

U-SHAPED CLIP ASSEMBLY

5 This invention relates to a U-shaped clip assembly. In particular, the invention relates to a U-shaped clip assembly in which a plurality of U-shaped clips are interconnected by means of interconnecting wires.

10 In the past, interconnecting wires are welded to heads of a plurality of U-shaped clips, to form a U-shaped clip assembly in which the plurality of U-shaped clips are interconnected by the interconnecting wires. The obtained U-shaped clip assembly is wound around a drum and the U-shaped clip assembly is supplied from the drum to a clip
15 clinching device. In this case, the frequency for replenishing the U-shaped clip assemblies is extremely reduced and therefore, the efficiency of the clinching work by the U-shaped clips can be greatly enhanced.

20 However, when the welded length between the U-shaped clip and the interconnecting wire is small, the U-shaped clip tends to become detached from the interconnecting wires when the U-shaped clip assembly is transported. Therefore, care should be taken in transporting the U-shaped clip assemblies, thus lowering the efficiency of work. Conversely, when the
25 welded length between the U-shaped clip and the interconnecting wire is large, the U-shaped clip assembly becomes hard to bend, and therefore the U-shaped clip assembly becomes hard to be wound around the drum.

30 The present invention seeks to ameliorate one or more of the above or other problems and thereby to provide a U-shaped clip assembly in which a U-shaped clip is hard to be detached from interconnecting wires and the assembly is easily wound around a drum.

35 In the invention, interconnecting wires are welded to

heads of a plurality of U-shaped clips whereby the plurality of U-shaped clips are interconnected by the interconnecting wires, the welded length between the U-shaped clip and the interconnecting wire being in the range of 0.1 to 1.4 mm.

5 In this U-shaped clip assembly, the welded length between the U-shaped clip and the interconnecting wire is in the range of 0.1 to 1.4 mm, and therefore, the U-shaped clip is hard to be detached from the interconnecting wire, and the assembly is easily bended. Therefore, the U-shaped clip
10 assembly is easily wound around the drum.

An embodiment of the present invention will now be described in more detail by way of example only with reference to the drawings, in which:

Fig.1 is a plan view of a U-shaped clip assembly
15 according to the present invention;

Fig.2 is a front view of the same;

Fig.3 is a side view of the same; and

Fig.4 is a partly enlarged view of Fig.2.

DETAILED DESCRIPTION OF THE INVENTION

20 A U-shaped clip assembly according to the invention is shown in Figs.1-4. A U-shaped clip 10 is composed of a curved head 12, and legs 14 and 16 extended from the head 12, the U-shaped clip 10 being formed of steel. A height of the U-shaped clip 10, that is, a vertical dimension as viewed in
25 Fig.2 is approximately 1.4 cm. Interconnecting wires 20 are mounted by welding to a central portion of the head 12. The interconnecting wire 20 is formed of steel and has a diameter of approximately 0.5 mm. A plurality of U-shaped clips 10 arranged in a row are interconnected by the interconnecting
30 wires 20. The welded length between the U-shaped clip 10 and the interconnecting wire 20 is approximately 1 mm.

Such a U-shaped clip assembly is wound around a drum so that the legs 14 and 16 are located outside. The U-shaped clip assembly is supplied from the drum to a clip clinching
35 device. When the clip clinching device is actuated after

wires to be clinched or the like has been positioned interiorly of the U-shape clip 10, the wires to be clinched or the like can be clinched by the U-shaped clip 10.

Since the welded length ℓ between the U-shaped clip 10 and the interconnecting wire 20 is approximately 1 mm, the U-shaped clip 10 is hard to be detached from the interconnecting wire 20 when the U-shaped clip assembly is transported. Therefore, care need not be paid to the transporting of the U-shaped clip assembly, not deteriorating the working efficiency. Moreover, since the U-shaped clip assembly is easily bended, the U-shaped clip assembly is easily wound around the drum.

While in the aforementioned embodiment, the welded length ℓ between the U-shaped clip 10 and the interconnecting wire 20 is set to approximately 1 mm, it is to be noted that if the welded length ℓ is set to 0.1 to 1.4 mm, preferably, 0.7 to 1.0 mm, the U-shaped clip 10 is hard to be detached from the interconnecting wire 20 and the U-shaped clip assembly is easily bended. While in the aforementioned embodiment, the case has been described where the U-shaped clip 10 and the interconnecting wire 20 are formed of steel, it is to be noted that the invention can be applied to the case where the U-shaped clip and the interconnecting wire are formed of other metals.



CLAIMS:

1. A U-shaped clip assembly in which inteconnecting wires are welded to heads of a plurality of U-shaped clips whereby
5 said plurality of U-shaped clips are interconnected by said interconnecting wires, and a welding length between said U-shaped clip and said interconnecting wire is in the range of 0.1 to 1.4 mm.
- 10 2. The U-shaped clip assembly according to claim 1 wherein said welded length is in the range of 0.7 to 1.0 mm.
3. The U-shaped clip assembly according to claim 1 or claim 2 wherein said U-shaped clip is formed of steel.
- 15 4. The U-shaped clip assembly according to claim 1, claim 2 or claim 3 wherein said interconnecting wire is formed of steel.
5. A U-shaped clip assembly substantially as described herein
20 with reference to Figs 1 to 4.

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