No. 648,670.

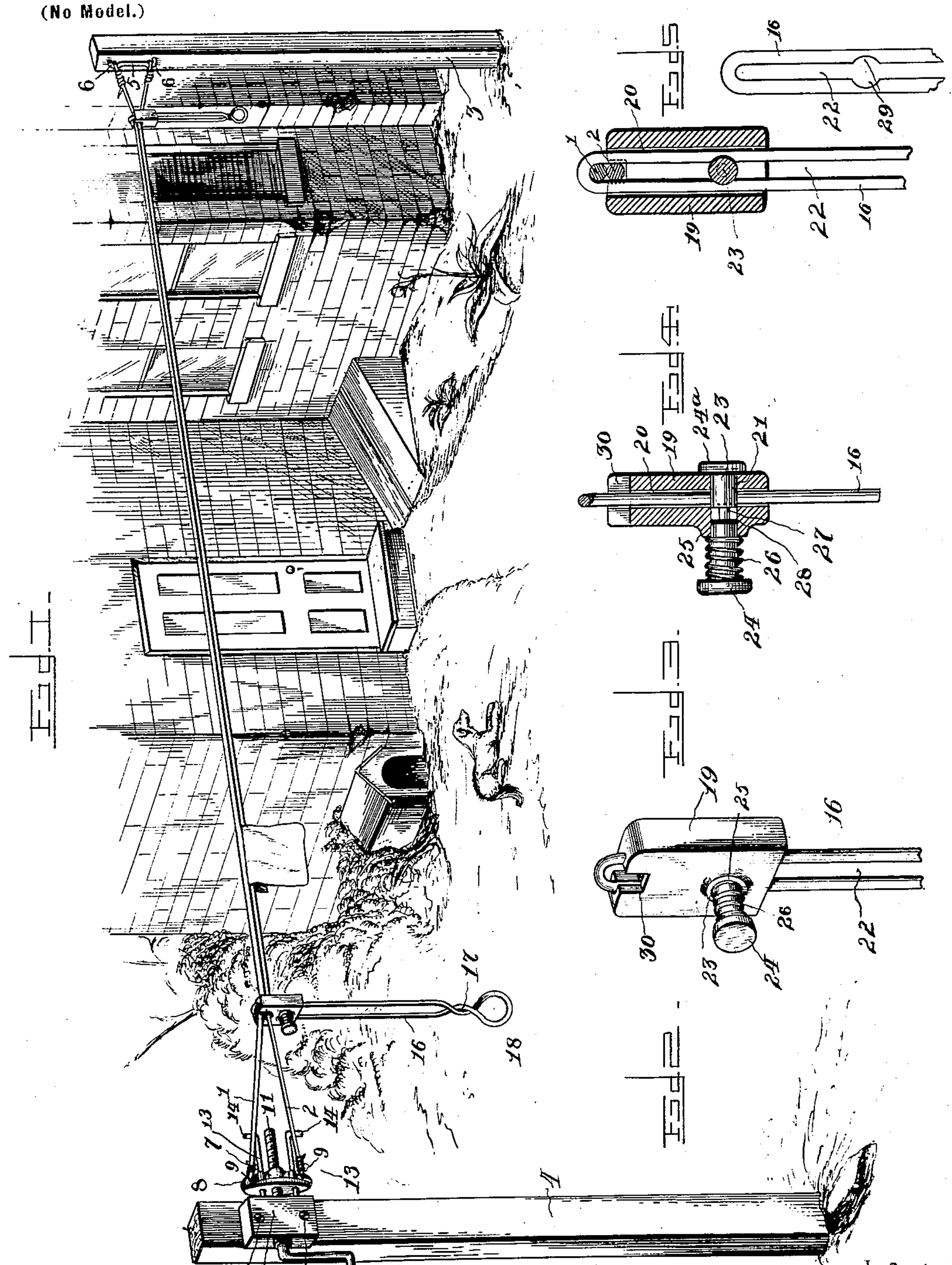
Patented May 1, 1900.

F. N. RENFROW.

CLOTHES LINE.

(Application filed Nov. 14, 1899.)

(No Model.)



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FRANCIS N. RENFROW, OF HILTON, MISSISSIPPI.

CLOTHES-LINE.

SPECIFICATION forming part of Letters Patent No. 648,670, dated May 1, 1900.

Application filed November 14, 1899. Serial No. 736,956. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS N. RENFROW, a citizen of the United States, residing at Hilton, in the county of Yazoo and State of Mississippi, have invented a new and useful Clothes-Line, of which the following is a specification.

