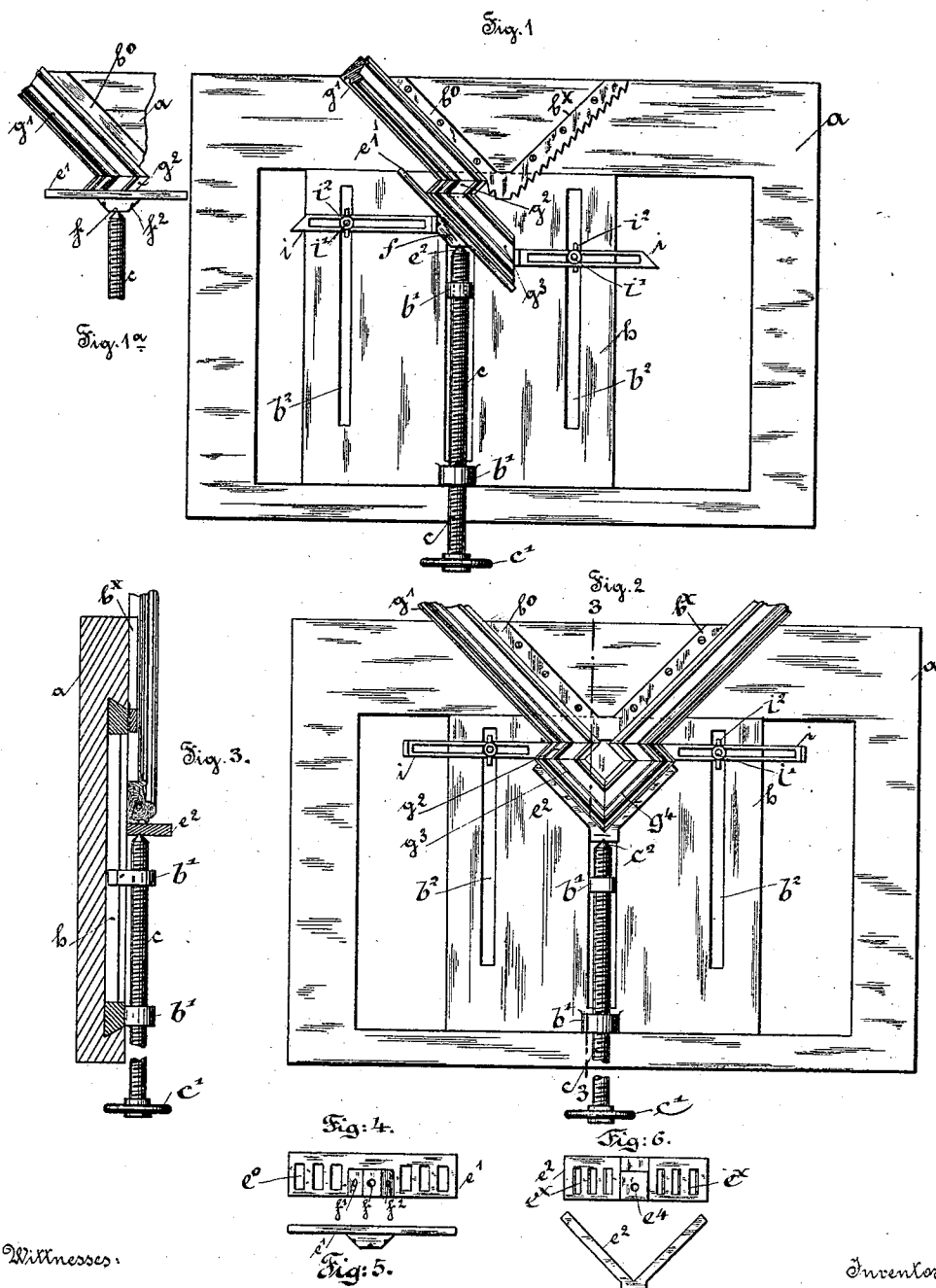


(No Model.)

J. SCHULER.
TOOL FOR MAKING FRAMES.

No. 544,072.

Patented Aug. 6, 1895.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHANN SCHULER, OF SCHWABACH, GERMANY.

TOOL FOR MAKING FRAMES.

SPECIFICATION forming part of Letters Patent No. 544,072, dated August 6, 1895.

Application filed May 22, 1895. Serial No. 550,193. (No model.) Patented in Germany September 14, 1894, No. 79,670.

To all whom it may concern:

Be it known that I, JOHANN SCHULER, a subject of the German Emperor, residing at Schwabach, in the Kingdom of Bavaria, German Empire, have invented certain new and useful Improvements in Tools for Making Frames, (for which I have obtained a patent in Germany, No. 79,670, dated September 14, 1894,) of which the following is a specification.

10 This invention relates to a tool for enabling the gluing and nailing together of the separate sections or parts of picture-frames in the process of manufacture thereof; and it consists of a guide-frame, in which is mounted a
15 longitudinally-sliding carriage which is provided with bearings for a screw-spindle provided with a handle for rotating the same, movable pressure-bars mounted in and guided in slots in the carriage, and clamps adapted
20 to be operated by the screw-threaded spindle, so that in connection with the pressure-bars they may hold the separate sections or parts of the picture-frame in position for gluing or nailing; and my invention also consists of certain other features of construction and combinations of parts to be fully described hereinafter, and then pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my apparatus for making picture-frames. Fig. 1^a is a broken detail view showing one step in the process of manufacture of the frames. Fig. 2 is a plan view similar to Fig. 1, showing the apparatus in a position for finishing up a picture-frame. Fig.
35 3 is a transverse section on line 3 3, Fig. 2. Fig. 4 is a detail view of the flat clamp in side elevation. Fig. 5 is an edge view of the same, and Figs. 6 and 7 are respectively a plan and side view of the angular or bent clamp.

