

(No Model.)

M. R. VANDERVOORT.  
DETACHABLE HEEL.

No. 570,830.

Patented Nov. 3, 1896.

Fig. 1.

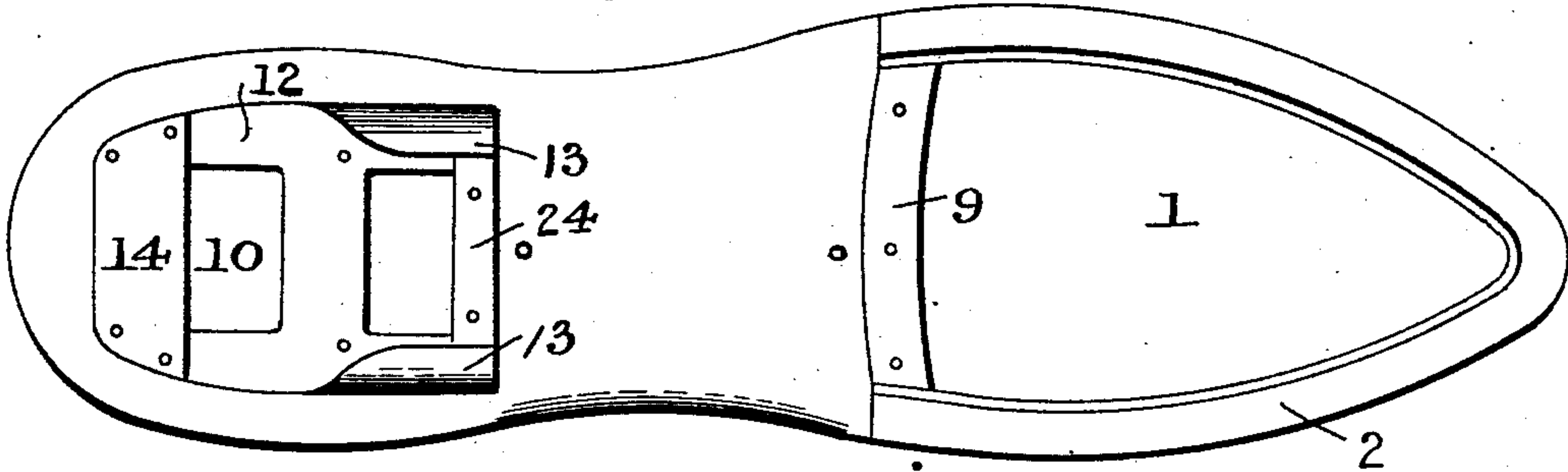


Fig. 2.

