

L. F. KEIJSER.
DETACHABLE REVOLVING HEEL FOR BOOTS AND SHOES.
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Fig. 1.

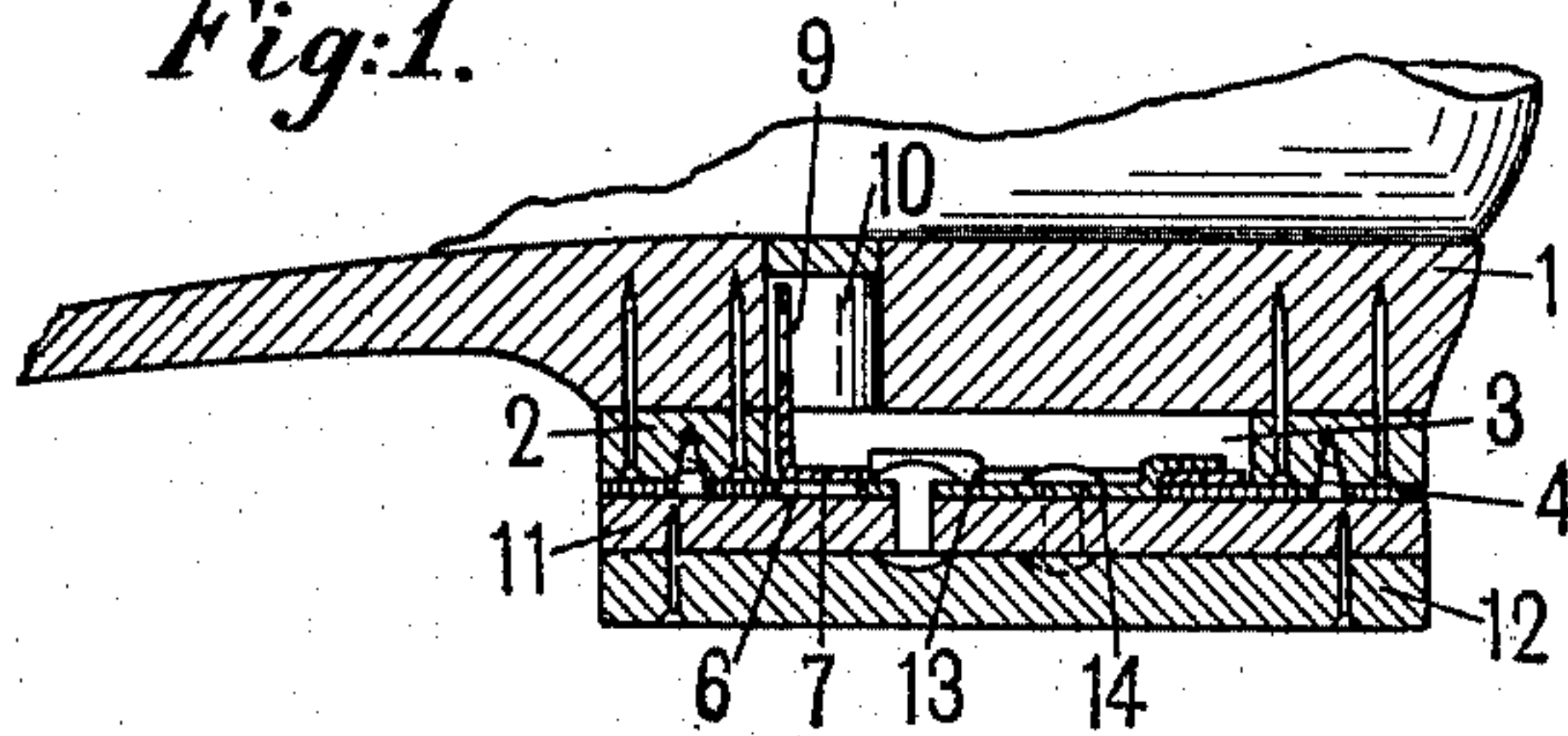


Fig. 2.

