

No. 736,042.

PATENTED AUG, 11, 1903.

C. E. WATERS.
COMBINATION TOOL.

APPLICATION FILED JAN. 26, 1900.

NO MODEL.

Fig. I.

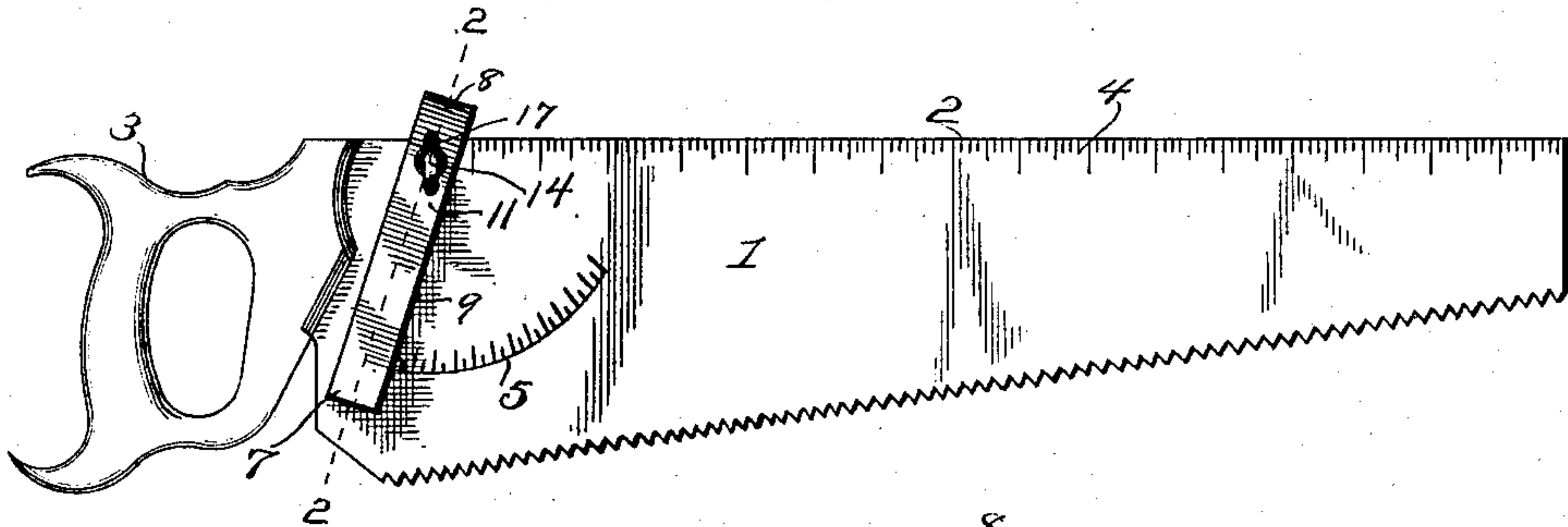


Fig. 2.

