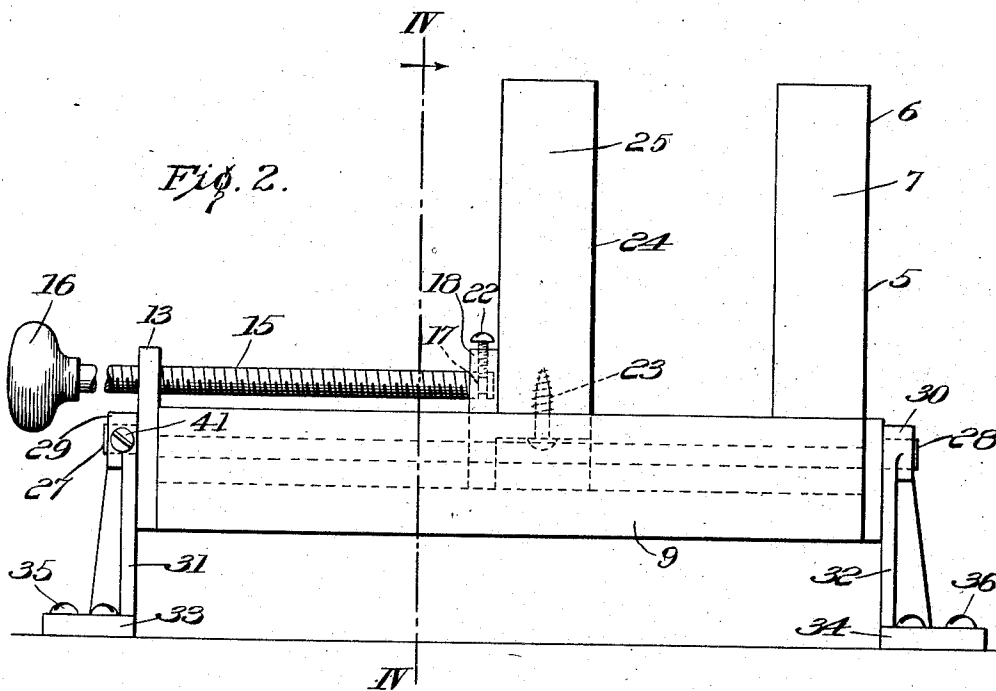
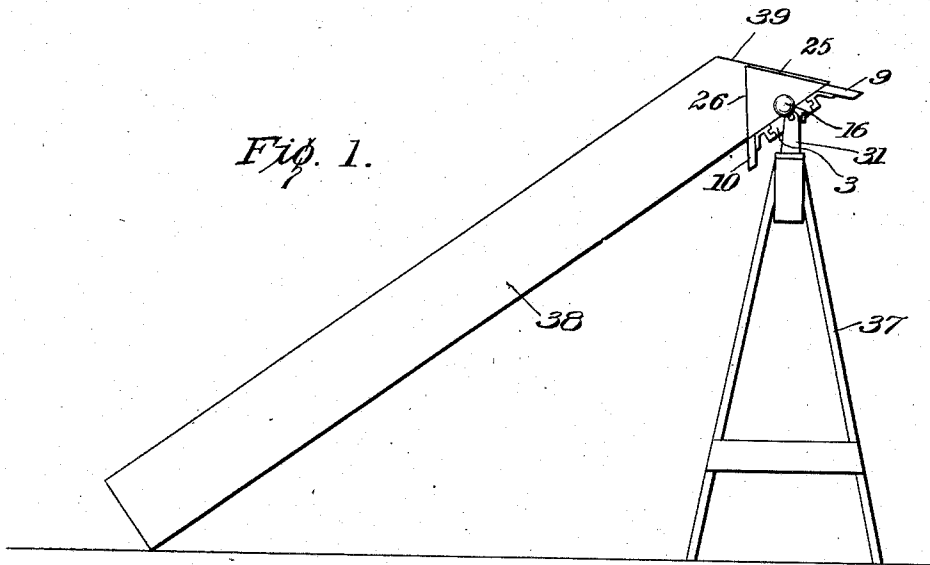


J. ORLANDI.
MITER CLAMP.
APPLICATION FILED JAN. 14, 1911.

1,015,336.

Patented Jan. 23, 1912.

