Sept. 4, 1951 J. J. JAMROZY 2,566,334

CLAMP FOR CABLE DRUM CONTROLS

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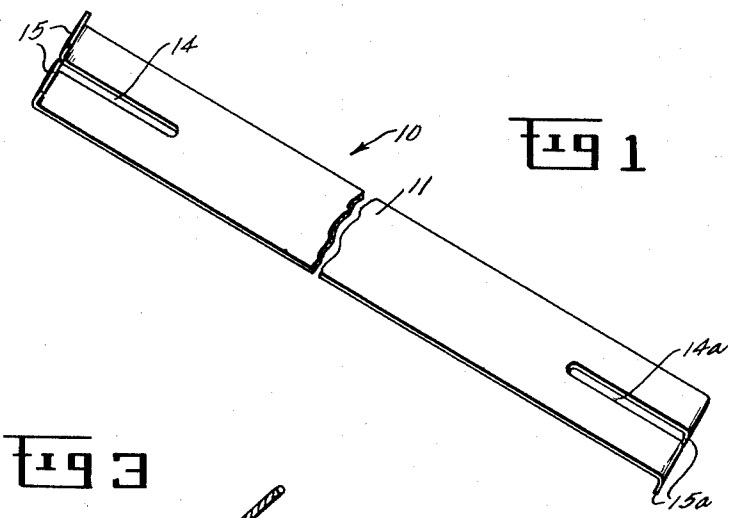


Fig 1

Fig 3

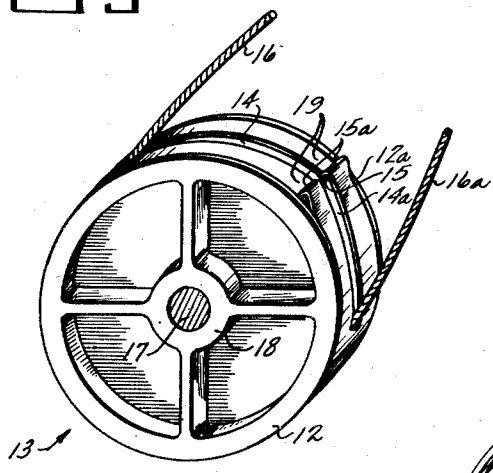
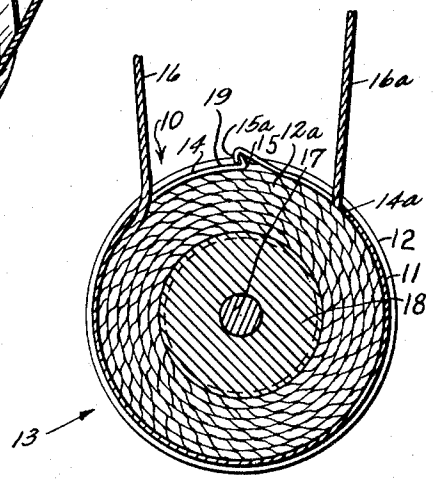


Fig 2



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CLAMP FOR CABLE DRUM CONTROLS

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1 Claim. (Cl. 242—126)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

1

The invention described herein may be manufactured and used by or for the Government for governmental purposes without payment to me of any royalty thereon.

This invention relates to a clamp or keeper for retaining a winding of cable on a drum or pulley.

Certain cables or wire ropes, particularly those of high tensile strength steel, show a pronounced tendency to straighten out and unwind from drums. Such a straightening tendency is particularly inconvenient when the cable is installed on aircraft and the excess or slack is stored on a drum. At present, tape is used to retain the cable end on the drum. Its use is unsatisfactory since the tape does not hold surely and it leaves the cable end sticky.

One object of the invention is to provide a clamp which will retain the cable on a drum or pulley with certainty and in correct alignment.

Another object is to provide a clamp that will retain the cable on the grooves of the drum or of the previously wound layer of cable.

Another object is to provide a clamp that is simple, easily applied and easily disengaged.

Another object is to provide a clamp through which the cables may be adjusted without removal of the clamp.

In the drawing:

Fig. 1 is a perspective view of the clamp in its outstretched condition;

Fig. 2 is a vertical cross section of a pulley showing the cable and clamp thereon; and

Fig. 3 is a perspective view of a drum and cable wound thereon, the clamp being in position of use around the drum.

The clamp 10 comprises a flat strip 11 as the space between the flanges 12 and 12*a* of the drum 13 upon which the clamp 10 is to be used. The strip 11 is spring tempered. At each end, there is a longitudinal slot 14 or 14*a* in the middle of the strip 10. The length of the slot may vary substantially, but the length of the clamp is such that it will just fit around the spool portion of the drum 13 upon which it is to be used. The fit should be such that an upturned flange 15 on one end of the clamp should be able to engage a downturned flange 15*a* on the other end of the clamp as shown in Fig. 2.

There are two conditions under which this device is useful. One of these is on drums which are part of an operating assembly, for example a winch drum controlling a rudder, either on an airplane or on a marine craft. When tension relaxes on the cable ends 16 and 16*a* in such service, the remaining turns of cable about the drum may loosen so that the frictional contact between the drum and cable is lost, thus making the control inoperative. In such case, when the operator has finished using the control, he will wrap the clamp 10 around the drum allowing the cable ends 16 and 16*a* to project through the slot as shown in Figs. 2 and 3. Contact of the cable with the drum is thereby preserved under the pressure of the clamp 10 both on the cable coils and on the drum beneath them. It is not necessary for the cable to be cut so that ends 16 and 16*a* do not join. On the contrary, a loop of cable (not shown) may be continuous from one end 16 to another end 16*a* and this loop may encircle the stem for example, of the rudder in order to control it. When active control of the rudder is to be resumed, it is advisable to remove the clamp 10 from the drum 13. Otherwise the cable would scrape on the slot ends as it was being paid out on one side and reeled in on the other, thereby wearing out the cable.

2

The clamp 10 is also useful when large spools of cable are stored, say in warehouses, from which spools or drums, lengths of cable are cut from time to time for various uses. If no restraint is placed on the cable ends, or at least one of them, that end will tend to uncoil from the spool and a snarl of cable may result. Use of the clamp 10 about the spool 13 will in such case keep the outer end from uncoiling and so contribute to the neatness and order of the warehouse. The end from which lengths of cable are to be cut for use will be instantly identifiable and available. For convenience in pulling cable off the spool 13 the latter should be mounted to be revoluble on a shaft 17 in the hub 18. Cable may be stripped manually from the spool 13 with or without the previous removal of the clamp 10. When disengagement of the clamp is desired, the lower flange is pushed down at the area 19 until it becomes disengaged from the flange 15*a*. The springy properties of the strip 11 then cause the clamp to straighten.

The invention claimed is:

A cable clamp for use on drums of cable or the like to prevent the uncontrolled unwinding of the cable, which comprises a substantially straight spring-tempered strip of metal having parallel sides, substantially parallel ends and a generally oblong shape, said strip having longitudinal slots in the middle of the ends thereof to receive the cable therethrough, said slots having parallel sides and extending a substantial distance inward from the ends thereof, an up-

wardly extending flange on one end of said strip and a downwardly extending flange on the other end of said strip, said flanges having a slight angular bend toward the middle point of the strip to give the flanges the ability to lock together by reason of the tendency of the metal to spring back to its original form and having the ability to be easily separated by a downward push on the radially inner end of the strip near the flange thereof to separate the flanges, whereupon said strip will spring substantially straight due to its original straightness and temper.

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