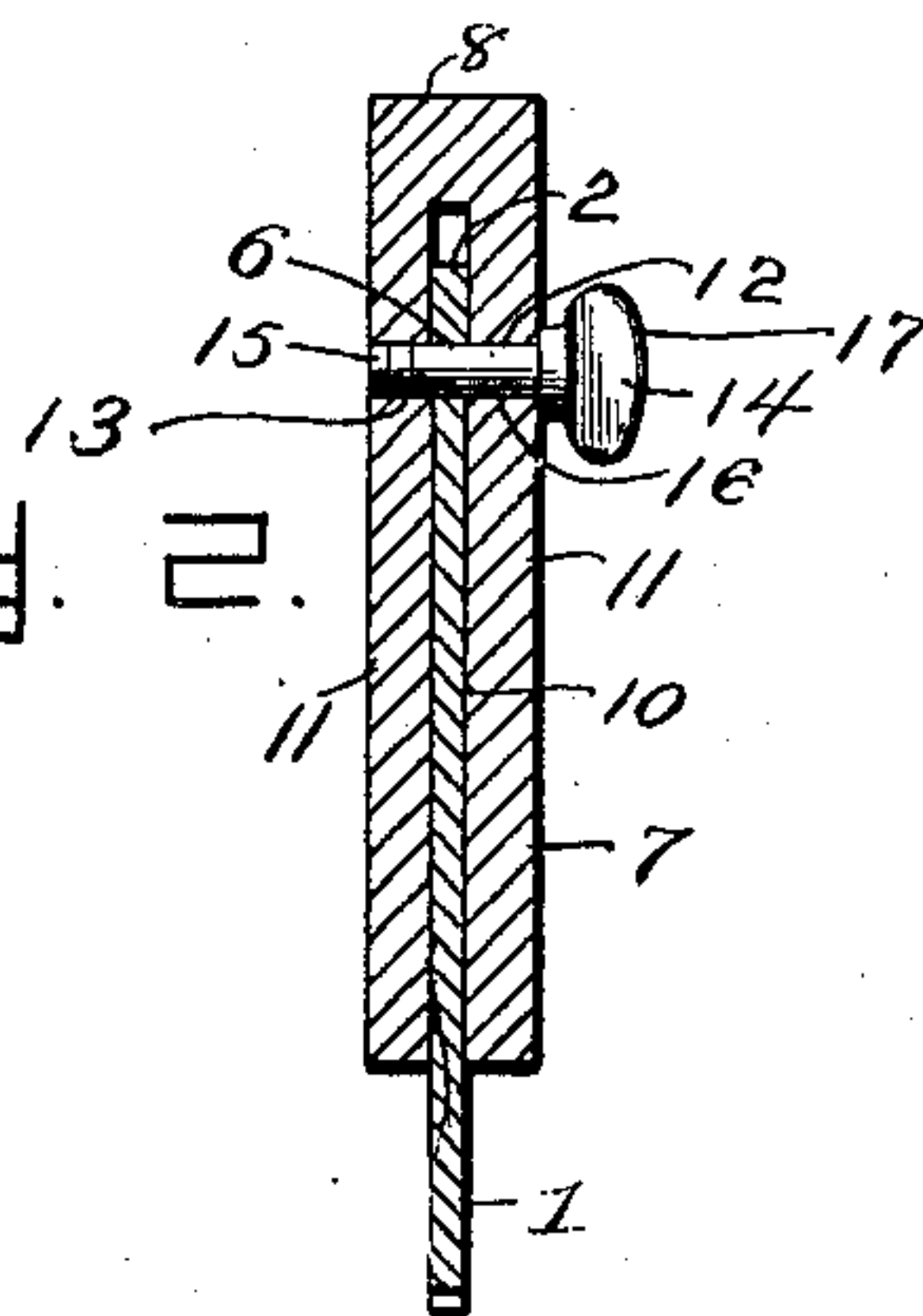


Fig. 4.

