

L. BAKER.  
 METHOD FOR SECURING SEATS AND BACKS OF CHAIRS, SOFAS, &c.  
 No. 104,815. Patented June 28, 1870.

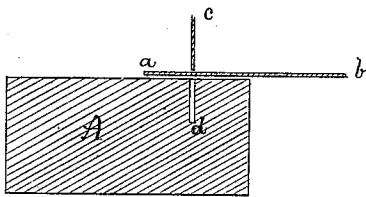
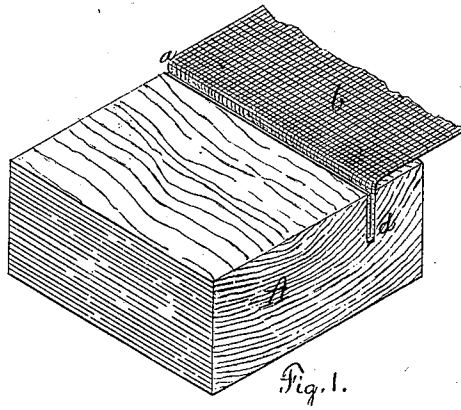


Fig. 3.

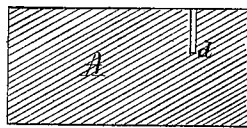


Fig. 4.

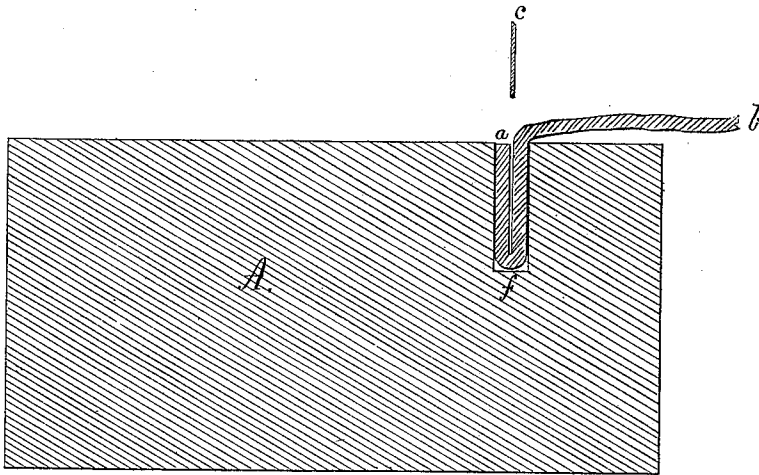


Fig. 2.

Witnesses.  
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# United States Patent Office.

LUCAS BAKER, OF TEMPLETON, MASSACHUSETTS.

Letters Patent No. 104,815, dated June 28, 1870.

## IMPROVED METHOD FOR SECURING THE SEATS AND BACKS OF CHAIRS, SOFAS, &c.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LUCAS BAKER, of Templeton, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and improved Method of Securing the Seats and Backs of Chairs, Sofas, Ottomans, Stools, and any other similar furniture, when the same are composed of cane, canvas, carpet, or any other flexible fabric, to the frames thereof; and I do hereby declare that the following is a full and exact description of my invention.

The nature of my invention consists in securing the seat or back to the frame of the piece of furniture designed to be covered, by cutting with a saw, chisel, or other tool, a narrow and deep groove in the upper surface in that part of the frame of the piece of furniture called the rail, and driving the fabric into this groove so as to form a fold, by means of a thin plate of steel or die, and then removing the plate of steel, the fabric being retained in its place by the natural compression of the sides of the groove, aided, if required, by glue or other adhesive substance, with which the groove may be previously filled.

To enable others skilled in the art to make and use my invention, I will proceed to describe its operation, reference being made to the drawing making part of this specification, at first setting forth the state of the art at the time of making my invention.

It is well known that the bottoms and backs of chairs or other furniture, when composed of carpeting, canvas, or other flexible fabric, have, prior to my invention, been secured to the frame or rails of the frame of the body of the chair by tacks, nails, or some other similar contrivance, or by glue, or some other adhesive substance, applied to the plane or smooth surface of the frame.

Where the bottom or back has been composed of cane or split bamboo, as in the ordinary cane-seated chair, it has been secured by the strands being passed through holes in the edge of the frame or rail of the chair, and secured on the under side by a knot, twist or loop, or other similar contrivance.

