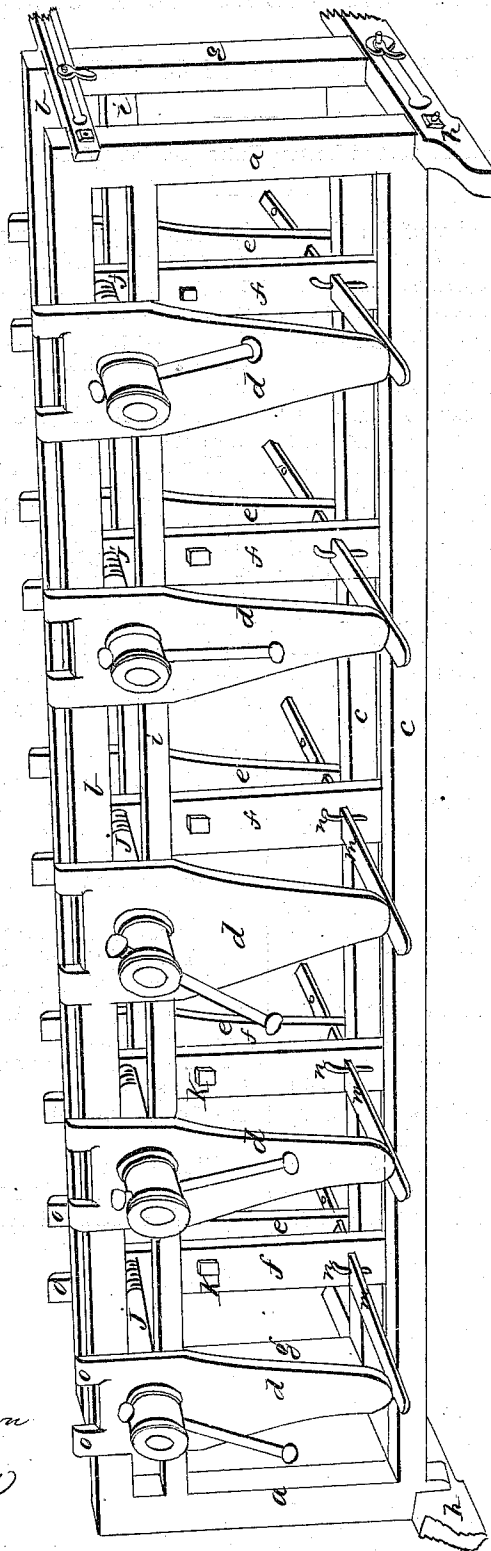


JOHN F. METZ.  
Improvement in Clamps.

No. 126,895.

Patented May 21, 1872.



Witnesses  
W. S. Wilkinson  
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# UNITED STATES PATENT OFFICE.

JOHN F. METZ, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO JOHN WILKINSON, OF SAME PLACE.

## IMPROVEMENT IN CLAMPS.

Specification forming part of Letters Patent No. 126,895, dated May 21, 1872.

I, JOHN F. METZ, of the city of Baltimore and State of Maryland, have invented certain Improvements in Clamps for Clamping Doors, Shutters, Blinds, and similar-framed work of wood, while such structures are being pinned, keyed, or wedged in the joints.

The first part of my invention relates to the construction of a double tressel so arranged as to be adjustable laterally, so as to adapt it to clamping frames of various widths, (as shown in the figure,) which is especially adapted to clamping shutters and blinds of various widths and lengths. In the double tressel the legs of one are framed into and secured to elongated feet at each end of the machine. These feet have a slot for a bolt, which secures the bottom of the movable tressel in place, and a corresponding slotted strip, bolted to the stationary tressel near the top of it, secures the top of the movable tressel. The clamps of these machines are worked by screws, similar to the ordinary bench-screw, and each clamp works independently, and yet the frame to be clamped is kept straight, even though unequal power be applied to the clamps, by the row of clamps on the movable tressel being in line, and there being no tendency to move them out of line. The second part of my invention relates to the form of that portion of the clamp which embraces the structure to be clamped, it being forked. The advantage claimed for the forked jaw of the clamp over the single jaw is, that it admits of applying the clamp so as to give an equal bearing at two points on each stile, or four bearing points on the frame, by the operation of a single screw, and still leaving the mortise and the end of the tenon accessible for wedging while the clamp is in force on either side of it. The third, and a no less

important, part of my invention relates to so constructing the tressel clamping-bench that the frame or structure in clamp may be held "out of wind," as well as straight, by giving it a bearing on the rails of the tressels its entire length, which is particularly important in wedging up thin blinds and shutters and cannot be effected in the use of other clamping apparatus.

The figure is a perspective elevation of the double-tressel, adjustable clamping-bench, showing five pairs of adjustable clamps on it, either of which may be moved and placed at any desired point in the length of the machine; *a*, the legs of the tressel, which are framed to the feet; *b*, the beam or top rail, attached to legs *a*; *c*, the bottom rail to same; *d*, the jaw of the clamp next to the head of the screw; *e*, the back clamp; *f*, the cleat on the inner side of the back tressel, to which each set of clamps may be secured to said back tressel by the bolt *k*; *g*, the legs of the back tressel; *h*, the slotted feet; *i*, the middle rail; *j*, the screws; *m*, the sword, with holes for the adjusting-pin *n*, by which to keep the clamps perpendicular; *o*, the forks of the jaws of the clamps.

I claim as my invention—

1. The adjustable double tressel and clamping-bench with its movable screw-clamps, all substantially as described, and for the purposes set forth.

2. The forked clamp composed of the jaws *d* and screw *j*, constructed substantially as and for the purpose described.

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Witnesses:

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