No. 713,789. Patented Nov. 18, 1902.

H. C. NEWMAN.

BRICK OR STONE MASON'S GAGE.

(Application filed Mar. 31, 1902.)

(No Model.) 2 Sheets—Sheet 1.

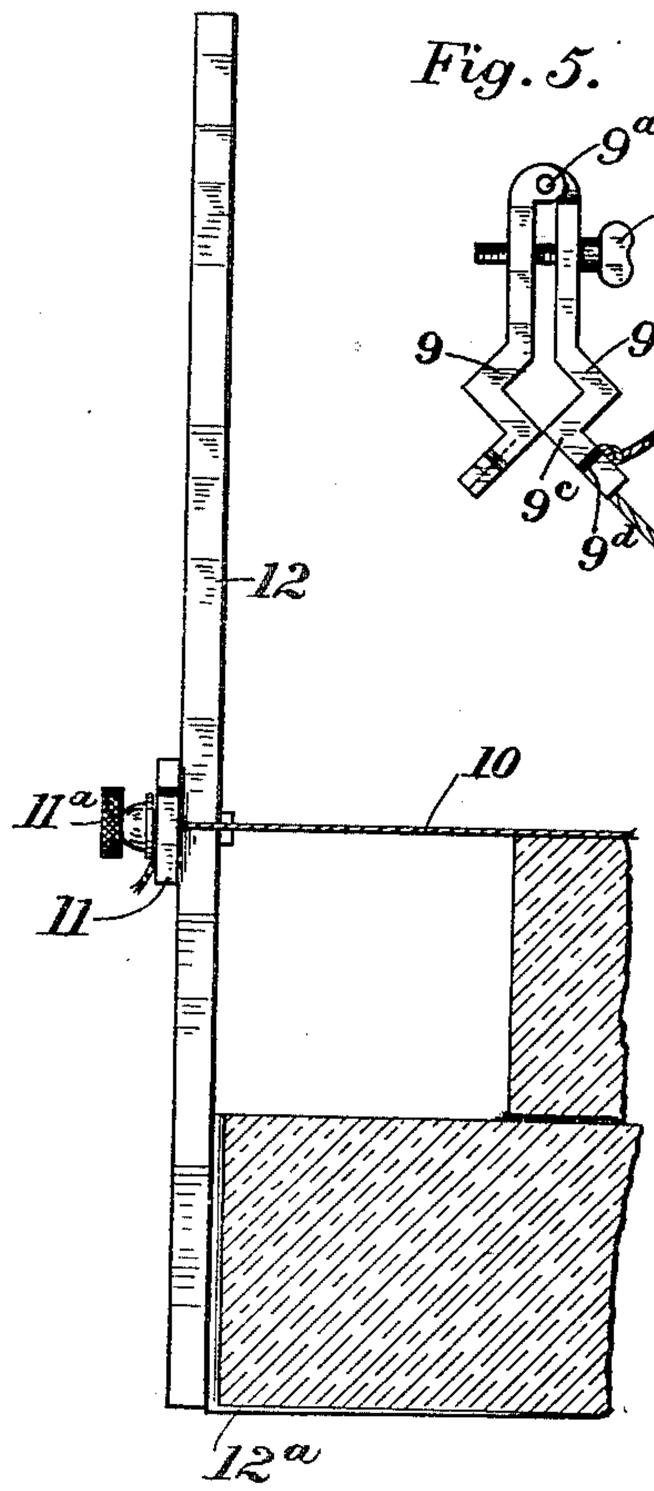


Fig. 5.

