

John More, Veneering.

Fig. 1,

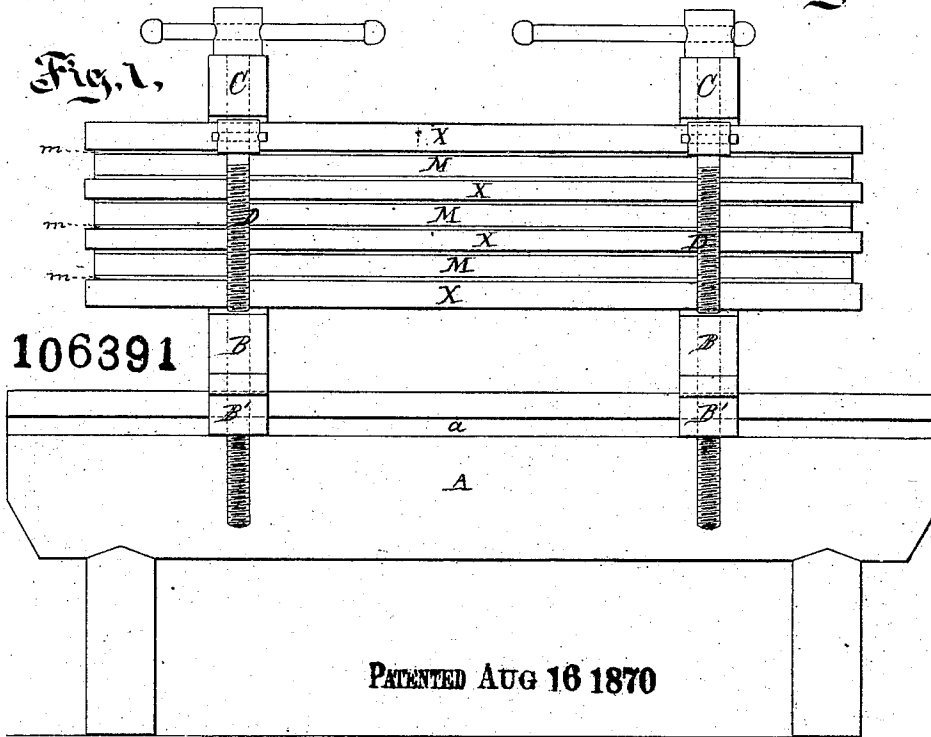
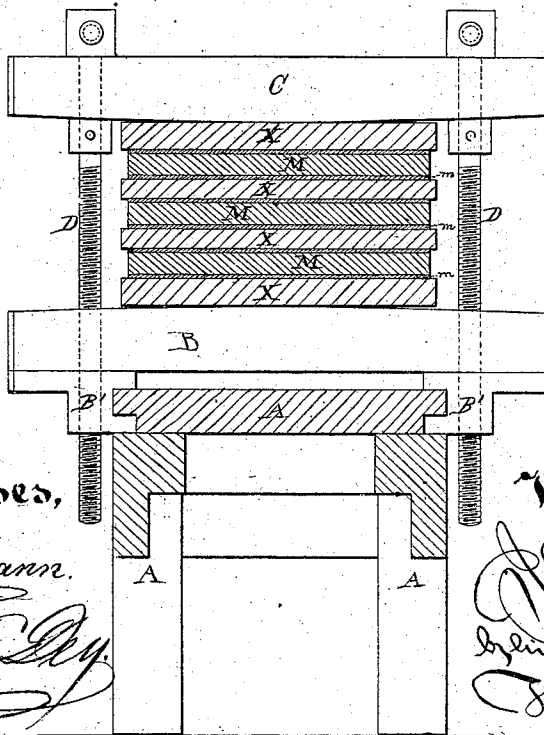


Fig. 2,



Witnesses,

A. Hoermann.
[Signature]

Inventor,

John More
[Signature]

United States Patent Office.

JOHN MORE, OF NEW YORK, N. Y.

Letters Patent No. 106,391, dated August 16, 1870.

IMPROVEMENT IN VENEERING-PRESS.

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, JOHN MORE, of the firm of Duke & More, builders, in the city of New York, have invented certain new and useful Improvements in Means for Veneering; and I do hereby declare the following is a full and exact description thereof.

My improvements are intended to avoid much of the difficulty now experienced in holding veneered work truly in position.