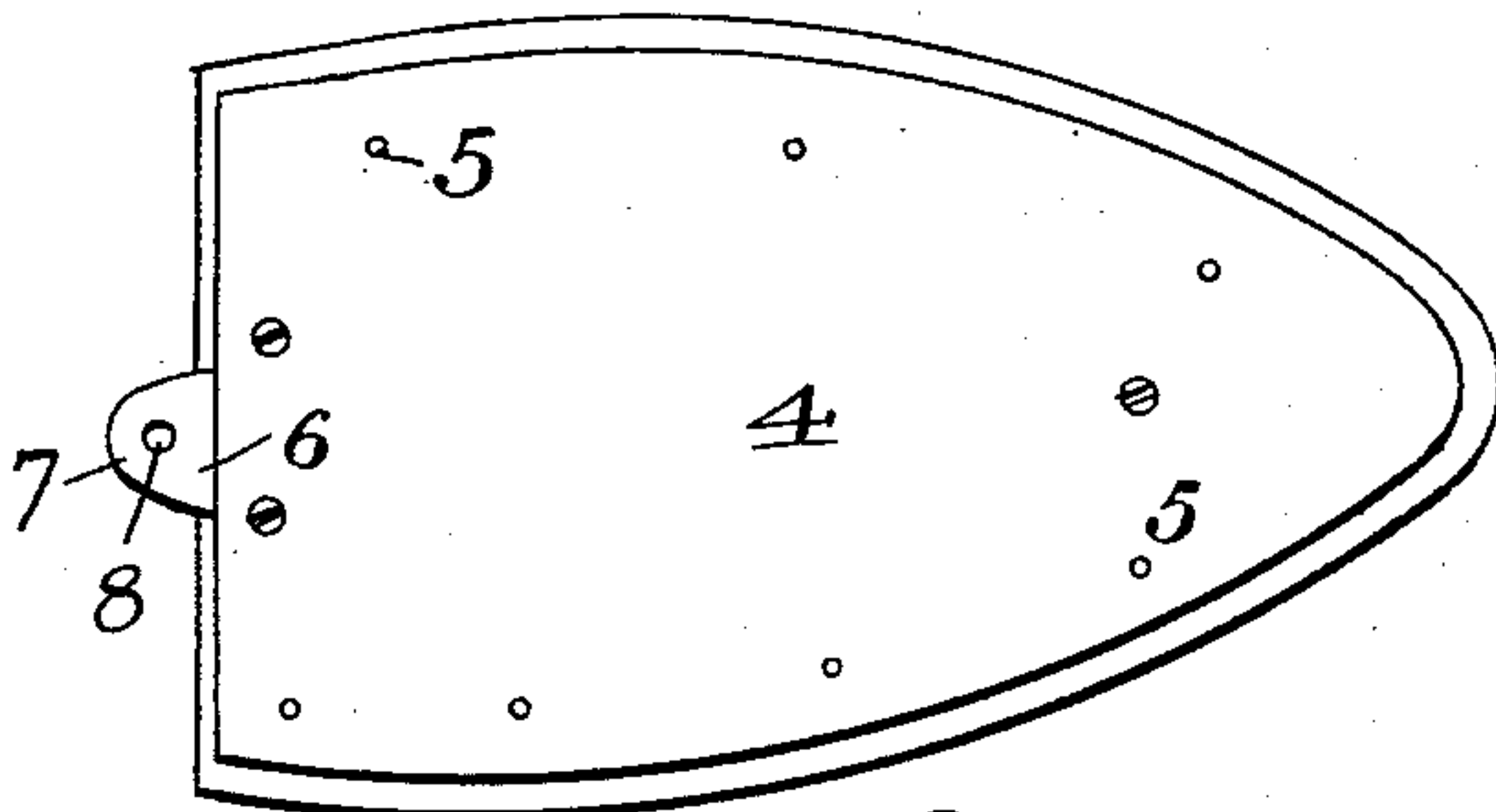


Fig. 3.

