

W. H. Dutton,
Skate Fastening,
No. 40,093,
Patented Sept. 29, 1863.

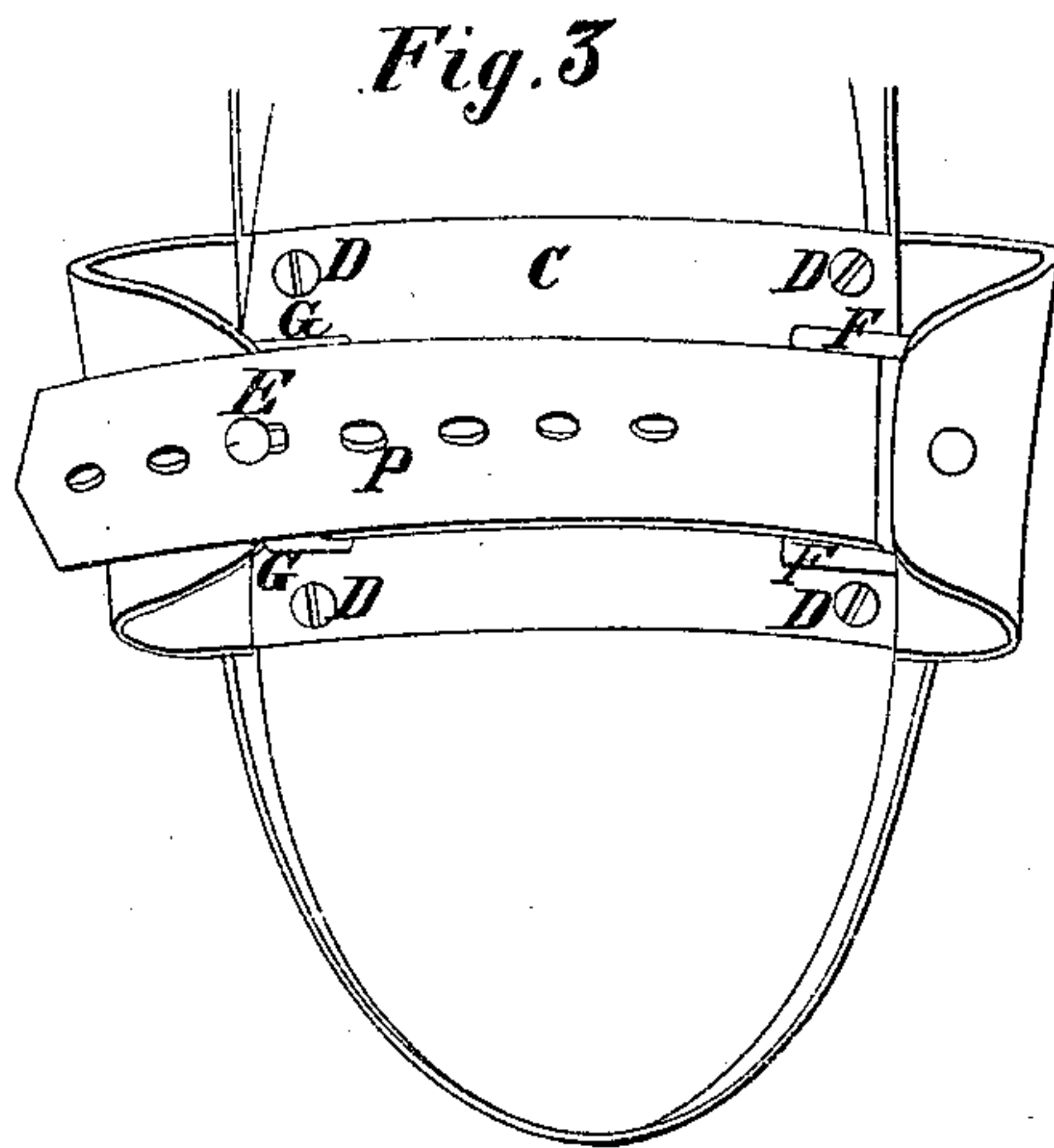