2 SHEETS—SHEET 1.



Witnesses:
Edmund Quincy Moore
Gerald E. Terwilliger

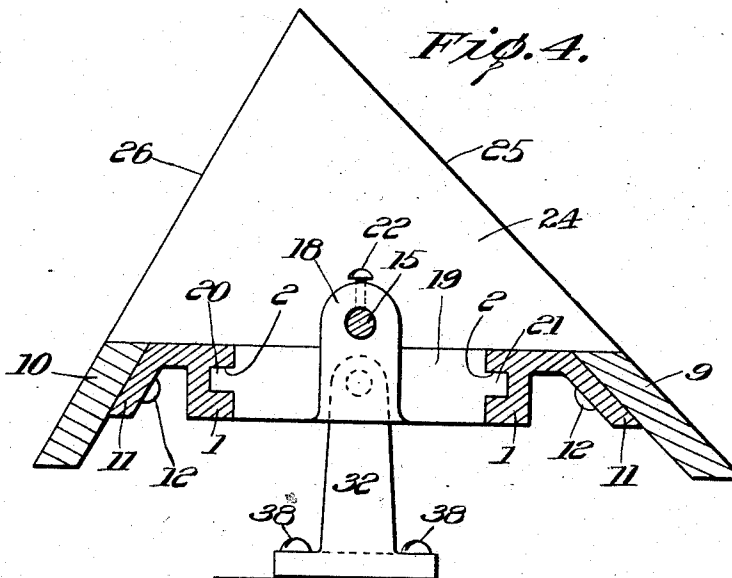
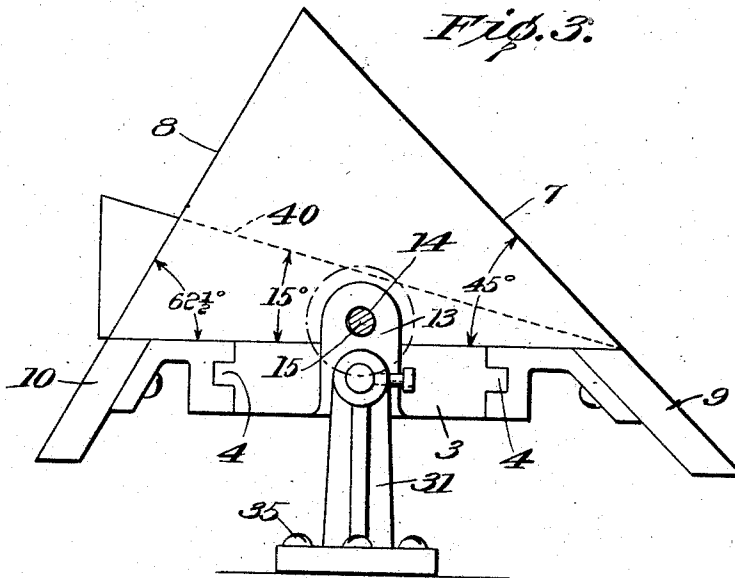
John Orlandi Inventor
By his Attorney Seward Davis

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UNITED STATES PATENT OFFICE.

JOHN ORLANDI, OF SALISBURY, CONNECTICUT.

MITER-CLAMP.

1,015,336.

Specification of Letters Patent.

Patented Jan. 23, 1912.

Application filed January 14, 1911. Serial No. 602,542.

To all whom it may concern:

Be it known that I, JOHN ORLANDI, a subject of the King of Italy, residing in the village of Salisbury, county of Litchfield, State of Connecticut, have invented certain new and useful Improvements in Miter-Clamps, of which the following is a specification.

My invention relates to means for clamping a board or plank in predetermined relation to a set of guides for the purpose of planing or otherwise working the wood in line with the guides.

In my improved structure I provide means for quickly and positively clamping the wood to be worked in any one of a plurality of positions, and my device has the further advantage of being adapted to receive a number of different sizes of timber with slight adjustment of the clamp.

In the accompanying drawings which form a part of this specification, Figure 1 is an elevation of my improved device mounted upon a sawhorse or similar structure, and holding a plank or board ready to be planed; Fig. 2 is an enlarged side elevation of my device; Fig. 3 is an end view, and Fig. 4 is a transverse sectional view on line IV—IV of Fig. 2.

