No. 622,908. Patented Apr. 11, 1899.

E. H. BARNEY.

SKATE FASTENING.

(Application filed Jan. 4, 1898.)

(No Model.)

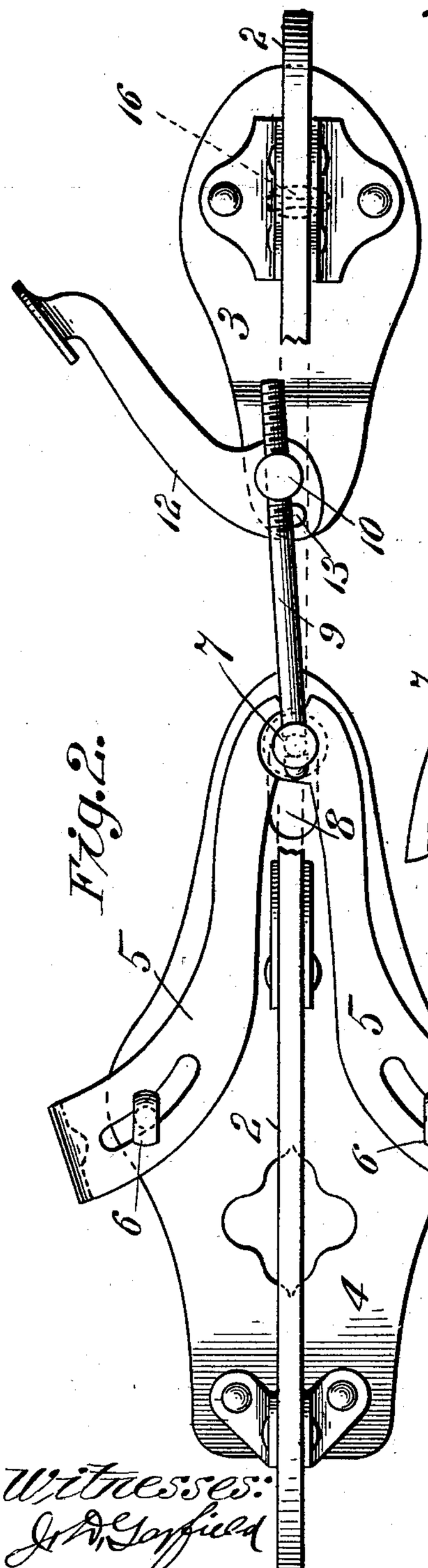

Fig. 2.

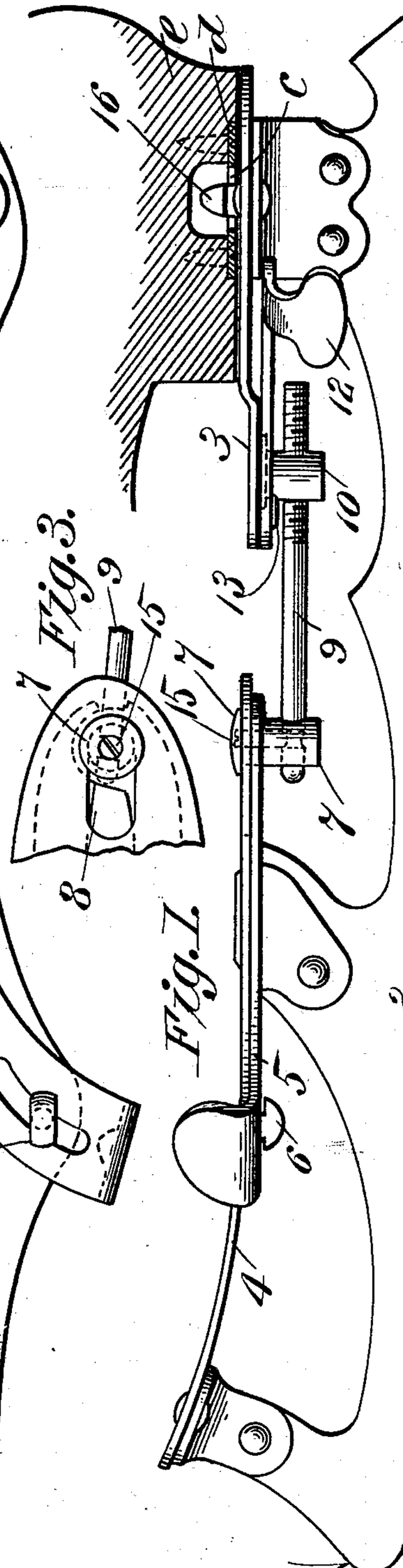

Fig. 3.

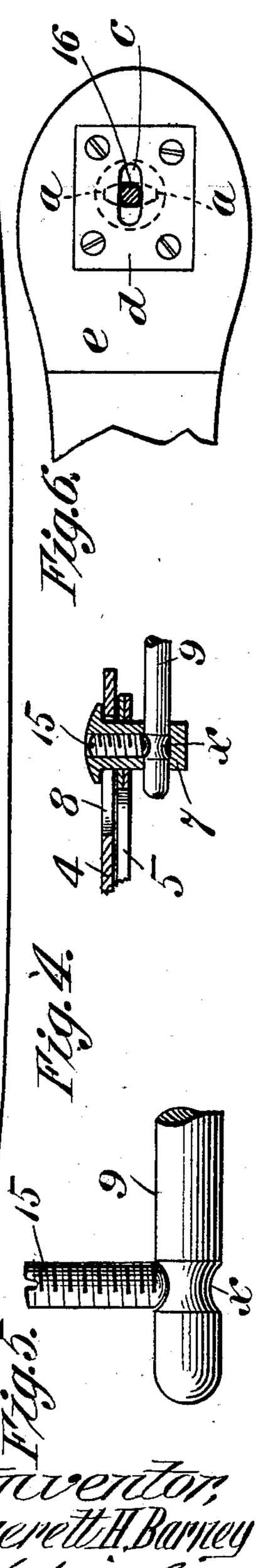

Fig. 6.

