

(No Model.)

J. F. HUNT.
CLAMP.

No. 542,767.

Patented July 16, 1895.

Fig. 1.

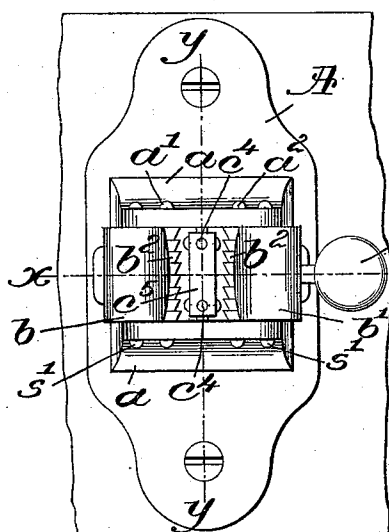


Fig. 3.

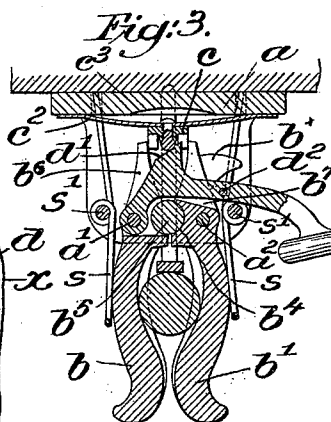


Fig. 2.

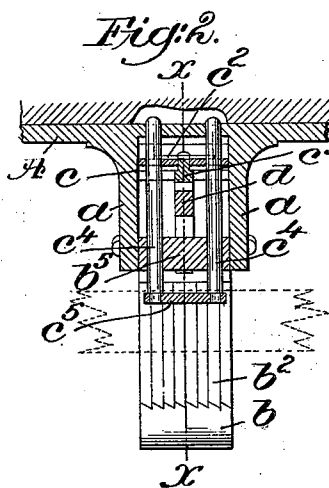


Fig. 4.

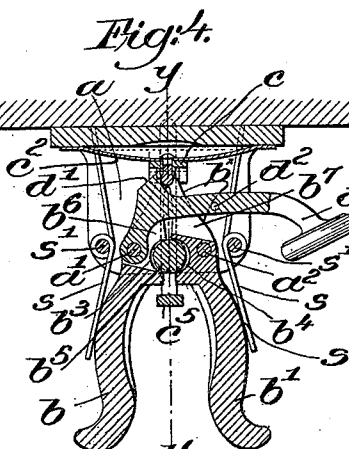


Fig. 5.

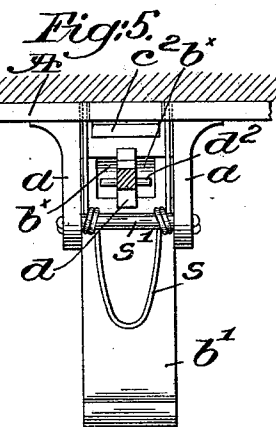
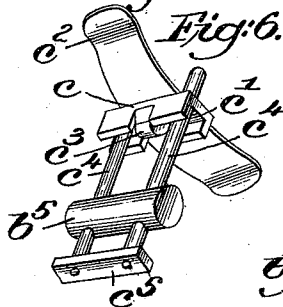


Fig. 6.



Witnesses.

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CLAMP.

SPECIFICATION forming part of Letters Patent No. 542,767, dated July 16, 1895.

Application filed May 31, 1894. Serial No. 513,099. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. HUNT, of Weymouth, county of Norfolk, State of Massachusetts, have invented an Improvement in Clamps, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a novel clamp for ropes and the like.

A clamp embodying my invention is particularly adapted for use in connection with halters, hammocks, awning-ropes, and the like.

In the drawings and following specification I shall disclose my invention in connection with a device particularly designed for use in clamping halters or hitching-ropes for horses, it being understood, however, that my invention is not restricted to such use.

My invention consists essentially in two clamping members adapted to be separated one from the other to admit the rope to be clamped and to be thereafter closed one toward the other to grip the said rope, the same in the preferred construction being combined with automatic locking mechanism to lock the said members in their separated or in their clamping position. Springs are preferably employed to close the said members, and a spreader is preferably employed to furnish means for opening or spreading the members, said spreader acting first to release the locking mechanism and thereafter to open the members.

In the preferred construction both members of the device are made movable, though it is evident the same result may be accomplished by employing one fixed member, making the other movable with relation thereto.

The above, together with other features of my invention, will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 represents in face view one form of clamp embodying my invention, the clamping members being shown as in their closed positions; Fig. 2, a section on the dotted lines *yy*, Figs. 1 and 4; Fig. 3, a section on the dotted lines *xx*, Figs. 1 and 2; Fig. 4, a view similar to Fig. 3, showing the clamping members as opened; Fig. 5, a

view looking from the right toward the edge of Fig. 4, and Fig. 6 a perspective detail to be referred to.