Referring to the drawings in detail, the numeral 1 designates a pair of parallel longitudinal guides carrying in their faces the grooves 2. These guides are connected at one extremity by the bar 3 having tongues 4 entering the grooves in the guides, and at the other by the member 5, having similar tongues, not shown, entering the grooves and having a portion 6 extending above the guides formed of the two inclined flat faces 7 and 8 angularly disposed to one another. These faces register and are in line with, respectively, the strips 9 and 10 secured to the angle portions 11 of the guides by the screws 12, or in any other suitable manner. The cross-bar 3 carries an up-standing lug 13, through the internally threaded portion 14 of which passes a screw 15 carrying at one end a knob or handle 16. The other extremity is grooved at 17 and enters a socket in a lug 18 on a cross-head 19 having tongues 20 and 21 entering the slots in the guides. A set-screw 22 passes through the lug and engages the grooved end of the screw. Carried by and secured to the cross-head by the screws 23, or in another suitable

manner, is a block 24 having the faces 25 and 26, substantially parallel to the faces 7 and 8 of the fixed block 5. Pins 27 and 28 secured to either end of the structure enter bearings in the blocks 29 and 30, respectively. Set-screw 41 may be provided for clamping the pins rigid with relation to the blocks. These blocks comprise the uprights 31 and 32 and the base-portions 33 and 34, which may be pierced to accommodate bolts or screws 35 and 36 for securing the complete device to any suitable structure, such as the sawhorse 37, shown in Fig. 1.

The operation of my device is extremely simple. Rotation of the knob or handle 16, and consequently of the screw 15, will cause the cross-head and block carried by it to advance toward or recede from the stationary block. A board or plank 38 may thus readily be clamped between the two blocks and the structure as a unit permitted to swivel upon the pins until the end of the board or plank rests on the ground, as is illustrated in Fig. 1, thus relieving the device from the greater part of the weight of the board or plank to be worked. In actual service the wood to be planed may be roughed down to the approximate size, as shown at 39 in Fig. 1, then fastened in the miter clamp and planed to an accurate surface, the inclined surfaces of the two blocks acting as guides to the workman.

I find it desirable to use different angles with the horizontal on the two guide surfaces of the blocks, as, for instance, 62½ degrees for the surfaces 8 and 26, and 45 degrees for the surfaces 7 and 25, thereby permitting a variety of work to be accomplished expeditiously in the same clamp. For accomplishing work at different angles from these, I provide a wedge-shape block, or filling piece 40 indicated in broken lines in Fig. 3, against which the board or plank may rest, thus changing the effective angle of the guide surfaces with respect to the plank. I preferably make the angle of the surface of the wedge with the horizontal 15 degrees, but it is obvious that the wedge may be given any angle, or a series of wedges employed for doing a variety of work.

Having thus described my invention, I claim:

1. A clamp comprising a fixed block, a movable block, means for positively advancing and retracting the latter, said blocks

having surfaces to guide a tool in working a board or plank clamped between said blocks, and means permitting said clamp as a unit to swivel about an axis substantially parallel to the direction of motion of the said movable block.

2. A mitering clamp comprising a base frame consisting of two parallel guides grooved on their adjacent faces and connected at their ends by cross-bars, the cross-bar at one end carrying a block having guide faces lying in planes parallel to the longitudinal edges of the guide members, but oblique to the plane of the base or frame, a cross-head movable longitudinally of said guides and having tongues slidable in the grooves therein, a block secured to said cross-head having inclined guide faces, strips of wood secured to the outer faces of the longitudinal guide members, said strips having inclined guide faces, each of said guide faces and the adjacent inclined guide faces of the fixed and movable blocks lying in the same plane, and means for forcing said cross-head and movable block toward said fixed block to clamp a board or plank between said blocks.

3. A mitering clamp comprising a base, a block fixed thereto, a second block movably mounted on said base and slidable longitudinally thereof, said blocks having guide faces to guide a tool in working a board or plank clamped to said blocks, said guide faces lying in the same plane, means for forcing said movable block toward said fixed block, studs projecting from each end of said base, and supporting blocks for said

base provided with bearings in which said studs are journaled.

4. A mitering clamp comprising a supporting base, a block mounted in fixed position upon said base having a guiding surface inclined to the plane of said base, a block movably mounted upon said base and slidable longitudinally thereof and having an inclined guide face lying in the same plane as the guide face upon said fixed block, means for forcing said movable block toward said fixed block to cause the same to clamp a board or plank in position to be worked by a tool guided by the guide surfaces of said fixed and movable blocks, and a wedge-shaped filling block adapted to be supported upon said base between said fixed and movable blocks, said filling block having an upper surface adapted to support the board or plank to be clamped between said fixed and movable blocks, said upper surface lying in a plane passing through the line of intersection of the plane of the inclined guide surfaces on the fixed and movable blocks with the plane of the upper surface of the supporting base, the inclination of the plane of the upper surface of said wedge-piece with relation to the plane of said base being more acute than the corresponding inclination of the guiding surfaces of said blocks.

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Witnesses:

EDMUND QUINCY MOSES,
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