Feb. 9, 1926. 1,572,832

E. B. AYRES ET AL

LOCKING DEVICE FOR DRYING FRAMES

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Fig. 2.

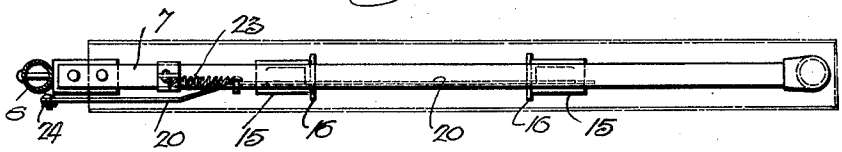
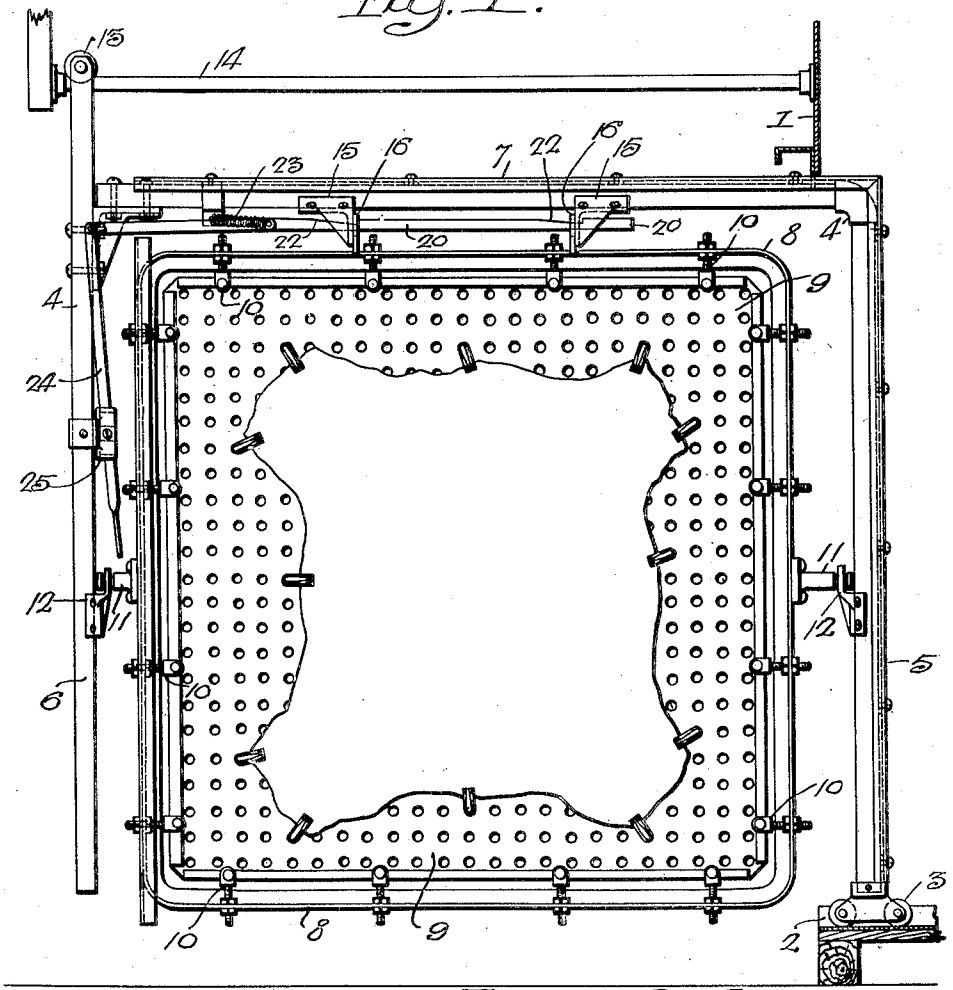


Fig. 1.



