

(No Model.)

G. A. WELANDER.

ROLLER SKATE.

No. 309,501.

Patented Dec. 16, 1884.

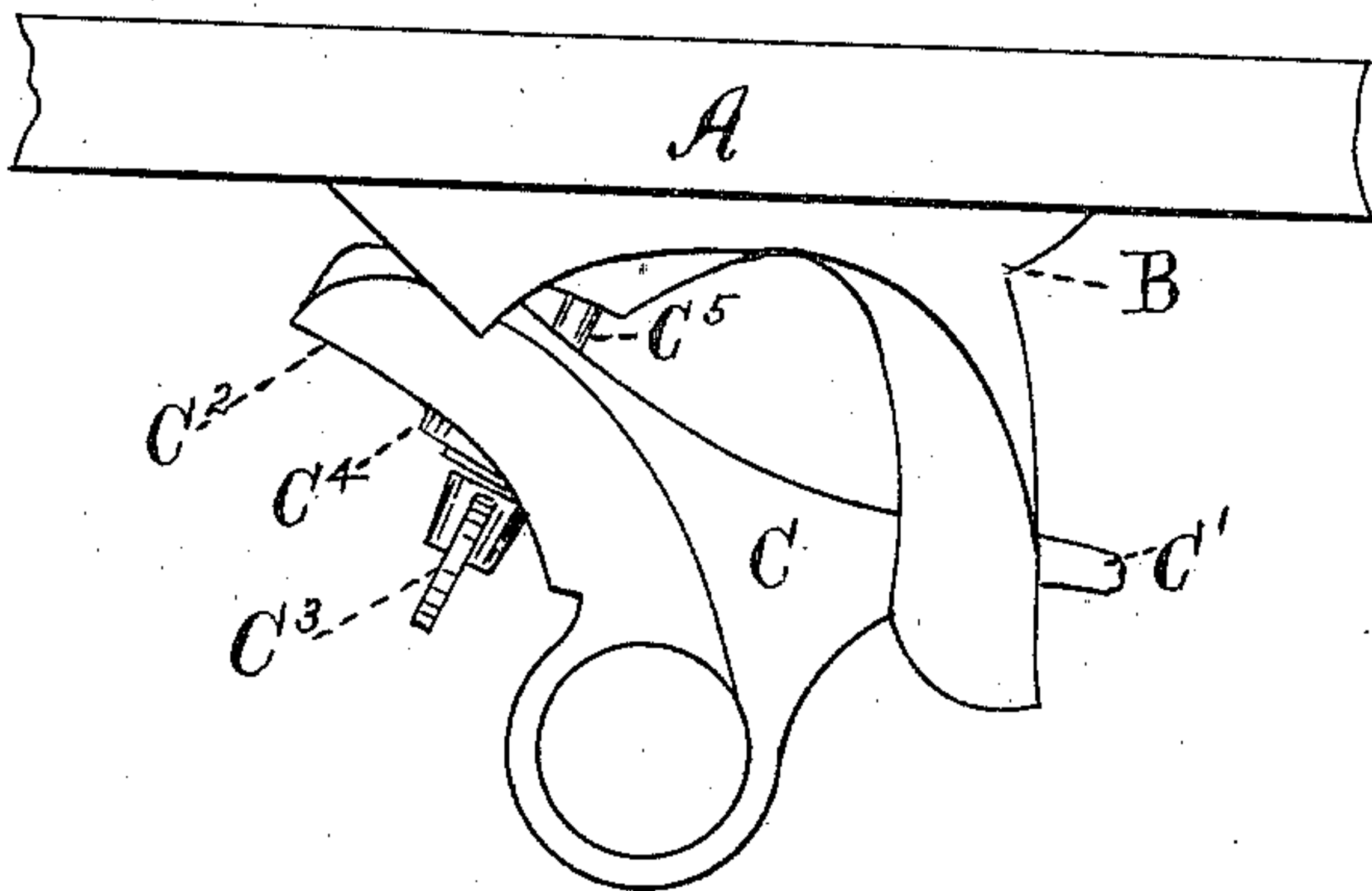


