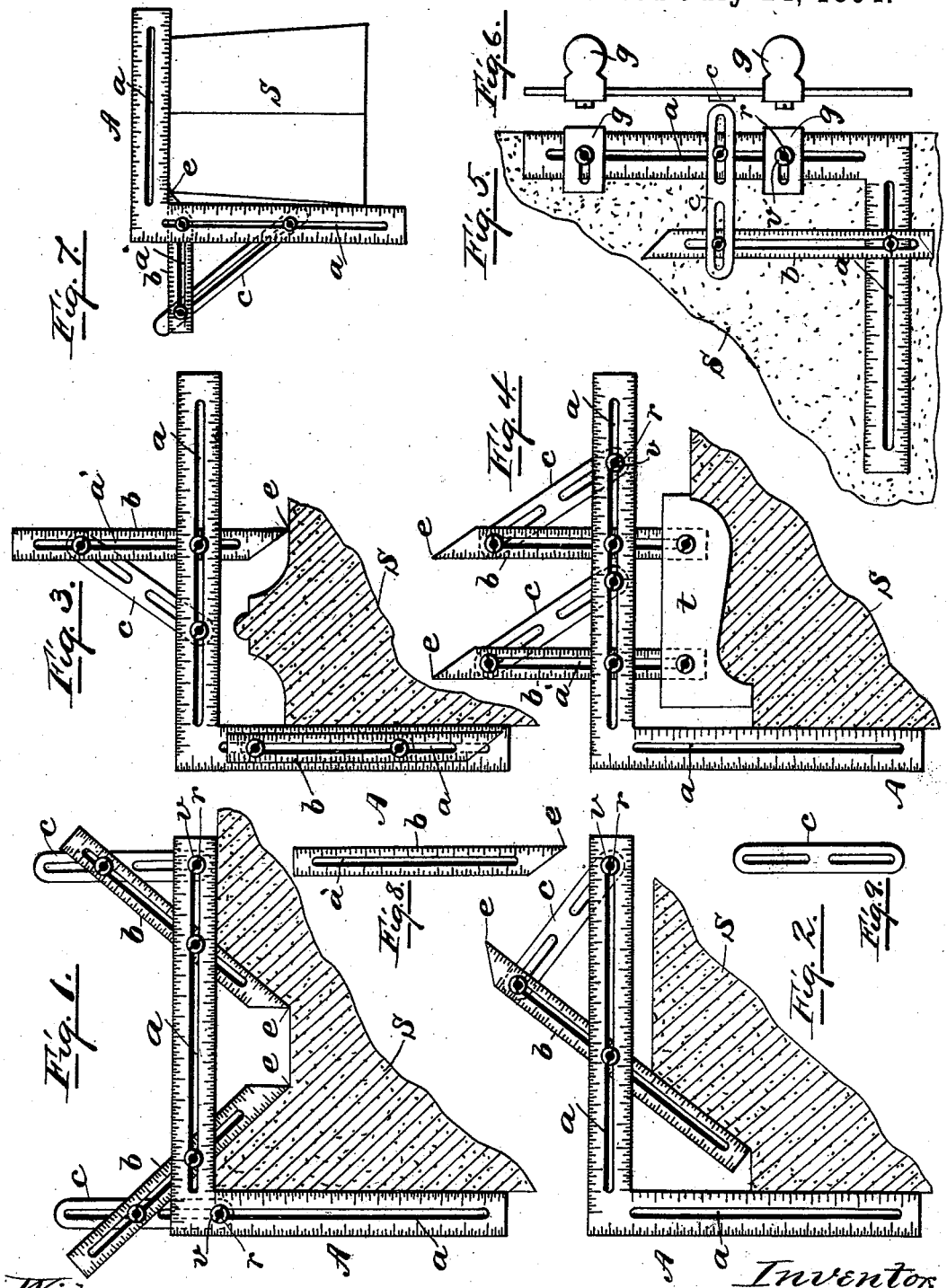
(No Model.)

J. H. GORMAN.

STONE WORKER'S GAGE SQUARE.

No. 523,398. Patented July 24, 1894.



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JOHN H. GORMAN, OF EAST GREENWICH, RHODE ISLAND.

STONE-WORKER'S GAGE-SQUARE.

SPECIFICATION forming part of Letters Patent No. 523,398, dated July 24, 1894.

Application filed November 2, 1893. Serial No. 489,817. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. GORMAN, of East Greenwich, in the county of Kent and State of Rhode Island, have invented certain new and useful Improvements in Stone-Worker's Gage-Squares; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of instruments used by stonecutters in laying out the designs for their work and in testing the same for correctness as it progresses and when it is finished.