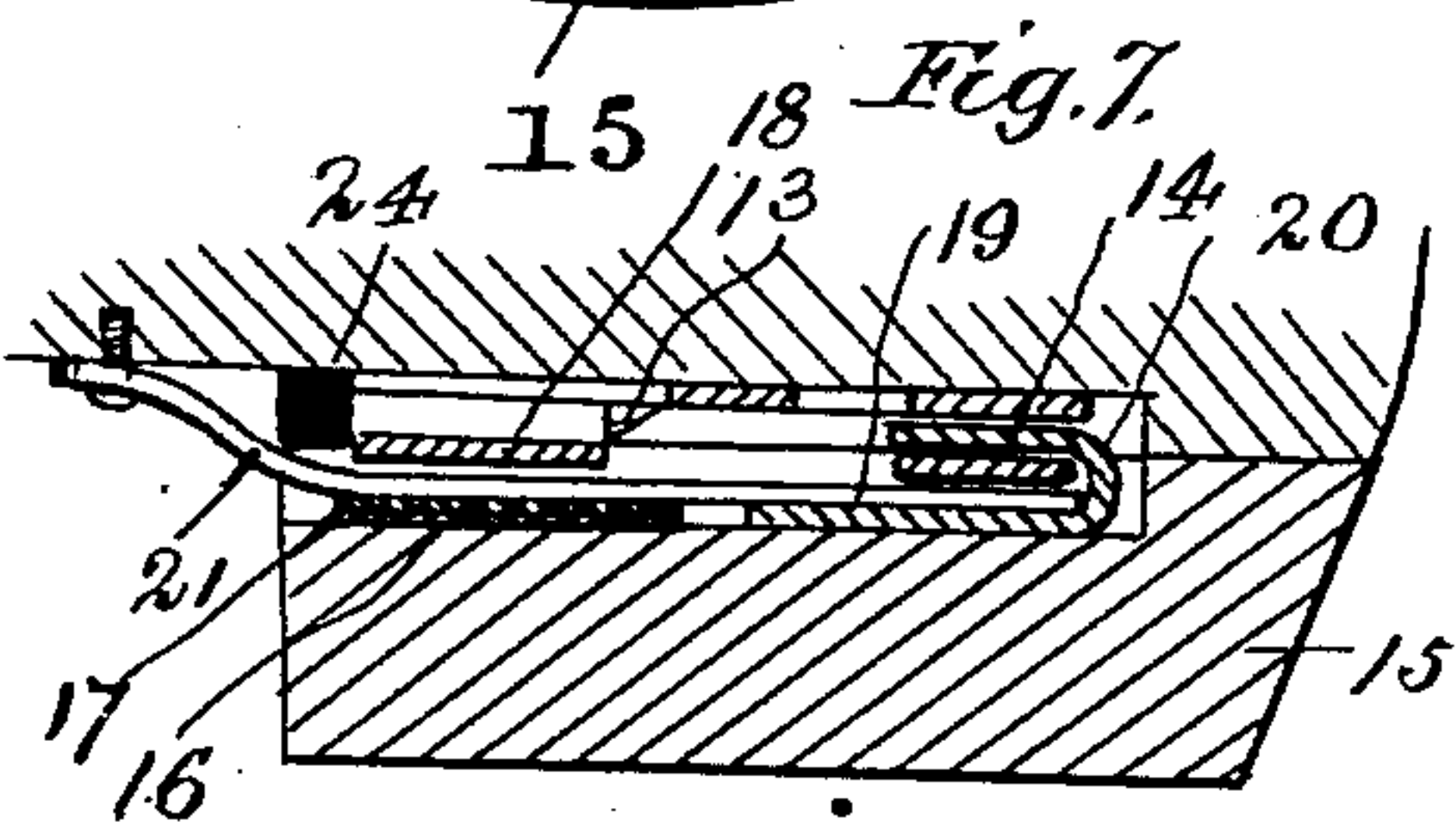