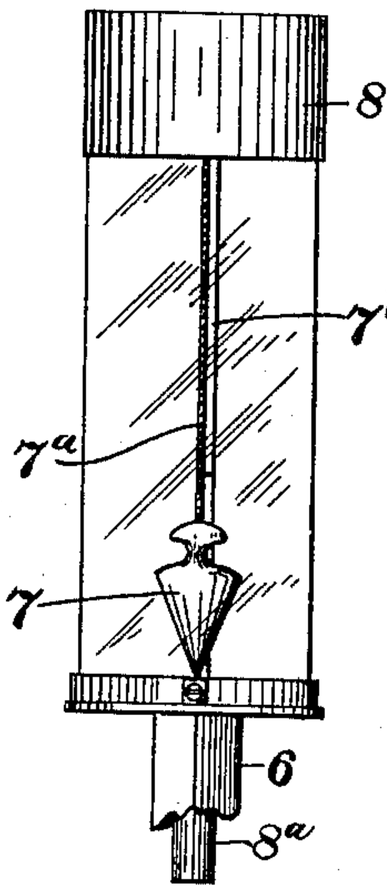
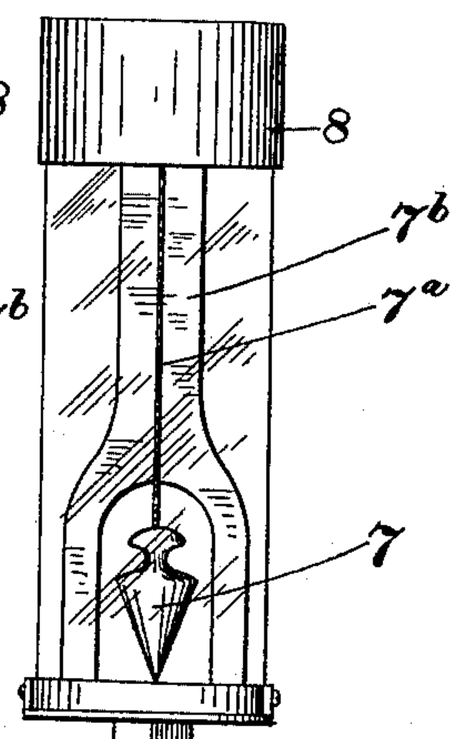


Fig. 4.



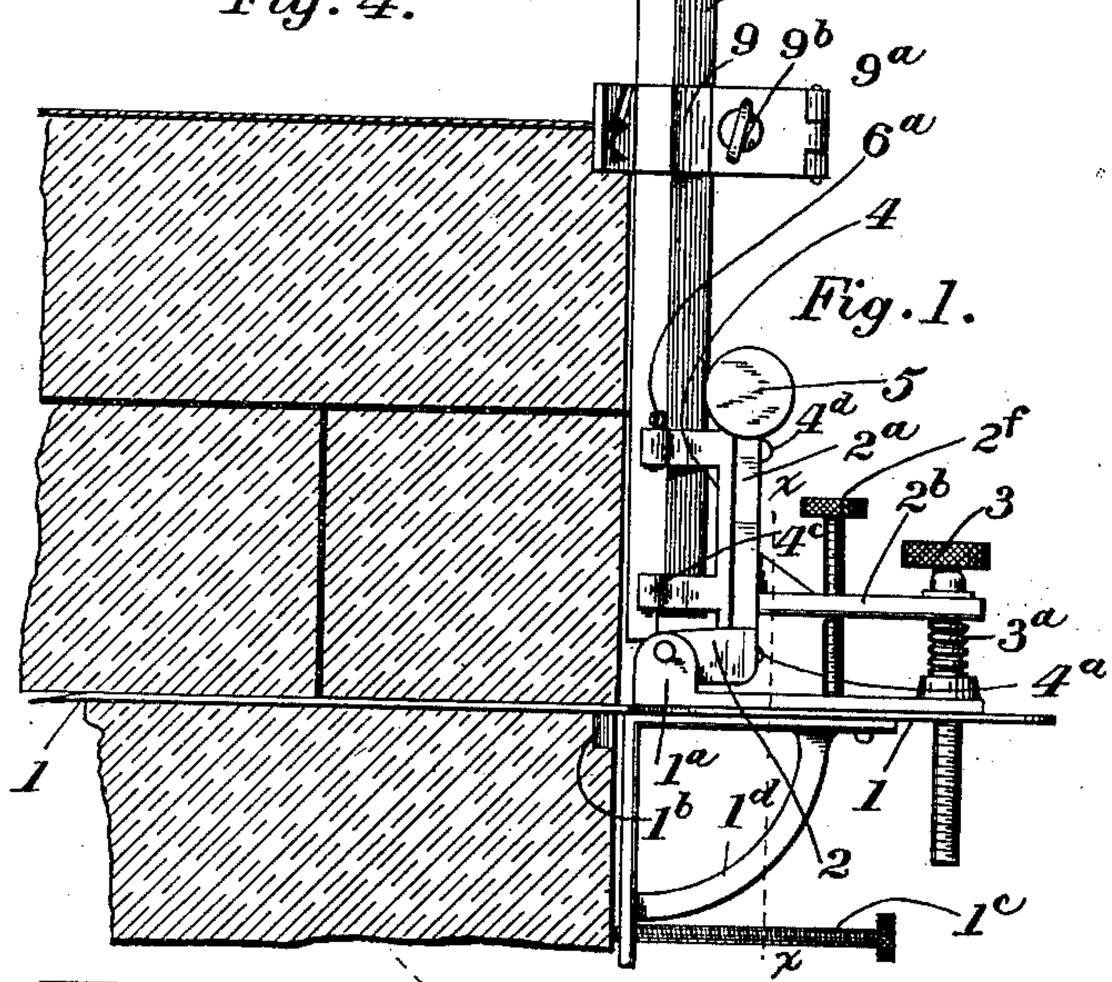


Fig. 1.