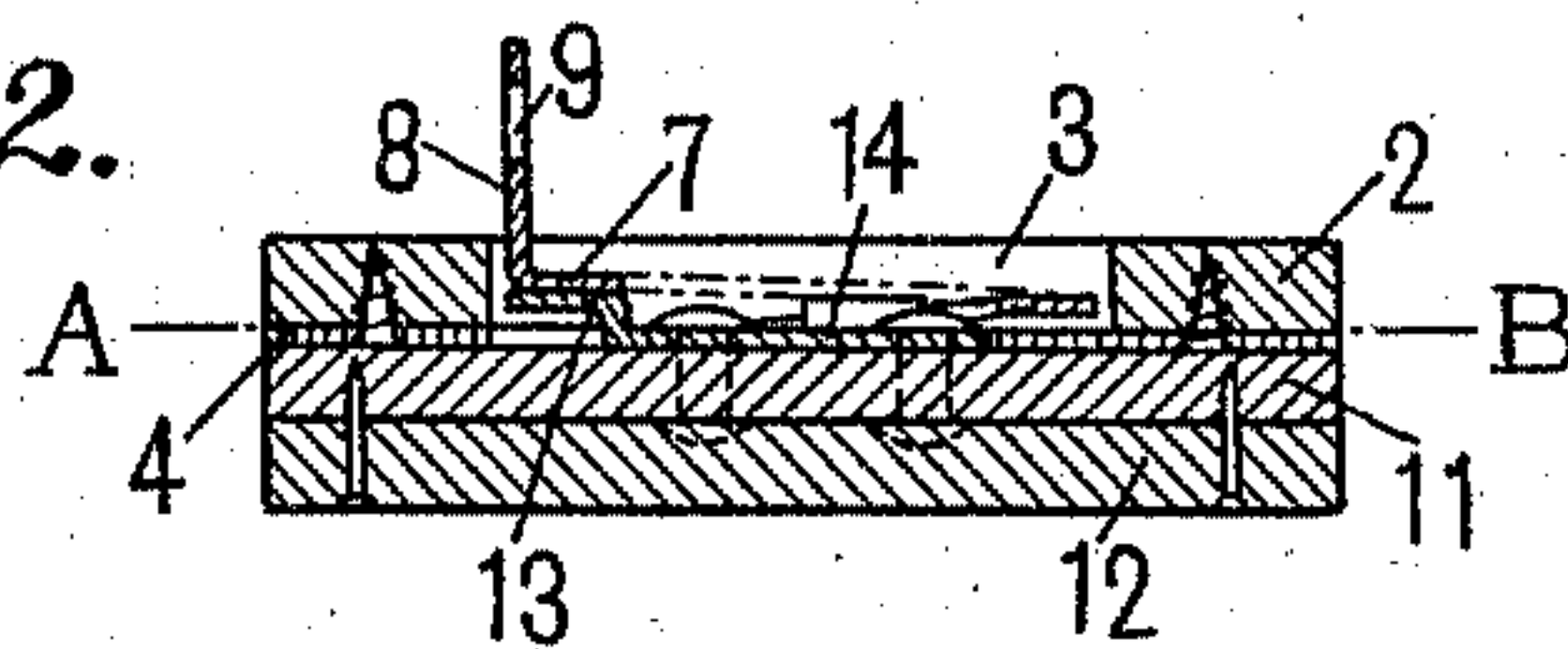


Fig. 3.