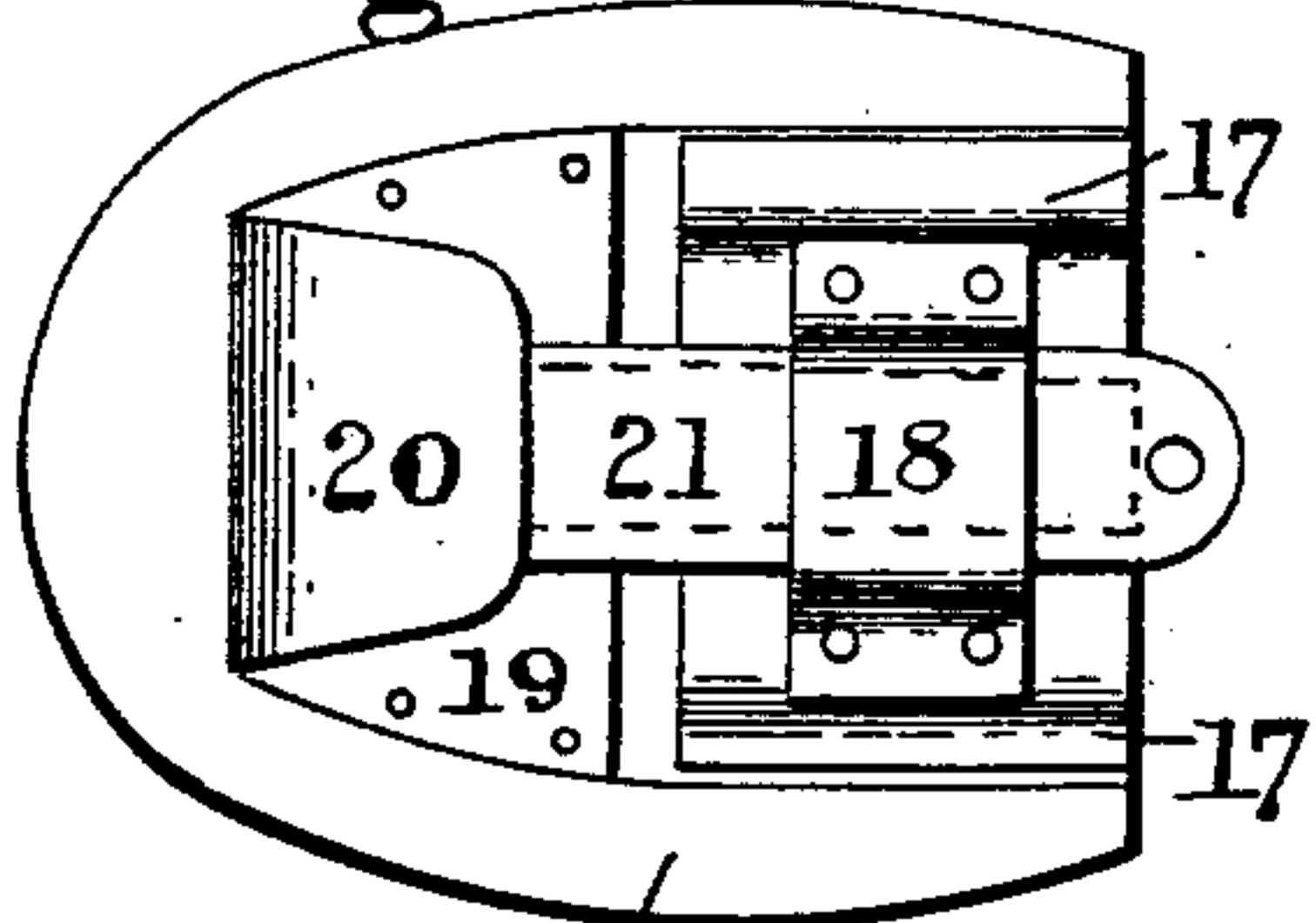


