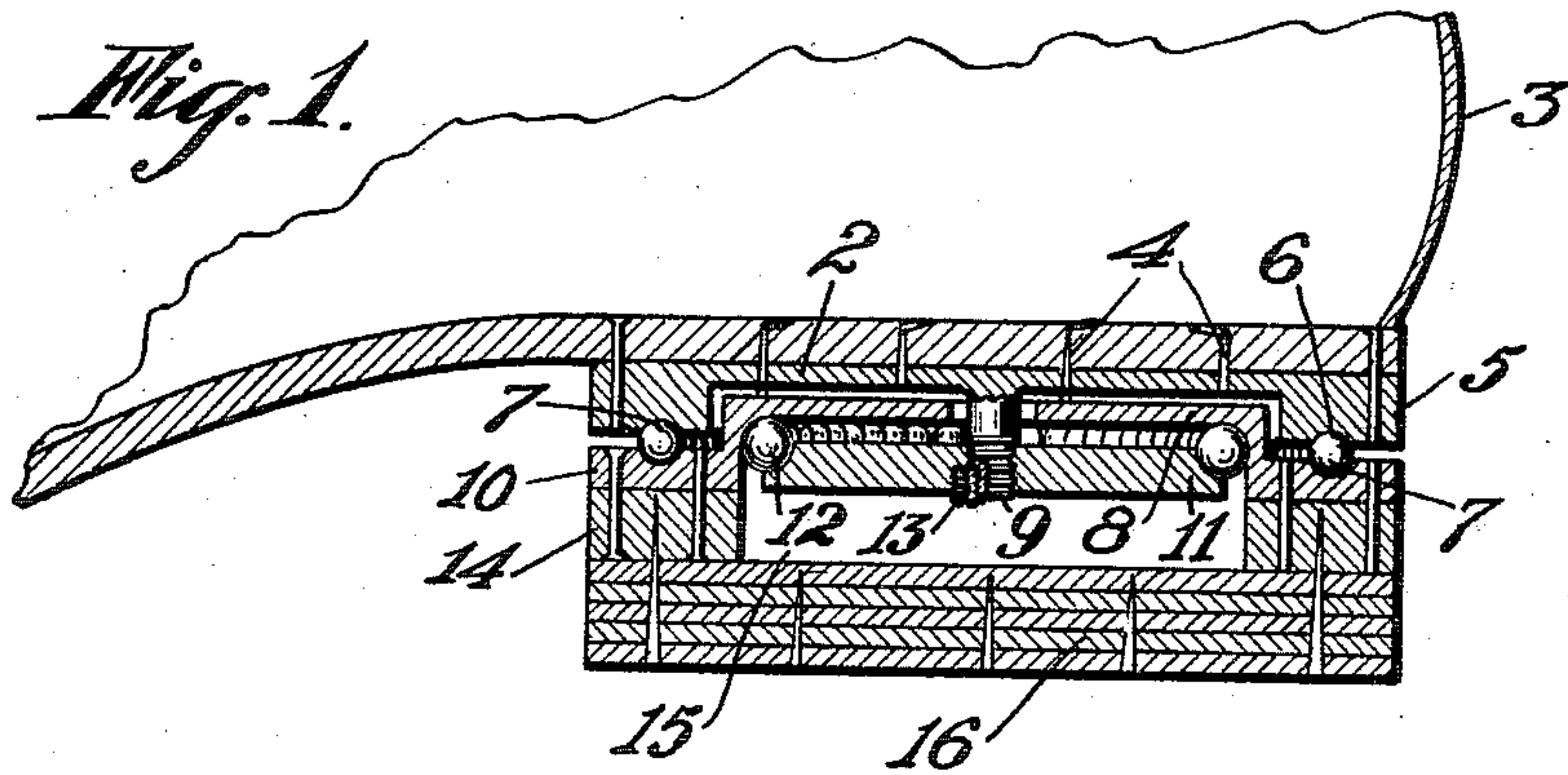


U. MAHLER.  
HEEL.

