No. 781,971 PATENTED FEB. 7, 1905.

J. F. THOMAS.

BEVEL SQUARE.

APPLICATION FILED JULY 25, 1904.

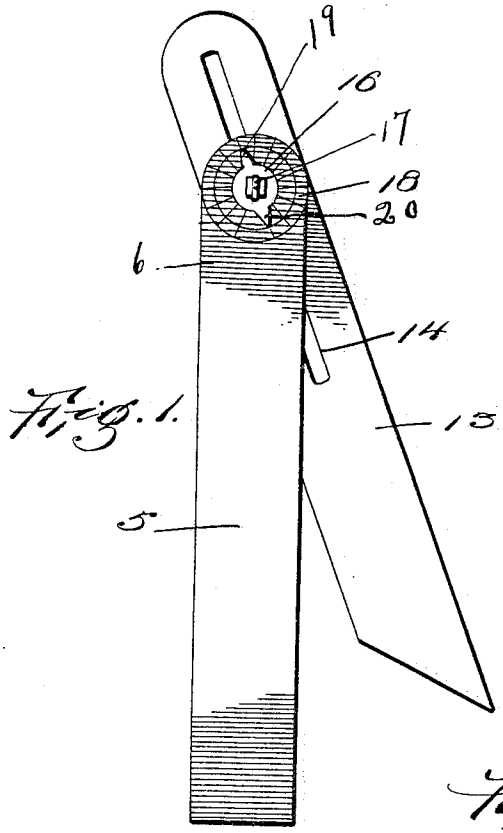


Fig. 1.

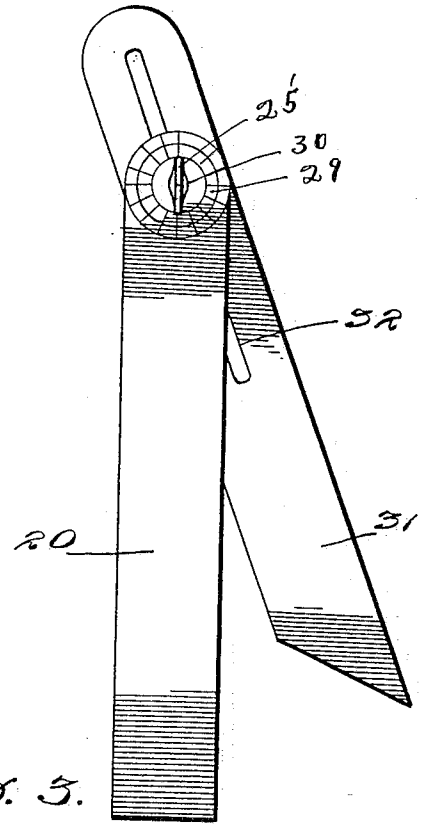


Fig. 3.

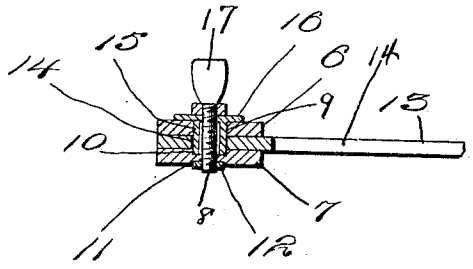


Fig. 2.

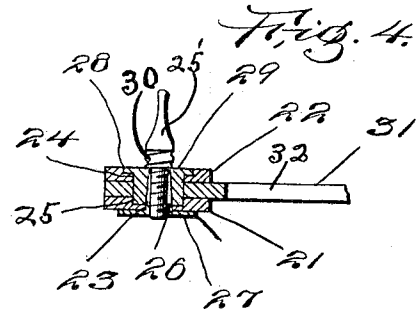


Fig. 4.

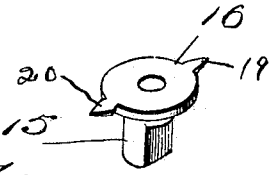


Fig. 5.



Fig. 6.

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No. 781,971. Patented February 7, 1905.

UNITED STATES PATENT OFFICE.

JAMES F. THOMAS, OF SEQUATCHIE COLLEGE, TENNESSEE, ASSIGNOR OF ONE-HALF TO JAMES M. ROGERS, OF SEQUATCHIE COLLEGE, TENNESSEE.

BEVEL-SQUARE.

SPECIFICATION forming part of Letters Patent No. 781,971, dated February 7, 1905.

Application filed July 25, 1904. Serial No. 218,105.

