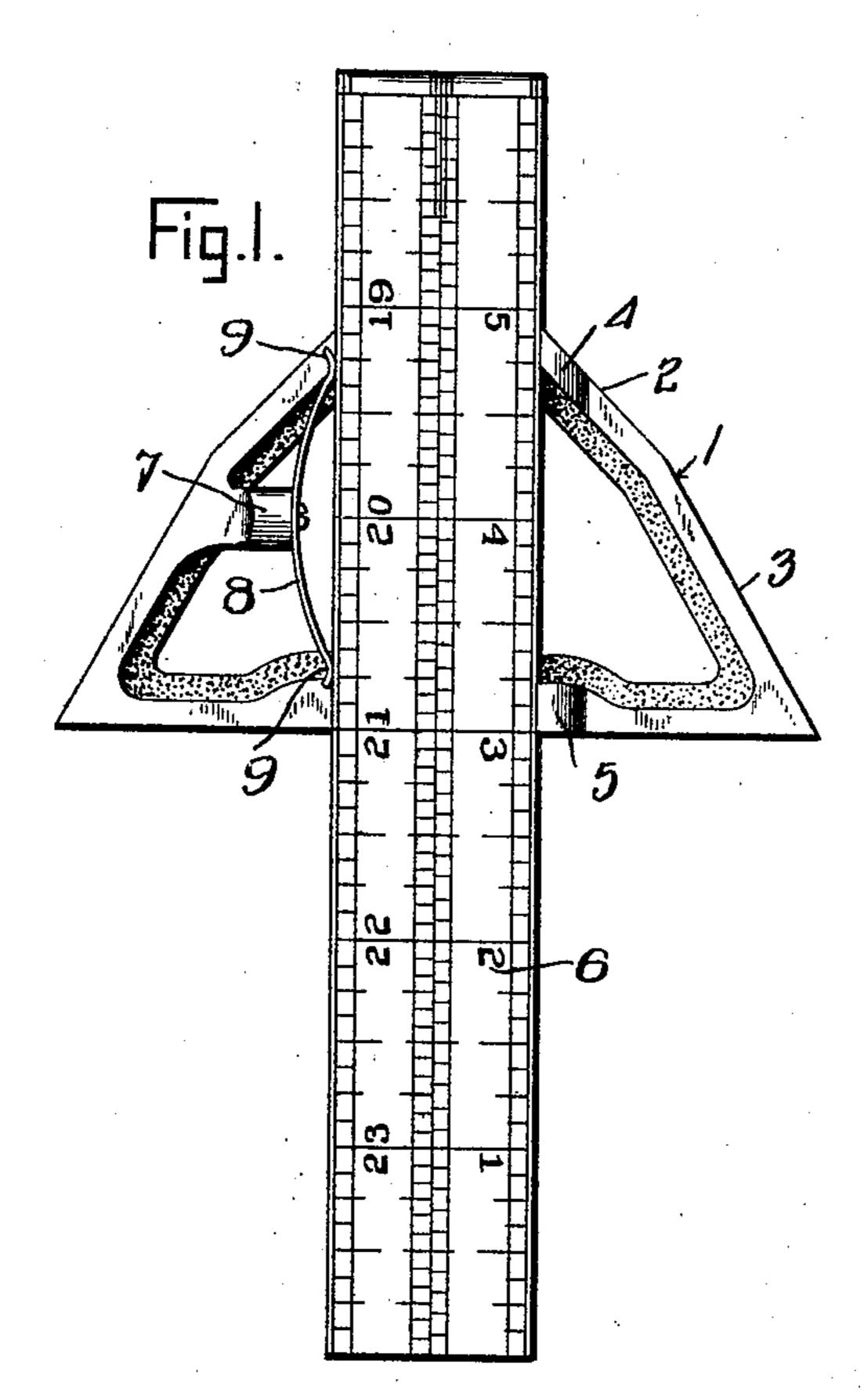
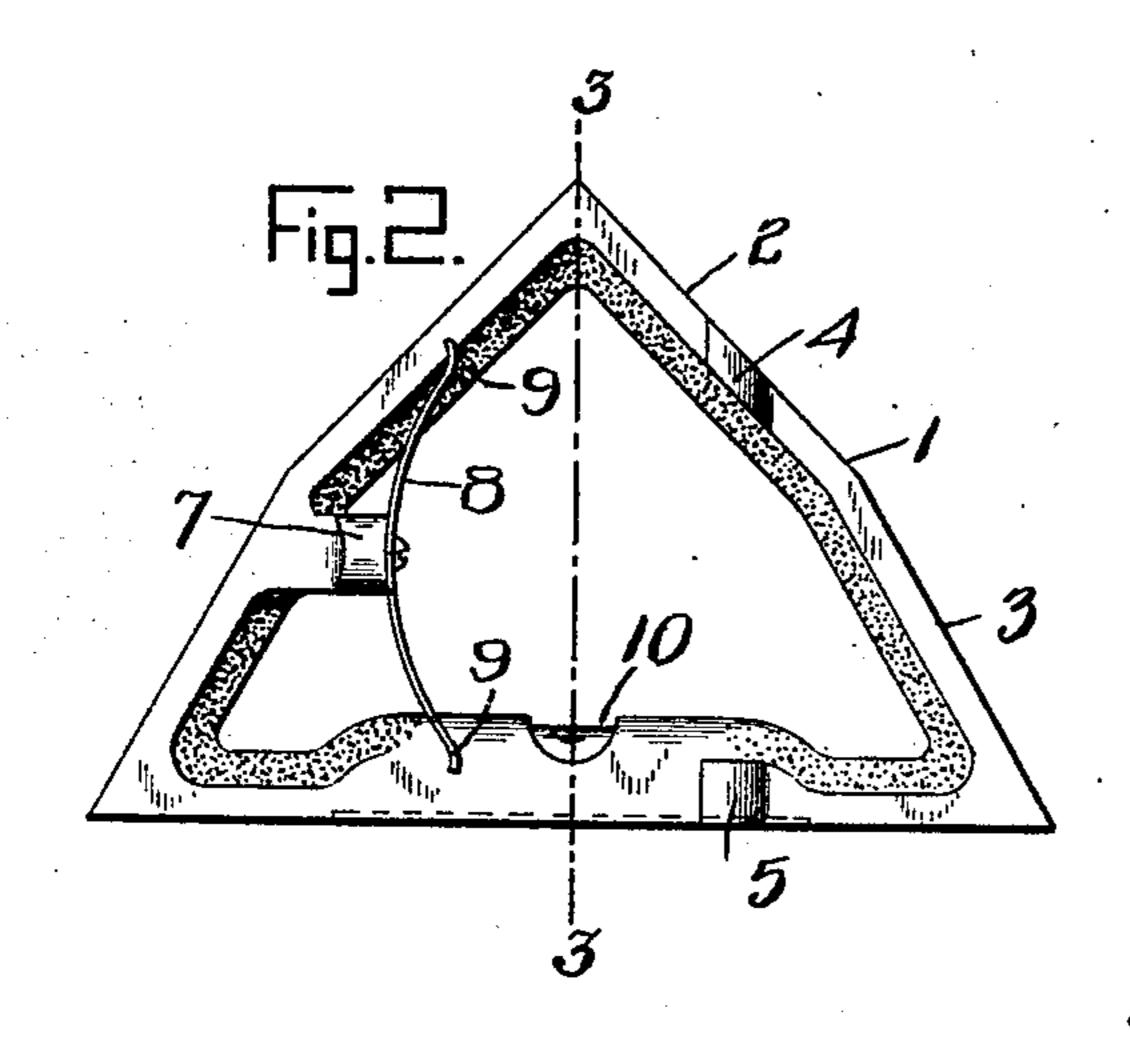
