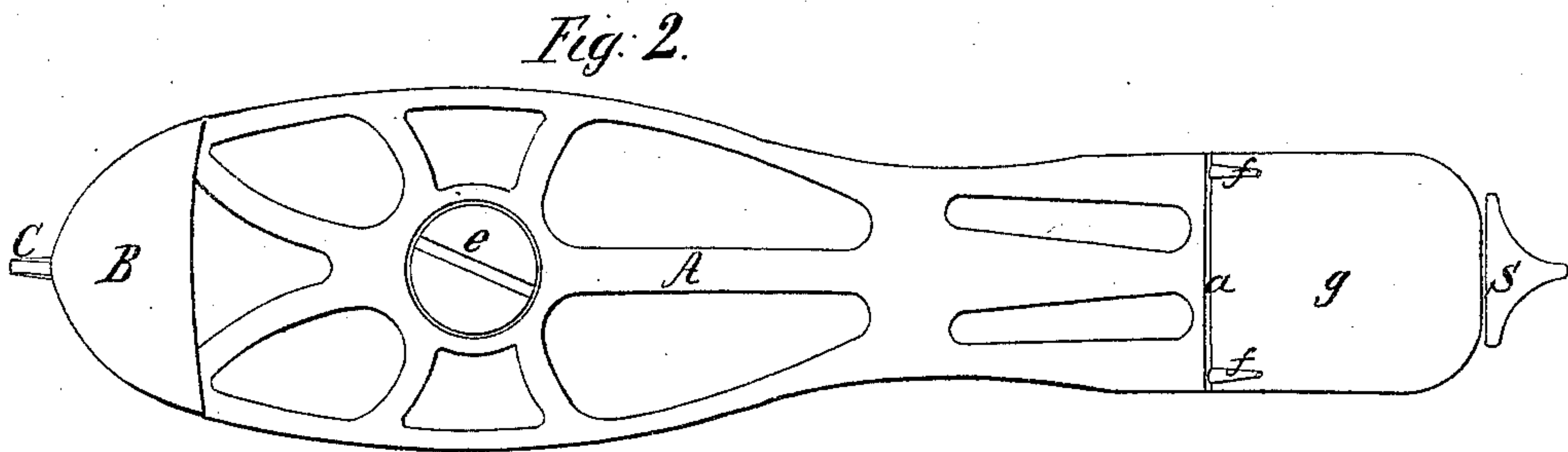
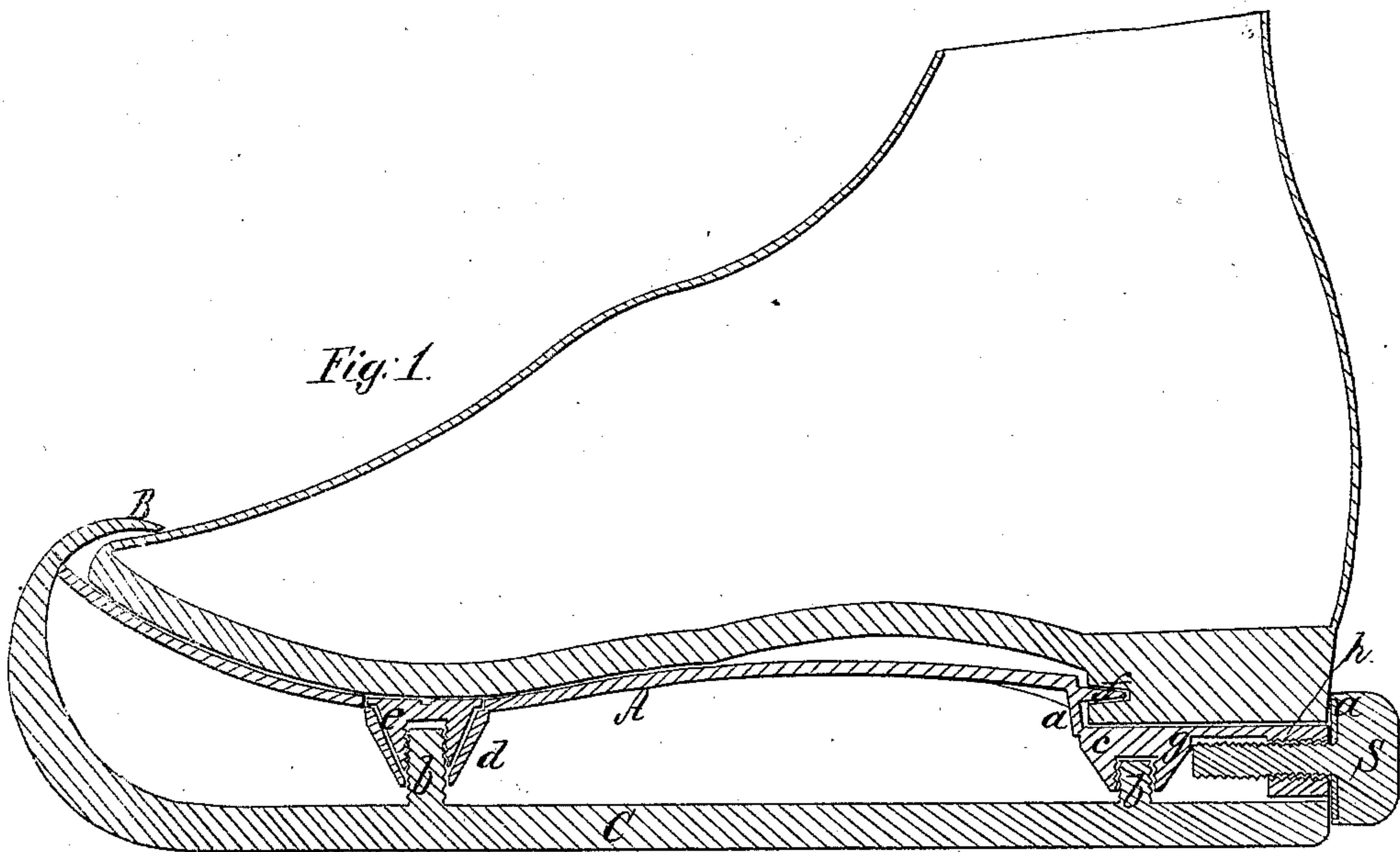