Fig. 4.

Fig. 7.

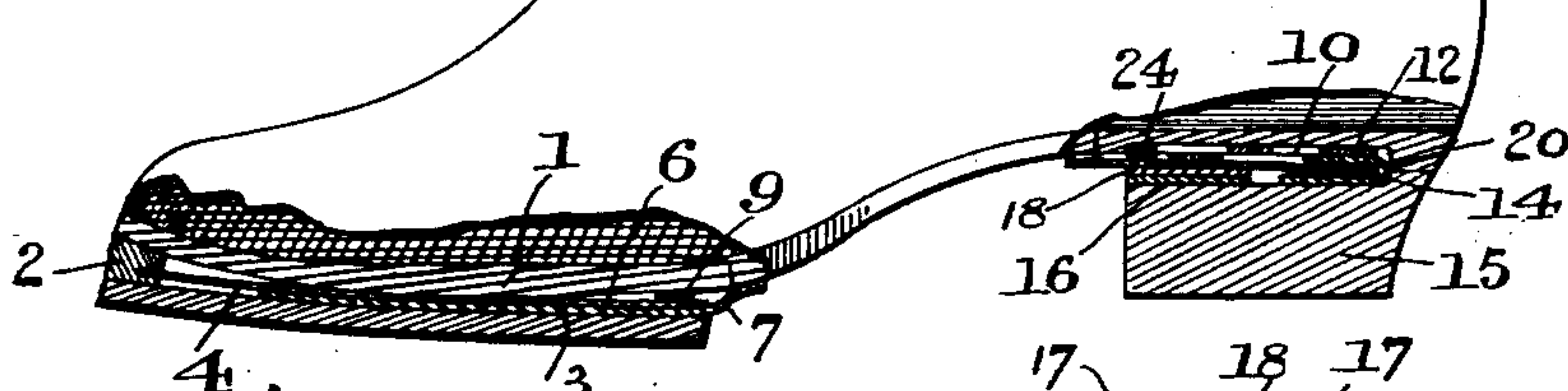