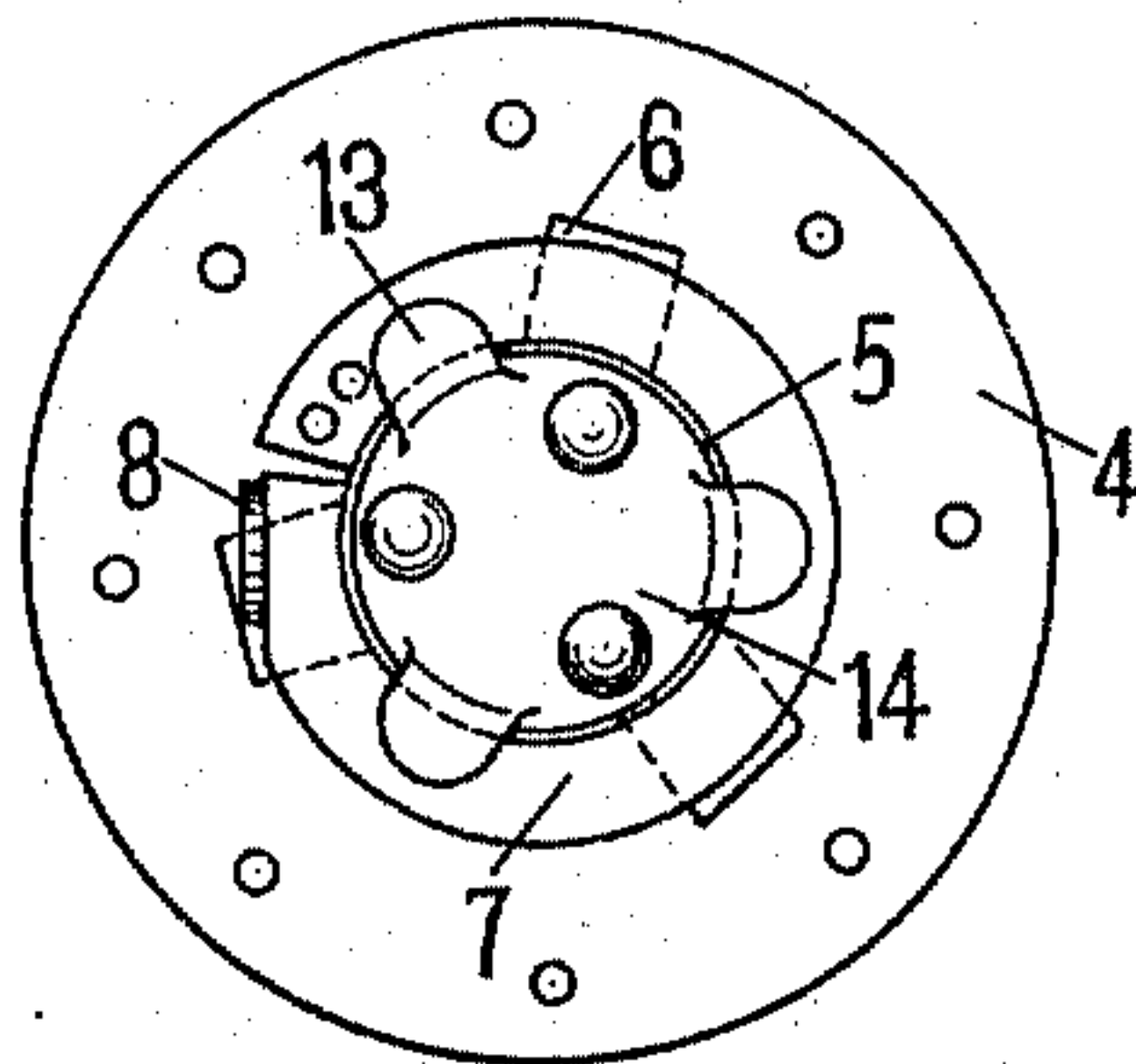
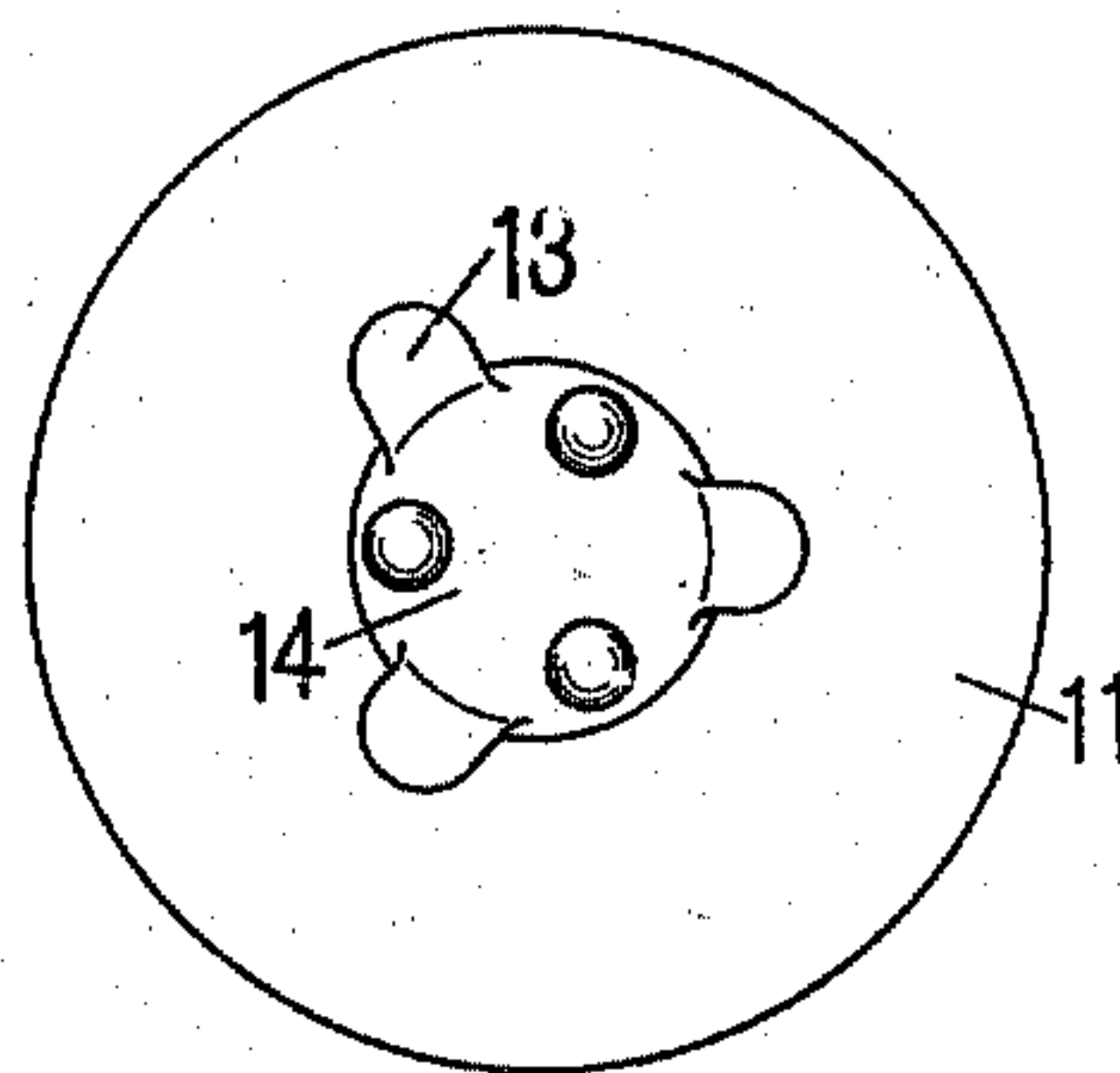


