G. W. KNIFFIN.

Clothes-Clamp.

No. 167,673. Patented Sept. 14, 1875.

Fig: 1.

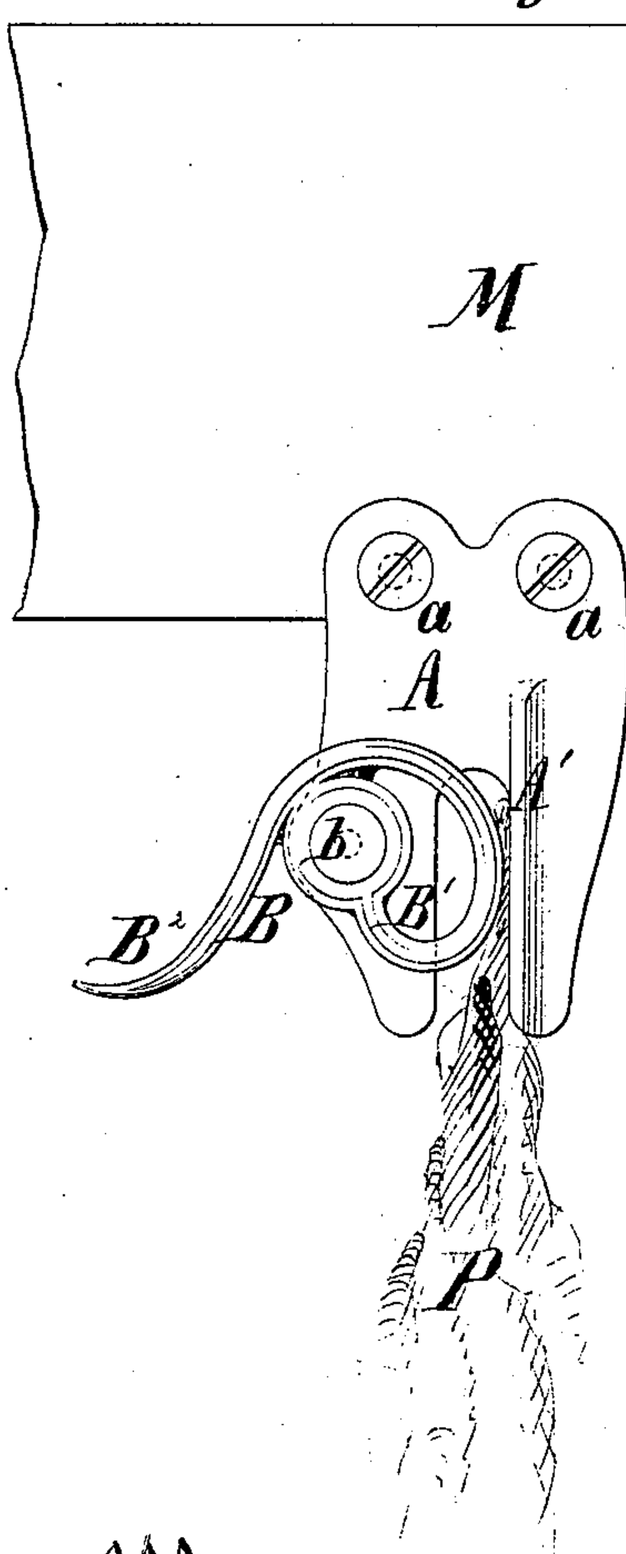


Fig: 2.

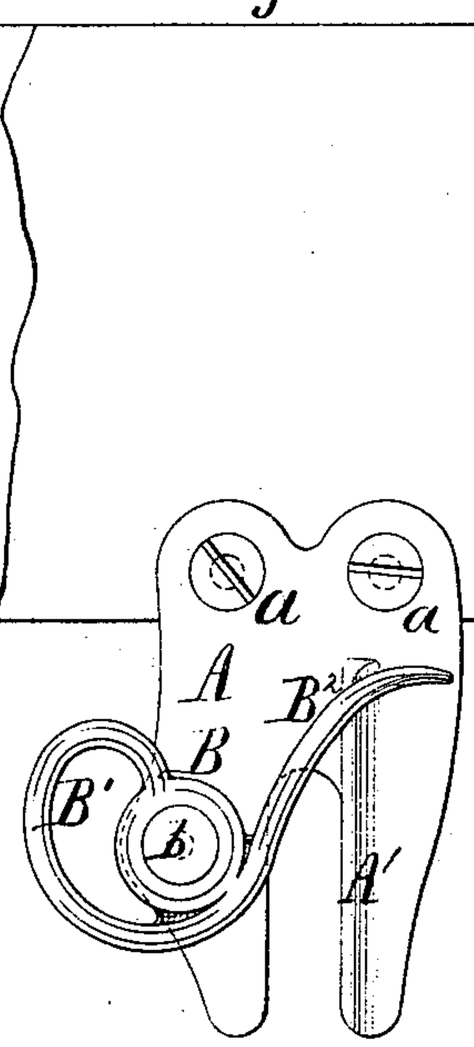
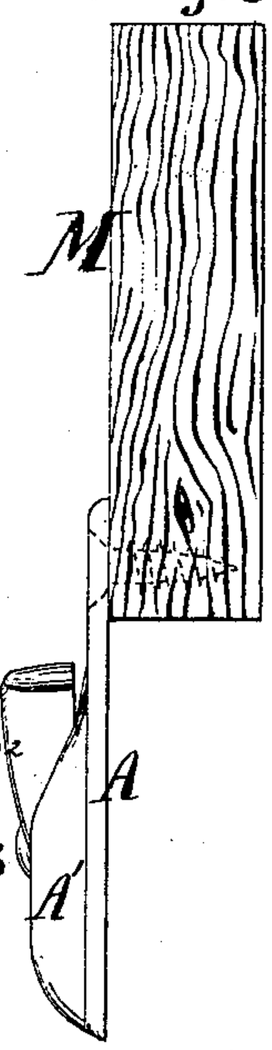


Fig: 3.



