

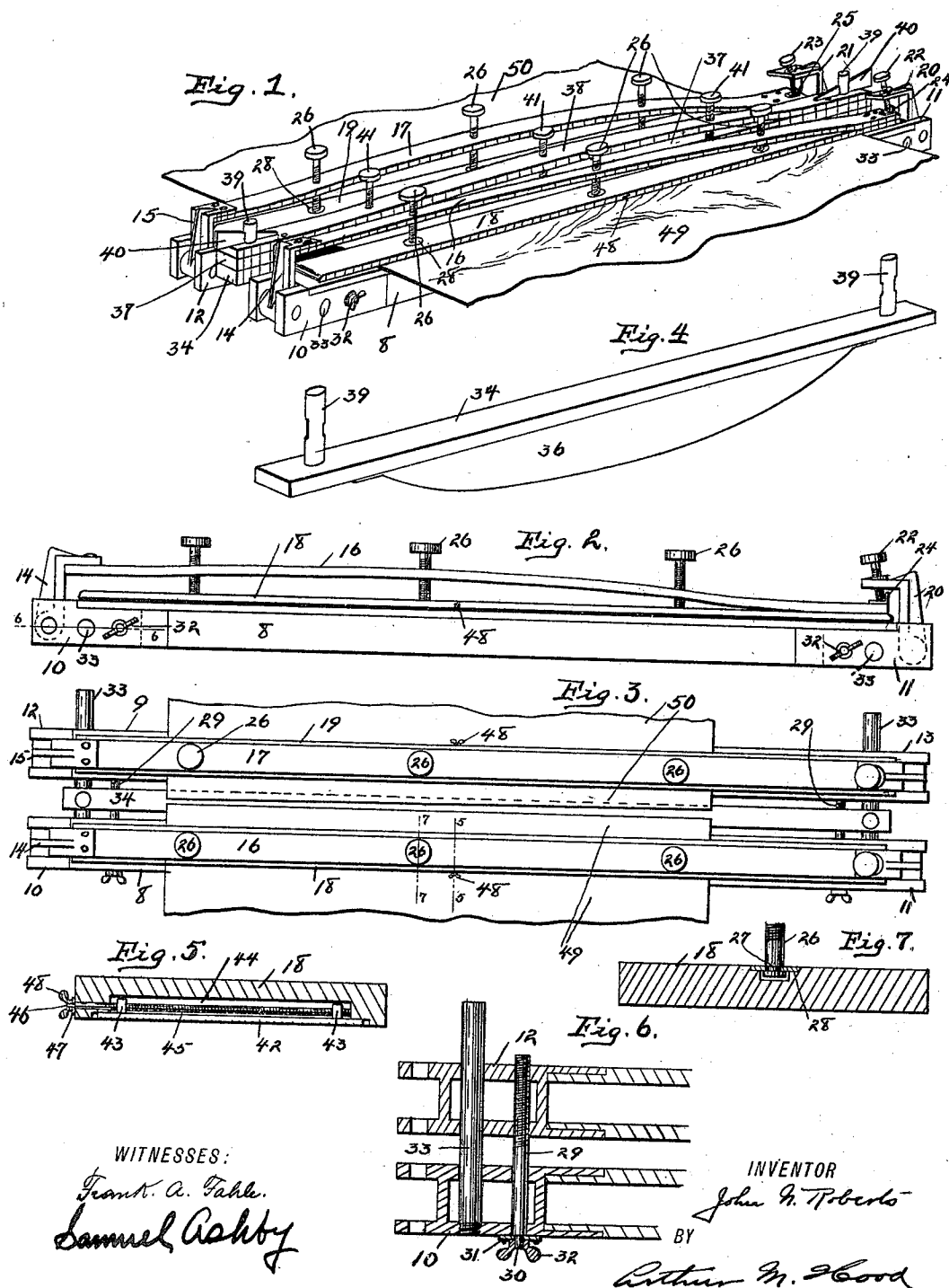
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Patented Jan. 3, 1899.

J. N. ROBERTS.
JOINTING CLAMP.

(Application filed Mar. 26, 1898.)

(No Model.)



WITNESSES:

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JOINTING-CLAMP.

SPECIFICATION forming part of Letters Patent No. 617,123, dated January 3, 1899.

Application filed March 26, 1898. Serial No. 675,257. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. ROBERTS, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Jointing-Clamp, of which the following is a specification.

