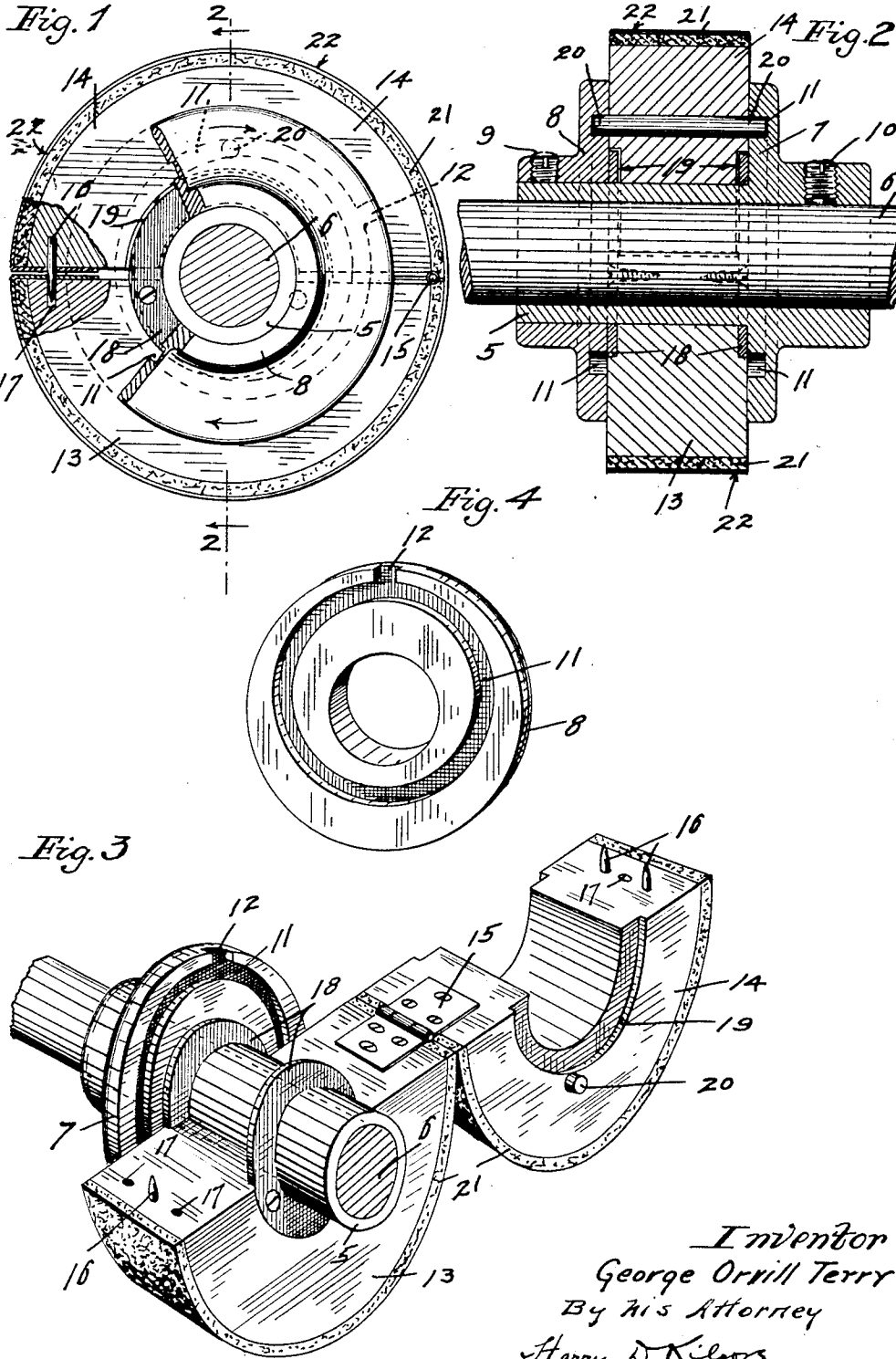


G. O. TERRY.
HEEL SCOURING ROLL.
APPLICATION FILED SEPT. 7, 1920.

1,387,628.

Patented Aug. 16, 1921.



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By His Attorney
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UNITED STATES PATENT OFFICE.

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HEEL-SCOURING ROLL.

1,387,628.

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To all whom it may concern:

Be it known that I, GEORGE ORVILL TERRY, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Heel-Scouring Rolls; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention has for its object to provide an improved heel-scouring roll for use in finishing the heels of shoes in shoe factories and shoe repair shops, and to such ends, generally stated, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings:

Figure 1 shows the improved roll in side elevation, some parts thereof being broken away;

Fig. 2 is a section on the line 2—2 of Fig. 1, some parts being shown in full;

Fig. 3 is a perspective showing the scouring roll opened up and with some parts removed, and

Fig. 4 is a perspective looking at the inner face of the removable hub flange that is removed from Fig. 3.