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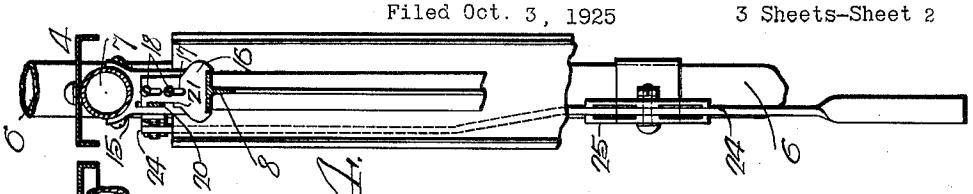


Fig. 4.

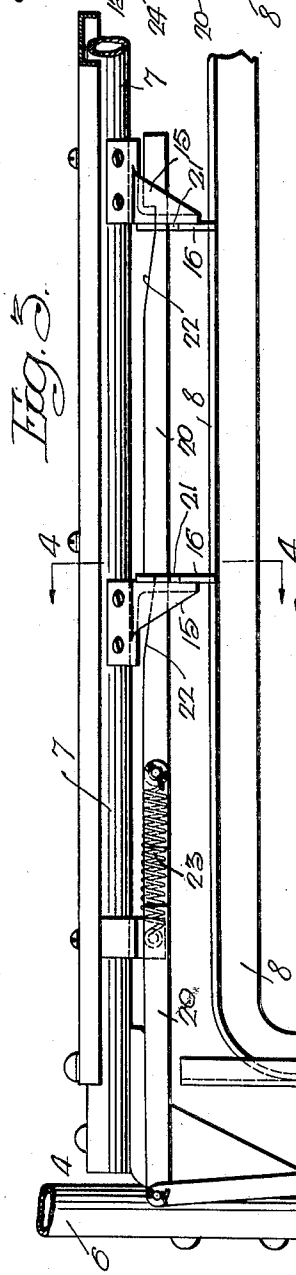


Fig. 3.

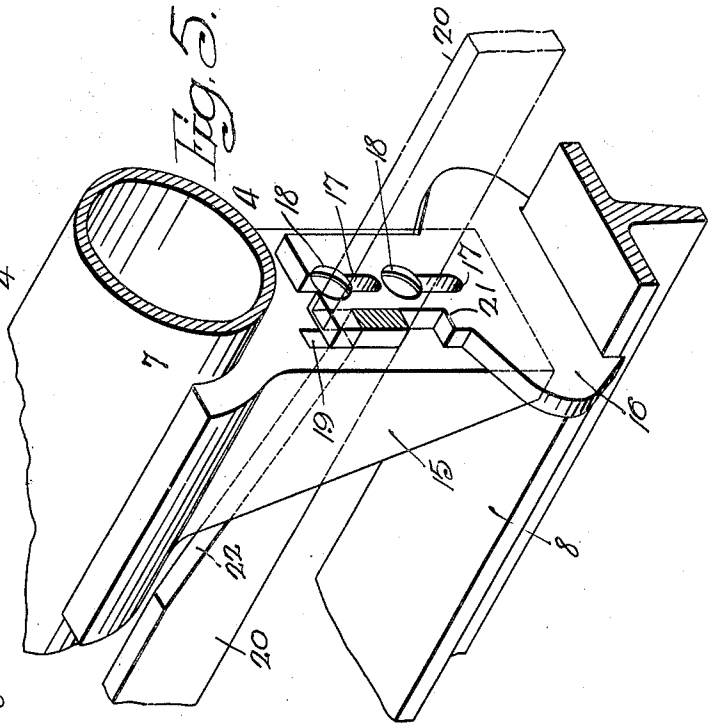


Fig. 5.

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Fig. 6.

