

No. 705,105.

Patented July 22, 1902.

J. T. LYKENS.

CLAMP FOR LEATHER SETTING FRAMES.

(Application filed Oct. 9, 1901.)

(No Model.)

Fig. 1.

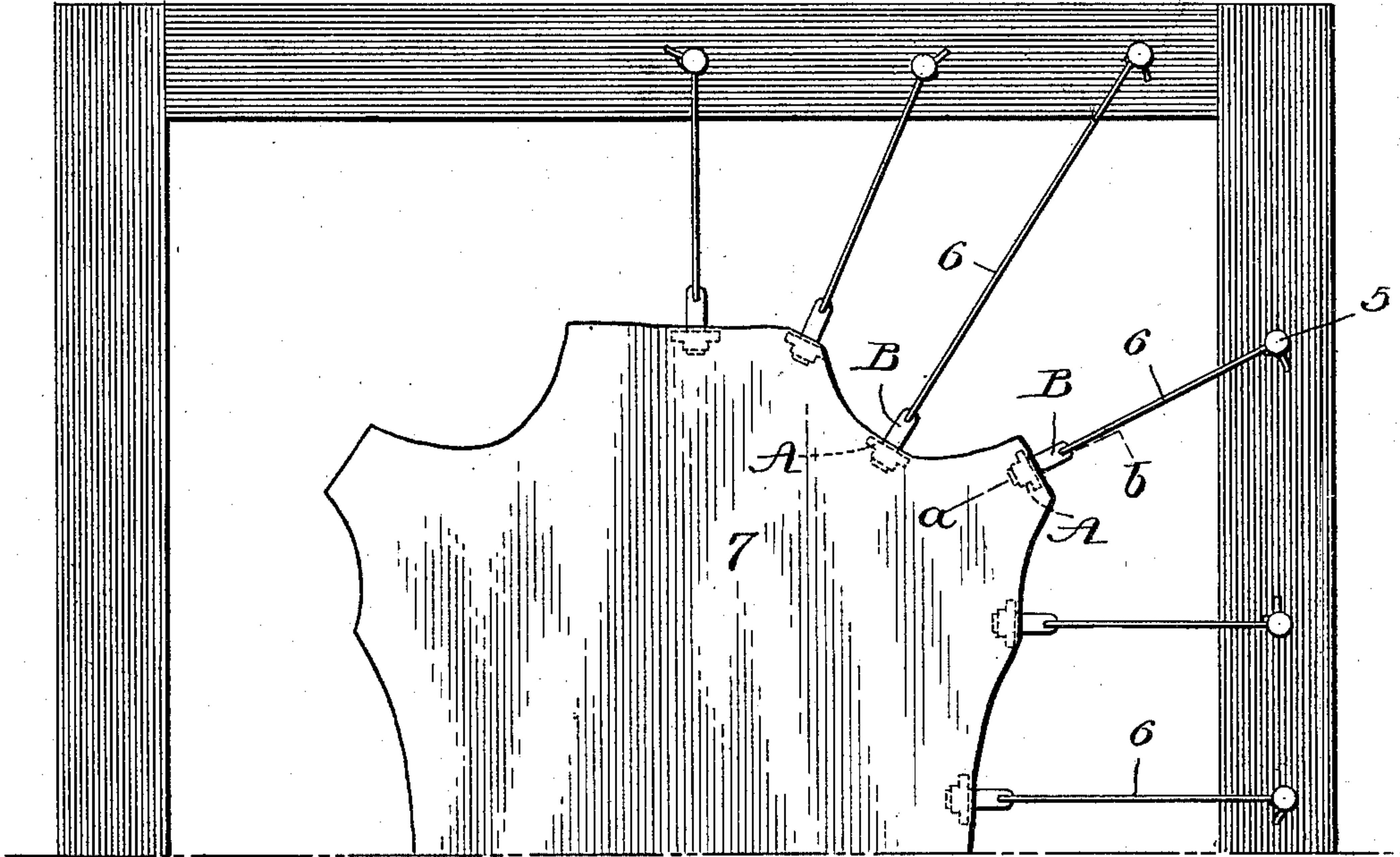


Fig. 3.