My invention relates to an improvement in veneer-jointing clamps.

10 The object of my invention is to produce a device of the class described by means of which strips of veneer may be glued together edge to edge quickly and accurately without the aid of skilled labor.

15 The accompanying drawings illustrate my invention.

Figure 1 is a perspective view of the entire clamp. Fig. 2 is a side elevation thereof. Fig. 3 is a plan. Fig. 4 is a detail of the base 20 of the auxiliary clamp. Fig. 5 is a section on line 5 5 of Fig. 3. Fig. 6 is a section on line 6 6 of Fig. 2. Fig. 7 is a section on line 7 7 of Fig. 3.

In the drawings, 8 and 9 indicate a pair of clamp-bases placed side by side. Secured to the ends of base 8 are castings 10 and 11, and secured to the ends of base 9 are similar castings 12 and 13. Pivoted to castings 10 and 12, respectively, are upwardly-projecting arms 14 and 15, to which are secured the ends of spring-bridges 16 and 17, respectively, the arrangement being such that said bridges may be swung over or away from the bases 8 and 9, respectively. Mounted beneath the spring-bridges and over the bases 8 and 9, respectively, are clamping-strips 18 and 19, one end of each of which is preferably secured, respectively, to the free ends of the spring-bridges 16 and 17. Pivoted to castings 11 and 13, respectively, are clamps 20 and 21, which are provided, respectively, with clamping-bolts 22 and 23, which are adapted to engage shoes 24 and 25, carried by the free ends of the bridges 16 and 17, respectively, the arrangement of said clamping-bolts being preferably such that they may be caused to exert both a downward and a longitudinal drawing pressure upon the free end of the bridges 16 and 17. Mounted in each of bridges 16 and 17 is a series of clamping-screws 26, which are vertically adjustable therethrough. The lower end of each screw 26 is provided with

a peripheral groove 27, in which is mounted a washer 28, which is secured to the upper surface of the clamping-strips 18 or 19, the arrangement being such that by a rotation of the said screws the clamping-strips may be either raised or forced downward.

Revolubly mounted in castings 10 and 11 and projecting transversely therefrom are two adjusting-bolts 29, each of which is provided on its outer end with suitable threads, and each of which is also provided upon its opposite end with a shouldered portion 30, which is passed through a washer 31, secured to the casting, and to which is secured a suitable thumb-nut 32. The threaded ends of bolts 29 are passed through threaded openings formed through the walls of the castings 12 and 13 of the base 9, the arrangement being such that by turning the said bolts by means of the thumb-nuts either end of the base 9 may be drawn toward or forced away from the base 8. Suitable guide-pins 33 are secured to either set of castings and passed through openings formed through the opposite castings.

Resting upon guide-pins 33 between the bases 8 and 9 is the base 34 of an auxiliary clamp, the said base being preferably strengthened on its lower side by means of a brace 36. Base 34 is of such thickness that when placed upon the pins 33 the upper face thereof will lie in the same plane with the upper faces of the bases 8 and 9, thus forming a plane surface upon which the edges of the veneers to be joined may rest.

37 indicates an auxiliary clamping-strip, to the ends of which are secured the ends of a spring-bridge 38, vertical openings being formed through the joined ends of the clamping-strip and bridge for the reception of a pair of uprights 39, secured to the base 34 near the ends thereof. Formed through each pin 39, near the upper end thereof, is a wedge-shaped opening adapted to receive a wedge 40, the arrangement being such that when the auxiliary clamping-strip is placed upon its base the wedges will engage the upper face of the ends of the spring-bridge and thus hold the clamping-strip in position. Vertically adjustable through the spring-bridge 38 is a series of clamping-bolts 41, which are adapted to be brought into engagement with

the upper face of the clamping-strip 37 and force it toward the base 34.

In handling veneers the edges are turned up by clamping several thicknesses together and jointing the edges of the bunch. It often occurs, however, that when the several thicknesses are separated the jointed edges will not be perfectly straight owing to the springing of the wood. I therefore mount upon the under face of the clamping-strips 18 and 19 a shoe 42, the under face of which is slightly roughened and placed in the same plane as the under face of the strip. Shoe 42 is provided on its upper side with a pair of screw-threaded ears 43, which lie within a recess 44, formed in the under side of the clamping-strip. Mounted in said ears in line with said shoe and transversely across the clamping-strip is a threaded rod 45, the outer end of which is extended through the side of the clamping-strip, shouldered, as at 46, and passed through a washer 47, secured to the edge of said clamping-strip. Secured to the projecting end of the rod outside of the washer is a thumb-nut 48, the arrangement being such that by turning the rod 45 the roughened shoe may be forced in either direction.

