

J. H. YOUNG.

SKATE.

No. 388,170.

Patented Aug. 21, 1888.

Fig. 1

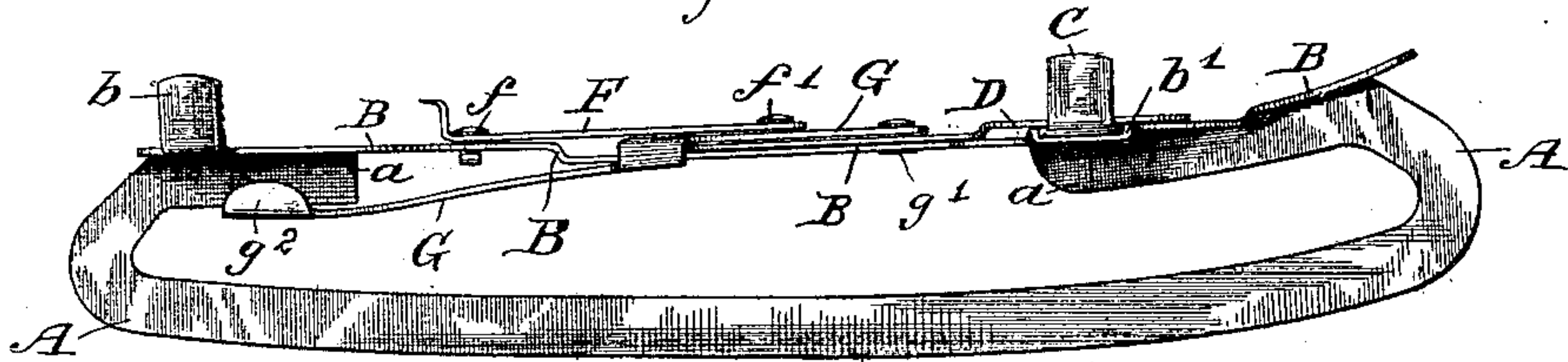