Witnesses:

Henry Gintner

Inventor:

Geo. W. Kniffin

by his attorney

C. D. Stetson

UNITED STATES PATENT OFFICE.

GEORGE W. KNIFFIN, OF NEW YORK, N. Y.

IMPROVEMENT IN CLOTHES-CLAMPS.

Specification forming part of Letters Patent No. **167,673**, dated September 14, 1875; application filed July 20, 1875.

To all whom it may concern:

Be it known that I, GEORGE W. KNIFFIN, of New York city, in the State of New York, have invented certain new and useful Improvements relating to Clothes-Holders for Drying-Rooms in Laundries, of which the following is a specification:

It is desirable to hold the clothes with sufficient force to support their weight, while at the same time allowing of easy connection and disconnection. It is not easy in the present state of the art to connect the clothes to the clothes-holders except by placing each separately in position, but it is highly desirable to remove a great quantity by a single movement.

My invention holds the clothes by clamping. The clamps hold with only a little more than just sufficient force to resist the gravity of ordinary garments. The clothes are removed by pulling directly downward, and on receiving such pull the clamps instantly and entirely let go. The clamping is effected by an eccentric or partial eccentric, with a short lever attached, operated by the finger or thumb. The removal of the clothes throws the clamp open, and leaves it so. On the insertion of a fresh garment the finger of the attendant easily throws over the lever and closes the clamp.

The accompanying drawings form a part of this specification, and represent what I consider the best means of carrying out the invention.

Figure 1 is a side elevation, with the clamp closed. Fig. 2 is a corresponding elevation, with the clamp open. Fig. 3 is an edge view corresponding to Fig. 2, with a cross-section of the supporting-rail.

Similar letters of reference indicate like parts in all the figures.

A is the body of my clamp, formed of malleable cast-iron or other suitable material. The movable portion of the clamp will be designated collectively by the letter B, the eccentric portion, which serves as the clamp, by the mark B^1, and the lever by the mark B^2. The part B is mounted on the part A by a loose rivet, *b*, so that it is free to turn. M is a rail, which may be either fixed or movable, it being understood that there are two of these at a sufficient distance apart, each equipped with a corresponding number of my clamps, mounted so as to allow the shirts, &c., to hang clear of each other. The rails may be moved outward and inward in a sufficiently-heated drying-kiln. The body or foundation A of each of my clamps may be fixed to the rail M by screws *a a*. A′ is a ridge, cast on the side of the part A. It affords a better bearing to clamp the clothes, and also forms a stop for the lever B^2.

On introducing the clothes into the clamp the clamp is found in the position shown in Fig. 2. The clothes are lifted up into the jaw of the clamp, and the lever B^2 is thrown over, thus turning the entire piece B into the position shown in Fig. 1, and causing the smooth eccentric portion B^1 to compress the clothes tightly against the opposite jaw of the part A, and against the ridge A′. The clothes are represented by P in Fig. 1. In this position the weight of the clothes tends to pull the clamp open by rolling the eccentric in a direction to liberate the clothes; but the friction and the slight weight of the lever B^2 are sufficient to prevent this movement. When the drying is completed, and the rails M with their loads attached are drawn out of the kiln, the attendant grasps as many of the clothes as he can encircle in his arms and pulls smartly downward. This pull liberates the clothes and whirls each of the parts B into the position shown in Fig. 2. At the termination of this movement of the part B the lever B^2 strikes the inclined upper end of the ridge A′, (see Fig. 3,) and, sliding downward a little thereon, is deflected outward, inducing a gentle arrest of the motion, with so much friction as to prevent its recoil. Without this precaution the motion, if too vigorous, might induce the lever to rebound, and thus throw the clamp into the closed position. The degree of inclination shown in Fig. 3 I esteem preferable, but it may be varied within wide limits, so as the tendency of the lever to rebound is effectually avoided.

The old-fashioned hooks necessarily seize shirts by their lower edges and hold them inverted. My clamps preferably hold the shirts right side up. The result is better by holding the starched and thick parts up in the top of the drying-room, where the heat is greatest.

I esteem my clamps different in the mode of operating from the opening-clamps that are now used by some. In all clamps the spring loses its life, and is of no effect after being used a little while in the hot drying-room.

I claim as my invention—

1. The clamping-piece B, turning on the axis *b*, in combination with the fixed part A, having the inclined projection A′, as described, whereby the holder is adapted to hold the clothing by friction, and liberate it entirely on its being pulled downward, substantially as herein specified.

2. The projection A′, having the inclined portion, as described, in combination with the turning part B, and adapted to arrest and avoid the rebound of the arm or lever B^2, as and for the purposes herein specified.

In testimony whereof I have hereunto set my hand.

GEO. W. KNIFFIN.

Witnesses:
W. L. BENNEM,
CHAS. C. STETSON.