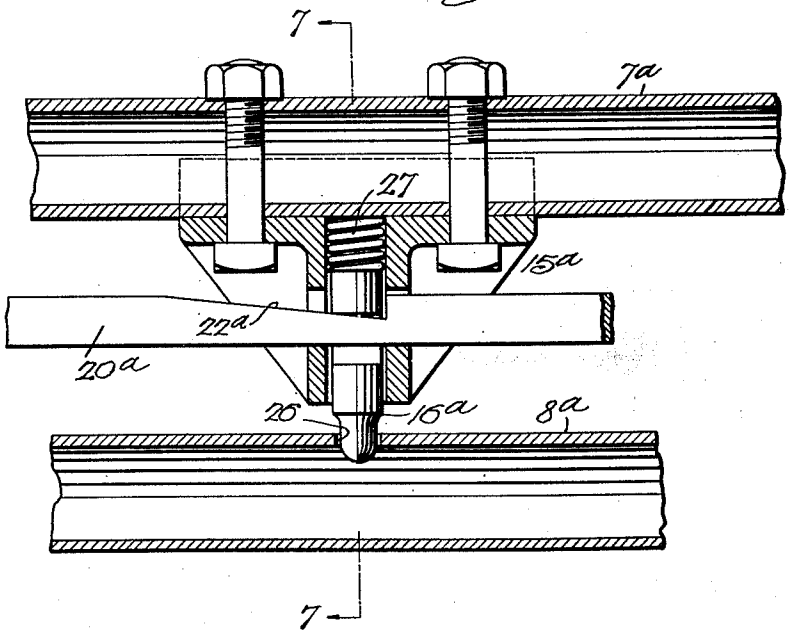
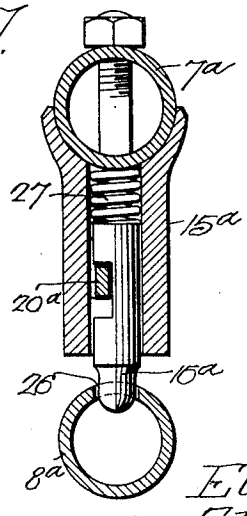


Fig. 7.



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Patented Feb. 9, 1926. 1,572,832

UNITED STATES PATENT OFFICE.

ELWOOD B. AYRES, OF MELROSE PARK, AND ALPHEUS O. HURXTHAL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO PROCTOR AND SCHWARTZ, INCORPORATED, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

LOCKING DEVICE FOR DRYING FRAMES.

Application filed October 3, 1925. Serial No. 60,241.

To all whom it may concern:

Be it known that we, ELWOOD B. AYRES and ALPHEUS O. HURXTHAL, citizens of the United States, residing, respectively, in Melrose Park, Montgomery County, Pennsylvania, and Philadelphia, Pennsylvania, have invented certain Improvements in Locking Devices for Drying Frames, of which the following is a specification.

Our invention relates to certain improvements in means for locking the frame on which leather is stretched for drying, to the slidable supporting carriages that are movable into and out of the drying chamber of a drying machine.

The object of our invention is to provide means for readily actuating the means for locking the frame to the carriage. When the frame is unlocked, it can be turned on its pivots to a horizontal position, with either side uppermost, in order that the operator may attach a skin to the frame or remove a previously attached skin from the frame.

In the accompanying drawings:

Fig. 1 is a side view of a drying frame illustrating our improved locking means. The frame is shown locked to the carriage, and a portion of the drier is shown in section;

Fig. 2 is a plan view;

Fig. 3 is an enlarged side view of the upper portion of the frame showing the locking mechanism;

Fig. 4 is a sectional view on the line 4—4, Fig. 3;

Fig. 5 is a sectional perspective view illustrating one of the latches;

Fig. 6 is a longitudinal sectional view illustrating a modification of the latch; and

Fig. 7 is a sectional view on the line 7—7, Fig. 6.

The drier may be of any of the usual types, but preferably one in which heated air is circulated by fans or other means.

In the drier is a series of rails 2, on which travel the lower wheels 3 of the carriage 4, which is constructed as shown in Fig. 1, having two vertical members 5 and 6 and a connecting upper member 7.