Referring to the drawings, in the particular device selected and there shown to illustrate my invention, A is a base of suitable shape and construction to sustain the several parts, the same, as shown, being provided with two outwardly-extended ears *a a*, between which are pivoted at *a' a²* the clamping members *b b'*, preferably shaped as shown in Figs. 3 and 4 and having their inner contacting or clamping faces longitudinally corrugated or serrated, as best shown at *b²*, Fig. 1, the serrations each having one inclined and one substantially horizontal face, like the teeth of a splitting-saw, the teeth pointing in a direction opposite that upon which the pull upon the rope held will come.

The clamping members *b b'*, preferably opposite their pivot-points *a' a²*, are shown as concaved at *b³ b⁴*, Fig. 4, to receive the cylindrical connection *b²*, which fits the concavities of the two members and compels like movement of both, so that when either one of the clamping members is moved a corresponding movement will, through said connection, be imparted to its co-operating member. The members *b b'* are shown as provided with extended or tail portions *b⁵ b⁶*, which, as herein shown, co-operate with the sliding locking device *c*, shown separately in Fig. 6 and as having a central longitudinal groove *c'*, to be referred to, the said locking device being normally pressed away from the base toward the pivots *a' a²* by a suitable spring, as *c²*, Figs. 4 and 6, held in position by and between the ears *a a*.

When the clamping members *b b'* are closed, as in full lines, Fig. 3, the locking device *c*, acted upon by the spring *c²*, enters bodily between the ends of the tail portions of the said members and positively holds the latter in their closed positions. When, however, the clamping members are moved into their full-line open positions, Fig. 4, the ends of the tails thereof will be held in and by the groove *c'* in the locking device, as shown in said Fig. 4, so that the said spring-actuated locking device operates to positively lock the clamping members both in their opened and also in their closed positions. It is necessary, how-

ever, to provide some means for releasing this locking device in order that the said clamping members may be opened or closed when necessary. To accomplish this, in the present instance of my invention I have provided what I shall call a "spreader," shown as in the form of a lever d , pivoted upon the pivot a' of one of the clamping members, as b , and provided with a cam or inclined face d' , which, when the said spreader is depressed or moved toward the base, acts upon the rounded contact-piece c^3 of the locking device and pushes the latter toward the base against the action of its spring and out of position, engaging and locking the ends of the tail portions of the clamping members, further movement of the said spreader toward the base acting, through its pin d^2 , upon the lugs b^* of one of the clamping members, as b' , to move the latter, and, through the connection b^5 , also the member b , to open or spread said members to permit introduction of a rope to be clamped, the locking device, acted upon by its spring, automatically springing into position to lock the said members in their open positions, as described.

The locking device c is held in proper position and guided in its movements by two pins c^4 c^4 having their bearings in the base and in the cylindrical connection b^5 , Figs. 3, 4, and 6, said pins being fast to the said locking device and projecting through into the space between the clamping members, where the said pins are provided with a releasing-bar c^5 , extending from one to the other pin and in position where it will be struck by a rope introduced between the two clamping members.

When the clamping members are opened or spread, as in Fig. 4, if a rope be introduced between the said members the said rope, in being pushed as far inwardly as possible, will strike the said bar c^5 and push the latter inwardly, thereby, through the pins c^4 , pushing the locking device back out of engagement with the tail portions of the clamping members and permitting the latter to be closed to grip the rope.

The clamping members are herein shown as acted upon by suitable springs s s , coiled about and held by pins s' s' , which springs act to automatically close the said clamping members upon and to grip a rope when the locking device is released.

It will be noticed that the locking device shown operates to positively lock the clamp-

ing members against movement—that is, locks them in such a manner that no pull upon the rope or device clamped or upon the clamping members themselves can release the locking mechanism.

I claim—

1. The herein described clamp, consisting of two clamping members separable one from the other, positive locking mechanism for and to positively lock the same in both open and closed position, and a lock releasing device, independent of said clamping members, to operate substantially as described.

2. The herein described clamp, consisting of two clamping members, separable one from the other; springs to automatically close the clamping ends of said members, one toward the other; a lock supplementing said springs to lock the said clamping members positively in closed position; and a lock-releasing device independent of said clamping members to release the latter in order that they may be opened, substantially as described.

3. A clamp, comprising a base, two clamping members pivoted thereto and connected to cause movement of one by the other, a spreader, automatic locking mechanism to automatically and positively lock said clamping members in closed and open or spread position, and means independent of said clamping members to release said locking mechanism, substantially as described.

4. A clamp, comprising a base, two clamping members mounted thereon and separable one from the other, locking mechanism to lock said members in closed position, and a combined lock releasing device and spreader movement of which first releases said locking mechanism and thereafter moves or separates said clamping members one from the other, substantially as described.

5. A clamp, consisting of two clamping members separable one from the other, locking mechanism to lock the same in open or spread position, and a lock releasing device in the bottom of the opening between said members and in position to be acted upon and moved by a rope introduced between said members, to thereby release said locking mechanism.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN F. HUNT.

Witnesses:

GEORGE L. WENTWORTH,
C. A. HUNT.