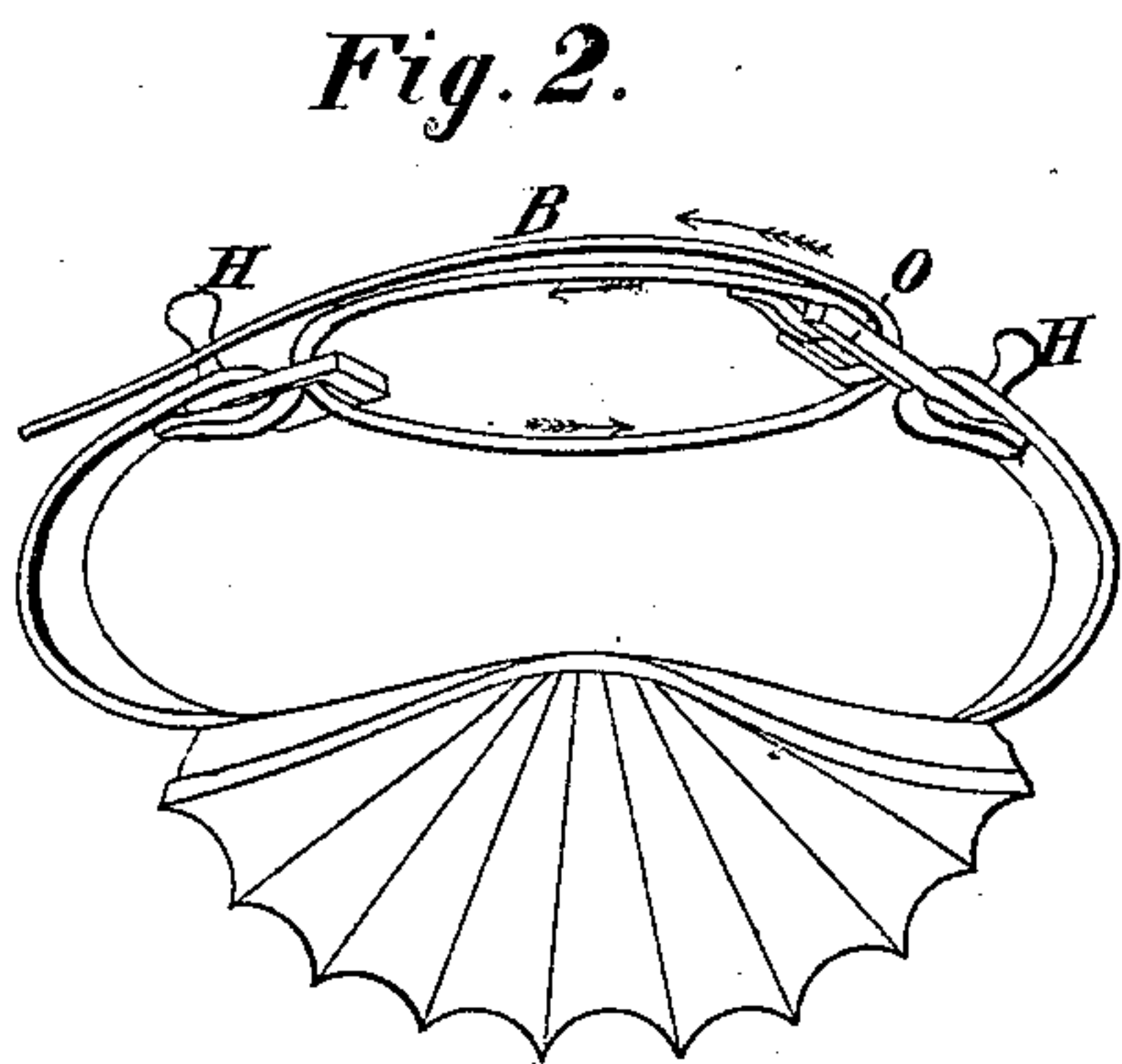
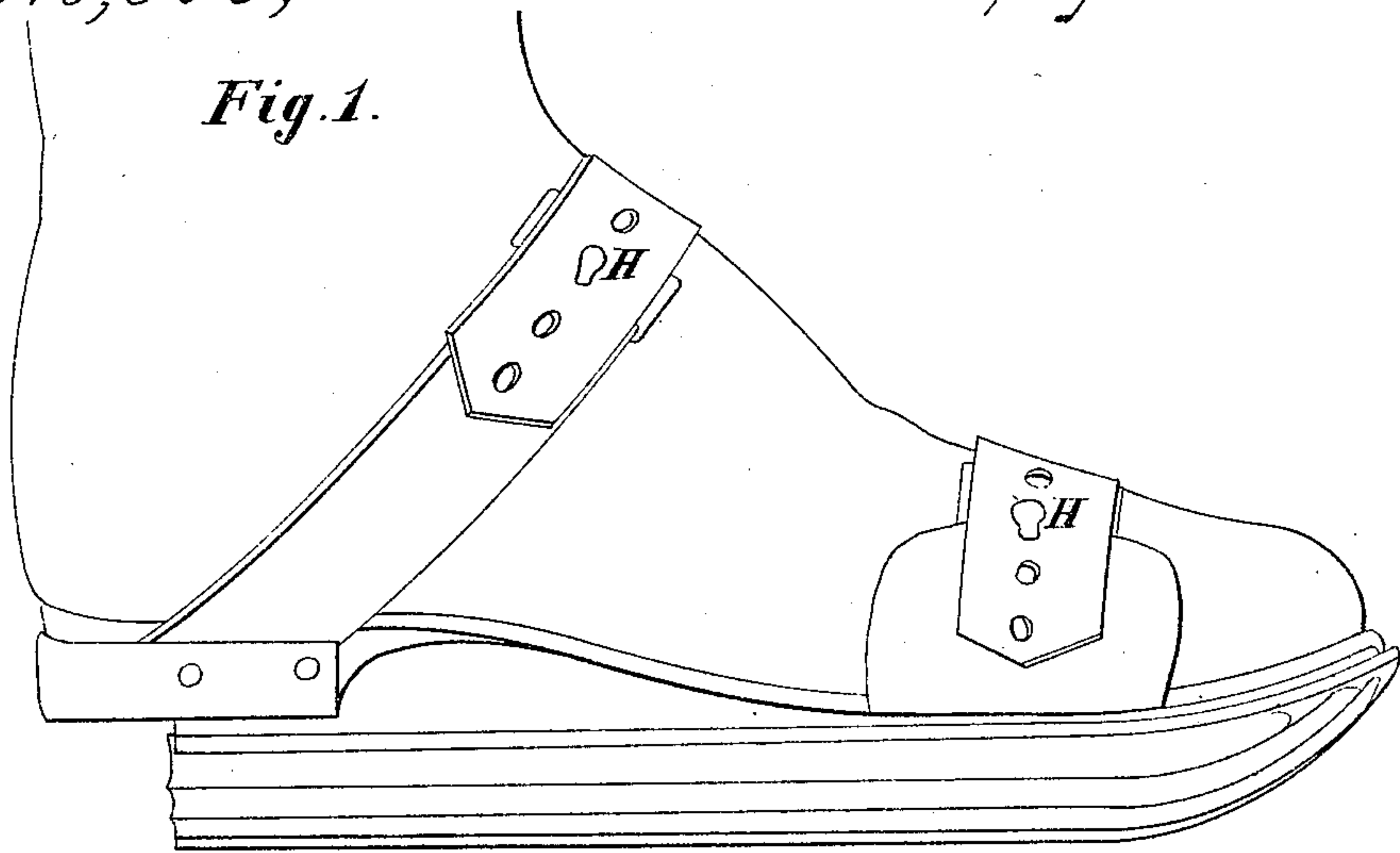


