E. Betts.

Stair Brace.

No. 39,875. Patented Sept. 15, 1863.

Fig. 1.

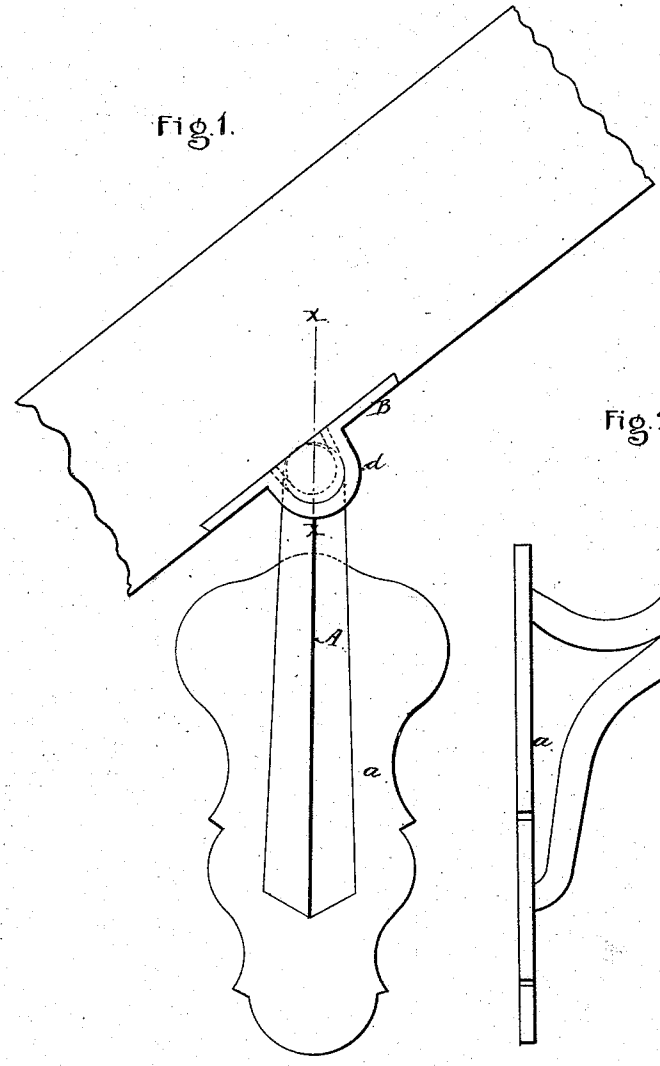
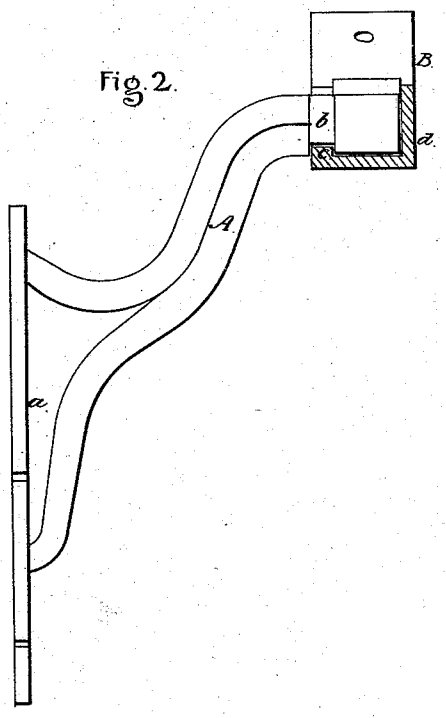


Fig. 2.



Witnesses:

J. W. Coombs

Geo. W. Reed

Inventor:

Elijah Betts

By Munn & Co.

Att'y

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

ELIJAH BETTS, OF BOSTON, MASSACHUSETTS.

IMPROVED BRACKET-BRACE FOR STAIR-RAILS.

Specification forming part of Letters Patent No. **39,875**, dated September 15, 1863.

To all whom it may concern:

Be it known that I, ELIJAH BETTS, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Bracket or Brace for the Side Rails of Stairs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front view of my invention; Fig. 2, a side view of the same, the cap or plate being in section, as indicated by the line *x x*, Fig. 1.

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

The object of this invention is to obtain a bracket or brace for stair-rails which will admit of being adjusted to suit a horizontal rail or any degree of pitch an inclined rail may have. The ordinary brackets or braces for this purpose are composed of a single piece of metal and have no means of adjustment to admit of them being adjusted to rails having different degrees of inclination, and a great deal of trouble and embarrassment are fequently experienced in applying them.

My invention consists in applying a swivel cap or plate to the end of the bracket or brace in the manner substantially as hereinafter set forth, whereby the desired end is attained.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the body or main portion of the bracket or brace, which may be of the usual curved form and provided at its lower end with a plate, *a*, through which screws pass to secure it to the fixture to which it is to be attached. The outer end of the body or main portion A of the bracket has a swivel cap or plate, B, attached to it. This cap or plate is allowed to turn on the end of A in a plane at right angles with the end of A. The cap or plate B is screwed to the rail, (see Fig. 1, in which the rail is shown in red outline,) and it will be seen that the cap or plate B, in consequence of being attached to the body or main portion of the bracket by means of a swivel connection, may be attached to a horizontal rail or to one having a greater or less degree of inclination.

The cap or plate B may be attached to the body or main portion A of the bracket or brace in various ways. One mode is shown in Fig. 2. By referring to this figure it will be seen that the end of A is of cylindrical form, and has a recess or groove, *b*, made circumferentially in it to receive a lip, *c*, at the inner end of a semi-tubular box, *d*, which depends from the center of the cap or plate B. The lip *c*, fitting in the groove *b*, secures the cap or plate to the bracket or brace while the cap or plate is allowed to be adjusted to suit the position of the rail.

Having thus described my invention, I claim as new and desire to secure by Letters Patent as an improved article of manufacture—

A stair-rail bracket or brace provided with a swivel cap or plate, substantially as herein set forth.

ELIJAH BETTS.

Witnesses:

DAVIS ANNABLE,

JAMES MARSHALL.