Upon the recent improvements in the weaving of cane fabric for the bottoms and backs of chairs, it became necessary to adopt some new method of securing it to the frame. The following devices have been adopted:

First, by screwing or nailing a rib to that part of the frame of the bottom and back of the chair or piece of furniture called the rail, between which rib and rail the fabric is tightly compressed and thus secured. This is a tedious and expensive method, and necessitates a rib made so as to fit closely the curves of the frame or rail of the back or bottom of the chair.

Second, by cutting a wide groove in the upper surface of the frame or rail of the chair or piece of fur-

niture, laying the fabric over it, and driving it securely into the groove by means of a bent or curved strip of wood called a spline, which conforms exactly, and fits closely into the groove, the fabric being jammed in between the surfaces and edges of the spline and the groove. This method is open to objection, in that it is necessary, in order to effectively secure the fabric, that the spline should fit exactly into the groove, and conform itself to the curve of the frame or rail.

The third method is similar to the second, the only difference being that the fabric passes over the spline, coming from the interstice between the spline and that side of the groove furthest removed from the center of the back or seat. It is thought that this method is more effectual.

The method which I have invented is more simple, more efficient, and less expensive, than any other in use. It dispenses entirely with the rib or spline used in other methods. It can be used equally well with cane, carpet, canvas, or other flexible fabric, and is open to none of the objections to which the other methods are liable.

I cut, with a small, thin chisel or any other sharp-pointed tool, a narrow groove around the seat-frame, or rail, or back-frame of the chair or other piece of furniture, or other frame, designed to secure the flexible fabric near the inner edge and on the upper surface of the same, as shown in the accompanying drawing, in figs. 1, 2, 3, and 4, at *d*.

Figure 1 being a perspective drawing of a portion of the frame or rail, with the fabric attached.

Figure 2 being a cross-section of the same, showing the fold of the fabric when secured in the groove, the plate *c* having been withdrawn from the same.

Figure 3 being a cross-section, showing the fabric *a' b*, the groove *d*, and the steel plate *c*, before it is introduced into the groove.

The width of the groove varies according to the thickness of the material designed to be used for the seat or back, whether cane, cloth, canvas, carpeting, hide, or leather.

The depth of the groove is such as to securely hold the material or fabric, and will vary according to the strength and thickness of the frame.

There are, obviously, various modes of cutting the groove *d*. This may be done by a sharp-pointed tool held in the hand, or by one mechanically secured, and actuated by power or otherwise. The groove is then thoroughly luted with glue. I may also use resin, starch, dextrine, paste, varnish, or any other adhesive substance.

I provide a thin plate of steel, *c*, not exceeding one-fiftieth of an inch in thickness. This may be of any length or width best suited to the work. Having cut the fabric into the exact form required, I place it un-

on the frame with the edge extending over the groove a little less than the depth of the same, as shown in fig. 3 at *a*, *a b* being the fabric, *c* the steel plate or spatula, and *d* the groove.

I then, by applying the edge of such thin plate or steel to the fabric, press the same into the groove so as to form a fold of the fabric in said groove.

The plate may be prevented from cutting the flexible fabric by rounding slightly the pressing-edge of the same.

The groove into which the fabric is thus pressed gives slightly. The steel is then withdrawn, and the sides, springing together into their natural position, hold the fabric tightly compressed in the form of a fold, as shown at *f*, the glue with which the groove has been previously luted aiding also to hold the fabric in place.

There are, obviously, various modes of applying the plate *c*. Instead of a single plate, a series of plates

may be used, applied successively by power, or otherwise; or, the plate may be fixed to a frame conforming in shape to the entire groove cut in the bottom or back of the chair, and may be operated by power or otherwise, as a die, to fix, by a single stroke, the edge of the whole piece of fabric in the groove.

The above-described method may be applied to securing any flexible fabric to any supporting frame.

I claim the combination of the narrow, grooved frame *A*, and the tightly folded edge *a f* of the seat or covering *a b*, the latter being inserted in said groove, and retained therein without the use of any fixed retaining wedge, strip, or frame, substantially in the manner as above specified.

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Witnesses:

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