Fig. 1

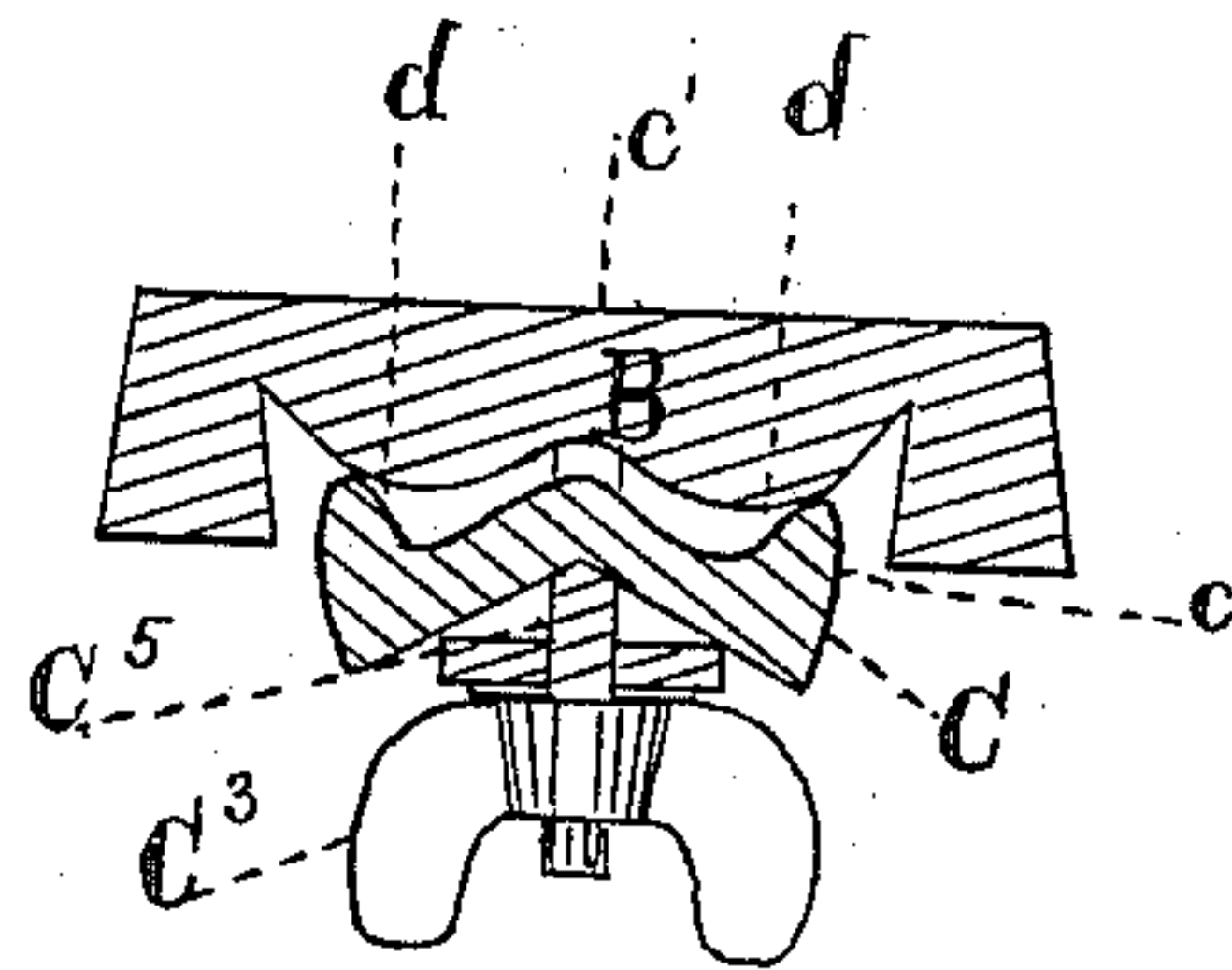


Fig. 2

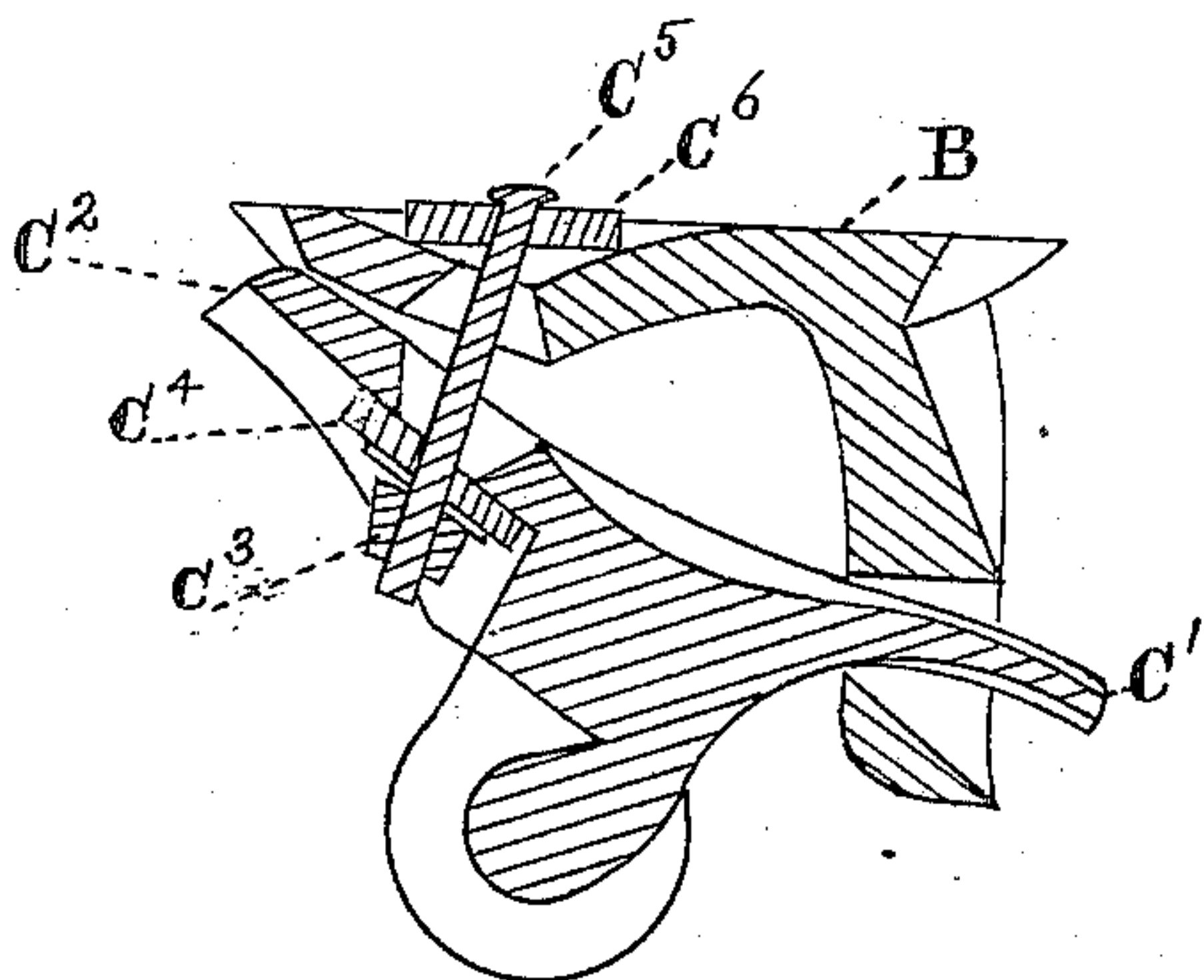