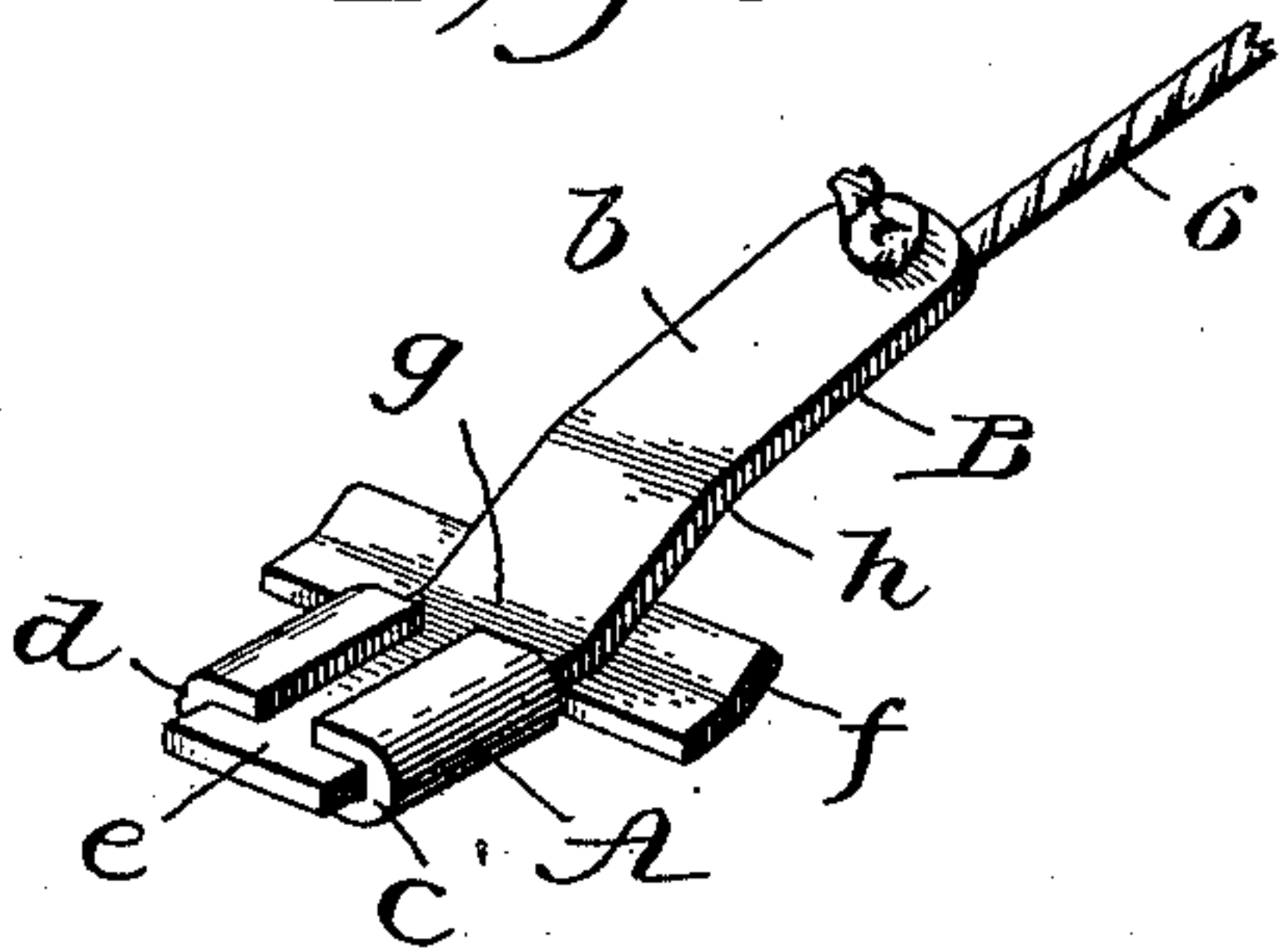


Fig. 4.

