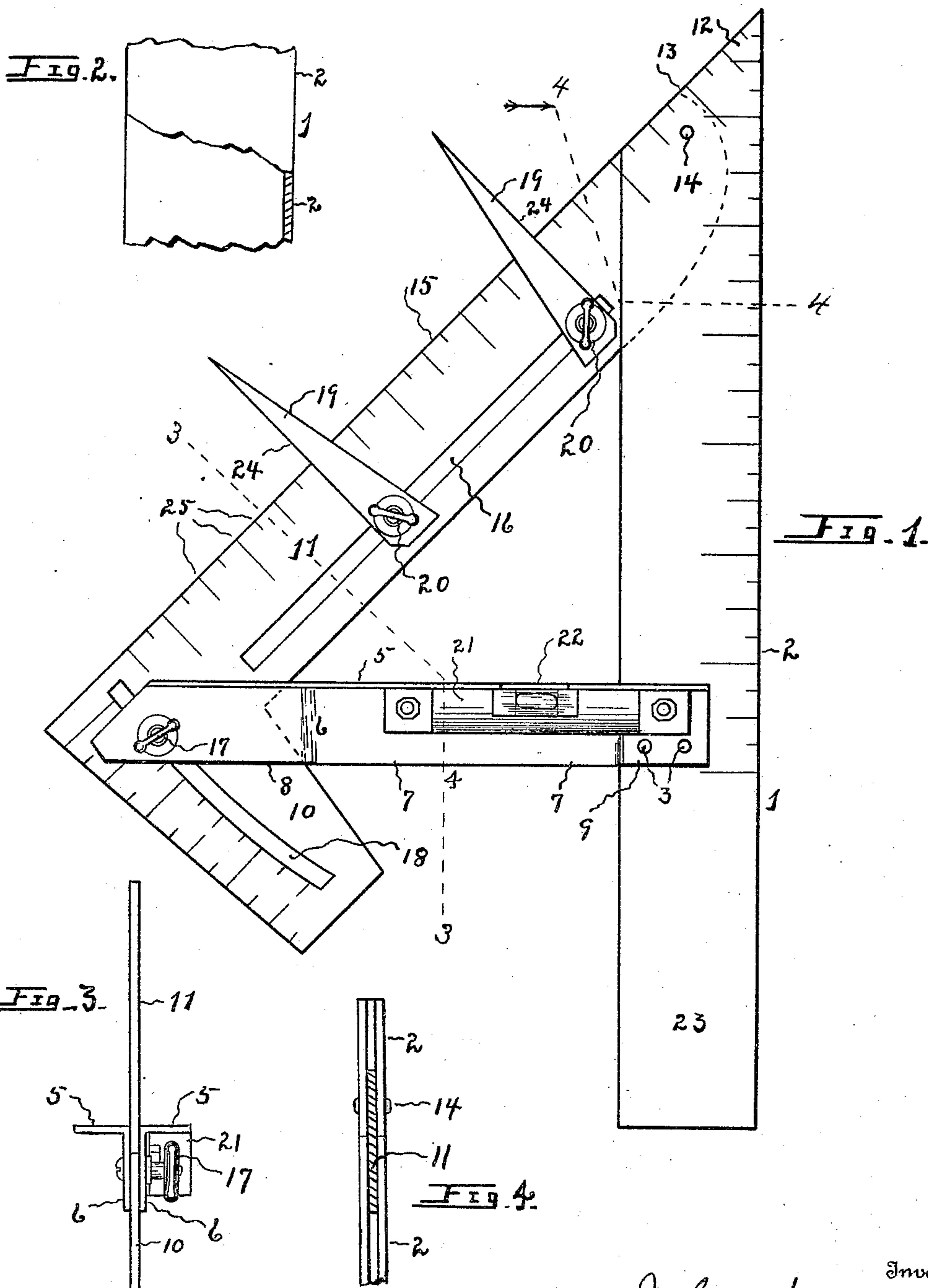


J. NORQUIST.
COMBINATION TOOL.
APPLICATION FILED AUG. 19, 1909.

944,812.

