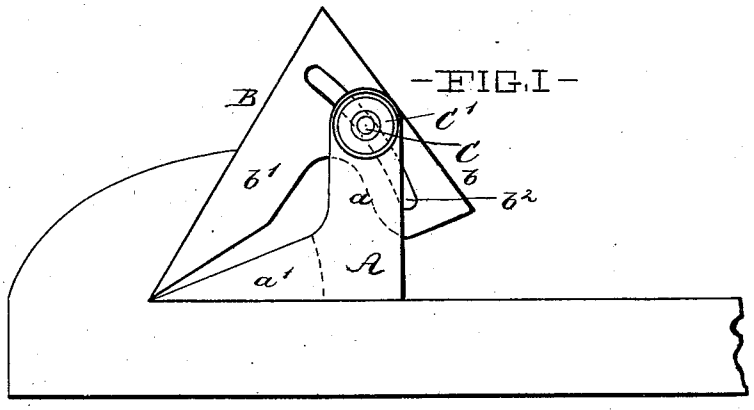
(No Model.)

S. H. MARKHAM.

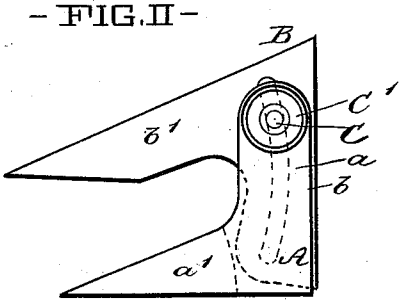
INSIDE BEVEL.

No. 542,367. Patented July 9, 1895.

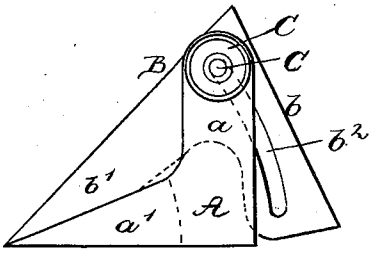
-FIG. I-



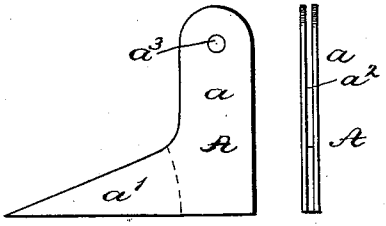
-FIG. II-



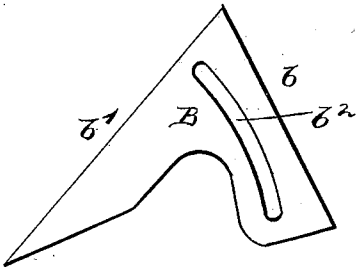
-FIG. III-



-FIG. IV-



-FIG. V-



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INSIDE BEVEL.

SPECIFICATION forming part of Letters Patent No. 542,367, dated July 9, 1895.

Application filed March 4, 1895. Serial No. 540,397. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. MARKHAM, a citizen of the United States, and a resident of Pittsburg, county of Allegheny, and State of Pennsylvania, have invented certain new and useful Improvements in Inside Bevels, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The annexed drawings and the following description set forth in detail one mechanical form embodying the invention, such detail construction being but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings, Figure I represents an end view of one-half of a slideway, illustrating my improved inside bevel or adjustable angle-templet in position gaging the inside angle of the slideway; Fig. II, a view of the bevel in one form of adjustment; Fig. III, a view of the bevel in another form of adjustment; Fig. IV, a side view and an edge view of what may be termed the "stock" of the bevel, and Fig. V a view of what may be termed the "blade" of the bevel.

The bevel consists of two members A and B. A is what may be termed the "stock," and consists of a slotted limb a and a limb a', having its outer edge at a right angle to the outer edge of the slotted limb a. The slot in the limb a is indicated at a^2. The limb a' terminates in an acute point, while the slotted limb terminates like an ordinary bevel-stock, and has a transverse perforation a^3 for the accommodation of the adjusting-screw C, which is provided upon one end with a nut c'. The blade is likewise formed with two limbs b and b', the outer edges of which, in the present case, stand at an angle of sixty-five degrees one to the other. The limb b of the blade slides upon the adjusting-screw in the slot of the stock, and has a segmental slot b^2, the center of which is at the point of the limb b'. The limb b' terminates in an acute point, and when the blade is drawn into the stock in the most compact position which the elements of the bevel can occupy the outer edges of said limb b' of the blade and of the acutely-pointed limb a' of the stock form an angle of forty-five degrees, such pointed extremities being preferably each shaped at an angle of twenty-two and one-half degrees.

In practice the edge of the pointed limb of the blade may be adjusted in relation to the edge of the pointed limb of the stock by adjusting the segmental slot of the blade upon the screw, with the points of the blade and stock as a center, to indicate any angle between one of forty-five degrees and one of seventy-five degrees. The angle formed by the outer edges of the limb b of the blade and the limb a' of the stock may be varied from an angle of seventy degrees to an angle of ninety degrees by swinging the blade upon the adjusting-screw and moving the pointed limbs of the two elements one from the other.

This device will be extremely useful in measuring or gaging angles of slideways or similar inside angles where no parallel surface exists to the surfaces the angle of which it is desired to ascertain. It would be impossible, for instance, in the slideway illustrated in Fig. I, to ascertain the angle of the overhanging beveled surface to the bottom of the slideway by an ordinary bevel, as the curved outside surface would offer no plane upon which the stock of the bevel might rest. It has, therefore, heretofore been customary to gage such angles by means of templets cut from sheet metal. It would, however, be necessary in such case to have a templet for each angle employed. By the use of my inside bevel or adjustable templet one tool may be employed in place of a large number of templets. The tool may also be used as an ordinary bevel within the limits of its capacity.

Other modes of applying the principle of my invention may be employed for the mode herein explained. Change may therefore be made as regards the mechanism thus disclosed, provided the principles of construction set forth respectively in the following claims are employed.

I therefore particularly point out and distinctly claim as my invention—

1. An inside bevel, consisting of two angular members, each member having a pointed limb which may have its point meet the point of the other member, and one of said mem-

bers formed with a slot with which it may slide upon an adjusting screw in the other member, substantially as set forth.

2. An inside bevel, consisting of a stock portion having a longitudinal slotted limb and a pointed limb, the outer edges of said limbs being at a right angle to one another, an adjusting screw passing through the end of the slotted limb of said stock portion, and a blade portion having a pointed limb and a limb formed with a segmental slot having its center at the point of the other limb,—said slotted limb sliding in the slot of the stock and upon the adjusting screw, substantially as set forth.

In testimony that I claim the foregoing to be my invention I have hereunto set my hand this 1st day of March, A. D. 1895.

SAMUEL H. MARKHAM.

Witnesses:
C. E. SUCCOP,
ALBERT J. HENNING.