CABLE SPlicing AND CLAMPING DEViCE

Application filed March 5, 1929. Serial No. 344,398.

My patent application relates to clamping devices for use upon cables, cable ways, guy lines, and in any and all places where it is found desirable to place a clamp to which blocks, tackle, guy lines, and the like may be attached or to be used as a splicing clamp.

One of the objects of my device is to provide a clamping device that may be placed on the line with the line in place without the removal of the line or the loosening of one end of the line.

A further object of my device resides in a split cable engaging element that may be applied to the cable, or line, a piece at a time and the clamping mechanism be applied without the removal of the line, or the loosening of one end of the line.

A further object of my device resides in a structure adapted for being attached to a cable way, guy line or sky line in place and to which may be attached any desired block or tackle, quickly and without undue loss of time.

A still further object of my invention resides in the structure that is adaptable as a single ended unit or as a double ended unit, and that is adapted to clamping a single line or being attached to parallel lines, to form a splice.

A further object of my invention resides in a clamping device that may be attached to drums, hoisting cylinders and the like.

With these and incidental objects in view, the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in the appended claims, and a preferred form of embodiment of which is hereinafter shown with reference to the drawings which accompany and form a part of this specification.

In the drawings:

Fig. 1 is a side elevation of a single ended clamp in preferred embodiment used to form a loop or an eye in a rope or cable shown in position upon the cable.

Fig. 2 is a side elevation of a single ended clamp shown in use in the splicing of a cable or rope.
ble ended clamp being used as a splice clamp.

Fig. 18 is a side elevation of a double ended clamp illustrating the same in position upon a line to which a secondary line has been attached.

Like reference characters refer to like parts throughout the several views.

Referring to the mechanism illustrated in Figs. 1, 2, 3 and 4, as the same applies to single ended clamps in which a split body member 1 and 2, is formed of independent units having a central section 3, hingedly secured to one of the side body members by any suitable fastening means. Each of the side body members 1 and 2 form substantially a half cylinder 4 and 5, with the hinged member 3, having substantially a half cylinder 6 and 7 disposed at oppositely disposed sides, so that if a splice is to be formed, as illustrated in Fig. 1, the main line 8 may be passed through one of the sides of the clamp and the return end 9 may be passed through the oppositely disposed side of the clamp to form an eye 10 within the bight. Body members 1 and 2 are threaded on their outer periphery to which the male end 37 may be threaded. To prevent the slippage of the central section longitudinally of the line, a lug 12 outwardly extends from the side of the central section. The lug being adapted to engage within the receiving recess 13, disposed in one of the side sections. The side body elements 1 and 2 are hingedly secured together by a hinged link 14 that is disposed therebetween, and the same is held in place by journal pins 15 and 16. Where the double ended clamp is to be formed, the same may be made as illustrated in Figs. 5 and 6, wherein the central side wall body members 17 and 18 are hingedly secured together and wherein male threaded sections 37 are adapted to threaded engagement with the oppositely disposed ends of the side sections 17 and 18. The central section 21 being adapted to engage oppositely disposed sides of the cables 22 and 23 being disposed therebetween.

A modified form of the clamp may be made, as illustrated in Figs. 7 and 8 where-in the central side wall sections 24 and 25 have uniformly tapering, oppositely disposed ends, to form a clamping device for a single cable to be passed therethrough. Male clamping collars 26 and 27 are adapted to being driven upon oppositely disposed ends of the clamp and when a sufficient pressure has been developed between the side wall members 24 and 25 and the cable 28 to be passed theretbetween the same are held in relatively fixed position relative to the side wall members 24 and 25 by the locking device 29. A slot 30 is longitudinally disposed on the outer surface of each of the collars 26 and 27; with locking notches 31 disposed in the bottom of the slot. The locking device consists of a double locking latch 29 which is preferably made of spring material and is secured to the central section of the side walls by any suitable fastening means, as by a screw 32. A locking hook 33 is disposed upon the under side of the locking latch and is adapted for engagement within the locking notches so that when the collars are driven home on the clamping device it is maintained in position through the locking hook engaging the locking notches.

Where the clamping device is to be used on logging operations, or on ship's tackle, the device may be made as illustrated in Figs. 9, 10, 11, 12 and 13, and wherein the central sections 34 and 35 are adapted to coact with each other and wherein the side wall member 34 has a central rib 36 downwardly extending from the horizontal central line of the body portion 34. After the body member 34 is placed upon the line, as illustrated in Fig. 10 the adjacent section is then put in place within the yoke 36. The female engaging end sections 37 and 38 which are made split, as illustrated in Fig. 13, are then placed about the threaded end sections of the central members, when placed thereupon, the locking pins 39 are then inserted within the free end section of the hinged closure 40 and after being fastened about the threaded end section are then screwed up with a working relationship maintained between the clamping sections of the clamp. The clamp is held in position through supporting elements 41 and 42. After the connection has been made the supporting block 43 is then raised to position the same being hingedly supported to the yoke by a journal pin 44 after which the supporting block is maintained in position through the locking pin 45. The supporting block 43 may have any suitable supporting means associated therewith as a ring 46 into which a yoke 47 is made to engage for supporting any suitable tackle gear as a block 48.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the forms of embodiments herein shown and described, as it is susceptible of embodiment in various other forms, all coming within the scope of the claims which follow:

What I claim is:

1. In a device of the class described, the combination of male and female coacting clamping elements, the male element comprising two sections hingedly secured with each other being threaded their outer periphery, a separator hingedly disposed longitudinally therebetween having a conceived
surface disposed on its oppositely disposed sides and male elements having means hingedly disposed thereon for permitting their placement about the male element without disturbing the cable.

2. In a device of the class described, the combination of male and female clamping elements in threaded relationship with each other, the male element comprising a plurality of semi-cylindrical units hingedly connected with each other and a separator hingedly disposed therebetween adapted for making two complete cylinders when in closed position, threads disposed on their outer periphery, means disposed within two units for the preventing of longitudinal slippage of the separator section when clamped on a line, the male elements comprising a plurality of units hingedly connected with each other, threads disposed on their inner walls, and means for locking the said units when the male sections are placed in position for threading together the male and female sections into intimate relationship.

3. In a device of the class described, comprising male and female coacting clamping elements, the male member having a primary and a secondary section hingedly connected with each other and an intermediate section disposed therebetween and hingedly connected with one of the other sections, threads disposed on the outer walls of the primary and secondary sections, a lug disposed upon the intermediate section adaptable to intimate engagement with a recess disposed within one of the other sections, the female sections being threaded on their inner surface each having a hinged opening, and means for locking these hinged openings after placement of the female sections about the male section.

FRED. H. KNAPP.