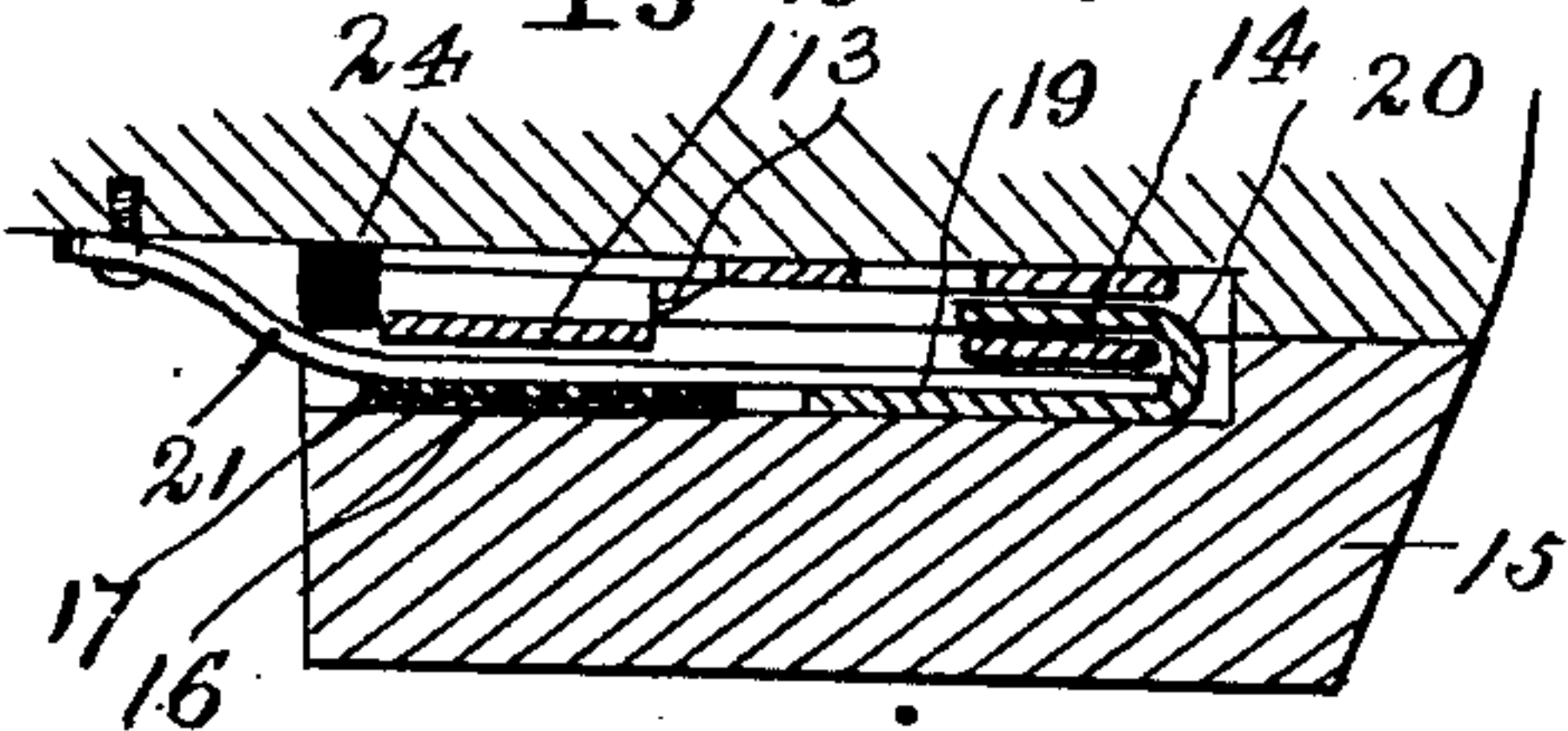
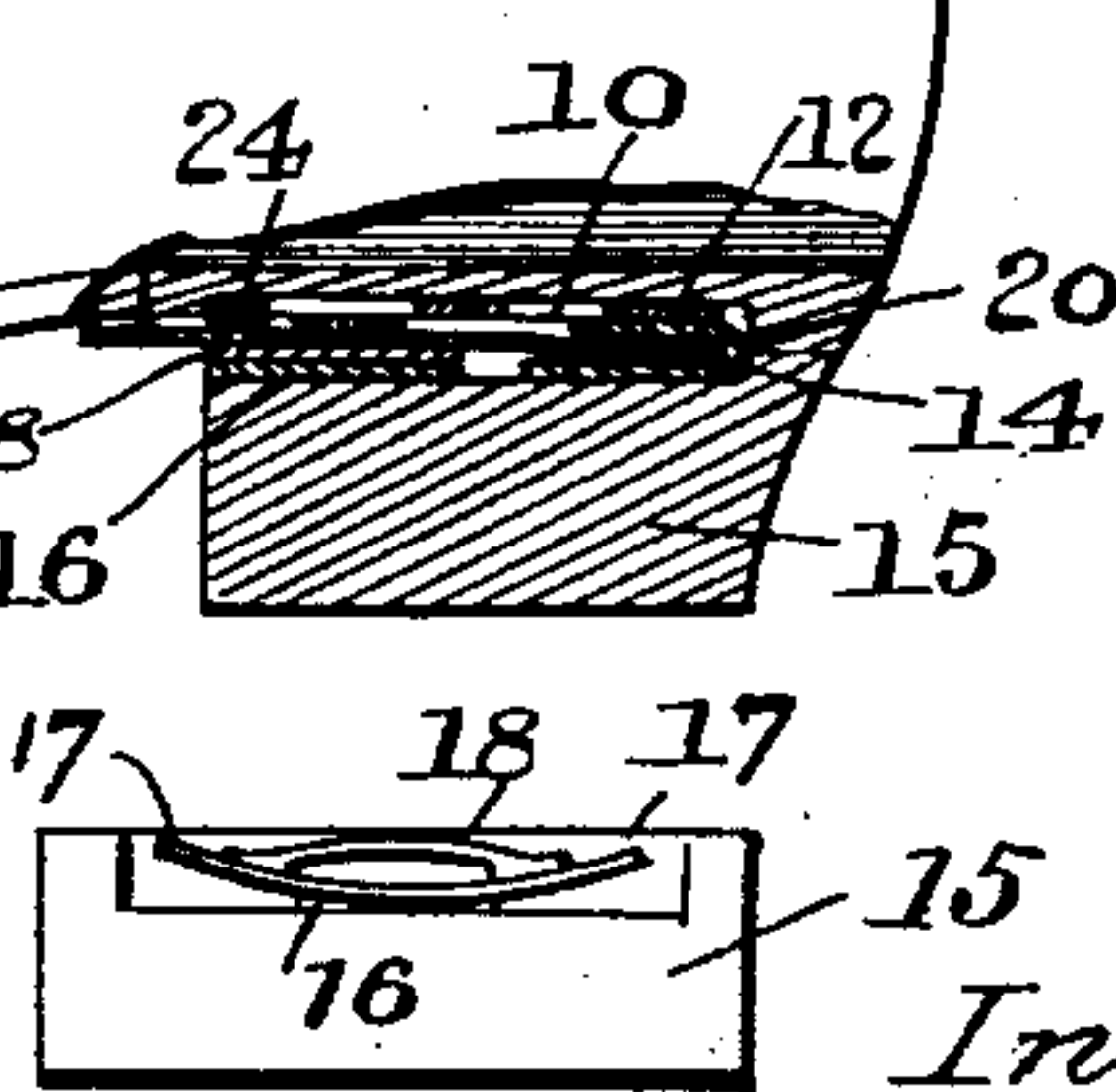