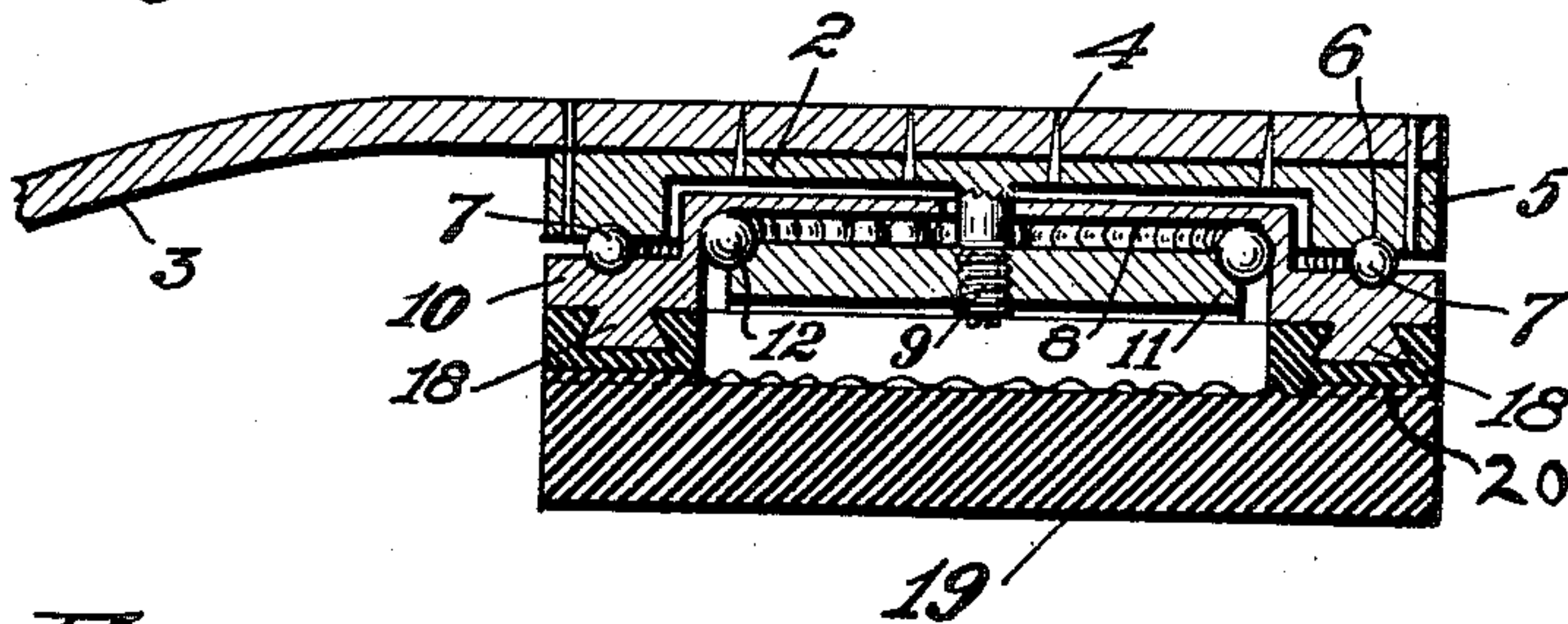
APPLICATION FILED AUG. 10, 1910.

995,475.