Fig. 4.



Witnesses

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LODEWIJK FREDERIK KEIJSER, OF ZEIST, NETHERLANDS, ASSIGNOR TO MAATSCHAPPIJ TOT EXPLOITATIE VAN VERSTELBARELEDEREN HAKKEN, OF AMSTERDAM, NETHERLANDS, (INCORPORATED.)

DETACHABLE REVOLVING HEEL FOR BOOTS AND SHOES.

966,923.

Specification of Letters Patent.

Patented Aug. 9, 1910.

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To all whom it may concern:

Be it known that I, LODEWIJK FREDERIK KEIJSER, a subject of the Queen of the Netherlands, residing at No. 20 Utrechtscheweg, Zeist, Province of Utrecht, Kingdom of the Netherlands, have invented certain new and useful Improvements in Detachable Revolving Heels for Boots and Shoes, of which the following is a specification.

This invention relates to detachable revolving heels for boots and shoes.

Detachable revolving heels have been proposed connected with the sole of the boot or shoe in such a manner as to allow the heel to be revolved into different positions so as to bring fresh parts of the heel in turn into the place of greatest wear. When the heel is completely worn out, it can be readily removed and a new heel can be refixed, without the intervention of a shoemaker. For those purposes the connection between the heel and the sole must be undone from time to time. It has been found however that the means of connection hitherto employed for those purposes, are liable to work loose and thus lead to the loss of the heel.

Now the present invention has for its object to provide a means of fastening the heel to the sole of the boot or shoe (hereinafter included in the term "boot") which shall prevent as far as possible the heel from working loose and getting lost, and which shall yet allow the round heel to be revolved easily into different positions for obtaining uniform wear of the heel.

One form of this invention is illustrated by way of example in the accompanying drawings in which:—

Figure 1 is a longitudinal section of the rear part of the sole of a boot with the heel fixed in position thereon. Fig. 2 is a longitudinal section of the heel shown separately, when detached from the boot. Fig. 3 is a plan on the line A—B of Fig. 2, and Fig. 4 is a plan of the heel with the part of the fastening connected thereto.

