

E. F. CORDS.
CLAMP.

APPLICATION FILED JULY 16, 1910.

1,021,352.

Patented Mar. 26, 1912.

2 SHEETS—SHEET 1.

FIG. 1.

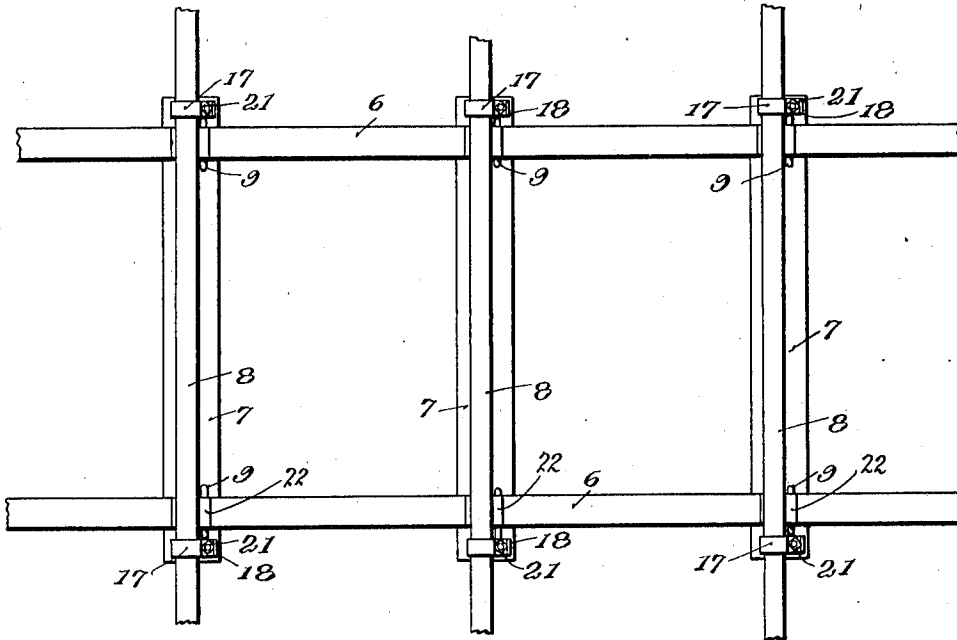
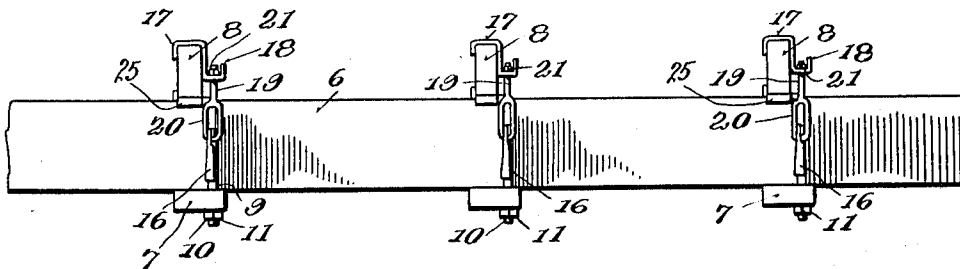


FIG. 2.



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2 SHEETS-SHEET 2.

FIG. 3.

