

United States Patent Office.

GEORGE HOOVER, OF RICHMOND, INDIANA.

Letters Patent No. 75,423, dated March 10, 1868.

IMPROVED TRAMMEL FOR STAIR-RAILS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE HOOVER, of the city of Richmond, and State of Indiana, have invented a new and useful Trammel for Stair-Rails, &c.; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing, making a part of this specification.

My invention relates to an instrument for obtaining the face-mould of stair-rails of all kinds, either circular or elliptical. The instrument is also very convenient for producing angle-brackets.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the draught-board. D is the pitch-board. B represents a plank on its proper elevation ready to receive the lines for the face-mould. E represents the adjustable arm of the tram, and F is a cylinder-arm of said tram, sliding and turning freely on the horizontal rod I, which latter is supported on the adjustable vertical rods G and H, by being secured in the collars K and K with thumb-screw *b*. The rods G and H are connected with draught-board A by means of clutches J and J, in which latter they are secured by thumb-screws, and may be adjusted to suit any sized well-hole or opening between the rails. The clutches J and J are provided with lines, by which they may be secured to draught-board A, with their centres corresponding to the centre of said board. The pitch-board D is applied with the tread at right angles to the centre line *a* of the draught-board. By this means the proper pitch or elevation for the face-mould is obtained. The plank for the rail is applied to the draught-board according to the aforesaid pitch or elevation, in which position it is held by one hand while the tram is applied with the other, as shown at C, thereby producing the necessary lines for the face-mould on one side. The rod I may then be removed and reversed with the tram attached, or the tram only may be reversed and placed on the opposite end of rod I, when the necessary lines are drawn on the reverse side of plank B, thus obtaining the face-mould on each side of said plank.

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

1. I claim the herein-described tram, composed of the cylinder F and arm E, in combination with rod I, substantially as described, and for the purpose set forth.

2. I claim the horizontal rod I, vertical adjustable rods G and H, in combination with the collars K and K, clutches J and J, and draught-board A, substantially as set forth, and for the purpose specified.

GEORGE HOOVER.

Witnesses:

JOSEPH RIDGE,
HENRY RICKS.