

W. W. CROOKER.

BUFFING WHEEL.

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994,504.

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Fig. 1.

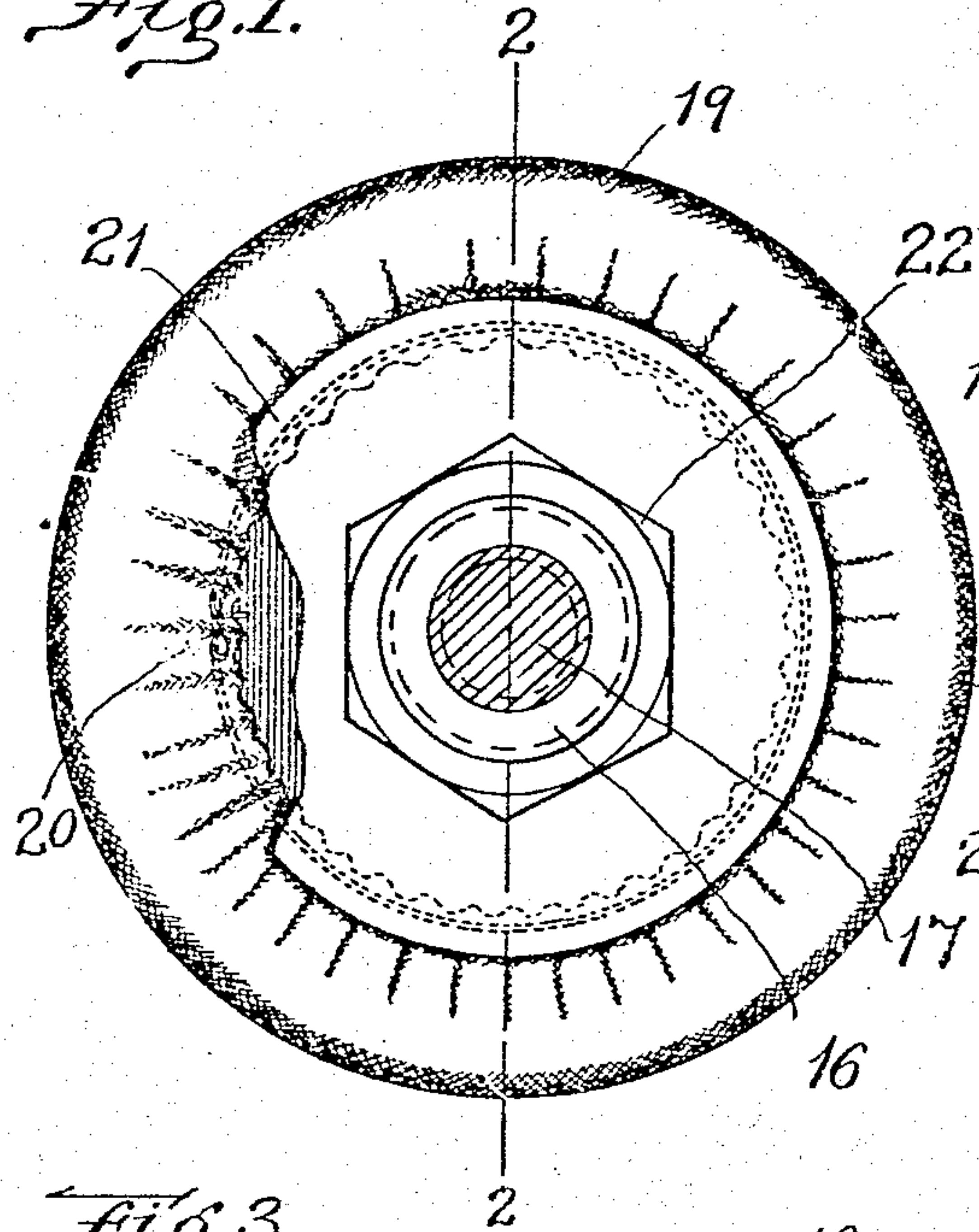


Fig. 2.

