July 5, 1966 E. WECKESSER 3,258,819

CABLE CLAMP

Filed Sept. 21, 1964

Fig. 1.

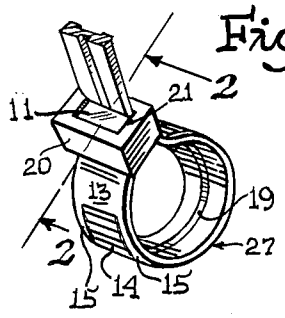



Fig. 2.

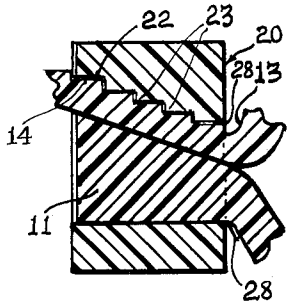



Fig. 3.

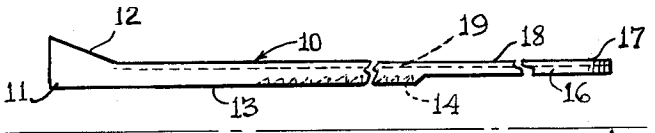



Fig. 4.

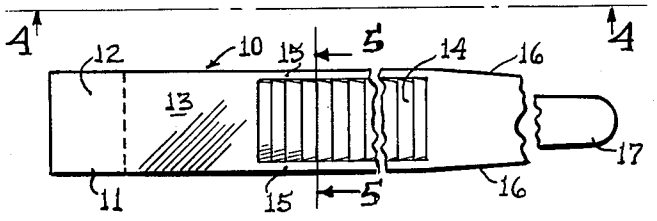



Fig. 5.

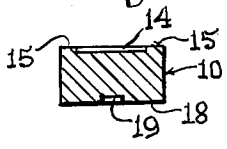
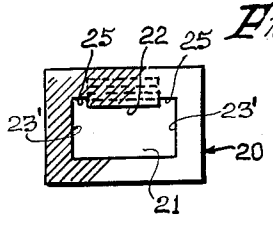



Fig. 6.




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3,258,819

# CABLE CLAMP

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6 Claims. (Cl. 24—16)

My invention relates to a new improvement in a cable clamp and more particularly to a clamp for binding together a plurality of wires, cables, rods or the like.

An object of my invention is in the provision in a clamp of this character of a simplified means for securing opposite ends of the clamp together in clamping relationship.

A still further object of my invention is to provide in a clamp of this character a wedge locking means for securing said clamp in clamping position.

Yet another object of my invention is in the provision in a clamp of this character of a means of one end portion of said clamp for cooperating with said wedge for clamping one end of said clamping position.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings showing the preferred form of construction, and in which:

FIG. 1 is a perspective view of my cable clamp in a clamping position;

FIG. 2 is a fragmentary detailed sectional view taken on line 2—2 of FIG. 1;

FIG. 3 is a fragmentary side elevational view of my improved cable clamp;

FIG. 4 is a fragmentary plan view of my cable clamp taken on line 4—4 of FIG. 3;

FIG. 5 is a detailed sectional view taken along line 5—5 of FIG. 4; and

FIG. 6 is an end elevational view of my cable clamp.

This invention relates to a cable clamp that is made from a semi-flexible material, such as nylon and the like. The invention is primarily used in securing together into a cable formation, a plurality of electrical wires or the like.

My improved cable clamp as shown in FIG. 3 comprises a relatively narrow flat strip or band **10**. One end of the strip **10** terminates into an enlarged head **11** which has one side wall **12** thereof inclined away from the corresponding side **13** of the band **10** in an outwardly direction. The one side **13** of the band **10** is provided with a plurality of transversely extending serrations **14** formed intermediate the opposite ends of the band **10** as seen in FIGS. 3 and 4. Each of these transversely extending serrations are of a length slightly less than the width of the band **10** so as to terminate at either end into longitudinally extending ridges **15**. These serrations **14** are so formed that they extend in a parallel relation with respect to each other and longitudinally throughout a substantial length of the band **10**.