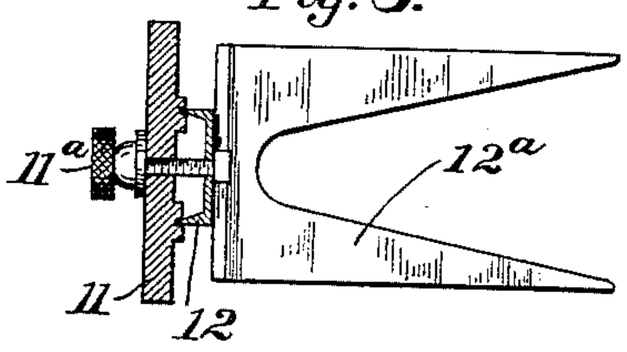


Fig. 3.

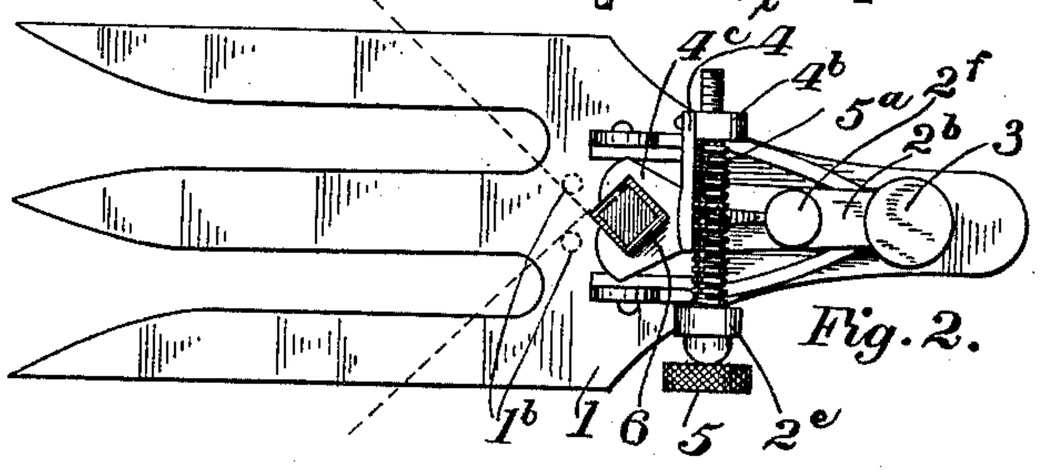


Fig. 2.

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BRICK OR STONE MASON'S GAGE.

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(No Model.) 2 Sheets—Sheet 2.