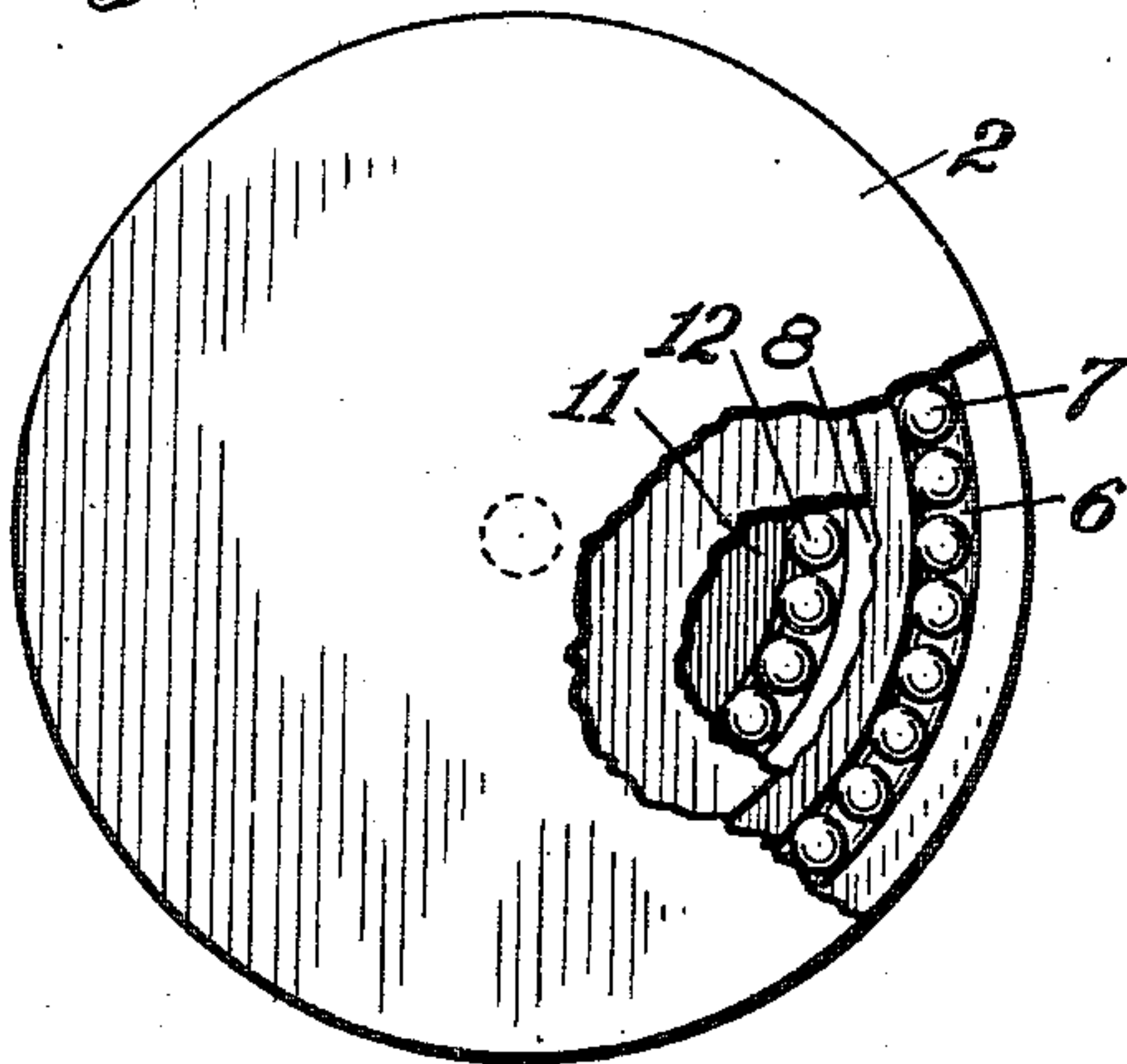
Patented June 20, 1911.