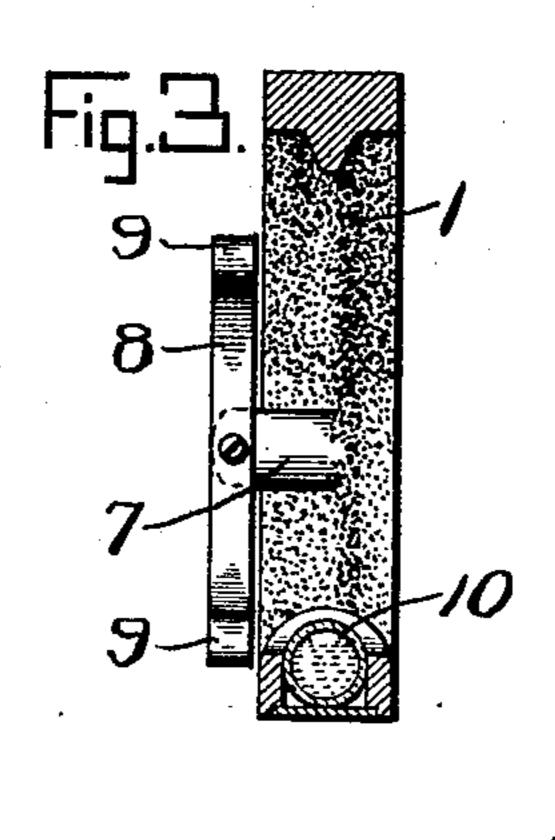
## W. H. STANLEY. COMBINATION TOOL. APPLICATION FILED AUG. 15, 1910.