The operation is as follows: The operator having loosened the bolts 22 and 23 and swung back the clamps 20 and 21 swings upward the bridges 16 and 17, the said bridges carrying with them the clamping-strips 18 and 19. The base 34 of the auxiliary clamp is then placed in position between the bases 8 and 9, and two strips of veneer 49 and 50, the edges of which have been previously jointed and coated with glue, are placed upon the bases 8 and 9, with their jointed edges resting upon the upper face of the base 34, no particular care being taken to place the said edges parallel with each other. The clamping-strips and spring-bridges are then swung down into place and secured in position by means of the clamping-bolts 22 and 23. The operator then clamps the strips of veneer securely in position by means of the screws 26, and by turning the adjusting-bolts 29 in the proper direction the edge of veneer 50 may be brought parallel to and forced into engagement with the edge of veneer 49. If by any chance the two edges of the veneers do not come together properly, they may be made to do so by means of the shoe 42. The auxiliary clamping-strip 37 and bridge 38 are then placed in position upon the base 34, clamped in position by means of the wedges 40, and the clamping-strip forced into engagement with the two adjacent edges of the veneer strips by means of the screws 41. Bolts 22 and 23 are then loosened, the clamps 20 and 21 thrown down, and clamping-strips 18 and 19 raised. The auxiliary clamp, together with the freshly-jointed strips of veneer, may then be withdrawn and placed to one side until the glue "sets." In the meantime a series of similar joints of this character may be easily, quickly,

and accurately made, the operator being provided with a large number of the auxiliary clamps. Any desired means may be used to prevent the veneer from sticking to the parts of the auxiliary clamp.

It will be readily understood that while the device is primarily designed to use in connection with veneers and other thin stock it is just as useful in operating upon stock of any thickness.

I claim as my invention—

1. In a jointing-clamp, the combination with a pair of clamping means arranged to hold a pair of strips of material and present them edge to edge, of means for supporting the adjacent edges of said strips, and means for independently moving the ends of said clamping means toward each other and thereby forcing the edges of said material together.

2. In a jointing-clamp, the combination with a pair of clamping means arranged to hold a pair of strips of material and present them edge to edge, of means for supporting the adjacent edges of said strips, and means for moving said clamping means toward each other and thereby forcing the edges of said material together.

3. In a jointing-clamp, the combination with a pair of clamping means arranged to hold a pair of strips of material and present them edge to edge, of means for supporting the adjacent edges of said material, means for moving the ends of said clamping means toward each other and thereby forcing the edges of said material together, and an auxiliary clamping means for engaging the adjacent edges of said material.

4. In a jointing-clamp, the combination with a pair of clamping means arranged to hold a pair of strips of material and present them edge to edge, of means for moving the ends of said clamping means toward each other and thereby force the edges of said material together, and means carried by one or both of said clamping means for forcing a portion only of said material transversely through the clamping means, substantially as and for the purpose set forth.

5. In a jointing-clamp, the combination with a pair of clamp-bases, of an intermediate supporting-base between the two clamp-bases, means for moving said bases toward each other, and a pair of clamping-strips each pivoted at one end to one end of one of said bases, and means for forcing each of said strips down upon its base.

6. In a jointing-clamp, the combination with a pair of clamp-bases, of means for moving the said bases toward each other, a pair of clamping-strips each pivoted at one end to one end of one of said bases, means for forcing each of said strips down upon its base, and an auxiliary clamping means mounted between the clamp-bases and separable therefrom the said auxiliary clamping means clamping the adjacent edges of any material held by the main clamps.

7. In a jointing-clamp, the combination with a pair of clamp-bases, of an intermediate supporting-base between the two clamp-bases, means for moving said bases toward each other, a pair of spring-bridges each pivoted, at one end, to one end of one of said bases, means for detachably securing the opposite end of said bridge to its base, a clamping-strip mounted beneath each bridge, and means carried by each bridge for forcing the clamping-strip upon the base.

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Witnesses:

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