Fig. 2

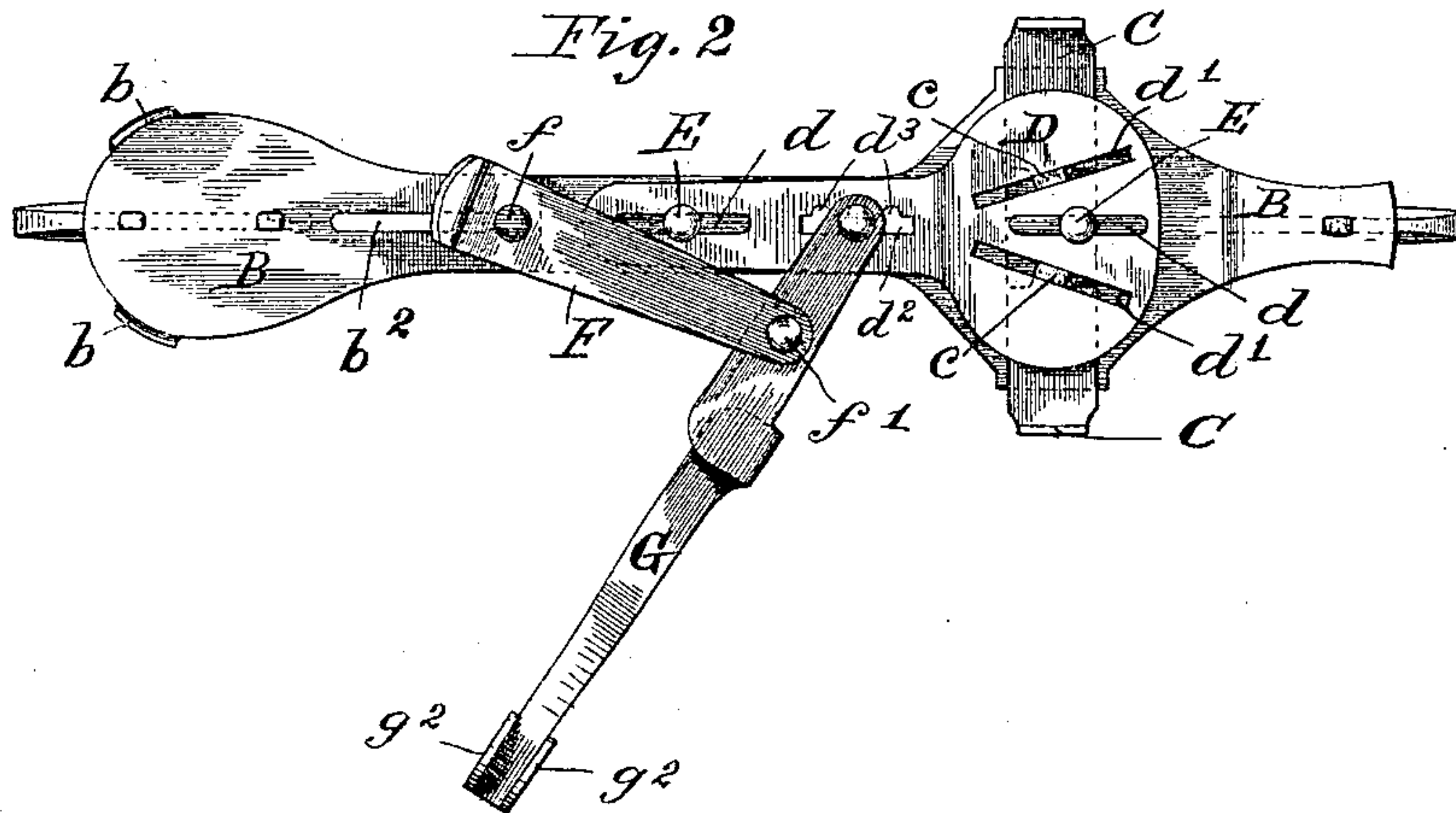


Fig. 3

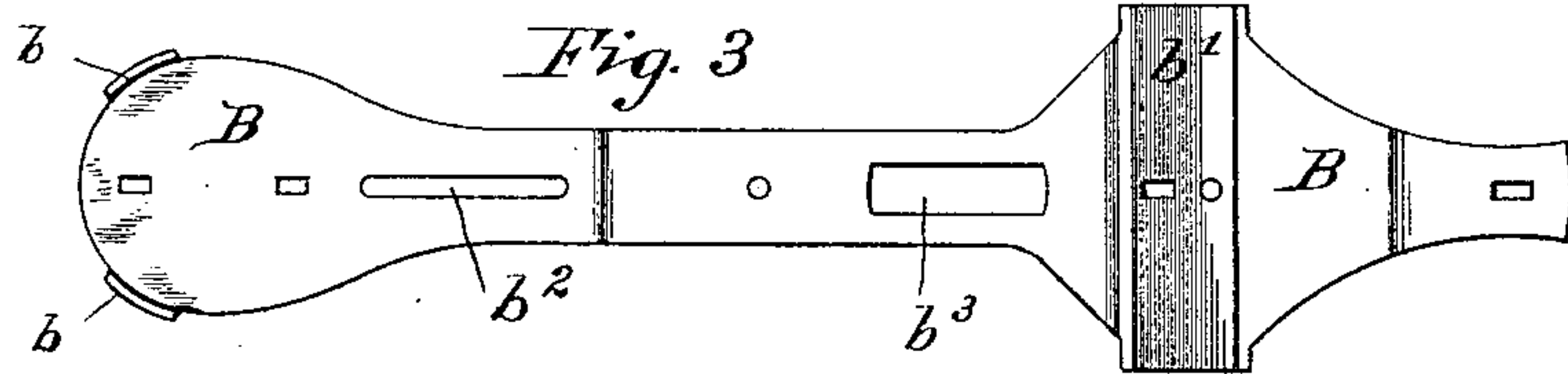


