C. M. Srany,

Stair Rail Gage.

No 13,237. Patented July 10, 1855.

Fig. 2

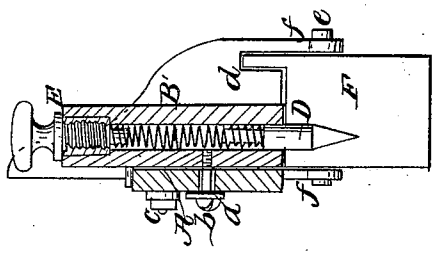
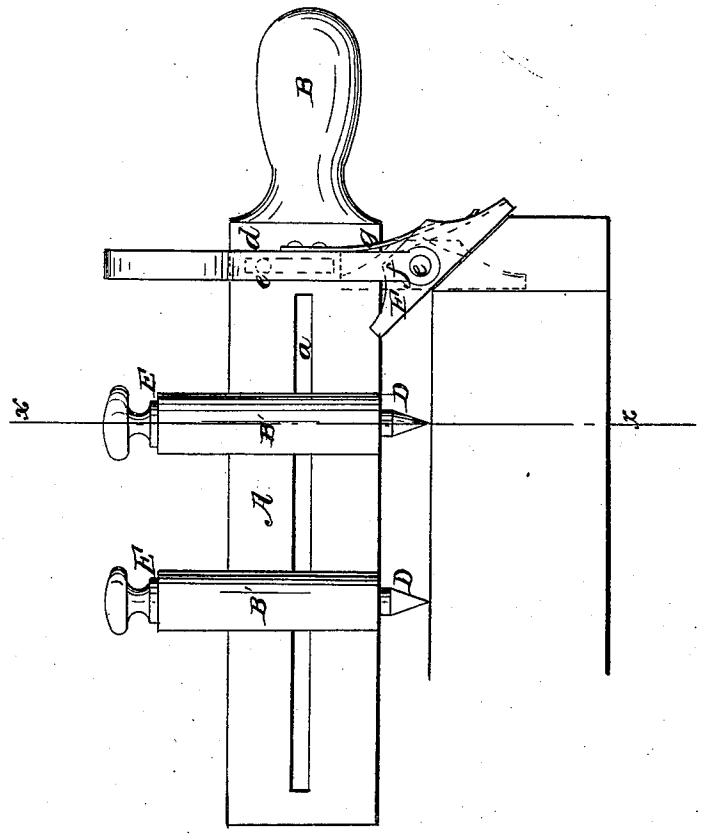


Fig. 1



UNITED STATES PATENT OFFICE.

C. M. SWANY, OF RICHMOND, INDIANA.

GAGE FOR STAIR-RAILS.

Specification of Letters Patent No. 13,237, dated July 10, 1855.

To all whom it may concern:

Be it known that I, CHARLES M. SWANY, of Richmond, in the county of Wayne and State of Indiana, have invented a new and Improved Gage to be Used in the Construction of Stair-Rails; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a face view of my improvement. Fig. 2, is a transverse section of ditto, taken at the line, *x*, *x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

The nature of my invention consists in the employment of adjustable spring pencils in combination with a yielding guide, the pencils and guide being attached to a proper stock as will be presently shown and described.

This implement is intended to gage the curved portions or "wreaths" of stair rails, to an equal thickness, so that workmen may "square" the same or reduce it to the proper size or proportion.

A, represents a flat bar or stock of a suitable length and width, and having an oblong or longitudinal slot, *a*, made through it. One end of the bar or stock is provided with a handle B, as shown in Fig. 1.

B′, B′, represent the cylindrical tubes or cases which are attached to the face or side of the bar or stock A, by set screws *b*, *b*, which pass through the slot, *a*, in the bar or stock A, and by which the tubes or cases may be set the required distance apart. Within each tube or case B, there is placed a spiral spring C, and a pencil D. The springs C, are placed between the upper ends of the pencils D, and the lower ends of screws E, E, which are inserted in the upper ends of the tubes or cases B′, B′.

To one end of the bar or stock A, there is attached by a set screw, *c*, a vertical strip, *d*, which projects outward at right angles from the bar or stock A. To the lower end of this vertical strip, *d*, there is attached a guide F, said guide being formed of a plate and having a shaft or pin, *e*, passing through its upper part, said shaft or pin passing through pendents, *f*, *f*, at the lower end of the strip *d*. To the outer side of the strip, *d*, there is attached a spring, *g*, the lower end of which bears against the back of the guide F, see Fig. 1.

The implement or tool is used in the following manner. The two tubes or cases B′, B′, are set the required distance apart, by adjusting the set screws, *b*, *b*, and the front or face of the guide F, is placed against the side of the stair rail designated by G. The springs C, C, press the points of the pencils D, D, upon the face of the work or rail G, and by moving the tool along, two lines are described at the same time at equal distances apart. In consequence of the guide F, yielding or moving it will conform to the variable inclination of the side of the rail, it being understood that at the curves or "wreaths" the position of the side varies, and in a somewhat spiral manner, and if the gage were not enabled to conform to the variation, the implement would be valueless.

The implement is extremely simple and enables a workman to square or dress the rail in proper form, without making the guide lines from a center, as is now practised.

I do not claim the adjustable spring pencils separately, for they or their equivalents have been previously used, but

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

The combination of the yielding or movable gage F, and adjustable spring pencils D, D, arranged as herein shown, and for the purpose as set forth.

CHARLES M. SWANY.

Witnesses:

RICHARD ESTELL,

SAMUEL F. ESTELL.