40 Similar letters of reference indicate corresponding parts.

a represents an open oblong guide-frame, on which all of the parts of the apparatus are supported. Within the longitudinal opening
45 of the guide-frame is guided within undercut recesses formed in the opposite walls of the opening a sliding carriage *b*, which is dovetailed to fit the undercut recesses and to prevent displacement of the carriage. On the
50 carriage, within bearings *b'* thereon, is journaled a screw-threaded spindle *c*, which at one end is provided with a hand-wheel or other

handle *c'* and at the other end *c*² it is pointed or attenuated for the purpose to be hereinafter described. The position of the screw-spindle with relation to the guide-frame is transverse.

Formed in the carriage *b* parallel with the screw-spindle *c* are slots *b*³ *b*², through which pass screw-bolts *i'* that receive thumb-nuts *i*²,
55 by means of which the longitudinally-slotted pressure-bars *i* may be secured firmly in position against the carriage or adjusted longitudinally through the medium of the slots of the pressure-bars or transversely through
65 slots *b*² in the carriage. One end of each pressure-bar is squared off at right angles to the sides of the same, while the other end is formed at an incline, for the purpose hereinafter referred to.

Securely fastened to one of the side bars of the guide-frame *a*, midway between the ends thereof, are cleats *b*⁰ *b*^x, which are arranged at right angles to each other and are preferably joined at their inner ends, as shown.
75 The outer edges of the cleats are toothed or serrated, as shown, for the purpose of firmly holding the picture-frame strips, which are placed against the same. The clamps which are used in connection with the above-described parts are particularly shown in detail
80 in Figs. 4 to 7, inclusive. There are two clamps, a flat one, as shown in Figs. 4 and 5, and an angular one, as shown in Figs. 6 and 7. The flat clamp *e'* is composed of a flat bar
85 having openings *e*⁰ at each side of a central trapezoidal-shaped abutment *f f' f*², so that said abutment is, by reason of its shape, provided with a flat outer face *f* and diverging
90 inclined faces *f'* and *f*², said faces being provided with centering-sockets *f*³.

The angular clamp consists of an angular plate *e*², which, at its outer angle, is provided with a rectangular abutment *e*³, which has a centering-socket *e*⁴ in its face. As with the
95 flat clamp, the angular clamp is provided at each side of its abutment with openings *e*^x.

The apparatus is used as follows when making corners to picture-frames, such as shown in the drawings: One of the side pieces *g'* of
100 the picture-frame to be made is applied against the cleat *b*⁰, as shown in Fig. 1, in such position that its beveled end can receive a short, flat frame-section *g*², against the flat outer

face of which is applied, as shown in Fig. 1^a, the flat clamp *e'*, which is held thereto by means of the pointed end *c*² of the screw-spindle *c*, engaging into the socket in the flat face 5 *f* of the abutment on said plate, said screw-spindle being screwed inwardly as far as possible, so as to impart sufficient pressure to firmly seat the clamp against the piece *g*². A short piece of frame *g*³, having its ends beveled in opposite directions, is now applied 10 and secured by glue to the outer face of the piece *g*², the setting into position of said piece *g*³ being accomplished by adjusting one of the pressure-bars *i* in such position as that the squared-off end will engage the slanting face 15 *f'* of the abutment on the clamp *e*⁰, while the pointed end *c*² of the spindle *c* is engaged in the socket of the slanting face *f*² of said abutment, as shown in Fig. 1. The adjoining side 20 of the picture-frame is built up in the same way as is that side which has just been described. After the sections of which the frame is to be made have been properly glued and the corner of the frame has been built up, as 25 shown in Fig. 2, the pressure-bars *i* are so adjusted that their beveled ends will engage with the outer portions of the frame-sections *g*², while the angular clamp *e*² is applied to the outer edges of the meeting-frame sections 30 *g*³ *g*⁴, and pressure is applied to said angular clamp and hence to the built-up corner by means of the screw-spindle *c*. When the clamps are pressed against the parts of the frame which are being built up, the adjoining 35 parts can be readily nailed together, in addition to the glue connection, by driving the brads or nails through the openings in the clamps and into said parts or sections.

Having thus described my invention, I 40 claim as new and desire to secure by Letters Patent—

1. A tool for making picture-frames, con-

sisting of a guide-frame, a carriage mounted to slide in said guide-frame, a screw-spindle 45 mounted on said carriage transversely to the guide-frame, adjustable pressure-bars arranged on the carriage at each side of the screw-spindle, a clamp adapted to be actuated by the screw-spindle, and means on the guide- 50 frame co-acting with the clamp and pressure-bars for holding the picture-frame sections in the proper position, substantially as set forth.

2. A tool for making picture-frames, consisting of a guide-frame, a carriage mounted to slide therein and provided with slots, a 55 screw-threaded spindle mounted on the carriage parallel with said slots and transversely to the guide-frame, pivoted pressure-bars having means for adjusting them along said slots, a clamp adapted to be operated by the screw- 60 threaded spindle, and means on the guide-frame co-acting with the clamp and the pressure-bars for securing the picture-frame sections in proper position, substantially as set forth. 65

3. A tool for making picture-frames, consisting of a guide-frame provided with serrated or toothed cleats arranged at right angles to each other and located at one side of 70 the guide-frame, a carriage guided in said frame, a screw-threaded spindle mounted on the carriage, transversely to the guide-frame, pivoted and adjustable pressure-bars mounted on the carriage, and a clamp adapted to be operated by the screw-threaded spindle, 75 substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOHANN SCHULER.

Witnesses:

ALEX. WIELE,
MAX SCHEIDIG.