Fig. 4

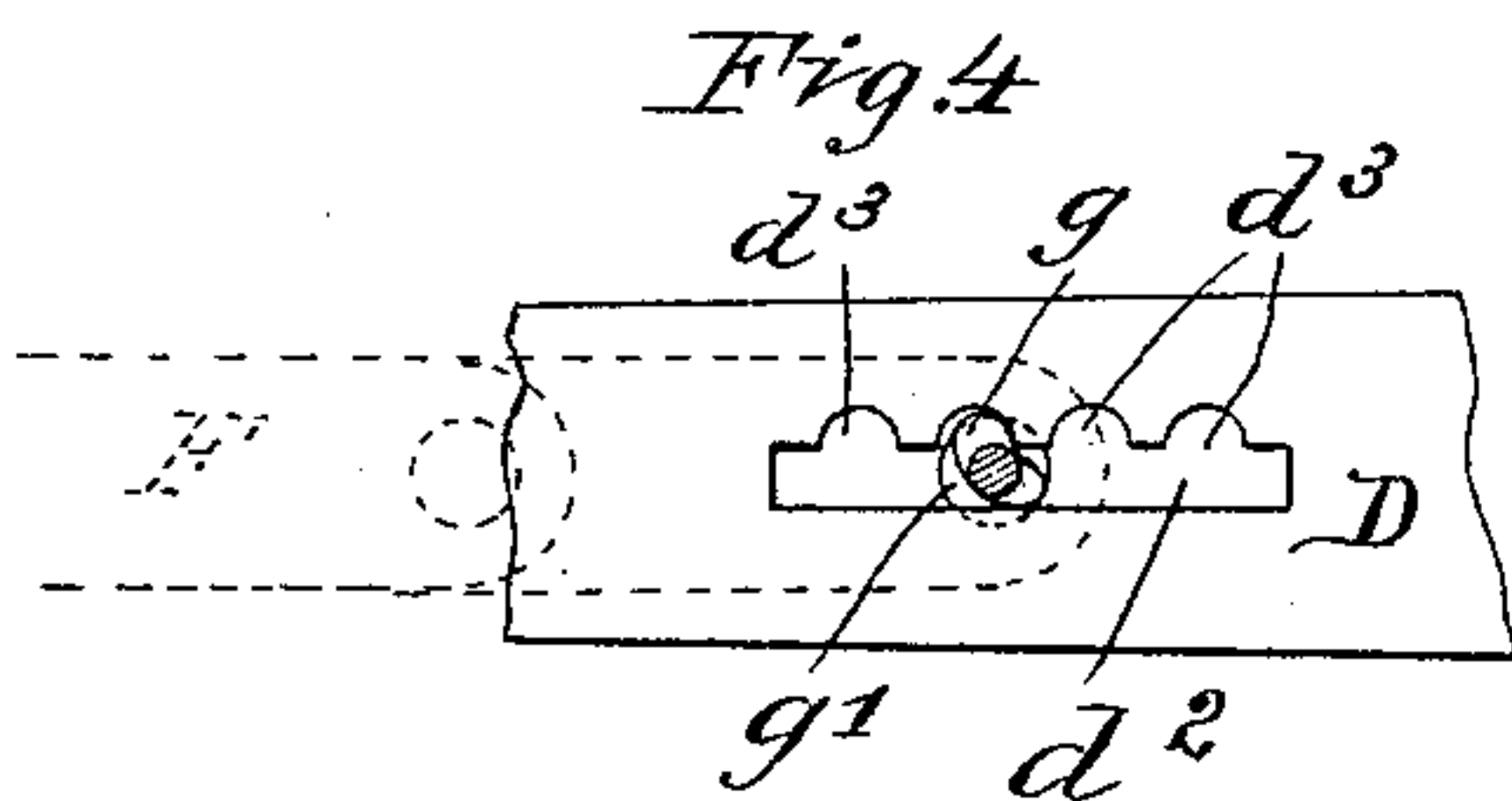
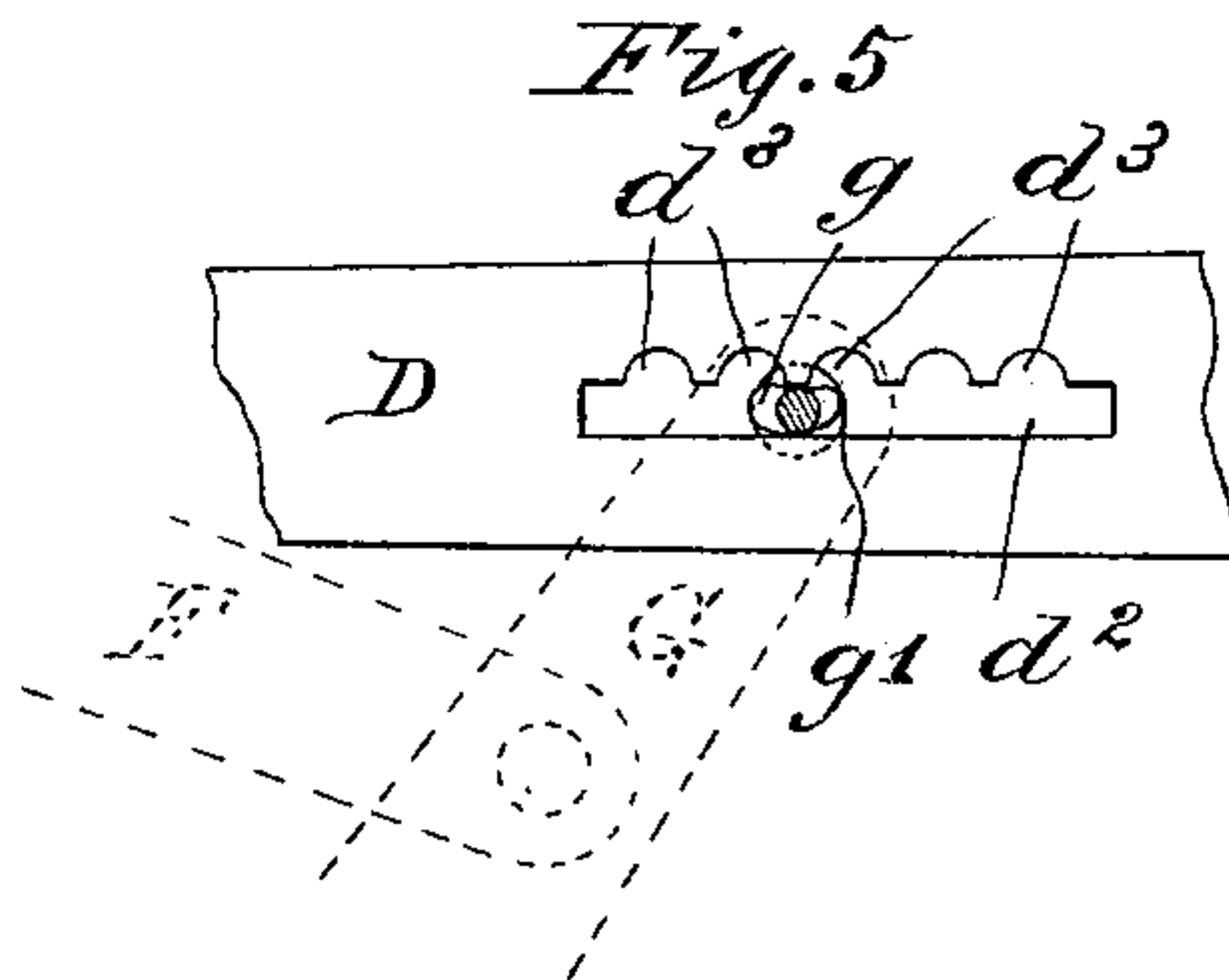