*D. H. Shirley*

*Skate.*

*N<sup>o</sup> 32,656.*

*Patented June 25, 1861.*



*Witnesses;*  
*Joseph Gavett*  
*A. W. Brown*

*Inventor;*  
*D. H. Shirley*



# UNITED STATES PATENT OFFICE.

DANIEL H. SHIRLEY, OF BOSTON, MASSACHUSETTS.

## SKATE.

Specification of Letters Patent No. 32,656, dated June 25, 1861.

*To all whom it may concern:*

Be it known that I, DANIEL H. SHIRLEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Improvement in Skates; and I do hereby declare that the following, taken in connection with the accompanying drawing, that forms part of this specification, is such a full and clear description thereof as to enable others of ordinary or competent skill in such matters to make and use the same.

It has before been proposed under different constructions, arrangements or combinations, to form the body as well as the runner of a skate mainly or wholly of metal, and in order to dispense with the use of straps for fastening and holding the skate on to the boot or shoe, to provide the skate body with a toe cap and with prongs or clamping forks, both fixed and adjustable, to bite against and in the front of the heel of the boot, with a screw in the rear of the heel operating either a slide or loose pronged disk to secure a grip against the back of the heel and to draw up or back the front portion of the skate to give a close fit at the toe and to establish the grip of the clamping prongs in front of the heel. Such previous constructions or combinations, however, are very defective and objectionable, some in one respect and some in another. For instance it is particularly desirable to have as few sliding or working parts as possible and the use of a slide or loose pronged disk, operated by the screw but a device separate from it, to effect grip in rear of the heel, not only involves complication but also an awkward projection of parts beyond or up and beyond the heel, adding to weight and interfering with or obstructing certain peculiar moves or actions of the skater, especially "back flourishes" or motions and sudden stoppage when under rapid headway. These and other objections are avoided by this my improvement, which, while it retains the features in general, I have already specified as common to modern skates and which in different forms have been patented, presents a decided novelty in construction and combination.

Referring to the accompanying drawing Figure 1 represents a vertical longitudinal section of a skate constructed according to my improvement and applied to a boot or

shoe; and Fig. 2 a plan of the skate detached from the boot or shoe.

In said figures A is the body, which may be made of cast metal and of open-work construction, with a toe cap B in front. Said body is made with a set-off (a) to establish its fit under and with or against the heel of the boot.

C, is the skate runner which may be bent up in front and made to enter the toe cap and be further locked with the body by screw projections (b b) fitting into a boss (c) under the heel part (a) through a boss (d) under the tread into a locking nut or cone (e).

The set-off (a) has spikes or prongs (f) projecting from it, so as to enter the front part of the heel of the boot while the rear portion of the heel part (g) of the body has cast to it on the under side a screw box (h) into and through which a screw running longitudinally in direction of the length of the skate, fits. This screw is formed with a head or button (s) at its rear end, of such diameter as that, while not extending below or so as to interfere with the runner, it will lap over or above the heel part (g) of the skate sufficiently when screwed up to bear or bite against the heel of the boot, and thereby to lock the skate at its rear with the heel and in so doing to draw up or back the toe-cap and skate body generally including the set-off (a) and prongs or spikes (f f) into the front of the heel. The screw head or button (s) may be milled on its edge to facilitate the turning of it and the screw, and its inside face may be grooved so as to form an annular projection (w), or be otherwise suitably constructed, to increase its grip on the boot heel.

By this construction and combination, it will be seen, the skate may be rapidly applied to and detached from the boot or shoe, and that when on it is held firm to its place, without any awkward or interfering fastening or fastening-stock projecting in the rear of the boot or skate, the screw head or button being the only necessary rear projection. It will also be seen that not only is the screw box out of the way, beneath the heel part of the skate, but that any slide or its equivalent operated by the screw to serve as a locking device is dispensed with and the screw head itself made the rear locking contrivance and a very effectual one

to the heel in connection with the spikes fitting into the front of the heel and formed by simple direct projections from the set-off in the body of the skate.

5 Having now described my improvement, I claim:

1. The arrangement of the screw box to the heel locking screw, below the heel portion of the body of the skate, essentially as  
10 shown and described.

2. Securing the skate at the heel by the button or head of the heel screw arranged and applied to grip on or against the heel of the boot or shoe as herein set forth.

3. The combination of a heel locking screw with a step or set-off in the body of the skate in front of the heel and fitted with prongs or spikes to gear with the front of the heel of the boot or shoe substantially as specified. 15

4. The combination of the heel locking screw spiked set-off or step to the body in front of the heel, and toe-cap all for operation together, essentially as herein set forth. 20

D. H. SHIRLEY.

Witnesses:

JOSEPH GAVETT,  
A. W. BROWN.