Fig. 3

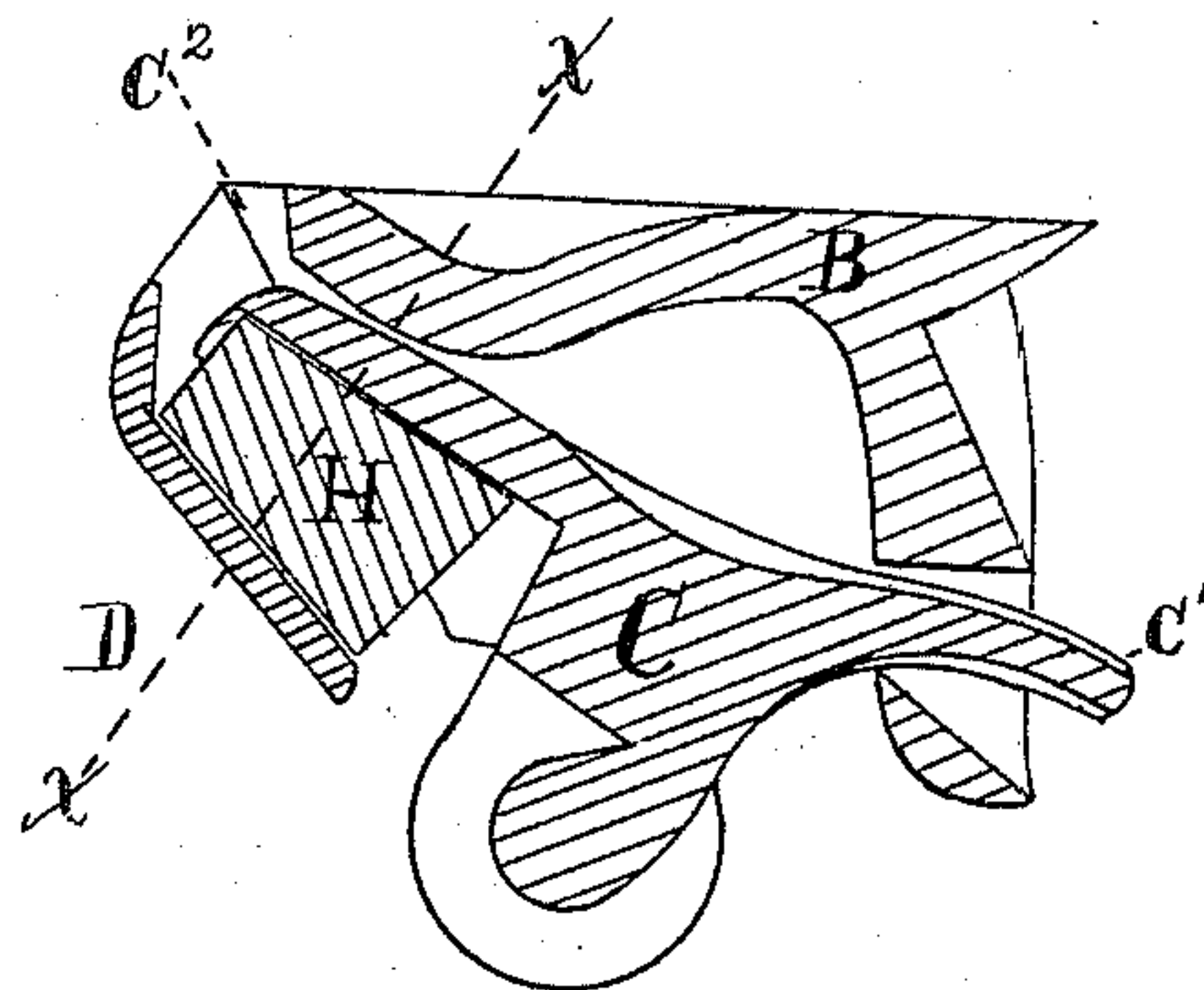


Fig. 4

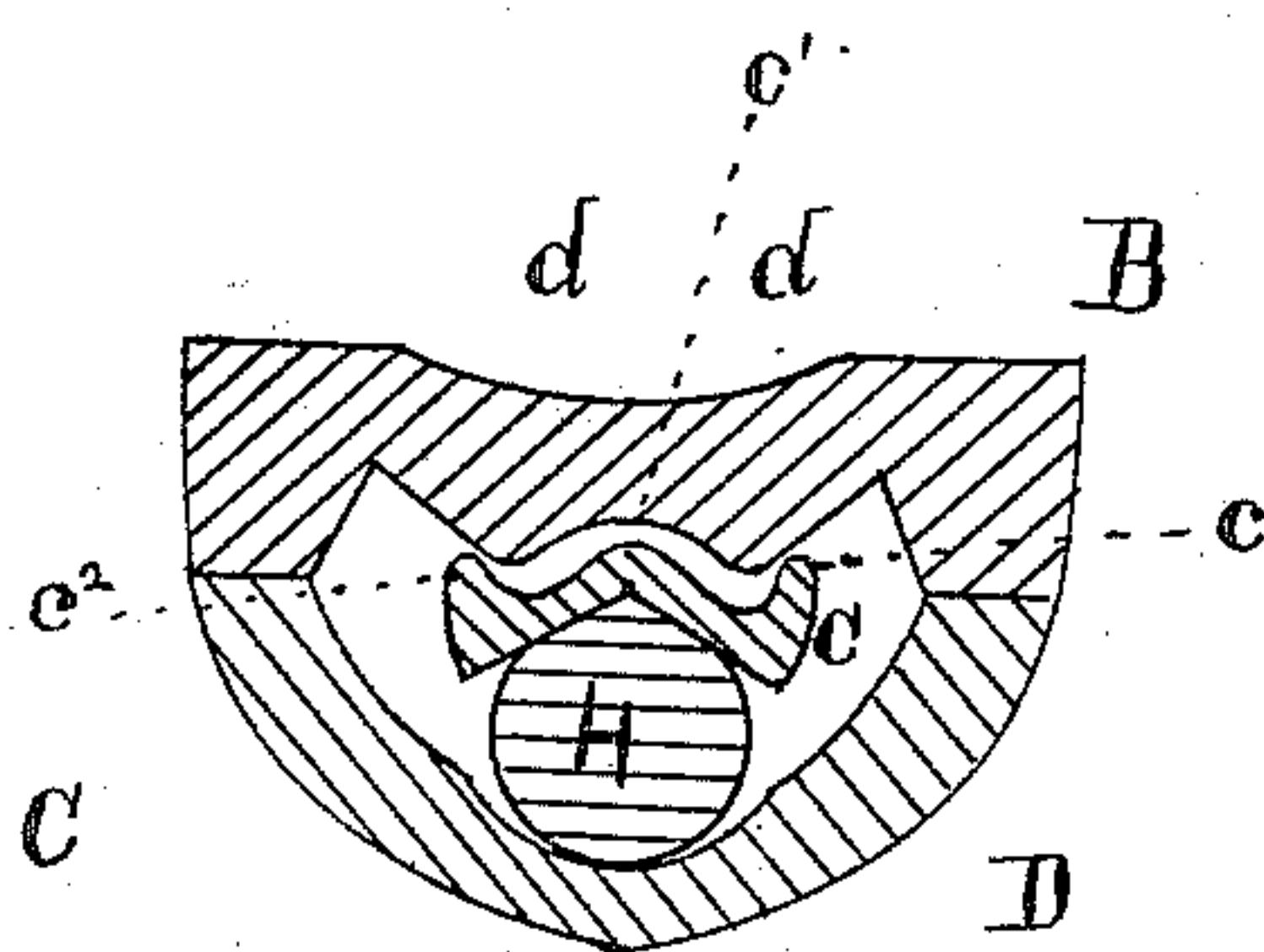


Fig. 5

WITNESSES

Thos E Dudley  
William Eason

INVENTOR

Gustave A Welander

# UNITED STATES PATENT OFFICE.

GUSTAVE A. WELANDER, OF CHARLESTOWN, ASSIGNOR TO THOMAS E. DUDLEY, OF BOSTON, MASSACHUSETTS.

## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 309,501, dated December 16, 1884.

Application filed March 17, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, GUSTAVE A. WELANDER, of Charlestown, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Roller-Skates, of which the following is a specification.

My invention relates to guidable roller-skates, the object being to so construct the bearing-surface of the truck-frame upon the base-piece of the skate-body that the guiding movement shall be the easiest possible consistent with a reliable support for the foot of the user. This object I attain by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of one of my truck-frame housings. Fig. 2 is an end section, showing the bearing-surfaces between the movable housings and fixed housings. Fig. 3 is a longitudinal section of the housings, showing a modified connection between the fixed and movable housings. Fig. 4 is a longitudinal vertical section, showing the housings with the fixed and movable housings connected by an elastic cushion, H; and Fig. 5 is a section taken on line *x x* of Fig. 4.

In the drawings, Fig. 1, A represents the body of the skate, and B in all the drawings a fixed housing, which is securely fastened to the body A of the skate. This fixed housing B is made in the shape shown in the drawings, having a depression, *c'*, Figs. 2 and 5, and protuberances *d d*, Figs. 2 and 5, upon which corresponding parts, *c c*, of the moving housing C bear, so that an uneven pressure received from the foot of the user will cause the moving housing—that is, the housing that supports the truck—to go to the right or left. The moving housing or truck-frame C is held to the fixed housing B by some suitable elastic connection, one form of which is shown in Figs. 1, 2, and 3 and another form in Figs. 4 and 5. The first form of connecting device consists of a screw bolt and nut, *C<sup>s</sup> C<sup>t</sup>*, and two elastic washers, *C<sup>s</sup> C<sup>t</sup>*. (See Fig. 3.) The other form of connection consists of a hood, D, Figs. 4 and 5, and an elastic compression-

piece, H, made in the form of a cone or wedge shape, as shown in Figs. 4 and 5.

By forming the bearing-surface of the housing B in corrugations, and making the contacting surface of the movable housing C as shown more particularly in Fig. 2, I obtain a lateral sliding motion which makes the truck perfectly guidable, and gives no shock to the user in turning from one direction to the other. I am aware that skates have been made in which the lower housing had two lateral points of bearing, but in turning only one of them would be in contact, so that in reversing the direction the other point will come into contact and give a shock to the user. It will readily be seen that by this means an increased oscillating movement is allowed, as the lateral movement at the forward end is a gliding one—that is, the housings slipping one on the other on the corrugated surfaces, while the rear bearings of the housings are confined to a single point of oscillation. It will further be seen that, by means of a free and movable piece and the different methods shown of uniting the same—that is, by means of the hood and elastic cushion combined, or by the screw-bolt, nut, and elastic washer—I obtain an elastic truck—that is to say, a truck that, by allowing the housing-piece C free action to glide upon the inclined surfaces of the protuberances *D D* both longitudinally and laterally, (limited and confined by means of the spring mechanism shown,) is very comfortable for the foot of the user, and allows easy movement and smoothness of action.

I claim—

In a roller-skate, the combination of the fixed housing-piece B, having a depression, *c'*, and rounded protuberances *d d*, with the movable housing C, having rounded projections *c c*, the hood D, and the elastic cushion H, substantially as described, and for the purpose set forth.

GUSTAVE A. WELANDER.

Witnesses:

WILLIAM EDSON,  
THOS. E. DUDLEY.