The complete assembled scouring roll comprises a hub 5 with fixed removable flanges and a diametrically split annular wheel. The hub, which is a sleeve-like structure rigidly secured on a shaft 6, is provided with a fixed annular flange 7 and a removable annular flange 8, which latter is rigidly, but detachably secured to said hub by a set screw 9. A set screw 10 rigidly secures the hub 5 to the shaft 6.

The fixed and the removable hub flanges 7 and 8, on their opposing faces, are both provided with eccentric cam grooves 11 having entrance notches 12 at their most eccentric portion. The removable flange 8, when secured to the hub, will have its cam groove 11 set concentric to the cam groove 11 of the fixed flange 7 and its entrance notches 12 transversely aligned with the entrance notch 12 of said fixed flange.

The wheel or annular body portion of the roll is diametrically split, that is, is made up of two semi-annular wheel sections 13 and 14 connected by a hinge 15 and provided, at their free sides, with pointed barbs 16 and barb seats 17. The wheel sections 13 and 14 are preferably of wood, but may be of any other suitable material. Flat metal rings 18 are set flush into the sides of the wheel sections 13 and secured thereto by screws or other suitable means. These rings 18 surround and closely fit the hub 5 and can be applied, of course, only when the removable hub flange 8 is removed. The wheel section 14 is formed with semi-annular grooves 19 that afford clearance for the projecting portions of the rings 18 when the two wheel sections are clamped together around the hub.

For coöperation with the eccentric cam groove 11, a cam pin 20 is passed through the wheel section 14 and left with projecting ends that afford studs or cam-acting projections.

The peripheral surfaces of the wheel sections 13 and 14 have pliable facings 21 secured thereto by glue or otherwise. The scouring cloth or paper 22 is, of course, extended over the pliable facings 21, and it is secured thereon by turning its ends inward, as shown in Fig. 1, between the free portions of the wheel sections, and passing the barbs 16 through these ends.

It is not necessary to remove the hub flange 8 to open up or close the wheel. The wheel section 13 remains in position on the shaft, between the hub flanges, as long as the flange 8 remains in position; but to open the wheel or move the wheel section 14 to its outturned position, shown in Fig. 3, it is only necessary first to rotate the closed wheel until the ends of the cam pin 20 come into alignment with the entrance notches 12, and then, to move the wheel section 14 on its hinge so as to carry the pin outward through the notches. When the wheel is thus opened up, the scouring cloth or paper may, of course, be removed and new scouring cloth or paper applied in a very obvious manner. When the cloth or paper has been applied and its ends turned inward, as above described, the wheel section 14 can be turned back to its closed position by passing the ends of the cam pin 20 inward through the entrance notches 12 and back into the cam

grooves 11. Then, by rotating the closed wheel in respect to the shaft and hub flanges, the cam grooves 11, acting on the ends of the cam pin, will tightly clamp the two wheel sections together and lock the same to the hub flanges for rotation with the shaft. In thus closing the wheel section, the wheel should always be rotated in a direction reverse to the direction in which the wheel is to be rotated by the shaft, and so that the backward re-action on the wheel, due to friction, will simply tend to more tightly clamp the wheel sections together. It may be further noted that the cam grooves 11 are continuous and by-symmetrical in both directions from the entrance notches, so that the wheel can be applied with equal facility, regardless of the direction in which the shaft rotates when in action. Also, with this arrangement, it is immaterial which side of the wheel is placed next to the fixed flange of the hub.

What I claim is:—

1. A heel scouring roll comprising a rotary hub member, relatively fixed and movable hub flanges on said hub members, at least one of which has a face cam surface with a peripheral entrance notch, and a split scouring wheel one section of which has metallic rings set flush into the sides thereof and by means of which it is rotatively

mounted on said hub member and the other of which is movable to and from said hub member, and is provided on at least one side with a cam projection that is movable through the entrance notch of said cam surface, and under rotation of the closed wheel on said hub coöperates with the said cam surface to lock said wheel sections together, said wheel sections being connected at one side by a hinge.

2. A heel scouring roll comprising a rotary hub member, relatively fixed and movable hub flanges on said hub members, at least one of which has a face cam surface with a peripheral entrance notch, and a split scouring wheel one section of which is relatively mounted on said hub member and the other of which is movable to and from said hub member and is provided on at least one side with a cam projection that is movable through the entrance notch of said cam surface, and under rotation of the closed wheel on said hub coöperates with the said cam surface to lock said wheel sections together, and said wheel sections being connected at one side by a hinge and said movable wheel section having recesses to receive said rings, said links being flush with the sides of the closed wheel section.

In testimony whereof I affix my signature.
GEORGE ORVILL TERRY.