999,899.

Patented Aug. 8, 1911.







Witnesses

I. B. Naumaduke.

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## UNITED STATES PATENT OFFICE.

WILLIAM H. STANLEY, OF ALAMEDA, CALIFORNIA.

## COMBINATION-TOOL.

999,899.

Specification of Letters Patent.

Patented Aug. 8, 1911.

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To all whom it may concern:

Be it known that I, WILLIAM H. STANLEY, a citizen of the United States, residing at Alameda, in the county of Alameda and 5 State of California, have invented certain new and useful Improvements in Combination-Tools, of which the following is a specification.

This invention has reference, generally, to 10 improvements in that class of instruments designed for use as squares, miters, markinggages, and the like; and the present invention has for its principal object to provide a novel and simply constructed contrivance 15 whereby it may be readily carried in the pocket or stored in the tool-chest and is capable of ready attachment to the ordinary foot-rule or the usual straight-edge for use in ascertaining or finding various degree 20 angles and for use as a marking-gage, a depth-gage, a T-square, a try-square, a miter, and similar uses.

A further object of the invention is to provide for its use also as a spirit level.

The invention consists of certain instrumentalities or features substantially as hereinafter fully disclosed and defined by the claim.

In the accompanying drawings, illustrat-30 ing the preferred embodiment of my invention and wherein the various details may be changed or modified as circumstances may require,

Figure 1 is a plan or top view of the in-35 strument as applied to a foot-rule for use; and Fig. 2 is a similar view of the same detached from the rule. Fig. 3 is a vertical section taken on line 3—3 of Fig. 2.

Similar characters of reference are em-40 ployed in the several views to indicate corresponding parts.

In carrying out my invention, I make the number 1 of substantially right-angled triangular outline, except that its inclined or 45 diagonal sides are each adapted to extend partly at an angle of forty five degrees (45°) and partly at an angle of thirty degrees (30°) as at 2 and 3, respectively, the utility and convenience of which are appar-50 ent. For lightness and economy of construction the number 1, which is preferably a casting, is produced in skeleton form as shown. The member 1 has projecting therefrom, laterally of a line passing through its 55 vertical center and a short distance away from such line, two alining lugs 4, 5 adapt-

ed to conform with nicety of adjustment to one of the smooth lateral edges of a footrule 6, as disclosed.

