

(No Model.)

G. McKINNEY.

INSTRUMENT FOR LAYING OUT STAIR STRINGERS.

No. 539,534.

Patented May 21, 1895.

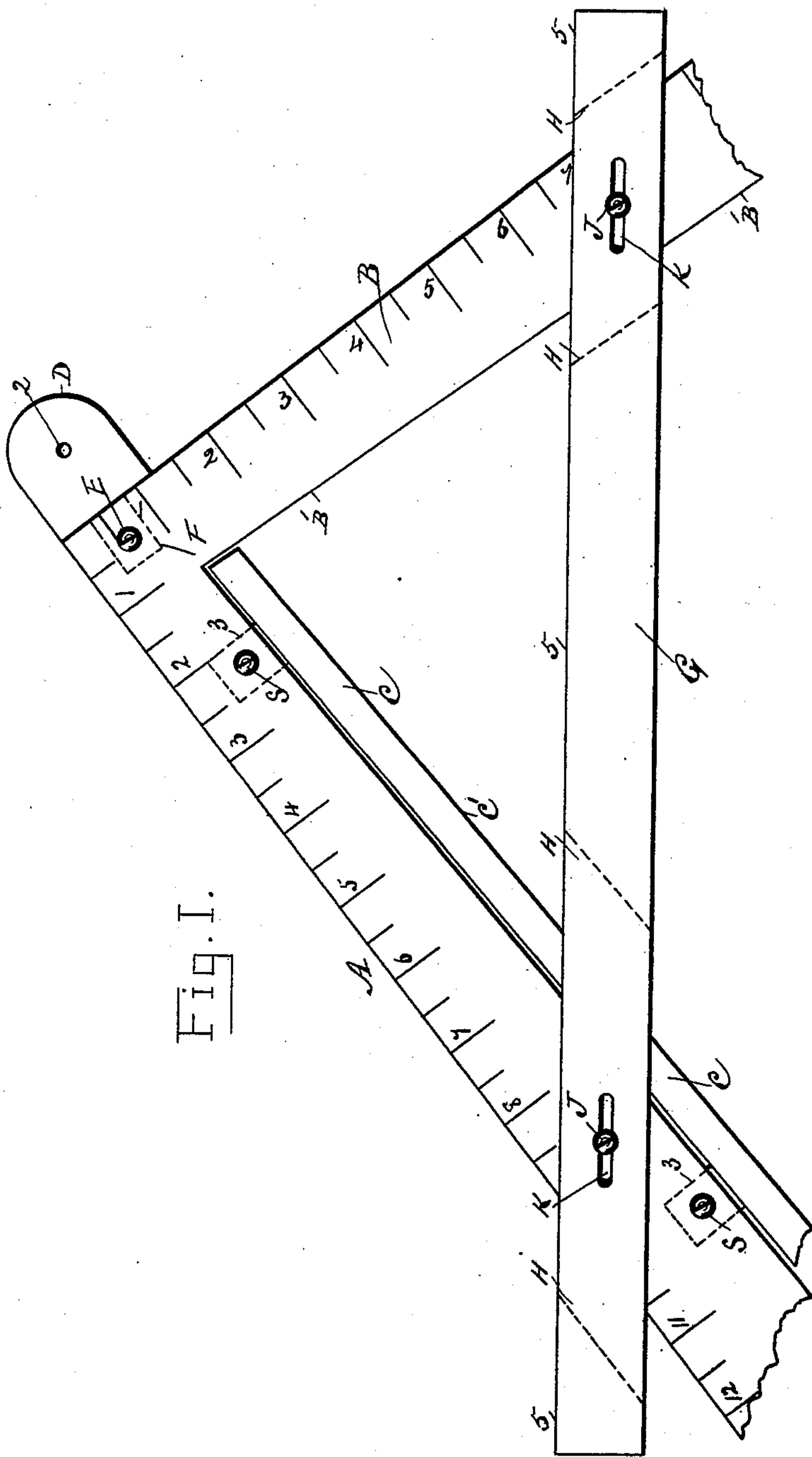


Fig. I.