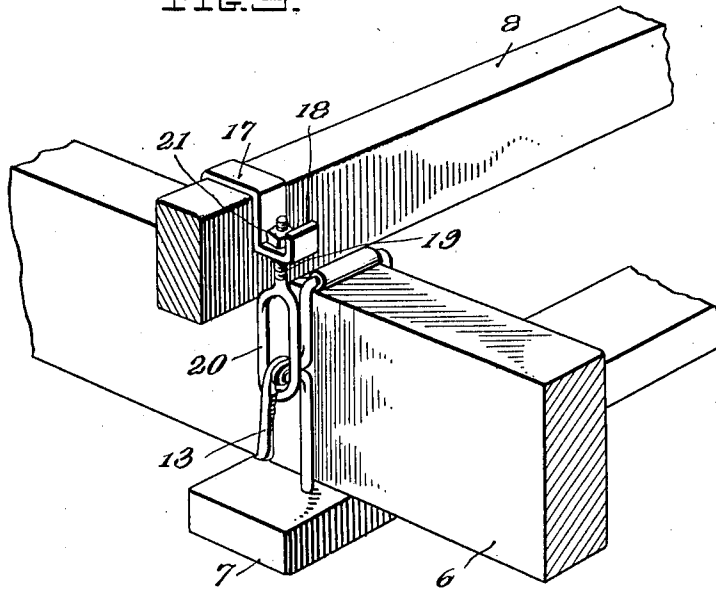


FIG. 6.

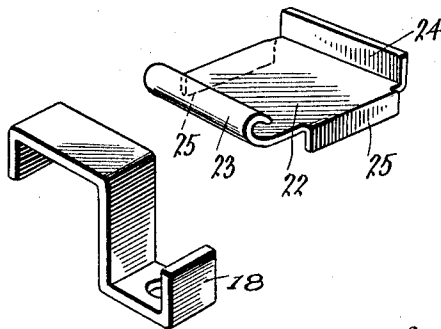


FIG. 4.

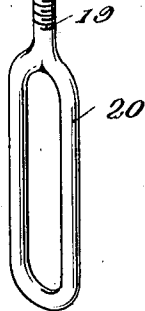
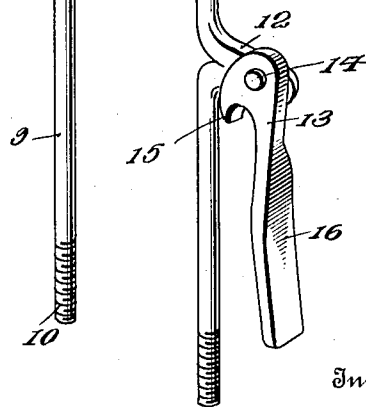


FIG. 5.



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UNITED STATES PATENT OFFICE.

EDWARD F. CORDS, OF SELBY, SOUTH DAKOTA.

CLAMP.

1,021,352.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed July 16, 1910. Serial No. 572,374.

To all whom it may concern:

Be it known that I, EDWARD F. CORDS, a citizen of the United States, residing at Selby, in the county of Walworth, State of South Dakota, have invented certain new and useful Improvements in Clamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to a clamp and more particularly to the class of hay rack clamps.

The primary object of the invention is the provision of a clamp in which longitudinal and transverse timbers or cross sills of any desired construction may be securely fastened together whereby the said sills or timbers may be released from each other when it is desired to knock down a hay rack.

Another object of the invention is the provision of a clamping device in which cross sills or timbers may be rigidly secured together for any desired purpose or at any desirable angle to each other without cutting, boring, or otherwise weakening the structure.

A further object of the invention is the provision of a clamping device in which cross timbers may be mounted one upon the other in superposed relation and rigidly secured without the use of bolts and nuts, and at the same time enabling one timber to be separated from the other in a ready and convenient manner without requiring the detachment of the device from the timbers.

A still further object of the invention is the provision of a device of this character which is simple in construction, thoroughly reliable and efficient in operation and inexpensive in manufacture.

With these and other objects in view the invention consists in the construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings, disclosing the preferred form of embodiment of the invention, and pointed out in the claims hereunto appended.

In the drawings:—Figure 1 is a fragmentary plan view of a hay rack with the invention applied thereto. Fig. 2 is a side elevation thereof. Fig. 3 is a fragmentary perspective view of the timbers with the invention in position for securing the same. Fig. 4 is a perspective view of one clip and

loop member detached therefrom. Fig. 5 is a perspective view of one of the U-shaped yoke members. Fig. 6 is a detail perspective view of one of the bearing plates.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

In the drawings the invention is for convenience shown as applied to a hay rack, though obviously adapted for any other purposes.