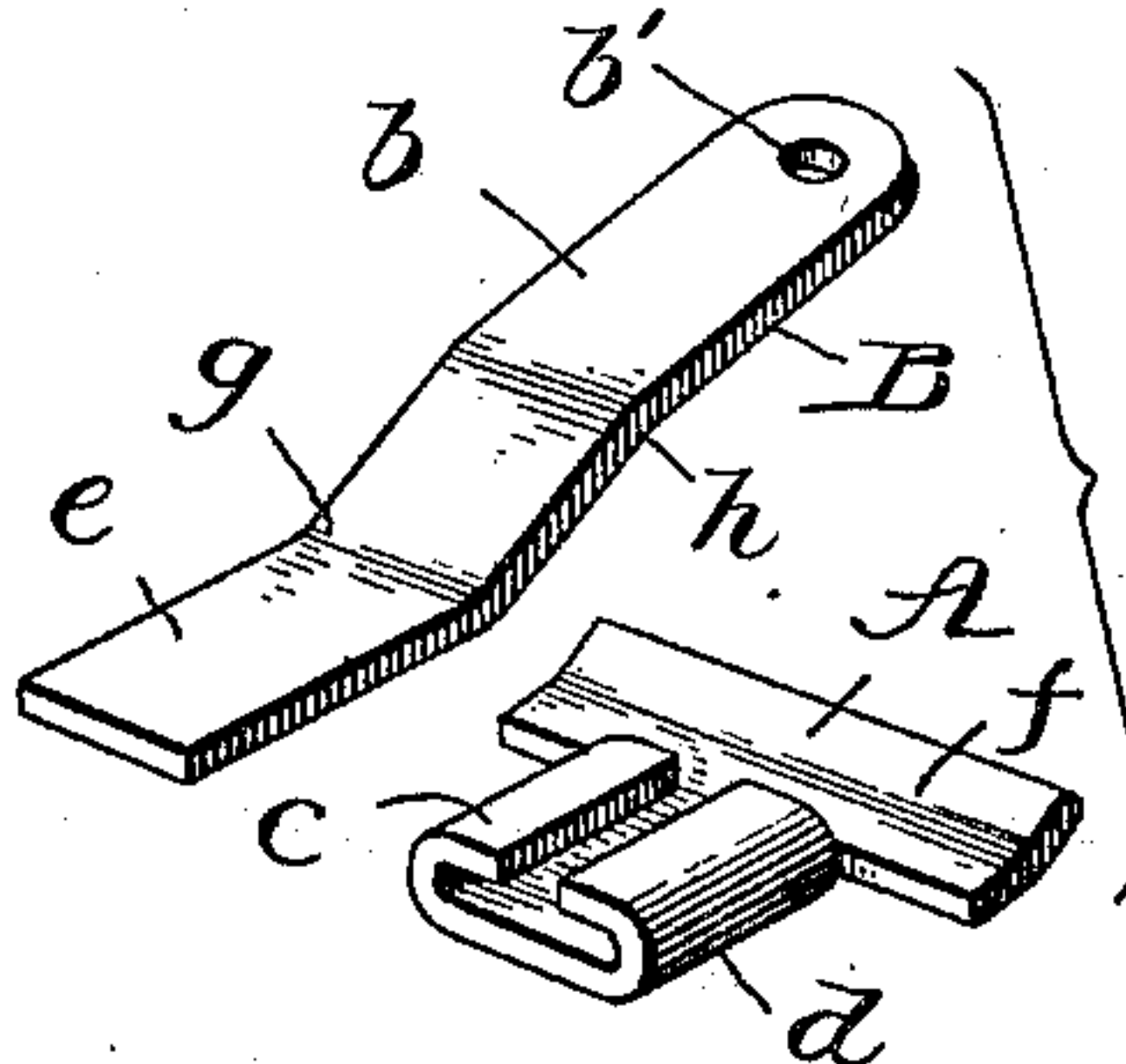
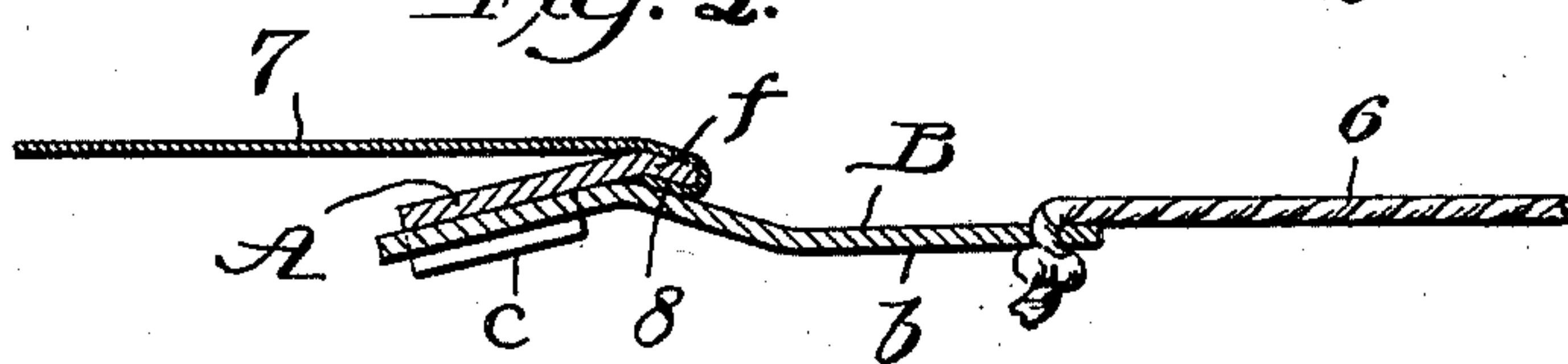


Fig. 2.