The opposite free end of the band **10** has the side edges **16** thereof tapered inwardly so as to provide a narrower tongue end **17** for the band **10**. The opposite side **18** of the band **10** is provided with a centrally located longitudinally extending recess **19**; the purpose of which will be hereinafter made apparent.

To connect the cable clamp into a loop about a plurality of wires or the like, I provide a substantially rectangularly shaped lock housing **20**. This housing **20** has formed therethrough a rectangular opening **21** which opening is of a width substantially equal to the width of the band **10** at its widest point. One wall **22** of the opening **21** is internally tapered, with the tapered wall



being provided with a plurality of stepped serrations **23** as seen in FIG. 2. These stepped serrations **23** are of a length equal to the length of the serrations **14** formed in the one side surface **13** of the band **10**. As seen in FIG. 6 the serrations **23** formed in the one wall **22** of the housing **20** terminate short of the side walls **23'** of the opening **21** so as to provide side recesses **25**.

When the cable clamp is in use the tongue end **17** of the band is projected into the lock housing **20** in such a manner that the enlarged head **11** thereof will be positioned within the opening **21** in the manner shown in FIG. 2. By reason of the inclined wall **12** of the enlarged head **11**, such head **11** will be caused to lie in facial abutment with the straight wall surface **26** of the opening **21** so as to provide an inclined passage beneath the serrations **23** formed in one wall **22** of the opening **21**. The remaining portion of the band **10** is then looped about the cable or strands of electrical wires and reinserted in an opposite direction into the opening **21** formed in the lock housing **20** as seen in FIG. 2.

By this arrangement the serrations **14** formed in the side wall **13** of the band **10** will be brought into registration with the stepped serrations **23** provided by the inclined inner wall **22** of the housing **20**. By forcing the wedge-shaped enlarged head **11** into the opening **21** formed in the housing **20**, the band **10** is clamped in the position shown in FIG. 1. In such clamping position, the serrations **14** and the stepped serrations **23** are in registration with each other while the side longitudinal ridges **15** of the band **10** are positioned in the side recesses **25** provided by the housing **20** so as to positively lock the band **10** in a looped condition.

When the cable clamp is used for mounting a cable or for securing into a cable formation a plurality of electrical wires, the loop **27** formed about such wires is drawn tightly so that the coating on such wires, whether it be plastic or rubber, will be compressed into the recess **19** formed on the side wall **18** of the band, which now comprises the inner wall surface of the loop **27**. This will prevent the slipping, twisting, or turning of such wires within the loop **27** formed by my improved cable clamp.

By referring generally to FIGS. 1 and 2 when the band **10** is formed into the loop **27** and locked in the lock housing **20**, the configuration of the loop **27** binds the band **10** to the housing **20** at points **28**. These binding points **28** between the band **10** and the housing **20** prevents accidental displacement of either end of the band **10** relative to the housing **20** and in fact function to more specifically lock the enlarged head **11** in a wedging relation within the opening **21** and the serrations **14** into engagement with the stepped serrations **23** provided by the one wall **22** of the housing **20**.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I therefore do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A cable clamp comprising
   (a) an elongated substantially flat strip of flexible material for wrap-around binding engagement with a plurality of wires and the like,
   (b) said strip having formed on one flat side thereof a plurality of transversely extending serrations,
   (c) said serrations being of a width less than the width of said band and terminating at either end into longitudinally extending ridges,

(d) a wedge means at one end of said strip having one side wall thereof inclined outwardly and away from said one flat side of said strip,

(e) a lock housing having an opening formed therethrough with one wall thereof tapered so as to reduce the size of the opening on one side of said housing,

(f) said tapered wall providing internally stepped serrations extending transversely to the depth of said opening,

(g) said stepped serrations being of a length less than the width of said opening and terminating at either end into parallelly extending recesses, and

(h) said strip being projected first in one direction through said housing so as to position said wedge means of said strip within said opening and then through said opening in an opposite direction with said ridges of said strip being depressed in said recesses provided by said tapered wall defining said opening,

(i) said wedging means engaging said strip within said opening for wedging the serrations formed in said strip into binding engagement with the stepped serrations formed in said tapered wall for securing said band in a wrapped around binding engagement about the wires.