This invention relates to clothes-lines, and has for its object to provide certain new and useful improvements whereby individual clothes-pins are dispensed with, and is particularly designed to improve the construction shown in my prior patent, No. 607,883, dated July 26, 1898.

As in my former patent, the present invention employs a clothes-line composed of a plurality of strands; and a further object of my invention is to provide an improved clamp for drawing the strands together, so as to bind firmly upon the articles to be suspended from the line, and to positively lock the clamp at a predetermined adjustment, so as to insure a proper binding of the strands and at the same time to permit of a convenient disengagement of the clamp when it is desired to remove the articles from the line.

To these ends the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and the minor details may be made within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a clothes-line constructed in accordance with the present invention. Fig. 2 is a detail perspective view of the improved line-clamp. Fig. 3 is a longitudinal sectional view thereof, taken at right angles to the body member of the clamp. Fig. 4 is a longitudinal sectional view taken at right angles to Fig. 3. Fig. 5 is a detail elevation of the upper portion of the body-clamp member.

Corresponding parts in the several figures of the drawings are designated by like characters of reference.

Referring to the accompanying drawings, 1 and 2 designate the respective strands which form the clothes-line, and the opposite ends of the latter are connected to suitable supports 3 and 4, respectively, preferably in the form of upright posts, as shown in the drawings.

One end of the line is connected to a substantially U-shaped staple 5, driven into the post or support 3, near the upper end thereof. This staple forms the fixed support for the line and is provided at opposite ends of its transverse portion with the loops or bends 6, with which the ends of the respective strands are connected. By the provision of the opposite bends or loops 6 the staple may be driven into the support until its transverse portion engages with the outer side of the support, so that the staple may be firmly braced and at the same time the loops or bends project sufficiently to permit of the ready attachment and removal of the strands, the ends of the latter extending transversely through the bends or loops and then twisted upon the main portions of the respective strands. The opposite end of the line is adjustably connected to the support 4 by means of a bracket 7, having a central longitudinal rib 8, which is provided at opposite ends with openings 9, with which the adjacent ends of the respective strands are engaged, as described for the opposite ends thereof. This bracket is adjustably connected to a block or support 10 by means of a screw-threaded stem 11, which engages a suitable screw-threaded opening in the bracket. The outer end of the stem, next to the outer side of the support 10, is provided with an operating crank or handle 12, whereby the bracket 7 may be adjusted toward or away from the block or support 10, as will be understood. To prevent axial movement of the bracket upon the threaded stem, there are provided opposite guide-rods 13, carried by the inner side of the block or support 10 and slidably extending through openings formed in the bracket and arranged at opposite sides of the stem. The outer ends of the guide-rods are bent outwardly in opposite directions, so as to provide stop-shoulders 14 for limiting the outward movement of the bracket and to prevent accidental displacement thereof from the adjusting-stem. It will be noted that the openings for the stem and the guide-rods are formed through the rib 8, and also the strands

are connected to the rib, whereby the body of the bracket may be made comparatively light and at the same time forms a strong and durable connection between the clothes-line and the adjacent support. The supporting-block 10 is mounted upon the post 4 by means of suitable fastenings 15, and therefore may be applied to any kind of a support and adjusted to any height, so as to meet the requirements of any position of the line.

From the foregoing description it will be apparent that the line is fixed at one end and has its opposite end adjustably connected to a support, so that all slack may be taken up and the line maintained in a proper taut condition.

To clamp the strands together, I have provided an improved device comprising a body member 16, formed from a single length of wire bent into an elongated loop, at the lower end of which the opposite portions of the wire are twisted, as at 17, so as to close the loop, and the end of the wire is bent into a ring 18, which forms a handle for moving the clamp upon the clothes-line. Adjustably mounted upon the body member is a slidable member 19, preferably in the form of a substantial rectangular metallic block, having a central longitudinal slot 20, slidably receiving the body member, so as to be movable longitudinally thereof. Near the lower end of the slidable member there is provided a transverse slot or opening 21, extending entirely through the member and intersecting the slot 20 at substantially right angles thereto and also communicating with the slot 22, formed between the opposite sides of the body member. Slidable longitudinally through the slot 21 is a locking key or pin 23, which also extends through the slot of the body member and projects at opposite sides of the movable member. The opposite ends of the pin or key are provided with enlarged heads 24 and 24^a, respectively, to limit the movement of the pin or key in opposite directions, the head 24 being removable, so as to facilitate the engagement of the pin or key with the slidable and body members. One exterior face of the slidable member is provided with an enlargement or seat 25, which surrounds the adjacent outer end of the slot 21, and bearing against this seat is a coiled spring 26, which loosely embraces the pin or key 23 and also bears against the inner side of the adjacent head 24, whereby the latter is normally held outward from the movable member and the opposite head 24^a is held in engagement with the opposite side thereof. At a point intermediate of the opposite ends of the pin or key the latter is reduced, as at 27, so as to form the opposite stop-shoulders 28. It will be understood that the reduced portion of the pin or key is of smaller diameter than the slot 22 in the body of the clamp, so that by pressing inward upon the head 24 said reduced portion 27 may be brought within the slot 22, whereby the movable member may be adjusted longitudinally of the body member.