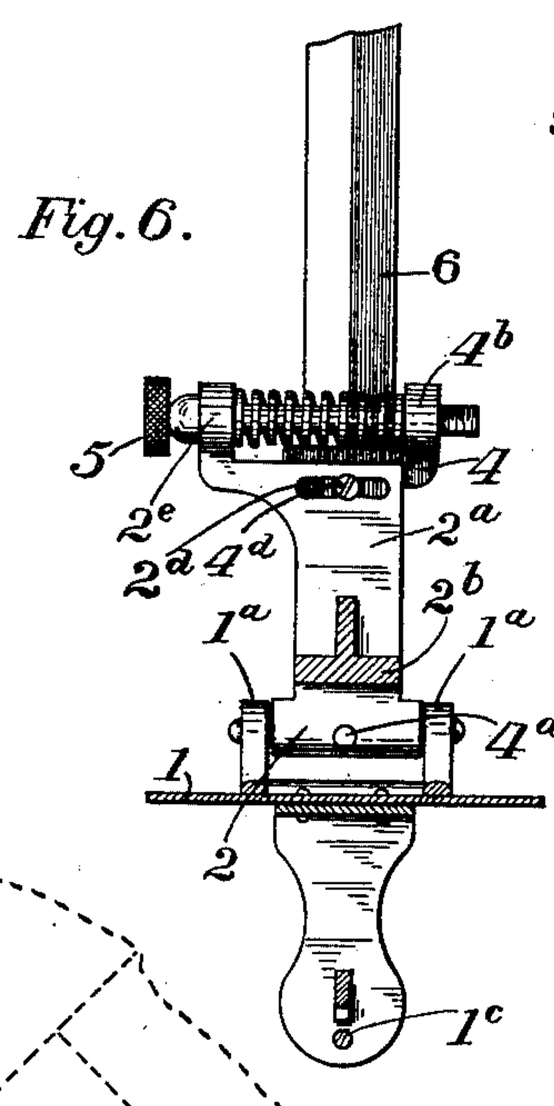

Fig. 6.

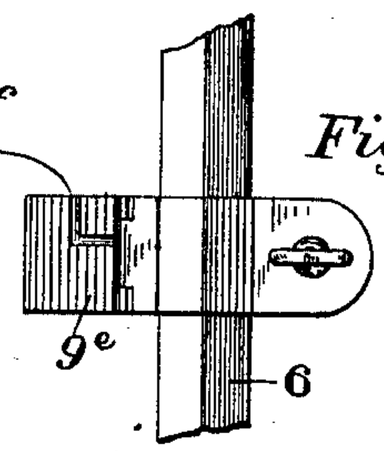

Fig. 9.

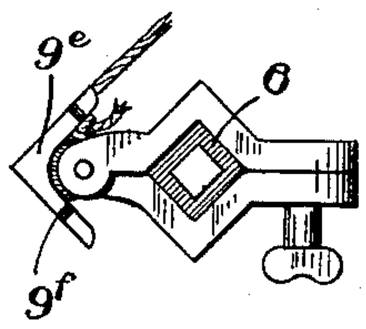

Fig. 10.