Fig. 5.

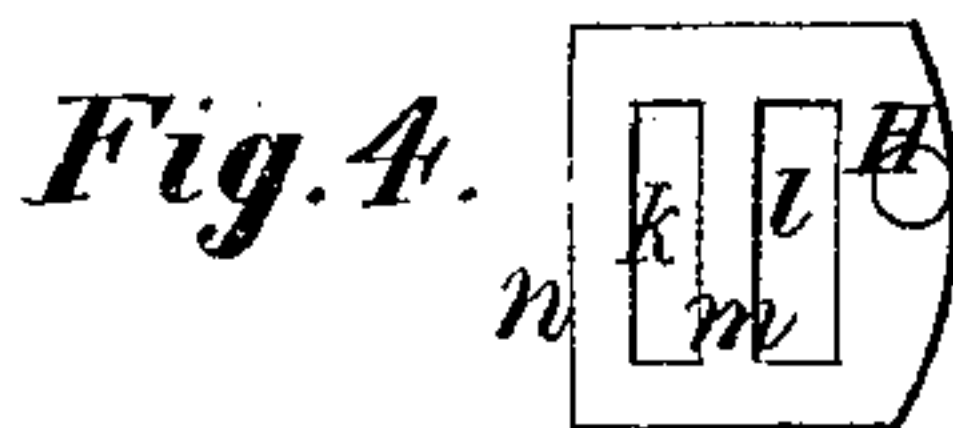
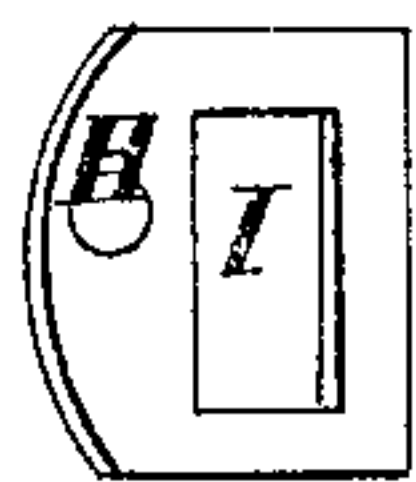


Fig. 6.