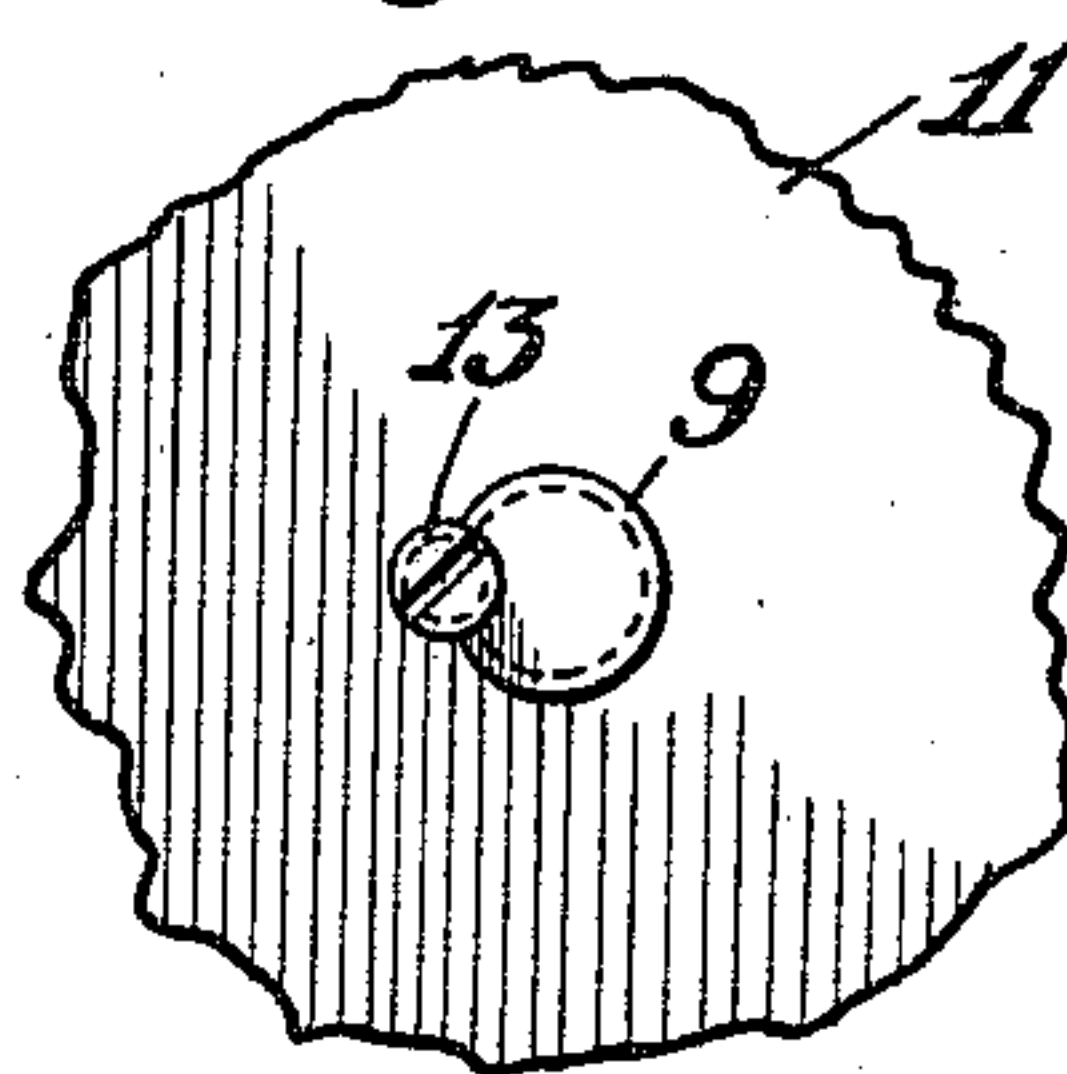
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses;  
*R. S. Berry*  
*Chas. Kaskberg.*

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His Attorney



# UNITED STATES PATENT OFFICE.

UHLICH MAHLER, OF SAN FRANCISCO, CALIFORNIA.

## HEEL.

995,475.

Specification of Letters Patent. Patented June 20, 1911.

Application filed August 10, 1910. Serial No. 576,478.

*To all whom it may concern:*

Be it known that I, UHLICH MAHLER, citizen of Canada, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Heels, of which the following is a specification.

