

(No Model.)

C. SCHRAUBSTADTER, Jr. & C. R. SCHILLING.
SHOOTING BOARD AND PLANE.

No. 463,924.

Patented Nov. 24, 1891.

Fig. I

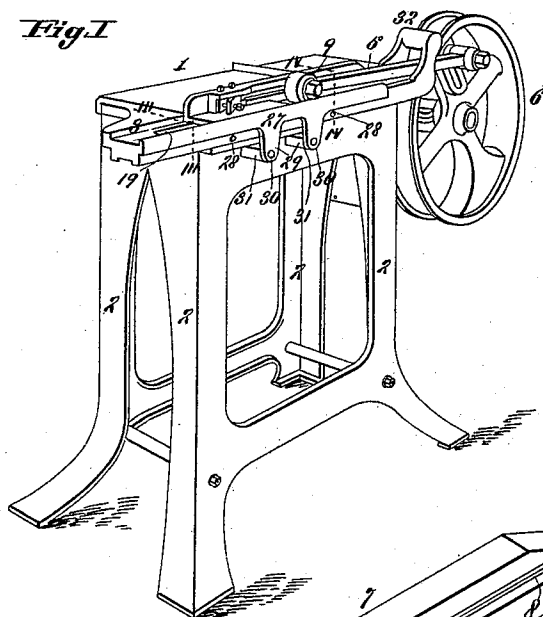


Fig. II.

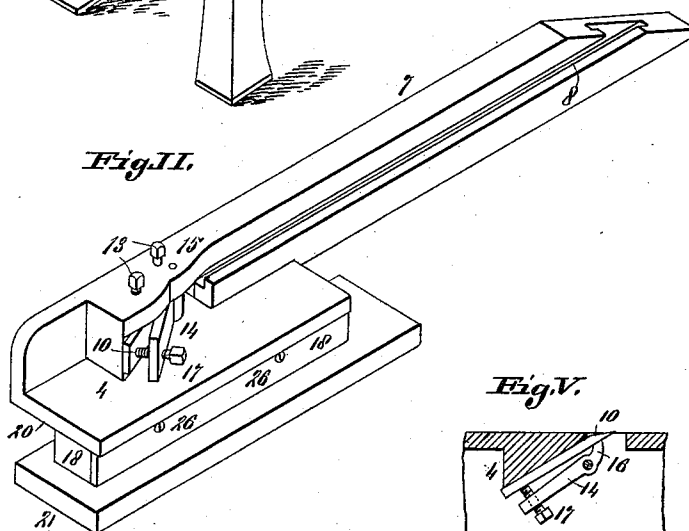


Fig. V.

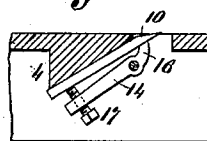


Fig. III.

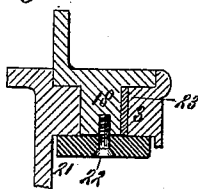


Fig. IV.

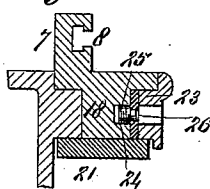
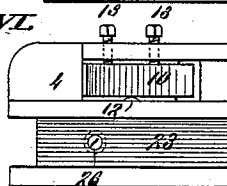


Fig. VI.



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UNITED STATES PATENT OFFICE.

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SHOOTING BOARD AND PLANE.

SPECIFICATION forming part of Letters Patent No. 463,924, dated November 24, 1891.

Application filed May 26, 1891. Serial No. 394,234. (No model.)

To all whom it may concern:

Be it known that we, CARL SCHRAUBSTADTER, Jr., and CHARLES R. SCHILLING, of St. Louis, Missouri, have invented a certain new and useful Improvement in Shooting Boards and Planes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Our invention relates to certain improvements in shooting boards and planes which are intended more particularly for use in trimming stereotype-casts and like articles.

Our invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a perspective view of our improved machine. Fig. II is an enlarged perspective view of the plane. Fig. III is a transverse vertical section through the board and plane, taken on line III III, Fig. I. Fig. IV is a similar view taken on line IV IV, Fig. I. Fig. V is a detailed horizontal section illustrating the manner of holding the cutting-blade of the plane in place. Fig. VI is an enlarged detail elevation showing the manner of adjusting the cutting-blade of the plane edgewise.