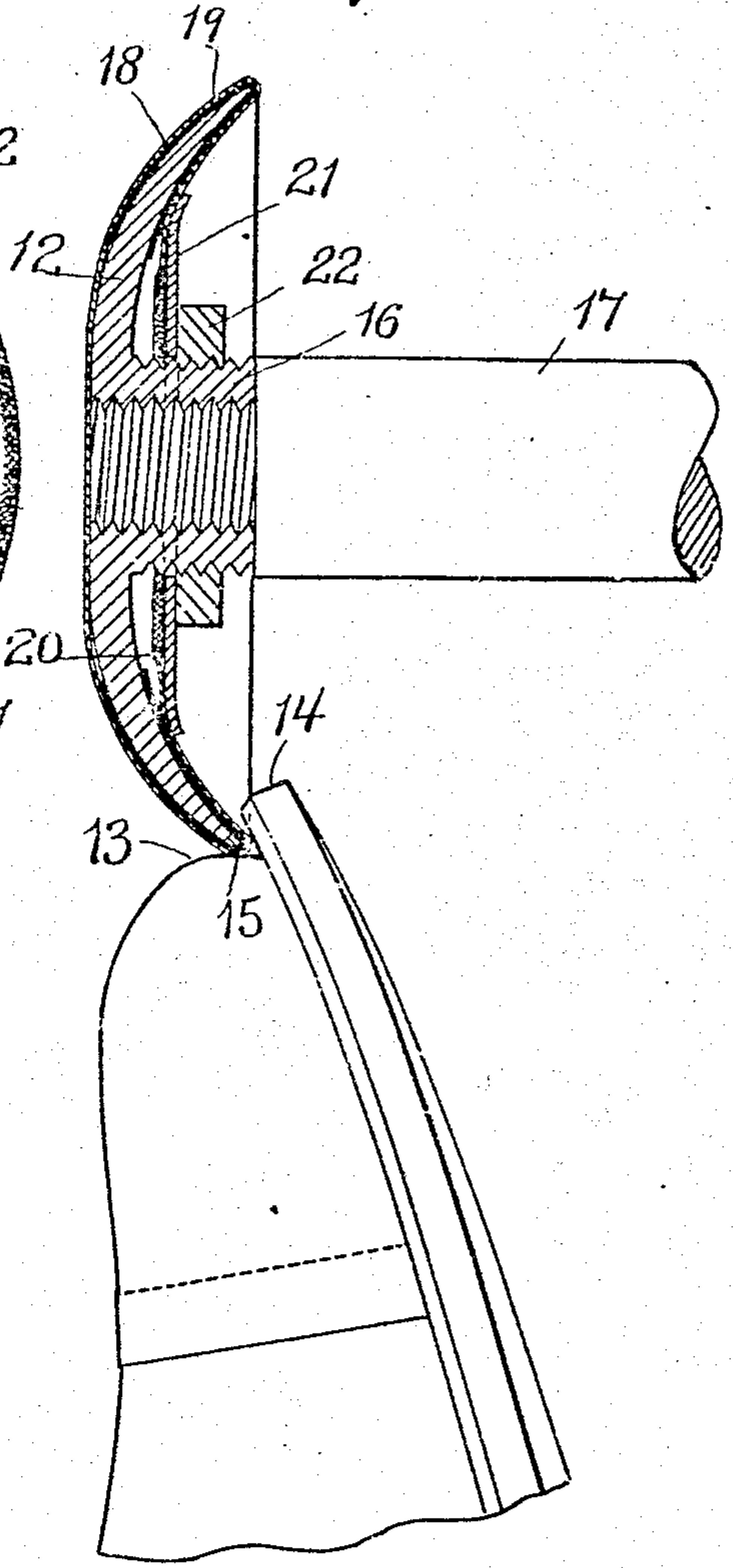
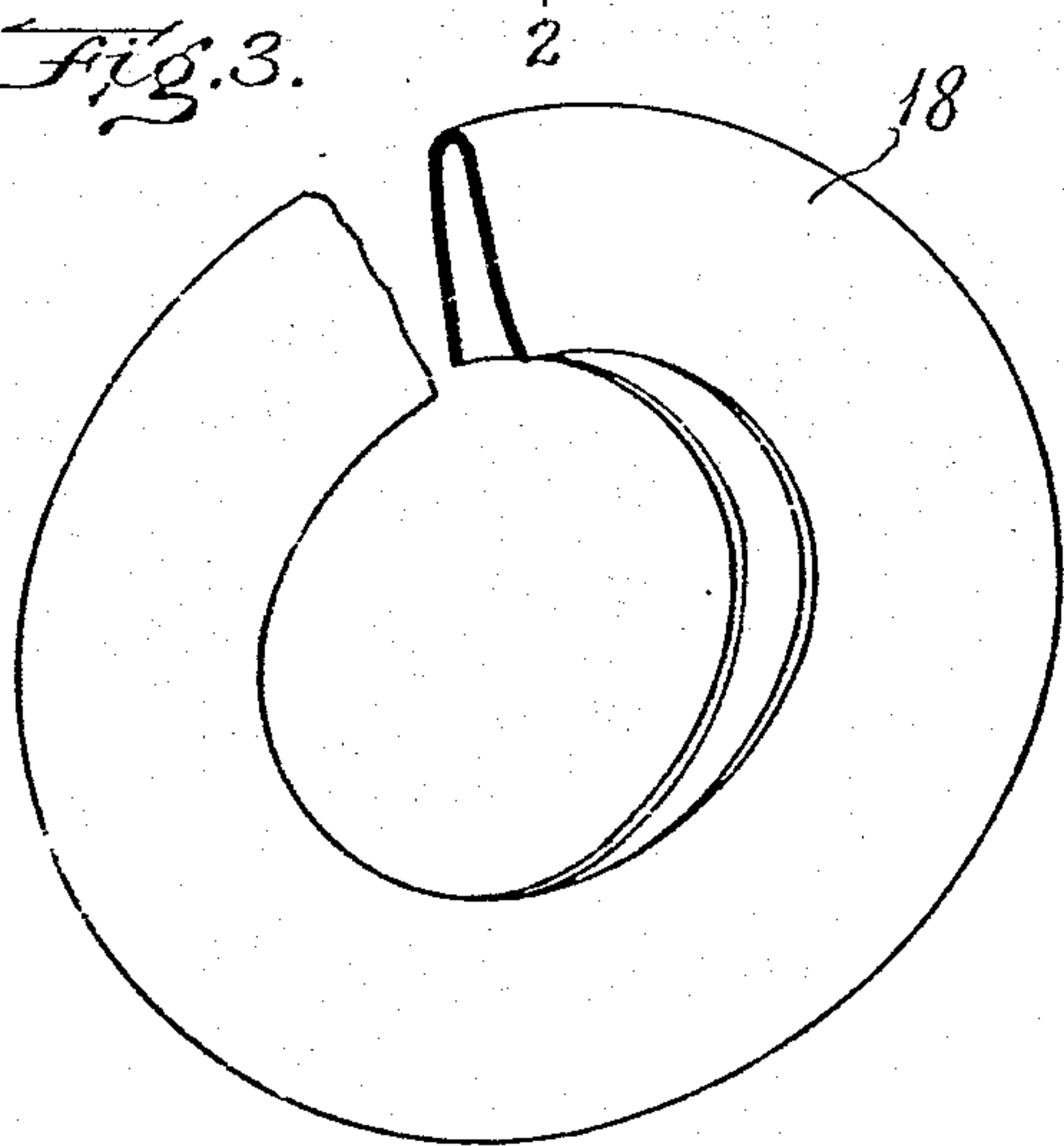