The ordinary clamps press the veneers tightly upon the wood which they are to ornament and strengthen, but they do not provide against curling and twisting, and other contortions of the entire mass. Any ordinary mechanism for confining the clamps involves too much labor and expense to be readily practicable.

I employ a bench, which may be used also for an ordinary work-bench, and which serves to keep the work rigidly in position while being secured together, and I use improved clamps, adapted to be applied to and removed from such bench.

I will first describe what I consider the best means of carrying out my invention, and will afterward designate the points or features which I believe to be new.

The accompanying drawing forms a part of this specification.

Figure 1 is a side elevation, and

Figure 2 is a cross-section of a set of layers of veneered work and cawls held stiffly in position according to my invention.

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

A represents a stout work-bench, composed in part or entirely of wood, if preferred, but in such case employing well-seasoned material, and truing the top and sides again after it has been firmly put together, and has had time to season further and assume its final form. Its upper surface is exactly plane, and of uniform breadth throughout its whole extent.

There is a groove, *a*, on each side, parallel with the upper surface.

B is the lower half of a stout clamp, and

C is the upper half thereof.

These halves are drawn together by strong screws D D, which have two collars acting against the upper and under faces of the upper half, C, and are tapped through stout casings, which I will term hooks, marked B' B', secured on the lower faces of the lower halves, B. These hooks are adapted to fit the edges of the bench, and to take hold in the grooves *a*, as represented in fig. 2.

The inner faces of both the halves B C are bellied or swelled, as represented, so that when the clamps are pressed together upon work in which the glue is soft, the pressure, being applied first in the center, will drive the excess of glue toward the edges. As the

clamps are drawn together with more force, the halves B and C bend under the strain, so that, finally, the edges of the work which is clamped are compressed. It is possible, by acting very powerfully on the screws D, to ultimately squeeze the veneered work at the edges more tightly than at the center, but in all cases the work is first compressed with the greatest force at the center, thus forcing out the glue.

I provide a considerable number of these clamps, all exactly alike. Each is adapted to fit upon the bench A, as represented, and, as the action of the screws does not compress the hooks upon the bench, but only draws the parts B and C together or releases them without affecting the tightness of the fit of the hooks, it is always possible to remove the entire set, comprising any number of clamps, from the bench, after the work has been rigidly and straightly clamped together.

I propose to use hot cawls, curved or otherwise adapted to the form of the surfaces to be veneered, as usual.

In describing the operation, I will assume that the work to be veneered are thin, plane pieces of wood. The cawls will in such case be plane. They may be made of wood, as usual.

I have represented cawls in the drawing by X, and have represented the body of the wood by M and the veneers *m*.

Operation.

Fit a number of the clamps upon the work-bench, by taking them up one by one, placing them properly against the end of the bench, and sliding them along. If a sufficient number of clamps be provided they may be placed very close together, so as to almost, if not quite, touch each other, but in such case the screws must obviously be operated by box-keys or some analogous means. The means represented, a sliding cross-bar, may be used in cases where the clamps are placed at a reasonable distance apart.

Having adjusted the clamps in position upon the bench, and the cawls being previously heated, the wood M is brushed over with hot glue, and the veneers adjusted in position thereon, with paper laid over the exterior of the surfaces in the ordinary manner. Now a stout board or cawl is laid within the clamps, being placed directly upon the upper face of the lower half, B. Then one layer of the freshly-glued work is laid thereon, another cawl is applied, another layer of fresh work, and thus we go on alternating cawls and work until another thick cawl is laid on the upper surface, nearly filling the clamps. Now the screws D are operated until a sensible resistance is experienced. It is well to bring all the clamps to this condition rapidly, and thence thereafter to oper-

ate more slowly, giving the glue time to exude gradually at the edges of the work as the screws D are gradually set up tighter and tighter. A proper tension must be obtained on the whole before the work has cooled to any great extent.

Now, after waiting a little time, depending on the haste with which the bench is required for subsequent operations, the entire series of clamps, with their contained work, is drawn off endwise from the bench and laid aside, to allow the work to thoroughly harden, while another set of clamps is placed in position on the bench and more work is similarly treated. The work being firmly held in position while being compressed, will not afterward curl or twist seriously, even

if the clamps are removed immediately from the bench.

I claim—

The clamp, composed of the parts B C, and screws D, and nuts B', constructed, arranged, and operating in the manner herein described, and for the purpose herein set forth.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

JOHN MORE.

Witnesses:

WM. C. DEX,

L. P. WHITEHEAD.