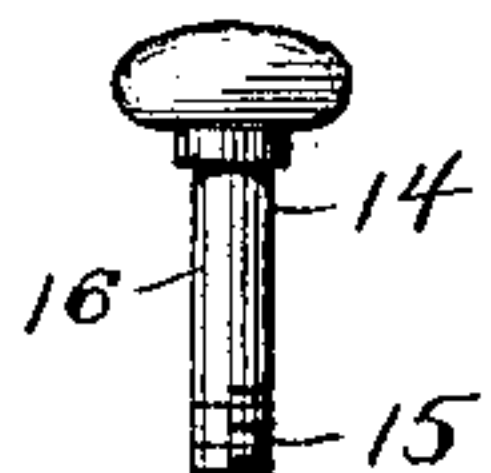
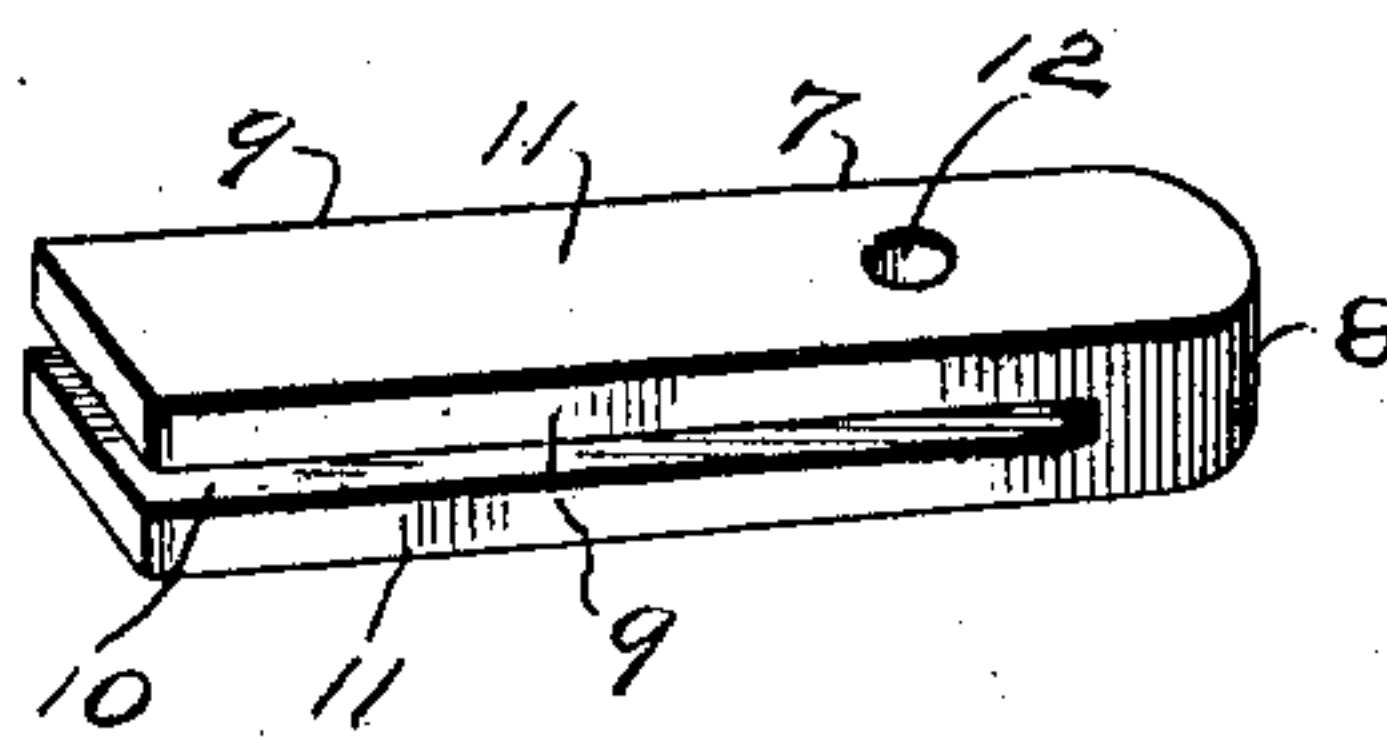


Fig. 3.



Witnesses
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By his Attorneys.

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UNITED STATES PATENT OFFICE.

CORNELIUS E. WATERS, OF MUSKEGON, MICHIGAN, ASSIGNOR OF NINETEENTHS TO ADOLPH ARNTZ, OF MUSKEGON, MICHIGAN.

COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 736,042, dated August 11, 1903.

Application filed January 26, 1900. Serial No. 2,896. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS E. WATERS, a citizen of the United States, residing at Muskegon, in the county of Muskegon and State of Michigan, have invented a new and useful Combination-Tool, of which the following is a specification.

The invention relates to a combination-tool.

Heretofore saws have been provided with combined bevel and try squares adapted to be arranged at different angles to the back of the saw-blade and capable of being clamped at the desired adjustment. These combined try and bevel squares have generally been mounted adjacent to the handle of the saw, and in some instances the handle of the saw has been constructed to cooperate with the pivoted member to hold the same in fixed relation with the saw-blade. All of such devices have invariably been capable of use only at one point on the saw-blade.

The object of the present invention is to provide a simple, inexpensive, and efficient device adapted to be pivotally mounted on a saw adjacent to the handle and capable of being arranged and clamped at the desired angle to the back of the saw.