The member 1 is provided upon its oppo- 60 site lateral portion with an outstanding stud or projection 7, at a point about equidistant from the lugs 4, 5, and to this stud is centrally secured, in any suitable way, as by means of a screw, or otherwise, a sub- 65 stantially semi-elliptic spring or clasp 8, with its terminals adapted to engage and deliver pressure upon the opposite lateral edge of the foot-rule. By this arrangement, it will be noted, that, with the foot-rule, in 70 its folded position, inserted or interposed between the lugs 4 and 5 and the spring or clasp 8, which may be more readily effected by presenting the triangle or member 1 and rule 6 laterally toward each other, said 75 triangle or member is effectively or forcibly clasped or held to the rule and yet adapted to be slid thereon in effecting the relative adjustment thereof as circumstances may suggest, all without the manual manipu- 80 lation of the clasp or spring, or the holding means for the triangle, permitting the ready and expeditious application and adjustment of the triangle, together with the rule, simply by holding one and moving the other, 85 the clasp yielding and regaining its grip automatically. The terminals of the spring or clasp 8 are reversely curved as at 9 thus providing for presenting smooth or nonmutilating surface of contact or engagement 90 therebetween and the rule, as desirable.

The instrument may be readily used with the arms of the ordinary foot-rule, or with an ordinary straight-edge by placing the rule or straight-edge between the vertical 95 faces of the lugs 4 and 5 and the terminal of the spring or clasp 8, as clearly evident. In this manner the tool and the foot-rule or straight-edge are securely connected against displacement from each other, the said tool 100 being secured in any adjusted position along the graduation upon the face of the rule, that may be desired. It is also obvious from an inspection of Fig. 1 of the drawings, that when the device 1 has been secured in its 105 position upon the rule, the entire contrivance may be used as a marking-gage, a depth-gage, a T-square, a try-square, or as a 45 or 30 degree miter for producing these various angles. By suitably applying lat- 119 eral pressure to the triangle or member 1, it may be readily detached from the rule or

straight-edge as indicated in Fig. 2, and may be used as an ordinary inside square.

From an inspection of Fig. 1 of the drawings, it will be clearly seen that by holding 5 the foot-rule in the one hand and suitably moving the triangle it may be slipped along the longitudinal edges of the rule or straight-edge, and upon bringing the triangle to rest the same will be instantly re-10 tained in position at its point of adjustment. If desired, the body may be provided upon any one of its inner faces with a spirit level 10 preferably embedded in position therein as clearly illustrated in Fig. 2, the device 15 also being adapted as a thumb-square, as suggested by Fig. 2.

The use of the device shown in the accompanying drawings is clearly apparent and need not be further described, suffice it 20 to say, that when the device 1 is secured in position upon the rule in the manner indicated in Fig. 1, by placing the edge 11 against a board or the like, the parts may be used as an ordinary T-square for drawing <sup>25</sup> or marking lines at right angles to the edge of the board; but when placing either of the edges 2 or 3 of the device against an edge of the board or the like, any one of the two longitudinal edges of the rule extending beyoud the said edges 4 and 5 may be used for drawing lines at 45 or 30 degrees to the edge of the board as will be clearly evident; and, furthermore, when detached from the rule, the device may be variously used as à square.

From the foregoing description of my invention, and an inspection of the accompanying drawings, it will be clearly seen that I have produced a device which may be quickly and easily attached to the rule or 40 straight-edge for its various uses, and may be just as quickly detached therefrom, so as to be stored in the tool-chest, or that may be carried without discomfort in the pocket.

I claim:

A device of the character described, including a member, triangular in general outline, said member having lateral alining lugs arranged at one side of its center, the opposite arm of said member having an 50 outstanding stud arranged at a point about equidistant between said lugs, said outstanding stud having a semi-elliptical spring secured about centrally thereto, the concavity of said spring being presented toward the 55 center of said triangular member, the outer ends of said spring being adapted to engage an object interposed therebetween and said stud for the retention of said object in position upon said triangular member.

In testimony whereof I affix my signature

in presence of two witnesses.

WILLIAM H. STANLEY.

Witnesses: B. B. McCarthy, JOHN M. GEARIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."