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# UNITED STATES PATENT OFFICE.

JOSEPH T. LYKENS, OF CRUMLYNNE, PENNSYLVANIA.

## CLAMP FOR LEATHER-SETTING FRAMES.

SPECIFICATION forming part of Letters Patent No. 705,105, dated July 22, 1902.

Application filed October 9, 1901. Serial No. 78,095. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH T. LYKENS, a citizen of the United States, residing at Crumlynnne, Delaware county, State of Pennsylvania, have invented certain new and useful Improvements in Setting-Frames for Enameling Leather, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming  
10 a part of this specification.

My invention relates to "setting-frames" for stretching leather employed in the manufacture of patent and enameled leather. Such leather is made from skins, such as calf-skins  
15 and goat-skins, which are first tanned, the surface of one side thereof being then treated with enameling preparations. As the tanned skins when being enameled must be held taut in a frame to free them from all wrinkles and  
20 to give a perfectly-smooth enameled surface, the common practice has been to stretch them on a "setting-frame," so-called, by cords which are fastened to the edge of the skin, said edge being perforated by a row of edge  
25 holes, the other end of the cord being tacked to the edge of the frame. This construction of frame makes the work of securing the skin thereon very slow. It does not always secure perfect tautness, and it wastes a full inch of  
30 the edge of the skin all around mainly by reason of the row of holes punched therein, which depth of edge has to be finally trimmed off. My improved setting-frame remedies these defects to a very great extent, if not com-  
35 pletely.

In the accompanying drawings, illustrating my invention, Figure 1 is a plan view of one-half of my improved setting-frame, and Fig. 2 a section through the line *a b* thereof. Fig.  
40 3 is a perspective view of the adjustable clip, which is part of my new setting-frame; and Fig. 4, a like view of each of the parts of said clip separated.

My invention has for its object, first, to dispense with perforating the edge of the tanned skin, next to grasp the edge during the stretching without tearing it and without destroying or folding over more than a quarter-inch or less of said edge, and finally to make  
50 it perfectly taut on the frame.

To these ends my invention consists in the

combination, with a suitable frame and with means to removably attach one end of a series of cords thereto, of an adjustable clip composed of two members constituting two jaws  
55 normally open and facing outwardly in order to bring the same beneath the main body of the skin when "set" in clamped position and adapted to grasp the edge of the skin between said adjustable members on the application  
60 of a pulling force thereto, one of which is adapted to be secured to one of said frame-cords; and my invention also comprises a specific form of such adjustable clip constructed of two members sliding one upon the other,  
65 one operating as a key and the other a member sliding within it.

By the old method the skins are punched along the edge with a row of holes which in practice are one-quarter inch in diameter  
70 and are arranged one-half inch from the edge of the skin, thus destroying at least three-quarters of an inch of the skin edge. A cord is tied to a short wooden bar or "toggle," as it is called, usually a round piece of wood about  
75 a half-inch in diameter and three inches long. The cord attached thereto is passed through one of said edge holes in the skin, the skin rolled over it once, and the cord again passed through the same hole. This  
80 destroys another quarter-inch of the skin, as it must be so rolled as to bring it under the main body of the skin which is to be enameled. The free end of the cord is then  
85 pulled until taut, and its free end finally fastened by a tack to the frame edge. A series of these are placed all around the edge of the skin, although sometimes one—usually the lower—of the four long edges of the skin is  
90 tacked directly to the frame. When the tanned skin is thus stretched and fastened to the frame, it is covered on the uppermost side with a coating of enameling-varnish, then put in the sun for several hours or in an oven  
95 on the frame to dry, and afterward without removing from the frame is again coated with a second and sometimes a third enamel coating and each time dried, as aforesaid, without reframing after the first framing, as described. Obviously, therefore, the skin must be origi-  
100 nally stretched on the frame as much as it will stand to make it taut thereon and per-



fectly smooth and to continue so during the whole enameling process. When finished and taken off the frame, the inch or more of edge taken up by the toggle and cord is not covered by the enamel, and, moreover, is useless by reason of the row of edge holes. Hence all this is trimmed off and wasted.