Fig. 7.



Witnesses

Wm. Baker
Charles Barnum

Inventor.

W. H. Dutton

UNITED STATES PATENT OFFICE.

WILLIAM H. DUTTON, OF UTICA, NEW YORK.

IMPROVED SKATE-FASTENING.

Specification forming part of Letters Patent No. **40,093**, dated September 29, 1863; antedated September 25, 1863.

To all whom it may concern:

Be it known that I, WILLIAM H. DUTTON, of the city of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in the Mode of Fastening Skates upon the Feet; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the use of the ordinary strap for buckling on the skate by means of a single turn or pulley, by which the strap is drawn up and tightened, great power is required to gain sufficient tightness, and, besides the painfulness of the effort, straps are often broken when sufficient strength is used, and when the point of extreme tension is attained there is a yielding of this tension, and a slight slipping back and loosening after the insertion of the buckle-tongue.

The object of my invention is to remedy these evils—that is to say, to furnish a strap and its attachments so constructed and arranged as to require the exertion of less strength in drawing up the fastening to the requisite tightness, and possessing the means of fastening at the point of extreme tension without the back slipping or relaxation referred to. The first point I accomplish by means of the double pulley or two turns of the strap; the second, by the use of an eyelet and button to fix the strap when drawn up, instead of a buckle.

In the annexed drawings, Figure 1 represents my patent skate fastened upon the foot by means of the strap and its attachments, as herein described. Fig. 2 represents an end view, looking at the toe in front, and showing the involutions of the strap B when fastened. Fig. 3 is a top view of the skate and strap without the foot, showing the usual manner of fastening the strap to the plane of the skate by the use of the plate C laid upon the strap and screwed down, as seen at D, and also showing the manner of buttoning the strap when drawn up, as seen at E. Figs. 4 and 5 are the metal loops attached to the outer ends of the stationary or fixed portions of the strap, being so constructed as to

allow of the double turn or pulley for drawing up the strap advantageously. Fig. 4 is commonly used on the left side of the foot, and is seen at F F, Fig. 3. Fig. 5 is used on the right side, and is seen at G G, Fig. 3. Figs. 6 and 7 are side views of these metal loops, and show the elevation of the post and button H upon each.

Like letters refer to the same parts in all the drawings.

The outer ends of those portions of the strap that are fastened to the skate are in both cases attached to the button side of the loop, clasping the outside bar thereof, the post and button protruding through the strap, the slot I in the right loop, Fig. 6, being wide enough to admit the turn of the strap again to pass through after the side strap is attached.

On the left side, in order to afford a smooth metal bar, *m*, Fig. 4, for the strap to slide upon in drawing it up, the metal loop has two slots, *k* and *l*. The portion of the strap manipulated or used for drawing up the fastening is attached to the bar *n*, Fig. 4. This is shown at O, Fig. 2. From the attachment O it passes, according to the direction of the arrows, first down through the loop on the opposite side, thence back and up through the slot in rear of the center bar in the left-hand loop, thence to the button H on the right-hand loop, over which it is hitched and fastened, after being well tightened. For this purpose the strap is perforated with holes, as seen at P, Fig. 3. By this arrangement of the straps and their attachments it is evident that less exertion of strength by the hand is required to draw up the strap than by any of the present modes of strap-fastening, and that when the requisite tension is attained the hold is secured by slipping one of the orifices over the button, and the full tension is retained without the back slipping or relaxation attending the fastening by means of the buckle.

The button H at the left-hand side, Fig. 4, is used when it is desirable to fold back a long end of the strap after fastening by buttoning it over on this side, also, where it is kept secure from flapping about.

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

1. The metal loops, as constructed and provided with the posts and buttons H, in combination with the stationary straps, in the manner and for the purposes described.

2. The double turn or pulley in the strap, in combination with the metal loops and but-

ton-fastening, as described, and for the purposes described, the whole being arranged and operating substantially in the manner herein set forth.

WM. H. DUTTON.

Witnesses:

WILLIAM BAKER,

WM. H. PRATT.