The numeral 6 designates the longitudinal members or sills of the rack, which are usually formed of parallel beams of a sufficient thickness and width and which are connected transversely at the bottom by any desired number of transverse base ties or boards 7 the same being of any desirable width and thickness. Across the top of said sills 6 extend the transverse sills or beams 8 which may be of any desired size or length and afford the lateral extension of the rack.

The clamping devices forming the subject-matter of the present invention each comprises a substantially U-shaped yoke member 9 having threaded ends 10, the yoke member being adapted to straddle the longitudinal sill 6 with its threaded ends 10 passed through suitable openings in the base or bottom ties 7 and engaged by nuts 11, one leg of the yoke 9 being formed with an outturned flat ear 12 to which is connected a locking lever 13 the latter being eccentrically pivoted as at 14 to the said ears 12 and is provided with a hook shaped nose 15 and a handle 16. The purpose of the locking lever will be hereinafter more fully described.

Engaged with the transverse beams 8 is a hook shaped plate 17 one end of which has an outturned and upturned bearing ear 18 the outturned portion of which being provided with a suitable opening through which is extended the thread-shank 19 of an elongated loop member 20 adapted for detachable engagement with the hook nose 15 of the locking lever 13, the threaded stem or shank 19 of the loop member 20 carries an adjusting nut 21 having its bearing upon the outturned portion of the ear 18 of the hook shaped plate of the device.

It will be obvious that when the lever 13 is engaged with the loop member 20 and is thrown into the position as shown in Figs. 2 and 3 of the drawings the cross beam 8

longitudinal beam 6 and base board or tie 7 will be securely clamped together but upon throwing the lever 13 upward the said beams may be conveniently separated from each other.

Interposed between the adjacent faces or the upper edge of the longitudinal beam 6 and the lower edge of the transverse beam 8 is a flat bearing plate 22 the same having formed at one edge an upwardly and inwardly curled flange 23 engaging the cross connecting piece of the U-shaped yoke 9 while the opposed edge is formed with an upturned lip 24 engaging one side face of the transverse beam 8 so that the latter will be prevented from any longitudinal displacement on the longitudinal sills 6 of the rack. The side edges of this plate 22 are formed with downturned lips 25 for engaging the side faces of the longitudinal sills 6 so as to prevent the bearing plate 22 from shifting laterally on the said sill.

What is claimed is:—

1. The combination with a longitudinal beam and a transverse beam crossing the same; of a clamp comprising a hook shaped plate engageable over the transverse beam and having an outturned and upturned extension, a loop having a shank portion carried by the outturned portion of the plate, an inverted U-shaped yoke straddling said longitudinal beam and secured below the same, an ear projecting outwardly from one of the branches of said yoke and a locking lever eccentrically pivoted to said ear and having a hook nose engageable with the loop member to secure the beams together.

2. A clamp of the class described comprising a plate of hooked formation, a loop

adjustably connected thereto, an inverted U-shaped member, nuts threaded on the extremities thereof, a lever having a hook nose, said lever being eccentrically pivoted to one portion of the U-shaped member and adapted for engagement with the loop and a bearing plate having opposite side portions downturned, one end upturned and the opposite end formed with a curved ear for pivotal attachment to the bight portion of the U-shaped member.

3. The combination with a longitudinal beam and a transverse beam crossing the same; of a clamp for securing said beams together, said clamp comprising a hook plate engageable with the transverse beam at one side of the longitudinal beam and having an outturned apertured extension, a loop suspended from the extension and having a shank adjustable therein, an inverted U-shaped yoke straddling said longitudinal beam adjacent to the transverse beam, a tie secured to the lower ends of the U-shaped yoke, an ear projecting outwardly from one of the branches of said yoke by bending the same upon itself, a locking lever eccentrically pivoted to said ear and having a hook nose engageable with the loop member at its lower end and a bearing plate interposed between said beams, said bearing plate being retained from movement thereon and being hinged to the yoke.

In testimony whereof, I affix my signature, in presence of two witnesses.

EDWARD F. CORDS.

Witnesses:

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