Fig. 7.

Fig. 5.

Fig. 4.

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SKATE-FASTENING.

SPECIFICATION forming part of Letters Patent No. 622,908, dated April 11, 1899.

Application filed January 4, 1898. Serial No. 665,513. (No model.)

To all whom it may concern:

Be it known that I, EVERETT H. BARNEY, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Skate-Fastenings, of which the following is a specification.

This invention relates to skates, and more particularly to improvements in the fastening devices therefor, the object being to provide improved means for so securing the rod which forms the connection between the clamp-operating lever and the sole-clamps that when adjusted for effecting the proper action of said clamps said adjustment cannot inadvertently become changed; and the invention consists in the peculiar construction and arrangement of said rod and the interconnected clamp-fastening devices of the skate operating therewith by a lever pivoted on the heel-plate, all as hereinafter fully set forth, and more particularly pointed out in the claim.

In the drawings forming part of this specification, Figure 1 is a side elevation of a skate having my improvements applied thereto. Fig. 2 is a plan view of the bottom of the skate. Figs. 3 to 6, inclusive, illustrate detail parts of the devices which are hereinbelow described.

Referring to the drawings, 2 indicates the runner of the skate, to which the heel-plate 3 and the sole-plate 4 are secured in the usual way. The sole-clamps 5 5 are hung by the studs 6 6 under the sole-plate, said studs passing freely through curved slots in said sole-clamps in a well-known way, the rear ends of said clamps being pivotally connected by the stud 7, which passes first through a slot 8 in said sole-plate and is supported therein for a free longitudinal movement by the engagement of its head with the upper side of said plate. Said stud 7 has heretofore been connected to the clamp-connecting rod by screwing one end of the latter into a transverse screw-threaded hole through the shank of said stud, the opposite end of said rod being connected to the stud 10, carried on the clamp-lever 12, for a free rotary movement, so that by turning the rod the required measure of separation of the axes of the studs 7 and 10 for certain adjustments was effected, but so arranged and constructed that said rod frequently became inadvertently turned in said studs, thereby inconveniently disturbing the clamp adjustments of the skate after the same were set for use on a shoe of a certain size, and the readjustment thereof became oftentimes obviously difficult at the time of placing the skate upon the shoe; but by the use of my improved construction of certain parts of said clamp-connecting devices, as below set forth, said inconveniences are obviated. The connecting-rod 9 is, as shown in the several figures, screw-connected by its rear end to the stud 10, which is carried on the said lever 12, and its opposite end enters and has a free rotary movement in a transverse perforation through or in the shank of said stud 7. The part of said rod 9 within said last-named stud has a concentric groove *x* therein, (see Fig. 5,) which is preferably of concave form between its borders. A rod-retaining screw 15 is screwed into said stud from its upper end inwardly, intersecting said perforation therethrough and having an inner end of such contour as corresponds to the concave form of said groove *x*, whereby when the inner end of said screw is forced into said groove and against the rod its frictional action is such that said rod is held against any rotary movement that might change the relative separation of said studs 7 and 10, and consequently disturb an adjustment of the fastening-clamps previously arranged. The position of the head end of said screw 15 after it is screwed into said groove *x* in the rod 9 is below the surface of the head of the stud 7, to the end that nothing may have any contact with it whereby it may be loosened from its bearing in said groove. Said rod is easily turned by the fingers for said adjustment and then fixed by the said screw 15. Said lever 12 is pivoted directly to the heel-plate 3 at 13. The preferable heel-fastening in this construction, with means as described for positively securing the relative engagement of said sole-clamps and the heel-fastening, is a metallic button 16, rigidly fixed in a central position on the heel-plate, having a head with the two lateral projections *a a* thereon. The head of said button is adapted to be passed through a slot *c* in a metal plate *d*, which is fixed to the heel *e* of a shoe, as shown in Fig. 1, and the skate then being swung into

wearing position under the shoe said button projections are brought into engagement with the inner opposite borders of said plate-slot *c*, and then by swinging said lever 12 to or about to the position shown in Fig. 1 the complete fastening of the skate to the shoe is effected.

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

The sole-clamps hung beneath the sole-plate, the stud 7 passing through a slot in said plate and forming a pivotal connection for the rear ends of said clamps, having a transverse perforation in the shank thereof, and the screw 15, intersecting said perforation, combined with the heel-plate rigidly secured to the runner of the skate, the clamp-operating lever 12, pivoted on said plate, the stud 10 on said lever having a screw-threaded transverse perforation through its shank, the connecting-rod 9 having one end grooved concentrically and entering the said transverse perforation in said stud 7, said screw 15 entering said groove and frictionally engaging said rod, the opposite end of which is screw-connected with the shank of said stud 10, substantially as described.

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