It is fully illustrated in the accompanying drawings.

Figure 1, represents the instrument applied to a stone, which is shown in section. Fig. 2, shows another mode of application. Fig. 3, shows an application of the instrument as a depth gage. Fig. 4, represents its application for holding a pattern to cut a molding on a stone. Fig. 5, is a top view of its use in working on the upper surface of a stone already leveled off. Fig. 6, is an edge view of the instrument, with the angle plates, as seen in Fig. 5. Fig. 7, shows the mode of using the instrument on a beveled "die-block." Fig. 8, shows a flat side of a gage bar. Fig. 9, represents the brace bar.

The object of this invention, is to produce a tool for the stonecutter's use, to serve in all the various manipulations where now he uses a square held against a straight edge, and a rule held against the square, to mark out or test his work, so he can avoid the uncertainty of the result that depends so much, in the ordinary way, on his success in holding the various tools mentioned, in proper relations to each other.

The instrument consists in the combination of a steel square A, having longitudinal slots *a*, *a*, made in the middle of each limb, nearly the whole length, and a flat gage bar *b*, also slotted, *a'*, in like manner as the square, and having one end cut off to a bevel that will bring the point *e*, to one side of the bar, a flat, thin brace bar *c*, having short, longitudinal slots near each end, and two plates *g*, *g*, bent at right angles, and having short slots in one side of the bend. These parts are held together in their various positions, by means of short bolts *r*, having preferably, thin, flat heads on one end, and a round, thin nut *v*, slotted across to receive a screw driver made with a notch in its end, to receive the end of the bolt when the nut is being screwed down tight. The reason for preferring this kind of a nut to a thumb screw, and also the thin head, is that the instrument may lie down closer to the stone work, when it is applied in some ways. A number of the gage bars of different lengths, are intended to be used, as different kinds of work may require, and also of the brace bars *c*.

In Fig. 1, the instrument is arranged and applied to gage two opposite bevels cut in the top surface of a stone block S, the vertical leg of the square A, being held close to the finished side of the block, the two brace bars *c*, *c*, being so arranged that they will hold the gage bars *b*, *b*, rigidly, as set. The brace bar *c*, is one of the important features of the combination, for without that the gage bar could not be depended upon, as it is almost impossible to hold it against being moved by accidental contact with the stone, by means of one bolt through it where it crosses the square, however tightly that bolt may be screwed up. By means of the brace bar, a finer adjustment of the gage bar can be made, without the liability of alteration in the process of tightening the nuts.

Fig. 2, shows the mode of applying the instrument, in gaging a single bevel with an offset that would prevent the use of a plain bevel.

In Fig. 3, the arrangement and operation of its use as a depth gage, are shown, also how the gage bars *b*, *b*, may be disposed of so as to be out of the way when not needed, by securing them lengthwise of one of the legs of the square.

Fig. 4, shows how a pattern for molding, *t*, is held to test the accuracy of the work as it progresses.

Fig. 5, shows the application of the instrument to the upper surface of a block already squared up for lettering, or other surface work. The angle plates *g*, attached to the square to hold it on the edge of the stone, be-

ing slotted, the square can be set so that the limb on the stone, will be at any angle to the side of the stone, when desired.

Fig. 7, represents the mode of using the instrument in squaring the top of a "beveled die-block," which is usually first cut on its sides to the desired bevel, then the top and bottom are squared by means of a complex system of center lines, so as to be parallel with each other. With this instrument, the operation is quickly and accurately done, by finding the difference between the breadth of the top and bottom, and adjusting the point of the gage bar at one-half the difference from the vertical leg of the square, and the top and bottom can be leveled off as one would square off the top of a rectangular block.

For convenience in slotting and measuring, the square and gage bars are graduated in the same manner as steel squares are usually divided.

Having thus described my improvements, what I claim as my invention is—

1. A square, slotted substantially as described, in combination with a slotted gage bar having one beveled end, and a brace bar slotted near its ends, substantially as described.

2. A square, slotted substantially as described, in combination with the slotted gage bar having one beveled end, a slotted brace bar, and a pattern for molding, substantially as specified.

3. A combination tool for stone workers' use, consisting of a square having both legs slotted and graduated, one or more gage bars also slotted and graduated, one or more brace bars slotted near their ends, two rectangular bent plates with slots, and bolts suitable for holding the members of the combination together, substantially as described.

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