Referring to the drawings, 1 represents the shooting-board, which may be supported on suitable legs 2. The board has a race 3, in which the plane 4 fits and moves. The plane is operated through means of a pitman 5, connecting it eccentrically to a band-pulley 6. The plane has an extended side 7, formed with a T-groove 8 to receive the head of the bolt 9, by which the inner end of the pitman is made fast to the plane, so that by loosening on the nut of the bolt the pitman may be adjusted relatively to the plane, and then after tightening the nut again the pitman will be held to its adjustment, and thus the throw or movement of the plane can be regulated or adjusted.

10 represents the cutting-blade of the plane, which rests with its lower edge upon a protuberance 12, (see Fig. VI,) upon which it is held by vertical set-screws 13, one on each side of a vertical line through the protuberance. By adjusting the set-screws 13 it will be observed that the vertical position of the

blade may be changed at will, and when both screws are tightened the blade will be permanently held from movement on the protuberance. The blade is held from horizontal movement by means of a lever 14, pivoted at 15 to the body of the plane, so that its inner end 16 will bear against the inner end of the blade 10, (see Fig. V,) and its outer end is provided with a set-screw 17, adapted to jam against the outer end of the blade, so that by tightening on the set-screw the blade will be permanently held from horizontal movement. By means of this lever and set-screw and by means of the protuberance 12 and set-screws 13 the blade can be readily adjusted in either direction, and when adjusted securely held from movement in either direction.

The portion 18 of the plane fits in an opening 19 of the race 3 of the shooting-board, with its shoulders or flanges 20 resting on the upper surface of the race. Secured to the part 18 of the plane beneath the race is a strip 21, held to the plane by means of set-screws 22. (See Fig. III.) By tightening on the screws 22 any wear between the plane and the race may be taken up, and thus a snug fit of the parts always maintained. For the purpose of taking up any wear between the vertical sides of the part 18 of the plane and the vertical walls of the opening 19 of the race, in which the part 18 fits, we locate a gib piece or strip 23 between one side of the part 18 of the plane and the wall of the opening 19, and to adjust this gib piece or strip to compensate for the wear we place threaded plugs 24 in openings or sockets 25 in the part 18 of the plane, these plugs having small necks 26, fitting in holes in the gib-piece 23. The ends of the necks 26 have grooves, as shown in Fig. II, so that by applying a screw-driver the plugs may be adjusted in their sockets, so as to move the gib-piece outwardly and take up any wear between the sides of the part 18 and the walls of the opening 19 in the race. The side 27 of the shooting-board has openings or perforations 28, through which the screw-driver may be passed when the plane is adjusted to bring the plugs in line with the openings 28.

The side 27 of the shooting-board is

strengthened by downwardly-extending lugs 29, connected to the body of the shooting-board by bolts 30, surrounded by sleeves 31, and the front end of the side 27 has a bridge 5 32, which straddles the pitman 5 and forms a connection between the forward end of the side 27 and the other side of the shooting-board.

The operation of the machine, which will 10 explain its function, is as follows: The stereo-type-cast or other object to be trimmed is placed on the table or board 1, with the edge to be trimmed presented to the plane. The plane is then reciprocated through means of 15 the pulley 6 and pitman 5, and at each forward stroke it takes a shaving off the cast, as in the use of an ordinary hand-plane. When one edge is trimmed sufficiently, another edge of the cast is presented to the plane.

20 We claim as our invention—

1. In a shooting board and plane, the combination of the blade 10, a protuberance on which the lower edge of the blade rests, set-screws 13 for holding the blade on the pro- 25 tuberance, a pivoted lever 14, having an end 16 bearing against the cutting end of the blade, and a set-screw 17, passing through the outer end of the lever and bearing against

the outer end of the blade, substantially as and for the purpose set forth. 30

2. In a shooting board and plane, the combination of the plane 4, having a shoulder 20 and a portion 18 fitting in the slotted race of the shooting-board, a plate 21, secured to the part 18 of the plane by set-screws 22, a 35 gib-piece 23, located at one side of the part 18 of the plane, and adjusting-plugs fitting in sockets 25 and having necks fitting in holes in the gib-piece, substantially as and for the purpose set forth. 40

3. The combination of the plane 4, fitting in the slotted race of the shooting-board, and a pitman connecting the plane to a driving-pulley, said shooting-board having a side 27, provided with lug or lugs 29, secured to the 45 body of the board by bolts 30 and sleeves 31, and a bridge 32, connecting the front end of the side 27 with the other side of the shooting-board, substantially as and for the purpose set forth.

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In presence of—

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