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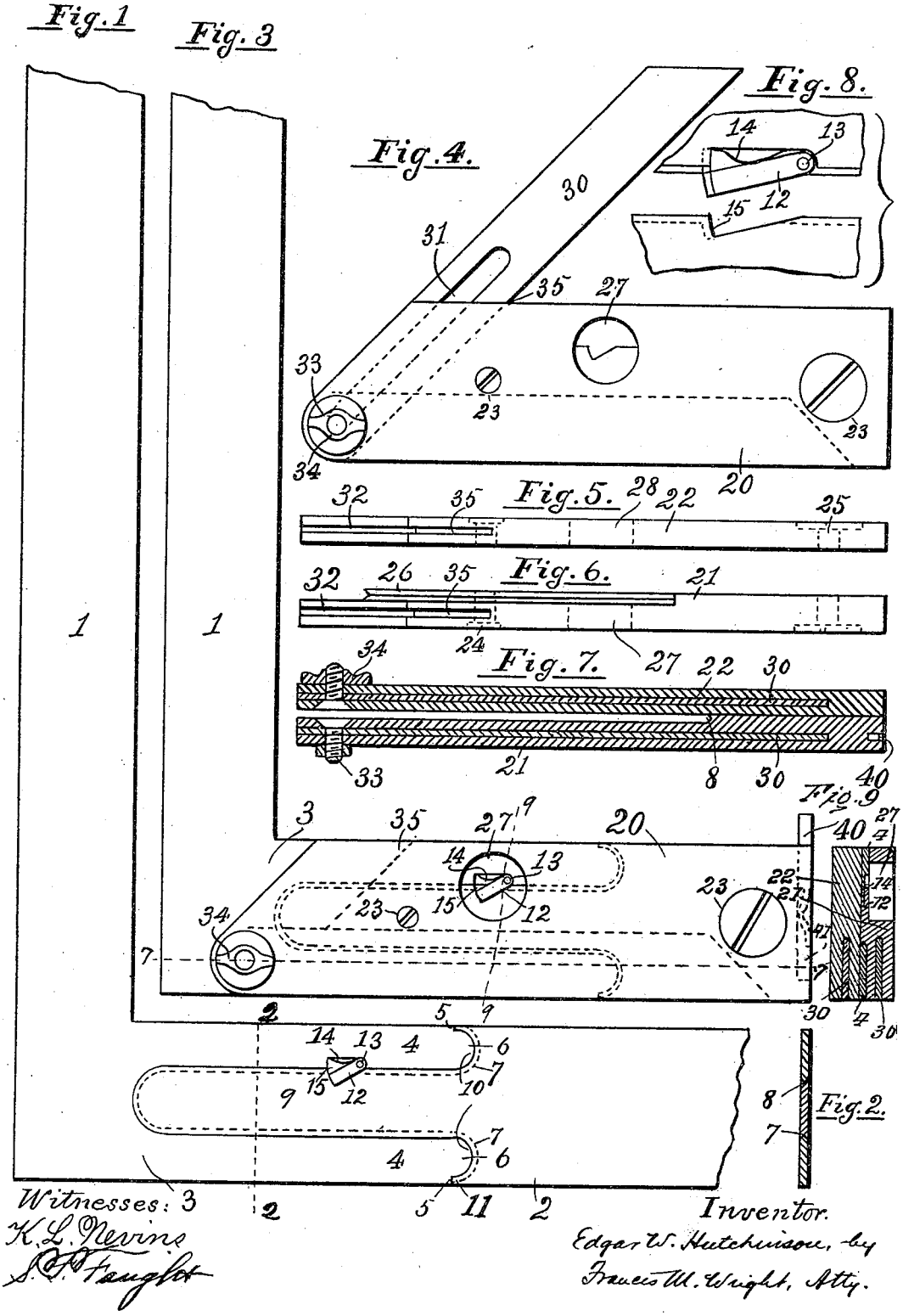
E. W. HUTCHINSON.

COMBINED SEPARABLE SQUARE, TRY SQUARE, AND BEVEL.

(Application filed Jan. 23, 1899.)

(No Model.)



UNITED STATES PATENT OFFICE.

EDGAR W. HUTCHINSON, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE AMERICAN SEPARABLE COMPANY, OF CALIFORNIA.

COMBINED SEPARABLE SQUARE, TRY-SQUARE, AND BEVEL.

SPECIFICATION forming part of Letters Patent No. 647,921, dated April 17, 1900.

Application filed January 23, 1899. Serial No. 703,189. (No model.)

To all whom it may concern:

Be it known that I, EDGAR W. HUTCHINSON, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in a Combined Separable Square, Try-Square, and Bevel, of which the following is a specification.