Fig. 5



Witnesses

W. B. Hill,

F. A. Merrill

Inventor,

John H. Young.

By his Attorney J. B. Thurston.

(No Model.)

2.Sheets—Sheet 2.

J. H. YOUNG.

SKATE.

No. 388,170.

Patented Aug. 21, 1888.

Fig.6

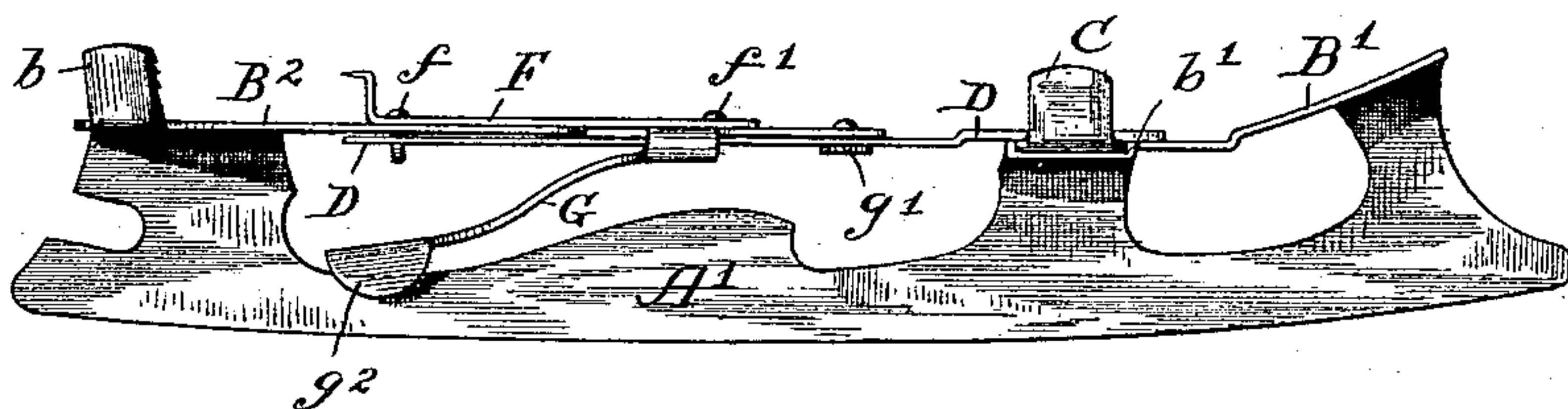


Fig. 7

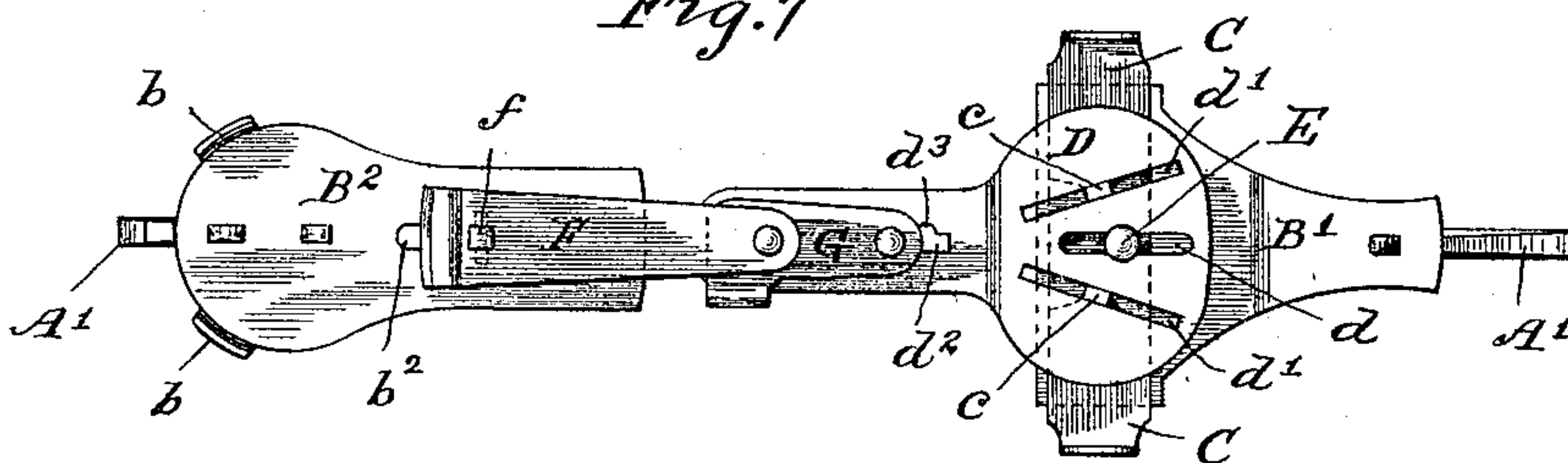
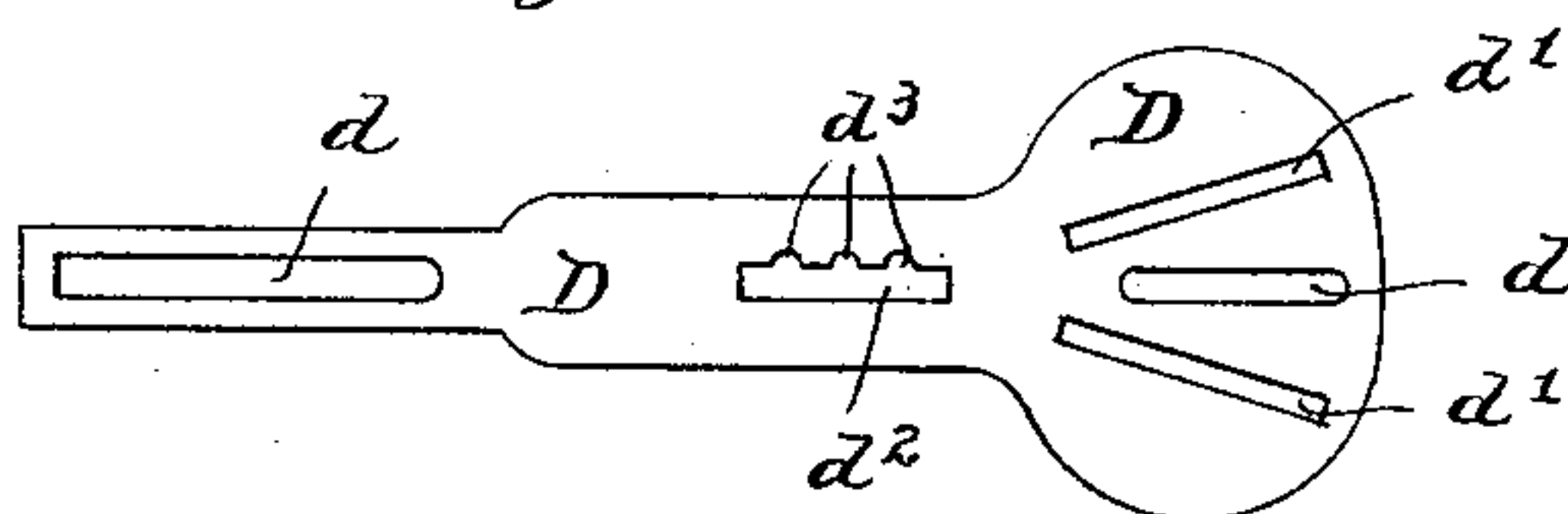