I will now proceed to describe my new setting-frame. By reference to the drawings, Fig. 1, it will be seen that the four-sided frame A is a skeleton frame, usually of wood, and it should have a sufficient thickness or depth, so that the fastening devices, the toggle in the old device, or the adjustable clip in my new device may not project beyond the lateral plane of the frame. As these frames with the skins stretched thereon after enameling are piled flat on each other when put in the oven to dry or set, the enamel and the projecting tacks or nails do not materially interfere with this, the chief object being to prevent the fastening devices on the frame (the toggle in the old device or the adjustable clip in my device) necessarily within the edges thereof from touching the enameled surface of the skin stretched on the underlying and overlying frames when so piled for drying. Both in the old device and in the new the toggle in the one case and the adjustable clip in the other case must be so arranged relatively to the stretched skin that they will come on the under side of the skin, as seen in Figs. 1 and 3, leaving the main body of the skin to be enameled (indicated at 7) clear, with the holding edges folded under the same.

The adjustable clip forming an element of my new setting-frame consists, as shown in Figs. 2, 3, and 4, of the two elements A and B, which open and close, preferably, by a sliding relatively to each other and together constitute a pair of jaws opening in a direction outwardly from the main body of the skin and adapted to receive the extreme edge 8 of the skin between them and which are brought to close on each other and on the interposed skin edge 8 when one of the same—namely, element B, as shown in the drawings—is pulled relatively to the other element and in a direction away from the edge of the skin, said element B being provided with a lengthened end or handle *b*, perforated at *b'* near its extreme outer end, whereby a cord 6 may be attached thereto. This mode of operation of the clip shown is effected by a construction of said parts A and B having the following features, namely: Element A is formed of a flat piece of metal split laterally at each edge and the portions *cd* then turned over toward each other. After the end *e* of element B is inserted between said upturned edges of element A then the straight portion *f* of the latter is given an upwardly-inclined bend, as seen in Figs. 2, 3, and 4. Correspondingly the element B at its locking end, at point indicated at *g* in Fig. 4, is given an upward bend and again a downward bend

at *h*. The last named, however, is not essential if the frame have enough lateral thickness to prevent said long end projecting below the horizontal plane of the frame. The long end *b* is provided with a perforation *b'* for the cord 6.

The operation of the adjustable clip and of the combined device constituting my new setting-frame will be apparent from Fig. 2, in which 7 is the skin, the edge 8 of which is passed over element A and is grasped between it and element B at or about the line of angular inclination of the former. Obviously a pull on the long end of element B will cause it to slide in element A and close on each other, grasping the skin edge 8 between them. Such pull is effected through cord 6, the free end of which is tacked or otherwise fastened to the frame edge, as usual, such as by tacks 5 or other removable fastening.

Obviously my invention in the frame as a whole is not confined to the specific form shown in the adjustable double-jawed clip in all its details. The essence of the invention as respects the clip element may be embodied in any clipping device operating on that principle—namely, a pair of jaws facing outwardly, adapted to close upon each other and upon the interposed skin edge when an outward-pulling force is given to said jaws, preferably by a pull on the end of one jaw element, with removable means to secure said adjustable clip to the frame edge, such as a cord secured thereto.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination, constituting a "setting-frame" for enameling skins of leather, a skeleton frame, a series of adjustable clamp-holding devices secured to the frame edges, and a corresponding series of skin-clamping devices consisting essentially of a pair of normally open clamping members with means to cause said members to close upon each other on the application of a pulling force to one of them, said members being so arranged relatively to each other as to face outwardly whereby the bite on the edge of the skin will bring the clamping device wholly beneath the main body of the skin.

2. A "setting-frame" adapted to grasp the folded-under edge of a skin to be held taut, comprising in combination an adjustable skin-clamping device consisting of a pair of normally open clamping members constituting a pair of jaws facing outwardly and adapted to close upon each other by an outward-sliding movement of one of them relatively to the other, an actuating-arm on the movable member, adjustable means for applying a moving force to said arm, and a skeleton frame to the edge of which said adjustable actuating means is secured.

3. An adjustable clamping-clip for a "set-



ting-frame" of the character described, consisting of a member A composed of guiding portion *c*, *d*, and inclined face *f*, and member B adapted to slide in said guiding portion of the opposite member, said member B having a handle end inclined at *g*, and perforated at its extremity, substantially as described.

In testimony whereof I have hereunto affixed my signature this 5th day of October, A. D. 1901.

JOSEPH T. LYKENS.

Witnesses:

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H. T. FENTON.