Fig. 5.

Fig. 6.



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# UNITED STATES PATENT OFFICE.

MANLY RULAND VANDERVOORT, OF CLINTON, ILLINOIS.

## DETACHABLE HEEL.

SPECIFICATION forming part of Letters Patent No. 570,830, dated November 3, 1896.

Application filed January 6, 1896. Serial No. 574,509. (No model.)

*To all whom it may concern:*

Be it known that I, MANLY RULAND VANDERVOORT, a citizen of the United States, and a resident of Clinton, in the county of De Witt and State of Illinois, have invented certain new and useful Improvements in Detachable Heels for Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in detachable heels for boots and shoes; and its object is to provide an improved construction of the same whereby the sole or heel may be readily detached and replaced when desired.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a bottom view of the sole of a boot or shoe, the detachable sole and heel being removed. Fig. 2 is an inner view of the detachable sole. Fig. 3 is a similar view of the heel. Fig. 4 is a longitudinal sectional view of the shoe with the removable sole and heel in place. Fig. 5 is an inner end view of the detachable sole. Fig. 6 is an inner end view of the detachable heel. Fig. 7 is a longitudinal sectional view of the detachable heel, showing it attached to the heel of the sole.

In the said drawings the reference-numeral 1 designates the outer sole of a shoe or boot provided on its under side with a grooved bar 2, curved to conform to the contour of the sole and extending from the toe to the shank.

The numeral 3 designates the removable sole, provided on its inner side with a spring metal or other plate 4, conforming to the shape thereof, but slightly smaller, and is secured to the sole near its edge by nails 5 or other fastening devices, so that the edge may engage with the groove of the bar 2. At the rear end of the said plate and secured to the removable plate is a metal or other material strip 6, having a tongue 7, formed with an aperture 8, so that when the removable sole is engaged with the groove of the curved bar a screw or nail may be passed therethrough into the sole 1 to hold the sole 3 in place.

This strip 6 serves to hold the edges of the plate a sufficient distance away from the removable sole, so that it can readily enter the groove of the bar. A piece 9, of rubber or other suitable material, is secured to sole 1 at the ends of the bar 2 to prevent the entrance of moisture between the soles.

The rear part of sole 1 on its outer side is formed with a recess 10, conforming to the shape of the heel, and in this recess is seated a correspondingly-formed plate 12, secured thereto by nails, screws, or other fastening devices. This plate at the ends is formed with an inwardly-turned flange 13, and at the rear is provided with a transverse plate 14, with a space between it and the plate 12.

The numeral 15 designates the removable heel, provided at its front end with a metal or other material strip 16, to which is secured a spring-metal plate 17, the sides of which project beyond said strip and are adapted to engage with the flanges 13. The said strip 16 rests against and is secured to the under side of the heel at the front thereof. (See Fig. 6 and the dotted or broken lines, Fig. 3.) This plate on its upperside is formed with or has secured to it a cross-piece 18, with a space therebetween for the passage of a slide, hereinafter described. At the rear of said recess is a plate 19, secured to the heel by nails or screws, having an extension which is bent over upon the plate, forming a spring-tongue 20.

Secured to the sole 1 at or near the shank is a rearwardly-extending slide 21, adapted when the heel is attached to pass beneath the cross-piece 18 and engage between the plates 19 and 14. The edges of the spring-plate 17 will engage with the flanges 13 of plate 12, and the tongue will pass between the plate 14 and the rear end of the plate 12, binding the end of the slide 21 against the tongue-plate and thereby securely holding the heel in place. A strip of rubber or other suitable material 24 is secured to sole 1 to keep out moisture and water.

From the above it will be seen that the removable sole and heel are attached to the permanent sole by a sort of tongue-and-groove connection, so that while they are securely held in place they may be easily detached when desired.

The invention will be found very efficient,



as the removable soles and heels can be manufactured very cheaply and extra ones can be furnished with each pair of boots or shoes, so that worn soles or heels can be readily detached by the wearer and the new ones substituted therefor without the aid of any special tools.

I do not claim herein the detachable sole shown and described as my invention as applicable for use with any kind of sole desired.

Having thus fully described my invention, what I claim is--

1. In a boot or shoe, the combination with the permanent sole having a recess at the rear, and the plate secured thereto having inwardly-turned flanges at the ends, and a transverse plate at the rear of the removable heel, the strip secured thereto, the spring-plate secured to said strip, and its edges engaging with said flanges, and the plate at the rear formed with a tongue projecting between said transverse plate and the plate secured to the sole; substantially as described.

2. In a boot or shoe, the combination with the permanent sole, having a recess near the rear end and the plate seated therein, formed with inwardly-turned flanges at the front ends and with a transverse plate at the rear, of the removable heel, the strip secured thereto, the spring-plate secured to said strip engaging with said flanges, the cross-piece secured to said plate, the rear plate provided with an inwardly-turned tongue engaging between the said transverse plate and the plate to which it is secured, and the spring-slide secured to the sole and passing under said cross-piece, and projecting into said slot; substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

MANLY RULAND VANDERVOORT.

Witnesses:

JOHN FULLER,

HATTIE L. FULLER.