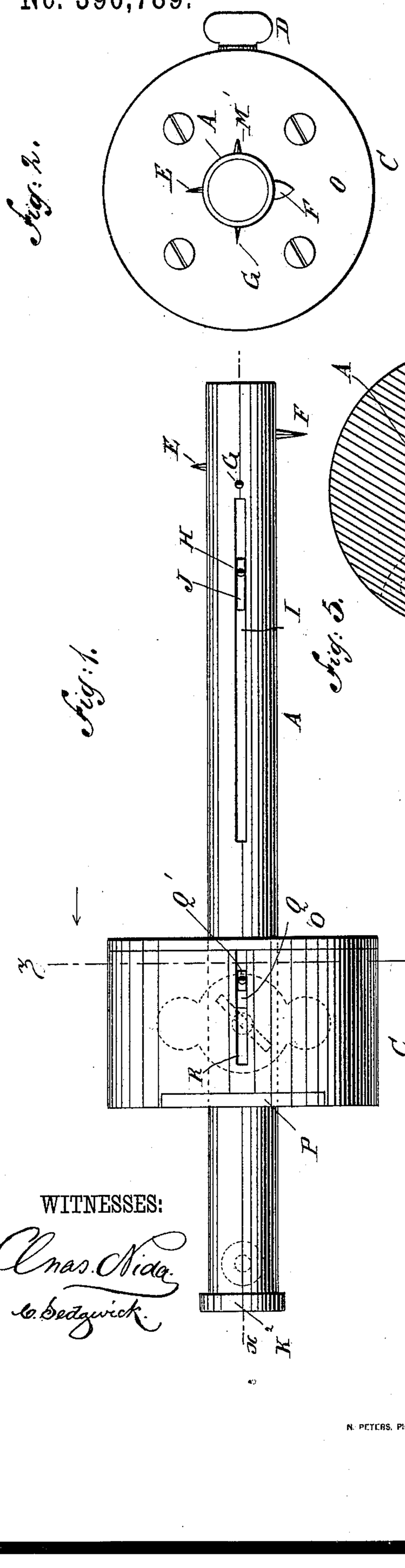
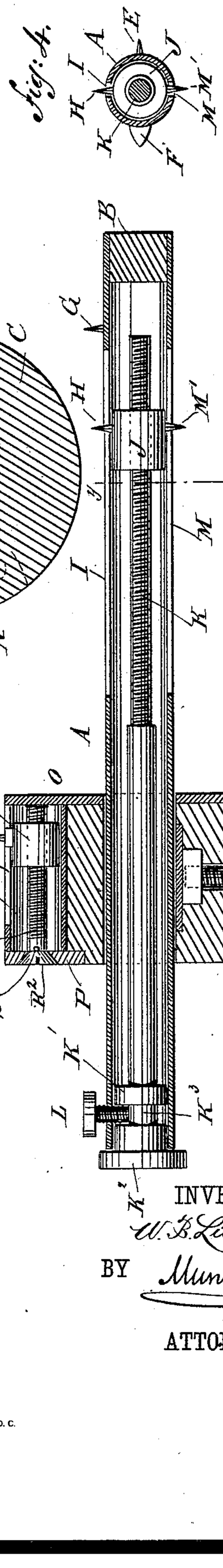
(No Model.)

W. B. LITTLE.

COMBINATION GAGE.

No. 390,789. Patented Oct. 9, 1888.





WITNESSES:

Chas. Nida.

C. Sedgwick.

INVENTOR:

W. B. Little.

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM BRUCE LITTLE, OF NEW YORK, N. Y.

COMBINATION-GAGE.

SPECIFICATION forming part of Letters Patent No. 390,789, dated October 9, 1888.

Application filed May 18, 1888. Serial No. 274,261. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BRUCE LITTLE, of the city, county, and State of New York, have invented a new and useful Improvement in Combination-Gages, of which the following is a full, clear, and exact description.

The object of this invention is to provide for wood-workers a combination-gage which can be readily adjusted and used for mortising, for cutting, for marking two or three different widths, or marking one or two widths and cutting another width at the same time, or for marking a width from the shoulder of a rabbeted or otherwise checked piece of wood at will, and which will yet be of simple and durable construction.

The invention comprises various novel and improved features of construction and arrangement, which will be hereinafter described in detail, and distinctly pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of a combination-gage embodying my invention. Fig. 2 is a front end view of the said gage. Fig. 3 is a longitudinal sectional view of the same. Fig. 4 is a cross-sectional view on the line *y y*, Fig. 3. Fig. 5 is a cross-sectional view on the line *z z*, Fig. 1.