My invention relates to a combined separable square, try-square, and bevel; and my invention resides in the novel construction, combination, and arrangement of parts for the above purpose hereinafter fully specified, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of the improved separable square, the ends being broken away. Fig. 2 is a transverse section on the line 2 2 of Fig. 1. Fig. 3 is a side elevation of the try-square. Fig. 4 is a side elevation of the bevel. Figs. 5 and 6 are top edge views of the two sections of the bevel separated. Fig. 7 is a longitudinal section on the line 7 7 of Fig. 3. Fig. 8 is an enlarged detail view of the catch. Fig. 9 is a cross-section in the line 9 9 of Fig. 3.

1 2 represent the arms of a separable square, the arm 1 having a right-angled extension 3. Said extension is forked, as shown, its prongs 4 having rounded ends with square abutments 5. The inner edges of said prongs and their ends 6 have a beveled edge 7, which fits snugly within a V-shaped groove 8 in the corresponding tongue 9 of the arm 2. Said arm 2 has concave recesses 10, which abut against the rounded ends 6 of the prongs 4, and shoulders 11, which abut against the shoulders 5. To secure the arm 2 in place, there is provided a catch 12, pivoted at 13 on a prong 4 of the arm 1 and pressed out by a spring 14 into a notch 15 in the side of the tongue 9. By this construction there is provided a separable square of great strength, but which need not be thicker than the ordinary carpenter's square. 20 is a bevel which may also be secured to the extension 3 of the arm 1 to form a try-square, as shown in Fig. 3. Said bevel comprises the two parts 21 22, secured together by bolts 23 through holes 24 25, one of said parts carrying on its inner surface a tongue 26 of similar form to the tongue 9, so that said bevel may be fitted on the extension 3 of the arm 1 to form a handle for a try-square. The part 21 of the bevel has a circular socket 27 extending to the tongue 26, and the part 22 has a corresponding circular aperture 28 over the catch 12, so that said catch is accessible from either side of the bevel to release said bevel or handle from the try-square, said catch automatically locking said handle when the parts are put together. Each of the parts 21 22 contains a bevel-plate 30, slotted at 31 and secured in a slit or groove 32 in the bevel-section, a bolt 33 in the bevel-section passing through said slot 31, so that said blade may turn around said bolt and at the same time be moved longitudinally, and for the purpose of securing the blade in any desired position there is povided a thumb-screw 34, screwed onto the threaded end of the bolt. The slit 32 is continued around the bolt 33 to the upper side of the bevel-section to allow the blade to turn freely about said bolt, being terminated in said upper portion by a beveled shoulder 35, making an angle of forty-five degrees or any other desired angle with the direction of the bevel.

40 is a small plate sliding in a slit or groove 41 in the end of the bevel-handle 20, which when pushed out supports said end upon the board or other surface that it is desired to mark.

I claim—

1. A separable square having a jointed arm comprising sections slidably separable from each other, said sections having coengaging devices comprising the one prongs and the other a tongue sliding between said prongs, and shoulders extending laterally from the base of the tongue and abutting against the ends of the prongs, said tongue and prongs having tongue-and-grooved engaging edges, and each of said coengaging devices being of the full thickness of the section of which it forms a part, substantially as described.

2. A separable square having a jointed arm in sections slidably separable from each other, said sections having, the one prongs and the other a tongue sliding longitudinally between

said prongs, and shoulders extending laterally from the base of the tongue and abutting against the ends of the prongs, said tongue and prongs having rounded ends and the coengaging portions of the opposite sections being correspondingly concaved, said sections having grooved and beveled engaging edges, both along the sliding edges of the tongue and prongs, and along the ends of the prongs and the shoulders abutting thereagainst, substantially as described.

3. A separable square having a jointed arm in sections slidably separable from each other, said sections having, the one prongs and the other a tongue sliding longitudinally between said prongs, and shoulders extending laterally from the base of the tongue and abutting against the ends of the prongs, said tongue and prongs having rounded ends and the coengaging portions of the opposite sections being correspondingly concaved, said prong ends and the corresponding shoulders having also abutments square to the sides of the sections, said sections having grooved and beveled engaging edges, both along the sliding edges of the tongue and prongs, and along the ends of the prongs and the shoulders abutting thereagainst, substantially as described.

4. A separable-square section having a terminal portion cut away in width, said terminal portion having two longitudinal edges each with a double bevel, whereby said section is adapted to engage longitudinally with a second square-section having correlatively-beveled edges, and sustain the same against transverse displacement solely by the coengagement of said double-beveled edges, substantially as described.

5. A separable-square section having a terminal portion of the full thickness of the square but cut away in width, said terminal portion having two longitudinal edges each with a double bevel, whereby said section is adapted to engage longitudinally with a second square-section having correlatively-beveled edges, and sustain the same against transverse displacement, solely by the coengagement of said double-beveled edges, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EDGAR W. HUTCHINSON.

Witnesses:

FRANCIS M. WRIGHT,

K. LOCKWOOD NEVINS.