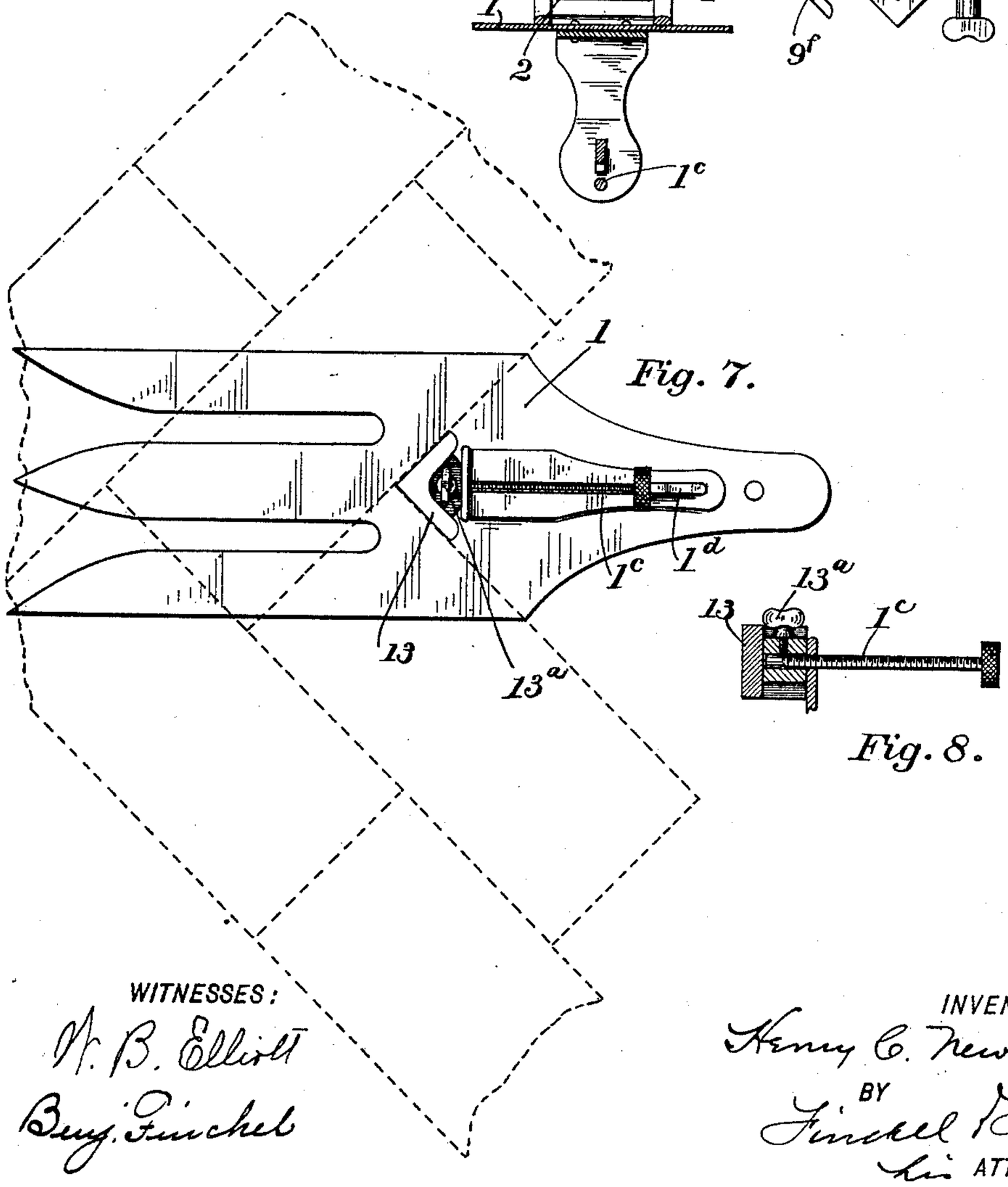

Fig. 7.

Fig. 8.

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HENRY C. NEWMAN, OF COLUMBUS, OHIO.

BRICK OR STONE MASON'S GAGE.

SPECIFICATION forming part of Letters Patent No. 713,789, dated November 18, 1902.

Application filed March 31, 1902. Serial No. 100,782. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. NEWMAN, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Brick or Stone Masons' Gages; 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.

The invention relating to brick or stone masons' gages has for its object to provide devices whereby the work of locating vertical and horizontal lines to serve as guides for laying courses of brick or the like in erecting buildings is facilitated. Devices have heretofore been proposed for this purpose; but so far as I am informed they were of expensive and cumbersome construction and troublesome to manipulate. The aim of my invention therefore is to provide a simplified and easily-manipulated construction capable of reliably performing the functions for which it is designed.

In the accompanying drawings, forming a part hereof, Figure 1 is a side elevation of the principal apparatus, the vertical gage being broken out or shortened to permit illustration in connection therewith of the plumbing device. Fig. 2 is a plan view. Fig. 3 is a similar view of the device for holding the free end of the horizontal or twine gage. Fig. 4 is a view of the plumbing device viewed from a plane at right angle to that from which that device is seen in Fig. 1. Fig. 5 is a plan view of the adjustable twine-gage holder employed in connection with the vertical gage-rod in locating the line for exterior angles. Fig. 6 is a front view taken on the plane $x\,x$, Fig. 1. Fig. 7 is a view of the under side of the main shoe, showing an attachment thereto when the apparatus is used at interior angles. Fig. 8 is a central sectional view of the attachment referred to in the description of Fig. 7. Fig. 9 is a side view of the twine-holder that is applied to the vertical gage-rod when the apparatus is used in interior angles. Fig. 10 is a plan view of the attachment referred to in Fig. 9.

Like characters of reference in the several views designate corresponding parts.

1 designates the main or primary shoe, adapted to have one portion placed in the mortar-space between the bricks at the corner of the work. 2 is a bracket on the upper side thereof, having a vertical arm 2^a and a horizontal arm 2^b, the said bracket being pivoted in ears 1^a on the projecting part of the shoe 1. Passing loosely through the horizontal arm 2^b and engaging the shoe 1 or a suitable plate thereon is a shouldered thumb-screw 3, and around the screw is a spring 3^a, tending to lift the arm 2^b, so that by turning the screw in the proper direction the vertical arm 2^a can be adjusted on its pivot toward or from the vertical. Pivoted at 4^a on the arm 2^a is a bracketed arm 4. To assist in holding the arm 4 against the arm 2^a, I can employ a headed screw 4^d, passing through an arc slot 2^d in the arm 2^a. (See Fig. 6.) The arm 4 is pivoted so as to swing in a plane at right angles to the plane in which the arm 2^a swings, and passing loosely through an eye 2^e on the arm 2^a is a shouldered threaded thumb-screw 5, that engages an eye 4^b on the arm 4, the screw being provided with a spring 5^a, tending to separate the eyes, so that by turning the screw 5 in the proper direction the arm 4 can be swung on its pivot 4^a toward or from a vertical plane passing through said pivot. In brackets 4^c on the arm 4 is removably placed the vertical gage or rod 6, shown to be hollow and having straight edges. This rod has a stop 6^a to limit its entrance between the brackets 4^c. It is obvious that by properly adjusting the screws 3 and 5 the rod can at any time be swung into a vertical position. The arm 2^b can be held after adjustment by means of a set-screw 2^f engaging said arm and pinching the shoe. To ascertain the vertical, I provide in the upper end of the rod (which serves as a socket) a plumbing device comprising the usual bob 7 and line 7^a, the line being attached to the upper end of a plate 7^b, that is marked to indicate a line coinciding with the axis of the rod 6. The bob, its line, and the indicator-plate are incased in a closure 8, having transparent walls to protect them from wind, dust, &c. The case is furnished at its base with a stem 8^a, that fits in the upper end of the rod 6, and the case can be turned on its stem at least a quarter-circle, so that the de-