The carrying frame 8 is preferably made of a single piece of metal, either angular or tubular as shown, secured to the frame, at intervals, by bolts 10, or other suitable devices for holding the sheet metal taut. The frame 8 is provided with trunnions 11, which are mounted in bearing brackets 12 on the carriage 4.

The member 6 of the carriage is extended upward, and has a roller 13 adapted to travel on an overhead rail 14. This rail supports the carriage and its frame when the carriage is withdrawn from the drier as in Fig. 1.

On the upper member 7 of the carriage are two brackets 15—15, in the present instance, which extend close to the frame 8. On each bracket is a sliding latch 16, notched at its lower end so as to engage the frame 8, Fig. 5.

Each latch has two slots 17 through which extend screws or studs 18, which guide the latches as they are raised and lowered.

The brackets 15 are slotted at 19 for the cam bar 20, which not only extends through the slots but through notches 21 in one of the sides of each latch. The bar 20 has beveled portions forming cams 22. The beveled portions are at the latches, so that when the bar is moved longitudinally in one direction, the cams 22 raise the latches 16 clear of the frame, allowing the frame to be turned in the bearings of the carriage. When the bar is moved in the opposite direction, the latches are released and engage the frame as it is moved to a vertical position. The latches are beveled to allow the frame to raise them when assuming the vertical position.

A spring 23 is attached to the bar 20 and acts to withdraw the bar to allow the latches to normally rest in the engaging position.

An operating lever 24 is pivoted to a bracket 25 on the member 6 of the carriage, and is connected at its upper end to the cam bar 20. The lower end of the lever is within easy reach of the operator.

In Figs. 6 and 7 a modification of the locking mechanism is shown. On the upper member 7^a of the carriage is a bracket 15^a, in which is located a plunger latch 16^a, having a rounded end arranged to enter a hole 26 in the bar 8^a of the frame.

The latch is protected by a spring 27 located within the bracket 15^a, and is retracted by the cam 22^a on the bar 20^a which is moved longitudinally by an operating lever similar to the operating lever 24. The

bar 20ª extends through slots in the bracket and through a notch in the latch as shown.

The construction described is especially adapted for use on larger frames, the upper portions of which are difficult to reach. Substantial latches are necessary, as the tension of the leather in drying is so great that the frames are twisted out of shape, and as the frames are arranged close together in the drying chamber of the drier, any twisting would prevent the movement of the carriage into and out of the drier.

We claim:

1. The combination of a drying frame; a carriage on which the frame is pivotally mounted; a latch arranged to connect the frame to the carriage; a bar acting upon the latch; and a lever connected to the bar and extending within reach of an operator.

2. The combination of a drying frame; a carriage on which the frame is pivotally mounted; a latch on the carriage arranged to engage the drying frame; a longitudinally movable cam bar acting upon the latch; and an operating lever at one end of the carriage and connected to the cam bar.

3. The combination of a drying frame; a carriage on which the frame is pivotally mounted; a bracket on the upper member of the carriage; a latch slidably mounted on the bracket, said bracket being slotted; and a longitudinal operating cam bar extending through the slot in the bracket and engaging the latch to withdraw the latch from engagement with the drying frame.

4. The combination of a drying frame; a carriage on which the frame is pivotally mounted; brackets on the carriage; a latch on each carriage; means for holding each latch yieldingly in engagement with the drying frame to allow the frame to be engaged by the latches when moved to a vertical position; a longitudinal cam bar arranged to withdraw the latches; and an operating lever pivoted to the carriage and connected to the cam bar.

5. The combination of a drying frame; a carriage on which the frame is mounted; slotted brackets on the upper portion of the carriage; a latch slidably mounted on each bracket, the latch being notched to engage the frame and also notched at one side; a longitudinally movable cam bar extending through the slots of the brackets and through the notches in the sides of the latches; a lever for moving said bar; and a spring for withdrawing the bar to allow the latches to normally rest in the engaging position, so that when the frame is moved into the vertical position it will be engaged by the latches.

ELWOOD B. AYRES.
ALPHEUS O. HURXTHAL.