Patented Dec. 28, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN NORQUIST, OF MALMO, NEBRASKA.

COMBINATION-TOOL.

944,812.

Specification of Letters Patent.

Patented Dec. 28, 1909.

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To all whom it may concern:

Be it known that I, JOHN NORQUIST, a citizen of the United States, residing at Malmo, in the county of Saunders and State of Nebraska, have invented certain new and useful Improvements in Combination-Tools, of which the following is a specification.

This invention relates to a combination tool adapted more particularly for use of carpenters and builders, and has for its object, broadly, to provide an adjustable tool which will consist of few parts so that it may be economically manufactured, and will be convenient in use for general measurements, determining and measuring angles, the formation of circles, and for determining vertical and horizontal lines or elevations.

With these and other objects in view the invention discloses a novel combination and arrangement of parts as described herein, pointed out by the claims and as illustrated in the accompanying drawing, it being understood that changes in form, size, proportion, and minor details may be made within the scope of the claims, without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing, which forms a part of the application, Figure 1 is a vertical, side view of the invention. Fig. 2 is a side view, broken away and partly in section showing a portion of the standard. Fig. 3 is an end view of ledges or rests employed upon the supporting-arm, being a view taken between the outer terminals of the indicating-strip and supporting-arm and broken line 3—3 of Fig. 1. Fig. 4 is a view showing the mounting of the indicating-strip upon the standard, being a view taken on line 4—4 of Fig. 1, in section.

Referring now to the drawing for a more particular description, numeral 1 indicates a standard, and it may have a strong construction by use of a metallic strip folded transversely to provide a longitudinal body having one-half of the width of the strip with an integral front or straight-edge 2, the longitudinal edges upon the inner side of the standard being adjacent to each other and parallel. Rigidly secured, as by rivets 3

upon and between the terminals of the standard is the supporting-arm 4 having oppositely-disposed ledges 5 at its upper edge. Arm 4 may be constructed to advantage by use of a metallic strip bent at its middle and folded transversely to provide the pair of longitudinal plates 6, having a part 7 of its lower edge integral, end-portions 8 and 9 being incised to receive therebetween, respectively, transverse head 10 of the adjustable indicating-strip 11 and a part of the body of standard 1.

By employing the construction as described, the folded strips which form the body of the standard and the supporting-arm are substantially rigid since the folds sustain each other, and only a limited amount of material is required, and this is desirable since the implement may have less weight.

Plates 6 are rectangular in cross section and their upper edges are bent in opposed directions to provide ledges 5, and said cross-section ledges 5 are disposed at right angles to plates 6 and to the body of the standard, and to straight-edge 2. Beneath one of ledges 5 is mounted the spirit level 21, a part of the ledge being excised as indicated at 22, so that the level may be visible; and in practice, as is apparent, either of ledges 5 may be employed or straight-edge 2 may be used in connection with the spirit-level for determining vertical or horizontal planes.

The distal end of the standard may be employed as a handle 23, and its opposite end is cut diagonally to provide a pointed extension 12, the inclined edge 13 thereof being convergent in the direction of straight-edge 2.

I provide the indicating-strip 11, rectangular in cross-section, having a straight-edge 15 and having the longitudinal slot 16 formed therein, and provided with a transverse head 10. I provide near the end of strip 11 opposite head 10, the pivotal mounting 14 for said strip, the same being near inclined edge 13 of the standard and near straight-edge 15 of indicating-strip 11, whereby said strip may have a limited swinging movement; it may be swung inwardly or outwardly to determine or describe lesser or greater angles in connection

with straight-edge 2 of the standard, or with reference to wings or ledges 5, set-screw 17 being used to secure head 10 to arm 4. Set screw 17 is mounted upon the outer terminal 5 of arm 4 and engages within slot 18 formed in and longitudinally of head 10, the form of the slot describing the arc of a circle the center of which is pivot 14.

Visible indices are employed for straight-edge 2 of the standard, straight-edge 15 of the indicating-strip and for the segmental slot 18, and adjustments of the parts may be made, as desired, for measuring and in the formation or determination of angles.