The stock A of the combination-gage thus illustrated to show how my invention may be practiced is tubular and of metal, having its outer end closed by a plug, B, and on it is mounted to slide an adjustable cylindrical fence, C, which is provided with a set-screw, D, for clamping it to the stock A in the usual manner.

On one side of the metallic tubular stock A, near the outer end thereof, is fixed a projecting marking-point, E, and on the opposite side of the stock, somewhat nearer the outer end, is fixed a cutting-point, F, so that the gage can be used either to mark or to cut a line on a piece of wood at any desired uniform distance from an edge thereof on adjusting the fence C to the desired distance from the point E or F.

On the outside of the stock A, angularly midway between the points E and F, is also fixed a mortise-marking point, G, in line with and inside of which is arranged a longitudinally-adjustable mortise-marking point, H, riding in a longitudinal slot, I, in the stock and projecting from a cylindrical nut, J, which is mounted to slide lengthwise within the stock, but is prevented from turning therein by the engagement of the point H with the slot I.

The nut J is threaded to work on a correspondingly-threaded internal spindle, K, the outer end of which has a neck, K′, fitted to turn in the inner end of the hollow stock, and a milled head, K^2, projecting outside of the stock for turning the spindle, and thus adjusting the point-carrying nut J.

The spindle-neck K′ has an annular groove, K^3, to receive a set-screw, L, working through a threaded aperture in the side of the stock A, so that the spindle will be held from longitudinal movement, while permitted to turn freely for adjusting the movable mortise-point H with respect to the stationary mortise-point G according to the desired width of the mortise, and when such adjustment has been effected the spindle K, and thus the point H, can be readily locked. The fence C can then be adjusted at the desired distance from the two mortise-points G and H in the usual manner.

The stock A is also formed with a longitudinal slot, M, diametrically opposite the slot I, through and in which slot M projects and rides a marking-point, M′, also carried by the nut J and adjustable therewith, as before. With this arrangement, after the fence C has been adjusted to a given distance from the marking-point E or the cutting-point F, above mentioned, the point M′ can be adjusted to a different distance from the fence C without disturbing the latter, so that the gage can be used to mark or cut two different widths at the same time.

The fence C is formed mostly of wood, with a longitudinal tubular guide, N, at one side, in this case of metal, closed at its outer end by a metallic face-plate, O, secured on the front of the fence, and at its inner end by a detachable metallic bearing-plate, P, mortised in and attached to the back of the fence, as shown. In the guide N is mounted to slide lengthwise a cylindrical nut, Q, carrying a marking-

point, Q′, which projects through a longitudinal slot, R, formed on the outside of the guide, and thus from the cylindrical surface of the fence, and said nut Q is threaded to work on a screw, R′, the outer end of which has a cross-cut head, R^2, mounted flush in the outside of the bearing-plate P for turning the screw by means of a screw-driver, and thus adjusting the point Q′. A limit-pin, S, is passed through the screw R′ inside the plate P to hold the screw against longitudinal movement when turned. The point Q′ can thus be readily adjusted to any desired distance from the front of the fence C, for use, as usual, in marking a line inside of a checked piece of wood.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A combination-gage consisting of a stock provided with fixed marking-points E F G and adjustable marking-points H M′, and a fence adjustable on the stock and provided with an adjustable marking-point projecting from the periphery, substantially as described.

2. In a combination-gage, the combination of a tubular and longitudinally-slotted stock provided with marking-points E F G, a threaded spindle working in the tubular stock, and a nut on the spindle and provided with marking-points H M′, projecting through the slots of the said stock, substantially as herein shown and described.

3. In a gage, the combination of a tubular longitudinally-slotted stock, an adjustable fence, a nut working in the stock and carrying a point projecting through the said slot, a threaded spindle working through the nut and having an annularly-grooved neck fitted to turn in the stock, and an outside head and a set-screw working through the side of the stock into the annular groove of the neck, substantially as described.

4. In a gage, the combination of a stock, a fence adjustable thereon and having an internal longitudinally-slotted guide, a nut working in said guide and carrying a point projecting from the guide and fence, and means for adjusting said nut, substantially as described.

5. A gage-fence having a longitudinal tubular guide at one side closed at its inner end by a detachable bearing-plate, a nut fitted to work in said guide and carrying a projecting point, and a screw working through the nut and having its head mounted to turn flush in the detachable bearing-plate, substantially as described.

WILLIAM BRUCE LITTLE.

Witnesses:
C. SEDGWICK,
EDWD. M. CLARK.