flection of the bob-line from the line of the axis of the rod 6 can be seen and the rod adjusted by the screw 3 or 5 accordingly.

In Fig. 5 I have illustrated a twine-holder that is adapted to be placed on the vertical gage-rod 6 when the apparatus is used on the exterior angle of a structure. This holder comprises two symmetrical arms 9, shaped to embrace diagonal corners of the rod 6 and hinged together at one end, as seen at 9^a, and provided with a screw 9^b, adapted to draw the arms 9 together upon the rod 6. The arms 9 have extensions 9^c, diverging at right angles, (if the corner is to be built on that angle,) said extensions being notched, as seen at 9^d, to receive the knotted ends of the horizontal twine-gage 10. Obviously this cord-holder can be adjusted up or down on the rod 6 by releasing and retightening the arms 9. The other or free end of the horizontal or twine gage 10 is held in a notched slide-block 11, vertically adjustable by means of a clamping-screw 11^a on a vertical rod or standard 12, having fixed at its lower end a shoe 12^a, similar to the shoe 1, adapted to be held in the mortar-space between bricks at any suitable distance from the gage-rod 6.

The principal shoe 1 can be provided at its under side with two pins 1^b (see Fig. 1 and dotted lines Fig. 2) to fit on the corner of the brick to determine its position at the corner, and an adjustable set-screw 1^c in a bracket 1^d at the under side of the shoe can be used to adjust and steady in the proper position the outer portion of the shoe 1.

When the apparatus is to be used in the construction of interior angles, the end of the screw 1^c is furnished with a small angular block 13, secured to the end of said screw 1^c by means of a small thumb-screw 13^a.

In Figs. 9 and 10 I have illustrated a twine-holder that is to be substituted for that shown on the vertical gage-rod 6 in Fig. 1. In this form an angular projection 9^e, constituting an extension of one of the clamping-arms, is provided, which projection is notched, as seen at 9^f, to hold the knotted end of the cord.

What I claim, and desire to secure by Letters Patent, is—

1. In a brick or stone mason's gage, the combination with the shoe, of a bracket hinged to the upper side thereof and adjustable thereon in one plane, and an arm hinged to the first-mentioned bracket adjustable in a plane at an angle to the first-mentioned plane, and a gage-rod for the said arm.

2. In a brick or stone mason's gage the combination with the shoe, of a bracket adjustable on said shoe in one plane, a gage-rod adjustable on said bracket in a plane at an angle to the first-mentioned plane, and a plumbing device for the end of said rod.

3. In a brick or stone mason's gage, the combination with the shoe, of a bracket hinged to the upper side thereof and adjustable in one plane thereon, an arm hinged to said bracket and adjustable in a plane at an angle to the first-mentioned plane, a gage-rod supported by said arm, and a twine-gage holder adjustable on said rod.

4. In a brick or stone mason's gage the combination with the shoe, of a bracket on the upper side of said shoe adjustable in one plane, a gage-rod on said bracket adjustable in a plane at an angle to the first-mentioned plane, and means on the under side of said shoe for engaging the angle of the brickwork, substantially as described.

5. In a brick or stone mason's gage the combination with the shoe of a bracket adjustable in one plane on said shoe, an arm adjustable in a plane on said bracket at an angle to the first-mentioned plane and a gage-rod removably supported in said arm.

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

HENRY C. NEWMAN.

Witnesses:

MERRILL U. RICKETTS,

GEORGE M. FINCKEL.