Fig. 8



Witnesses,

W.B. Hill.
F. A. Mence.

Inventor,

Inventor,
John H. Young.

By his Attorney J. B. Thurston.

UNITED STATES PATENT OFFICE.

JOHN H. YOUNG, OF CONCORD, NEW HAMPSHIRE.

SKATE.

SPECIFICATION forming part of Letters Patent No. 388,170, dated August 21, 1888.

Application filed May 26, 1888. Serial No. 275,237. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. YOUNG, a subject of the Queen of Great Britain, residing at Concord, in the county of Merrimac and State of New Hampshire, have invented certain new and useful Improvements in Skates, of which the following is a specification.

This invention relates to that class of skates adapted for attaching to the foot without straps; and the objects of the invention are to obtain the greatest strength with the least possible weight, and to provide adjusting mechanism which shall readily adapt the skate to most any width of boot without the necessity of changing various parts of the mechanism for that purpose.

The invention consists of the peculiar and novel construction, as hereinafter set forth in the specification and appended claims, and clearly illustrated in the accompanying drawings, forming an inseparable part thereof, of which—

Figure 1 shows one of my improved skates in side elevation. Fig. 2 is a plan of same. Fig. 3 is a detached plan view of the foot or sole plate formed in one piece. Fig. 4 is a detached enlarged section of a portion of the adjusting mechanism. Fig. 5 shows the same parts in different position. Fig. 6 is a side elevation of my improved skate in modified form. Fig. 7 is a plan view closed up. Fig. 8 shows in plan view a modification of the adjusting-plate.

Similar letters designate corresponding parts.

The runner may be made in various forms, two varieties being shown herein, that which I prefer being illustrated in Fig. 1, and consisting of a narrow piece of steel, A, having its ends bent upward and over, as at *a a*, in a direction toward each other, and sufficiently long to support and enable the sole-plate B to be attached thereto. With this style of runner it is preferable to form the sole and heel plate of one continuous piece; but when using the runner A', as in Fig. 6, a separate sole and heel plate may be used, as at B' B², respectively seen in same figure, thus offsetting the increased weight of the runner A'. Stationary heel-clamps *b b* are provided near one end of the heel portion of the sole-plate B or the plate B², which are preferably integral therewith.