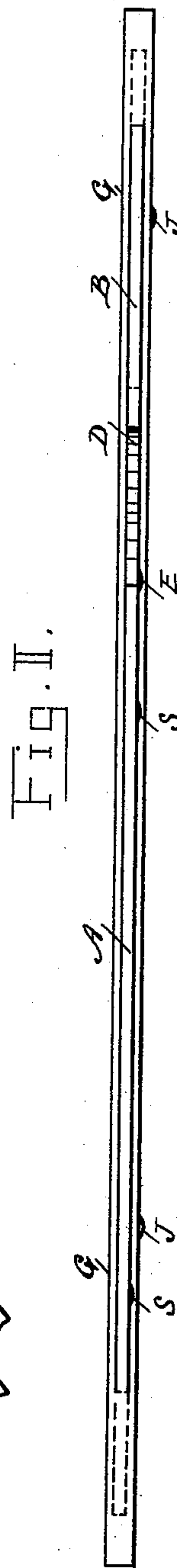


Fig. II.

Witnesses.
Alfred Young
A. M. Cameron

Inventor.
George McKinney
By his Atty, John B. Hendry.

UNITED STATES PATENT OFFICE.

GEORGE MCKINNEY, OF HAMILTON, CANADA.

INSTRUMENT FOR LAYING OUT STAIR-STRINGERS.

SPECIFICATION forming part of Letters Patent No. 539,534, dated May 21, 1895.

Application filed October 13, 1894. Serial No. 525,764. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MCKINNEY, a citizen of Canada, residing at Hamilton, in the county of Wentworth and Province of Ontario, Canada, have invented a new and useful Instrument for Laying Out Stair-Stringers, of which the following is a specification.

My invention relates to improvements in instruments for laying out stair stringers, in which two blades at right angles forming a square and figured as a rule are provided with an adjustable gage.

The objects of my improvements are, first, to provide an instrument for the use of stair builders, chiefly that will give correctness, uniformity and quickness in scribing all the lines out on the stringers for the stairs, and, second, to afford facilities for the proper adjustment of the instrument to suit different breadths of steps and risers of stairs. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of an improved instrument embodying my invention. Fig. 2 is a plan of the same.

Similar letters and numerals refer to similar parts throughout both views.

In the drawings the instrument proper is composed of a steel blade A, and a shorter blade B, the outer edges of which are at right angles. The sides of these edges are divided out into inches and parts of inches as shown for measuring purposes. The said outer edge of the longer blade A, is used for marking on the stair stringer, the line of the step for gain and the inner edge of the adjustable blade C, is used for marking the lower or under part of the wedge, which is commonly used underneath the steps, thus giving the two lines of gain which denote the thickness of step and wedge. The said outer edge of the shorter blade B, is used for marking on the said stringer the face on outer line of the vertical riser of stairs for gain and the inner edge B is used for marking the inner line of said riser for wedge, both wedges being tapered.

D is the detachable nose, having an aperture in center. This nose represents the thickness and projection of the step beyond the

riser and its central aperture 2, is to afford means to mark the same on the stringer for the center of bit for boring a round hole to facilitate cutting of gain in stringer. This detachable nose D has a shank F, which fits into a recess in the blade and is held by screw E.

Larger or smaller noses may be used for different thicknesses and projections of steps, all being provided with the same size of shank. The said adjustable blade C, is provided with shanks 3, each of which fits into a recess in the blade. These shanks 3, allow the blade to be adjusted either in or out, and are secured in position by means of set screws S. This adjustable blade C, provides for different thicknesses of steps and wedges.

G, is an adjustable gage or fence, the inner edge 5, to engage with the lower edge of the stair stringer when operated. This gage may be adjusted to different positions on the blades in order to allow for different widths of steps and heights of risers. This gage G, has elongated openings H, to allow the blades A, and B, to pass through, said gage being held in position by means of screws J, in slots K. These screws J, may have thin heads between the inner part of gage and blade or the blades may be slotted. It will be perceived that this gage is adjusted and set to position at nine inches and at seven inches thus indicating the step to be nine inches wide, exclusive of its nose or projection and the riser seven inches high.

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

1. In an instrument for laying out stair stringers, the steel blades having their outer edges at right angles to each other and each side divided out into inches and parts of inches on said blades being wider at their outer ends than their inner to allow for wedges the detachable nose D, having open center 2, and shank F, arranged to enter recess in inner end of blade A, and secured by screw E, in combination with the adjustable blade C, having shanks 3, and arranged to enter recesses in inner edge of blade A, and secured by set screws S, substantially as described and set forth.

2. The combination in an instrument for
laying out stair stringers of the blades A and
B, divided in inches as described, the detach-
able nose having opening 2, the adjustable
5 blade C, having shanks 3, and set screws S,
and the adjustable gage G, having slots H as
openings for blades, the adjusting slots K and

the screws J, for securing said gage to posi-
tion on the blades A and B, substantially as
described and set forth.

GEORGE MCKINNEY.

Witnesses:

HERBERT HUGHES,
JOSEPH M. ARMSTRONG.