To lock the slidable member at a predetermined point upon the body member, the inner edges of the latter or the opposite edges of the slot 22 are provided with the opposite notches or recesses 29, which coöperate to form a lateral enlargement of the slot and are located near the upper end of the body member. As clearly indicated in Fig. 3, it will be seen that the larger portion of the pin or key 23 is adapted to fit in the enlargement formed by the combined notches 29, and thereby prevents accidental movement of the slidable member upon the body member. When the reduced portion of the pin or key is received within the slot 22, the opposite shoulders 28 engage the opposite sides of the body member, so as to hold the spring 26 compressed, and when the slidable member has been moved to aline the pin or key with the notches 29 said spring will automatically draw the key or pin into the notches, and thereby lock the slidable member. It will be observed that the slot 22 of the body member is closed at opposite ends, and these closed ends are designed to engage the locking pin or key, so as to form stops therefor, and thereby prevent accidental separation of the clamp members.

It will be understood that the clothes-line is passed through the slot 22 of the body member and above the slidable member prior to securing the line to a support. To draw the strands together, the slidable member is moved toward the end of the body member until the locking pin or key automatically engages with the notches 29, whereby the upper end of the slidable member is brought into close proximity with the upper end of the body member, and thereby clamps the strands together and between the clamp members. The upper end of the movable member is provided with a transverse socket or recess 30, intersecting the slot 20 at substantially right angles and designed to receive the strands, as clearly indicated in Figs. 1 and 4 of the drawings.

Although I have shown but two clamping devices located adjacent to opposite ends of the clothes-line, it will of course be understood that other intermediate clamps may be employed, according to the length of the clothes-line.

From the foregoing description it will be apparent that the strands may be firmly clamped together by merely moving the slidable member until the locking-key automatically engages with the notches 29 and may be readily released by pressing inward upon the head 24 and drawing the slidable member away from the line.

What is claimed is—

1. A line-clamp of the character described, comprising a body, having a slot to receive the line, and which is closed at opposite ends, an adjustable member slidable upon the body

member, and a locking device carried by the adjustable member and projecting into the slot, the ends of the latter forming stops for engagement with the locking device.

2. A line-clamp of the character described, comprising a body, having a longitudinal slot to receive the line, and which is closed at its opposite ends, an adjustable member, having a slot to slidably receive the body member, and a locking device carried by the adjustable member and intersecting the slots of both members, the closed ends of the slot in the body member, forming stops for engagement with the locking device.

3. A line-clamp of the character described, comprising a slotted body member, an adjustable member slidable thereon, and a longitudinally-slidable spring-pressed pin or key, carried by the slidable member, extending through the slot in the body member, and having an automatic interlocking engagement with the latter.

4. A line-clamp of the character described, comprising a body member, having a longitudinal slot, the latter being provided with a lateral enlargement, a movable member slidable longitudinally upon the body member, and a longitudinally-slidable locking pin or key, carried by the movable member, having an intermediate reduced portion slidably received within the slot of the body member, and said pin or key also having a locking engagement with the enlargement of the longitudinal slot of the body member.

5. A line-clamp of the character described, comprising a body member, having a longitudinal slot, the latter being provided with a lateral enlargement, a movable member, having a longitudinal slot slidably receiving the body member, and also provided with a transverse slot intersecting the longitudinal slots of both members, a longitudinally-slidable locking pin or key mounted in the transverse slot of the movable member, having an intermediate reduced portion for slidable engagement with the slot of the body member, heads at opposite ends of the pin or key, a coiled spring loosely embracing the pin or key and bearing in opposite directions against the movable member and the adjacent head of the pin or key, and the latter having a locking engagement with the enlargement of the slot of the body member.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

his
FRANCIS N. × RENFROW.
mark

Witnesses:
W. V. THOMSON,
S. W. JOHNSTON.