A transverse depression or offset, *b'*, is formed at the proper point in either plate B B', to receive the horizontal portion of the sole-clamps C C.

An adjusting-plate, D, is slotted at *d d*, and in the construction shown in Figs. 1 and 2 screws or rivets E E pass through said slots and into the sole-plate B, permitting the required movement of said adjusting-plate, while in the construction shown in Figs. 6, 7, and 8 the rear end of said adjusting-plate is lengthened sufficiently to pass under the heel-plate B² and be supported by the same rivet or other fastening, *f*, which connects and renders the adjustable heel-clamp F movable upon the heel portion of the sole-plate B. In either case said rivet *f* passes through and plays within the slot *b'*.

In the forward end, and at each side of the longitudinal center of the adjusting-plate D, are formed slots *d' d'*, cut at uniform angles opposite to each other, their rear ends being nearer together than their forward ends. Within these move the lugs *c c*, formed upon the inner ends of the horizontal portions of sole-clamps C C.

The forward end of the adjustable heel-clamp F is pivoted at *f'* to an adjusting-lever, G, one end of which is provided with a cam, *g*, rigidly secured thereto and resting within the slot *d'* of the adjusting-plate D, having one side serrated or grooved, as at *d'*². The position of said cam relative to the lever G is such as to permit its free movement within said slot when the lever is in the position shown in Figs. 2 and 5, and to engage with or pass into either of said serrations when brought around to that position shown by dotted lines in Fig. 4, or parallel with the runner A, as when the skate is locked upon a boot. The said cam *g* may also be provided with a flange or circular head, *g'*, resting against the under side of the adjusting-plate for retaining it within said slot *d'*, as in Figs. 4 and 5.

Fig. 2 shows the adjusting mechanism as in a position ready for attaching to a shoe or boot, and by pushing the outer end of the lever G toward the runner A the adjustable heel-clamp F is first set hard onto the boot-heel, and the adjusting-plate D, by reason of its serrated slot *d'* and the lever G, with its cam *g*, is next moved longitudinally forward, thus drawing

the sole-clamps C C toward each other, causing them to grip the sole of a boot by reason of their lugs or projections *c c* resting within the slots *d' d'* of the adjusting-plate D. To
 5 adjust this skate to a shoe or boot having a long heel and wide sole, the cam *g* on the lever G must be moved so as to engage one of the grooves or serrations near its forward end, and vice versa.

10 On the top of the outer end of the lever G are formed ears *g'*, which straddle either of the runners A A', as in Figs. 1 and 6, and prevent its moving laterally, which would loosen the heel and toe clamps.

15 In order that the parts B D may be as close together as practicable the sole-plate B may be slotted at *b'* for the admission of the circular head *g'* of the cam *g*.

20 Having described my improvements, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a sole-plate having a transverse depression for the reception of the adjustable sole-clamps, the said adjustable
 25 sole-clamps provided each with an upward-projecting lug at or near their inner ends, an adjusting-plate adapted for longitudinal movement and having oppositely-inclined slots for the reception of the lugs of said adjustable

sole-clamps, their inner ends being nearer together than their forward ends, and suitable
 30 operating mechanism for the said adjusting-plate, substantially for the purpose set forth.

2. In adjusting mechanism for skates, the combination of the adjustable sole and heel
 35 clamps, an adjusting-plate for operating the former provided with a serrated slot, and an actuating-lever to which is pivotally connected one end of the adjustable heel-clamp, and
 40 having at one end a cam-pivot for operating within the said serrated slot, all substantially as and for the purpose set forth.

3. In adjusting mechanism for skates, the combination, with the adjustable sole and heel
 45 clamps, of an adjusting-plate and actuating-lever for operating the same, and means whereby the said clamps may adapt themselves to various widths of boots, comprising a cam-pivot
 50 secured to one end of the said actuating-lever and a serrated slot formed in said adjusting-plate in which said cam operates, substantially for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. YOUNG

Witnesses:

J. B. THURSTON,
 W. B. HILL.