2. A cable clamp comprising

(a) an elongated substantially flat strip of flexible material for wrap-around binding engagement with a plurality of wires and the like,

(b) said strip having formed on one flat side thereof a plurality of transversely extending serrations,

(c) said serrations being of a width less than the width of said band and terminating at either end into longitudinally extending ridges,

(d) a wedge means at one end of said strip having one side wall thereof inclined outwardly and away from said one flat side of said strip,

(e) a lock housing having an opening formed therethrough with one wall thereof tapered so as to reduce the size of the opening on one side of said housing,

(f) said tapered wall providing internally stepped serrations exending transversely to the depth of said opening,

(g) said stepped serrations being of a length less than the width of said opening and terminating at either end into parallelly extending recesses,

(h) said strip being projected first in one direction through said housing so as to position said wedge means of said strip within said opening and then through said opening in an opposite direction with said ridges of said strip being depressed in said recesses provided by said tapered wall defining said opening,

(i) said wedging means engaging said strip within said opening for wedging the serrations formed in said strip into binding engagement with the stepped serrations formed in said tapered wall for securing said band in a wrapped around binding engagement about the wires, and

(j) a means provided by the opposite flat side of said strip for receiving a portion of said wires connected by said clamp for securing the same thereto.

3. A cable clamp as defined by claim 2 wherein the means provided by the opposite flat side of said strip for receiving a portion of said wires comprises a centrally located recess extending longitudinally therethrough the length of said strip.

4. A cable clamp comprising

(a) an elongated substantially flat strip of flexible material for wrap-around binding engagement with a plurality of wires and the like,

(b) said strip having formed on one flat side thereof a plurality of transversely extending serrations,



(c) said serrations being of a width less than the width of said band and terminating at either end into longitudinally extending ridges,

(d) an enlarged head portion at one end of said strip having one side wall thereof inclined outwardly and away from said one flat side of said strip,

(e) a lock housing having an opening formed therethrough with one wall thereof tapered so as to reduce the size of the opening on one side of said housing,

(f) said tapered wall providing internally stepped serrations extending transversely to the depth of said opening,

(g) said stepped serrations being of a length less than the width of said opening and terminating at either end into parallelly extending recesses, and

(h) said strip being projected first in one direction through said housing so as to position said enlarged head portion of said strip within said opening and then through said opening in an opposite direction with said ridges of said strip being depressed in said recesses provided by said tapered wall defining said opening,

(i) said enlarged head portion engaging said strip within said opening for wedging the serrations formed in said strip into binding engagement with the stepped serrations formed in said tapered wall for securing said band in a wrapped around binding engagement about the wires.

5. A cable clamp comprising

(a) an elongated substantially flat strip of flexible material for wrap-around binding engagement with a plurality of wires and the like,

(b) said strip having formed on one flat side thereof a plurality of transversely extending serrations.

(c) said serrations being of a width less than the width of said band and terminating at either end into longitudinally extending ridges,

(d) an enlarged head portion at one end of said strip having one side wall thereof inclined outwardly and away from said one flat side of said strip,

(e) a lock housing having an opening formed therethrough with one wall thereof tapered so as to reduce the size of the opening on one side of said housing,

(f) said tapered wall providing internally stepped serrations extending transversely to the depth of said opening,

(g) said stepped serrations being of a length less than the width of said opening and terminating at either end into parallelly extending recesses,

(h) said strip being projected first in one direction through said housing so as to position said enlarged head portion of said strip within said opening and then through said opening in an opposite direction with said ridges of said strip being depressed in said recesses provided by said tapered wall defining said opening,

(i) said enlarged head portion engaging said strip within said opening for wedging the serrations formed in said strip into binding engagement with the stepped serrations formed in said tapered wall for securing said band in a wrapped around binding engagement about the wires, and

(j) a means provided by the opposite flat side of said strip for receiving a portion of said wires connected by said clamp for securing the same thereto.

6. A device as defined by claim 5 wherein the means provided by the opposite flat side of said strip for receiving a portion of said wires comprises a centrally located recess extending longitudinally therethrough the length of said strip.

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