1 is the thickened rear part of the sole of the boot to which is fixed a round leather plate, 2, having a central hole, 3. A metal plate, 4, having a similar central but smaller hole, 5, is fixed by means of, screws to the plate, 2. The inner edge of the hole, 5, is formed with three or more wide notches, 6, constituting one part of the bayonet fastening. These notches are covered by a flat

spring, 7, lying on the plate, 4. One end of the spring, 7, is riveted to the plate, 4, and the other or free end is bent up at right angles in the form of an arm, 8, adapted to extend up in a cavity, 10 of the sole, 1. This arm, is formed at its upper part with a hole or loop, 9. The horizontal part of the spring, 7, lies throughout its extent flat on the plate, 4, so that its two ends are situated in one and the same plane.

The detachable heel is composed preferably of two leather plates, 11 and 12 pinned or nailed together.

14 is the other part of the bayonet fastening, provided with lugs 13. It is riveted to the upper plate, 11, before the two leather plates, 11, 12, are fastened together.

The detachable heel and the leather plate, 2, have a round form in plan and the rear part of the sole is cut or shaped accordingly.

The manner of connecting the heel to the sole so as to allow the former to be revolved when required, is as follows. The lugs 13 are passed through the notches, 6, the flat spring, 7, being pressed up thereby. On now revolving the heel relatively to the sole from right to left (Fig. 3) the lugs, 13, will move on to the plate, 4, and by continued rotation in the same direction, the lugs will pass under the free end of the flat spring 7, onto the fixed part of the said spring. The fastening is now in the position shown in Fig. 1, in which the heel is able to revolve freely in both directions relatively to the boot, but the fastening cannot work loose or become unfastened unintentionally, because the lugs, 13 always remain above the spring, 7.

To unfasten the heel the procedure is as follows: The cavity 10 in the sole which is usually kept closed by means of a cork plug, is opened, and the arm, 8, is pulled up by means of any suitable implement such as a piece of wire, inserted in the hole or loop, 9. If now the heel be revolved from left to right (Fig. 3) the lugs, 13 can be rotated under the raised free end of the spring, 7, until they have moved on the plate, 4, in which position they are situated below the spring, 7. This position is shown in Fig. 2, in which the highest part of the spring, 7, is situated in front of the plane of section. As soon as the lugs have come opposite the notches, 6, the former are pushed through the latter by the spring 7.

In the appended claims, the term "body part" is employed to designate the stationary portion of the heel, and the term "tread part" or "tread" to designate the rotatable or detachable part of the heel, *i. e.*, the plates 11 and 12.

Having now described my invention what I claim as new and desire to secure by Letters Patent is:—

1. A heel comprising, in combination, a body part; a detachable tread part; a circular spring secured to one of said parts; and a locking member secured to the other part and engaged with the spring to connect said parts together, said spring lying wholly in a single plane, to permit the free rotation of the tread in either direction without disengaging said spring and member.

2. A heel comprising, in combination, a body part; a detachable tread part; a circular spring secured to one of said parts; a locking member secured to the other part and engaged with the spring, to connect said parts together, said spring lying normally wholly in a single plane, to permit the free rotation of the tread in either direction without disengaging said spring and member; and means whereby a portion of the spring may be shifted out of such plane, to disengage said spring and member when the tread is rotated in one direction.

3. A heel comprising, in combination, a body part formed with a cavity; a detachable tread part; a circular spring secured to one of said parts; a locking member secured to the other part and engaged with the

spring, to connect said parts together, said spring lying normally wholly in a single plane, to permit the free rotation of the tread in either direction without disengaging said spring and member; and a member connected to the spring and projecting into said cavity, for shifting a portion of said spring out of such plane, to disengage said spring and locking member when the tread is rotated in one direction.

4. A heel comprising, in combination, detachably connected body and tread parts, the body part being formed with a cavity, and the tread part being freely rotatable in either direction; inter-engaged members carried by said parts for effecting the connection between the same, one of said members normally lying wholly in a single plane, the other member being provided with projections arranged to travel normally upon one surface only of the first named member when the tread is rotated, irrespective of the direction of such rotation; and means provided upon said first named member and projecting into said cavity, to permit a portion of said member to be shifted out of such plane, to cause said projections to travel against the other face thereof when the tread is rotated in one direction.

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

LODEWIJK FREDERIK KEIJSER.

Witnesses:

THOMAS H. VERHAUE,
W. A. MANICE.