A further object of the invention is to provide a device of this character which will also be adapted to form a try-square at any point on the saw-blade and which may be arranged close to the outer end of the blade and be clamped in such position by the fastening device, which secures it in its position adjacent to the handle of the saw.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a side elevation of a saw provided with a square-and-bevel attachment constructed in accordance with this invention. Fig. 2 is a sectional view on the line 2-2 of Fig. 1. Fig. 3 is a detail perspective view of the square-and-bevel attachment. Fig. 4 is a detail view of the reversible clamping device.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a saw-blade of the usual form provided with a straight-back edge 2 and secured to a handle 3 of the ordinary construction. The opposite faces of the blade 1 are provided adjacent to the rear edge 2 with regularly-divided scale-marks 4 to provide a rule or measure, and on one or both of the faces of the saw-blade adjacent to the handle 3 is a sector or angle scale 5, struck from a center on the blade, at which center is arranged a smooth opening 6. The smooth opening 6 is located adjacent to the rear edge of the saw-blade, and the sector or angle scale is provided for a combined square-and-bevel attachment 7, constructed of a single piece of material rounded at one end to form a head 8 and having opposite parallel side edges 9. The attachment is provided with a longitudinal slot 10, extending inward from one end and forming two sides or legs and arranged in a plane parallel with the outer flat faces 11 of such sides or legs.

The sides or legs which straddle the blade of the saw, as clearly illustrated in Fig. 2 of the accompanying drawings, are adapted to move over the scale 5 and are provided with transversely-alined openings 12 and 13, registering with the smooth opening 6 of the saw-blade. The opening 12 of one of the sides is smooth, and the opening 13 of the other side is provided with screw-threads, which are adapted to be engaged by a clamping-screw 14. The clamping-screw 14, which is provided at one end with screw-threads 15, has a smooth body portion 16 and is provided at its other end with a winged head 17.

In assembling the parts the clamping-screw 14 is introduced at the smooth opening 12 and is pushed through the same and through the opening 6 and is then rotated to cause the screw-threads to engage those of the threaded opening 13 of the attachment, and it will be apparent that by tightening the screw the sides of the attachment will be caused to engage frictionally the side faces of the saw-blade, whereby the attachment is securely held in its adjusted position, and when the screw is slightly loosened the attachment will be permitted to swing over the scale 5 of the saw-blade to arrange it at the desired angle to the back of the saw. By

making the greater portion of the body of the shank of the screw smooth the leg having the smooth opening 12 will be permitted to relax its pressure when the said screw is loosened and the smooth portion of the screw will serve as a pivot for the attachment.

The screw 14 is reversible and is adapted to be introduced at the threaded side opening 13 to arrange it for engaging the saw-blade at an unthreaded portion thereof to permit the attachment to be clamped at any point along the saw-blade. By this construction the attachment may be arranged adjacent to the outer end of the saw-blade and it will form an efficient square at any point between the ends of the blade.

The improved device dispenses with a number of separate tools found in an ordinary carpenter's kit and provides convenient means in connection with the saw-blade to square a plank or board before sawing the same, and it avoids the delay incident to the use of separate instruments for this purpose. A combined try and bevel square is provided with a comparatively small increase in the cost of the saw, and the attachment may be easily disconnected from the saw to permit the use of the saw alone.

Having thus described the invention, what is claimed as new is—

The combination with a saw having an opening through its blade and a sector-scale concentric with said opening, of a square-and-bevel attachment comprising a member adapted to straddle the saw-blade and provided with aligned transverse openings adapted, when the member is in position, to register with the opening in the blade, one of the openings in the member having threads, and a clamping-screw adapted to be inserted through the openings in the member and the blade and to engage the threaded opening in the member for clamping the member to the blade, said clamping-screw being adapted to be reversed for direct engagement with the blade through the threaded opening of the member; whereby the member may be moved longitudinally of the blade and clamped at any desired point.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CORNELIUS E. WATERS.

Witnesses:

PETER W. LOSBY,

ROBERT T. JOHNSTON.