To all whom it may concern:

Be it known that I, JAMES F. THOMAS, a citizen of the United States, residing at Sequatchie College, in the county of Bledsoe, State of Tennessee, have invented certain new and useful Improvements in Bevel-Squares; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to bevel-squares; and it has for its object to provide a cheap and simple construction wherein the adjustable member or blade will be held securely in its different positions and in which the angle between the members may be accurately fixed.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a plan view showing a square embodying the present invention. Fig. 2 is a section through the pivot of the square. Fig. 3 is a view similar to Fig. 1, showing a modification. Fig. 4 is a section through the pivot of the construction shown in Fig. 3. Fig. 5 is a detail view showing the index-carrying member in the structure shown in Figs. 1 and 2. Fig. 6 is a detail perspective view showing one of the members of the structure illustrated in Figs. 3 and 4.

Referring now to the drawings, and more particularly to Figs. 1 and 2, there is shown a square comprising a handle or stock 5, one end portion of which is slotted to form the spaced arms 6 and 7, through the free end portions of which are formed alining perforations 8 and 9. The perforation 8 is smaller than the perforation 9 and is countersunken at both ends, as shown at 10 and 11, the countersink 11 being angular and having a nut 12 therein. Between the arms or members 6 and 7 is disposed the blade 13 of the square, having a longitudinal slot 14 in one end portion. A cylindrical block 15 is engaged in the perforation 9 and in the countersink 10 of the perforation 8, said block being flattened on its sides for a portion of its length to fit the slot of the blade, so as to rotate with the blade, while permitting sliding movement of the latter to project to the required distance at either side of the handle. Through the block and the perforation 8 there is passed a clamping-screw which engages the nut 12, the block having a disk-shaped flange 16 at its upper end which rests upon the member 7 of the handle 6 and is clamped thereagainst by the flange of the clamping-screw when the latter is screwed into the nut, so that the blade is held against both pivotal and longitudinal movement by reason of binding of the parts. Upon the member 6 and surrounding the perforation 9 is a dial 18, which is traversed by the indexes 19 and 20, carried by the flange 16, the scale being so marked as to show, in coöperation with an index, the angle between the blade and the handle.

Referring now to Figs. 3 and 4 of the drawings, there is shown a square comprising a handle 20, which is split or bifurcated to form the spaced members 21 and 22, the member 21 having a perforation 23 therein which registers with the perforation 24 in the member 22, the latter perforation being of the same diameter as the countersink 25 at the inner end of the perforation 23. In the perforation 23 is a nut 26, having a flange 27, which is secured against the outer face of the member 21. The perforation 24 is countersunken at its outer end, as shown at 28, and in the perforation 24 is rotatably engaged a cylindrical block having a flange 29 at its outer end which engages rotatably in the countersink 28. The inner end of the block, which projects from the member 22 and into the countersink in the member 21, is flattened on opposite sides, while its rounded side portions fit snugly in the countersink, but permit of rotation of the block. Through the block is formed an axial passage which registers with the perforation of the nut, and in the passage is rotatably engaged a thumb-screw which is screwed into the nut, the thumb-screw having a flange 30, which impinges against the outer end of the block, so that by tightening the thumb-screw the block will be firmly clamped and held against rotation. Between the members 21 and 22 is disposed the blade 31 of the square,

said blade having a longitudinal slot 32 in one end portion, in which is engaged the flattened portion of the block, the block fitting the slot with sufficient snugness to prevent oscillation of the blade on the block, while permitting longitudinal movement of the blade. When the thumb-screw is tightened, the members 21 and 22 are drawn toward each other against the blade and the blade and block are held against movement. Upon the outer end of the block is marked a scale, and upon the face of the member 22 surrounding the end of the block is marked a corresponding scale, as illustrated. When the blade is adjusted to various angles to the handle, the scale on the block traverses the scale on the handle, and thus provides for determining the proper angle between the handle and blade to suit different working conditions.

What is claimed is—

A bevel-square comprising a bifurcated handle, a longitudinally-slotted blade disposed between the sides of the slotted handle, the sides of the handle having alining perforations of different diameters, the inner end of one of the perforations being countersunken to the same diameter as the other perforation, a nut carried by the member having the countersink, a block having a flattened end portion slidably engaged through the slot of the blade and rotatably engaged in said countersink, the opposite end of the block being cylindrical and rotatably engaged in the opposite perforation, and a clamping-screw passed loosely through the block and engaged with the nut, said screw having a flange disposed against the opposite end of the block.

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

JAMES F. THOMAS.

Witnesses:
J. SIDNEY FERGUSON,
LEWIS S. POPE.