This invention pertains to heels, and particularly to rotary heels for shoes.

The object of the invention is to provide a practical, durable, detachable and renewable heel for shoes; and especially to provide a heel so constructed and designed as to turn freely and be self cleaning and not liable to become clogged or jammed.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a vertical section through the heel. Fig. 2 is a view showing a rubber heel. Fig. 3 is a plan view of the device. Fig. 4 is a detail of the nut-lock.

The embodiment of the invention as here shown comprises a metal socket section or disk 2, adapted to be attached to the shoe 3 by any suitable means, as cementing or nailing, as at 4. The disk 2 has a flange 5 grooved at 6 to form a circular ball race for the reception of balls 7.

A central perforated dished and flanged metal turntable plate 8 is passed over a central pivot or screw threaded stud 9 and has an annular rim flange 10 resting upon the balls 7 in the annular flange 5. The degree of pressure of the rim 10 of plate 8 is determined by a nut 11, which seats in the recess in plate 8, and bears upon another set of balls 12 interposed between it and the angle of the recess in the plate 8. The nut 11 may be locked to prevent its turning after once being adjusted by either a spring lock-nut or by an eccentric screw 13 in the pivot screw 9, Fig. 4.

Secured to the flat rim flange 10 of the turntable plate 8 is a ring 14 of leather or other desired material, having a central perforation 15 of sufficient diameter to allow the nut or ball retainer 11 to pass through.

16 is a leather wearing lift or tread, nailed or otherwise secured to the ring 14.

The advantage gained by seating the turntable plate 8 within the disk 2 is that the thickness of the metallic portion of the heel is kept at a minimum; and a further ad-

vantage is obtained by recessing the plate 8, because it forms a pocket in which the nut 11 may be screwed down until flush with or lower than the flange 10, thus permitting the spacer or ring 14 to be extended across, if desired. By telescoping the disk 2 and the plate 8, a very small clearance space is formed so that the possibility of the turntable plate and heel becoming jammed is practically eliminated.

The depth of the groove 6 in which the balls 7 run is made just sufficient to allow the balls 7 to project enough to carry the race rim 10 clear of the flange 5.

The normal position of the heel will naturally cause material happening to get into the clearance space, as when the wearer steps in mud, to gravitate outwardly and downwardly, and the smallness of the space prohibits particles large enough to jam the movable heel from entering.

The device is equally adaptable to rubber heels, and in such environment small keys 18 are secured to the plate 8 about which the rubber may be molded. The wearing heel 19 of rubber, is vulcanized to the first section, as at 20.

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

1. In a rotary heel, the combination of a member recessed on its under side, a turntable plate, having a central portion of its upper side fitting within the recess of said member, and having a recessed under side and an annular rim flange, means carried by said member and about which the turntable plate turns, anti-friction members between the plate and the first-named recessed member, means for holding the turntable plate in position, and a tread member fixed to the turntable plate.

2. In a rotary heel, the combination of a recessed socket member, a turntable plate, having a central recess and an annular rim flange, telescoping with the socket member, a central stud carried by the socket member and about which the turntable plate turns, anti-friction members between the plate and socket member, means for holding the turntable plate in position, and a tread member carried by the turntable plate.

3. In a rotary heel, the combination of a recessed socket member, a turntable plate, having a central recess and an annular rim flange, telescoping with the socket member, a

central stud carried by the socket member  
and about which the turntable plate turns,  
anti-friction members between the plate and  
socket member, means for holding the turn-  
5 table plate in position, a tread member car-  
ried by the turntable plate, and a spacing  
ring interposed between the tread member  
and the turntable plate.

In testimony whereof I have hereunto set  
my hand in the presence of two subscribing 10  
witnesses.

UHLICH MAHLER.

Witnesses:

CHARLES EDELMAN,  
M. COOK.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,  
Washington, D. C."

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