **12** or other resilient material has one of its ends resting against the cross member **7** of the jaws **5** and **6**, and its opposite end bearing against the rear **13** of the electric plug as indicated in Figure 2. This spring tends to keep the plug **4** in contact with the plug **2** at all times. The cross or connecting member **7** of the jaws **5** and **6** has an opening **14** therein, adapted to embrace the electric cable **3** at all times.

I will now describe the operation of my new and improved clamp for holding electric conductors together. The plug **4** is disconnected from the cable **3** and the clamp assembly is placed thereon by running the cable **3** through the opening **14** of the cross member **7**, also placing the spring **12** over the end of the cable **3**, after which the terminal or plug **4** is reconnected to the cable **3**.

When it is desired to connect the opposite plug, as for instance the female plug **2** to the plug **4**, the keeper **10** is moved to the position best illustrated in Figure 1. This allows the jaws to open, permitting the plugs to be connected. The operator then compresses the jaws together embracing the plugs and slipping the keeper up over and along the cams **9** until the bufurcated ends **8** of the jaws grip or engage the cable **1** behind the plug **2**. The keeper will remain in this position by friction, holding the clamp in its holding position.

Any pull tending to separate the plugs **2** and **4** will be absorbed by the spring **12**. After this pull has been released, the plugs will again be forced together by the action of the spring.

My new and improved holding clamp for electric plugs or conductors is admirably adapted to be used in heavy duty work, but it can be used anywhere, as for instance outdoors in connection with electric lawn mowers and the like.

What is claimed is:

1. A holder for a pair of cable connectors of the type connecting adjacent ends of a pair of cables comprising a pair of elongated resilient jaws, a connecting member connecting the jaws together at one end thereof, said member having an opening through which one cable of said pair is adapted to loosely engage, a notched projection at the other end of each jaw, said projections overlapping each other when said jaws are in clamping position, said jaws being biased for movement away from each other, and a ring engaging about said jaws and movable lengthwise thereof for moving said jaws toward each other in clamping engagement about the other of said cables.

2. A holder for a pair of cable connectors of the type connecting adjacent ends of a pair of cables comprising a pair of elongated resilient jaws, a connecting member connecting the jaws together at one end thereof, said member having an opening through which one cable of said pair is adapted to loosely engage, a notched projection at the other end of each jaw, said projections overlapping each other when said jaws are in clamping position, said jaws being biased for movement away from each other, cam means carried by and extending lengthwise of each jaw, and a jaw compressing ring engaging about said jaws and cams and movable lengthwise thereof for moving said jaws toward each other in clamping engagement about the other of said cables.

3. A holder for a pair of cable connectors of the type connecting adjacent ends of a pair of cables comprising a pair of elongated resilient jaws, a connecting member connecting the jaws together at one end thereof, said member having an opening through which one cable of said pair is adapted to loosely engage, a notched projection at the other end of each jaw, and said projections overlapping each other when said jaws are in clamping position, said jaws being biased for movement away from each other, cam means carried by and extending lengthwise of each jaw, a jaw compressing ring engaging about said jaws and cams and movable lengthwise thereof for moving said jaws toward each other in clamping engagement about the other of said cables, and a spring about said one cable interposed between the connector carried by said one cable and said connecting member whereby to resiliently resist movement in one direction of said connectors between said jaws.

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