I provide the pair of metallic fingers 19 to operate as dividers. They have sharp points, and are provided with straight edges to register with any of indices 25 of straight edge 15 of the indicating strip, and they may be disposed at desired distances apart, their seatings being flat upon strip 11; and they may be secured by means of set-screws 20 which traverse slot 16; by loosening the set screws they may be moved farther apart or nearer together, as desired, and fingers 19 when mounted as described, may be used for all purposes, the same as dividers.

The combination tool thus described is a very convenient article for building purposes or the like. It occupies only a limited space and is not obtrusive in use. The parts are not complicated and may be easily manufactured, and may be readily assembled. Strip 11, at its pivotally mounted end, preferably has a seating between the folded sides of the standard; and as already indicated, the outer and inner ends of supporting-arm 4 are formed as striding pieces, by reason of incisions 8 and 9, to embrace, respectively, the head of the indicating-strip and the body of the standard.

Having fully described my invention, what I claim and desire to secure by Letters Patent is,—

1. A combination tool, comprising a standard provided with a straight edge; a supporting-arm provided with a level indicating device and disposed at a right-angle with reference to and secured upon the standard; an indicating-strip pivotally mounted upon the standard and formed with a straight-edge and having a transverse, longitudinally slotted head; means upon said arm and engaging within said slot for connecting said arm and the head of said indicating-strip.

2. A tool for the purposes described, comprising a standard formed with a straight-edge; a supporting-arm disposed at right angles to and secured upon the standard; an indicating-strip formed with a straight-edge and having a transverse, longitudinally-slotted head; means upon said arm and engag-

ing within said slot for connecting said arm and the head of said indicating-strip.

3. A tool of the class described, comprising a standard formed with a straight-edge and having visible indicating characters thereon; a supporting-arm provided with a level-indicating device and disposed at a right angle with reference to and secured intermediate the terminals of and upon said standard; an indicating-strip formed with a straight-edge and having visible indicating characters thereon, said strip having a transverse, longitudinally slotted head; means upon said arm and engaging within said slot for connecting said arm and the head of said indicating-strip.

4. In a new article of manufacture, the combination with a standard; a supporting-arm rigidly mounted between the ends of the standard and disposed at right angles with reference thereto; an indicating-strip having a pivotal connection of one of its ends with one of the terminals of the standard, its opposite end having an adjustable connection with one of the terminals of the supporting-arms.

5. A combination tool, comprising a standard formed with an indexed straight-edge, a supporting-arm provided with a level-indicating device and disposed at a right angle with reference to and rigidly mounted upon the standard; an indicating-strip formed with an indexed straight-edge and provided with divider fingers, said strip being pivotally mounted at one of its ends upon one of the terminals of the standard, its opposite end being slidably mounted upon the supporting-arm.

6. A combination tool, comprising a standard provided with a straight-edge; a supporting-arm provided with a level-indicating device and disposed at a right-angle with reference to and secured upon the standard; an indicating-strip pivotally mounted upon the standard and formed with a straight-edge, said strip having a longitudinal slot and provided at its terminal with a transverse head with a longitudinal slot; a pair of divider fingers slidably mounted upon said indicating-strip; means upon the supporting-arm and engaging within the slot of said arm for connecting therewith the head of said indicating strip, and means upon the indicating-strip and engaging within the slot of said strip for securing said fingers and strip in a locked relation.

7. A combination tool, comprising a standard, an indicating strip pivotally mounted upon the standard and having a longitudinally slotted body and a transverse head; a pair of divider fingers mounted in said slot; a supporting-arm, rectangular in cross section provided with a level-indicat-

ing device and having transverse, oppositely-disposed ledges, and formed with adjacent, parallel, terminal holding-members, said supporting-arm being disposed at substantially a right angle to and rigidly secured to the standard, and having an adjustable connection with the head of the indicating strip, said holding-members striding

the body of the standard and transverse head of said indicating-strip.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN NORQUIST.

Witnesses:

H. H. OSTENBERG,
H. W. OLSON.