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM WINSLOW CROOKER, OF EVERETT, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO HENRY C. LITTLE, OF WEST NEWTON, MASSACHUSETTS.

BUFFING-WHEEL.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM WINSLOW CROOKER, of Everett, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Buffing-Wheels, of which the following is a specification.

This invention has for its object to provide a rotary tool adapted to enter the crease between the welt and upper of a boot or shoe for the purpose of removing from the portion of the upper which forms one side of the crease the enamel surface of the upper when the latter or any part thereof is made of so-called patent leather. In repairing cracks in patent leather extending into the crease between the upper and sole or welt, it is necessary to remove the glaze or enamel in which the crack is formed and to denude the upper, not only along the crack, but on both sides thereof.

The tool or appliance embodying my invention as hereinafter described, is adapted to enter the above-mentioned crease and denude any desired portion of the upper, forming one side of the crease without injury to the upper, or to the portion of the sole or welt forming the opposite side of the crease.

The invention consists in the improved tool or appliance hereinafter referred to as a buffing wheel, which I will now proceed to describe and claim.

Of the accompanying drawings which form a part of this specification,—Figure 1 represents a side view of my improved buffing wheel, taken from the inner side thereof and showing in section the shaft on which the wheel is mounted. Fig. 2 represents a section on line 2—2 of Fig. 1. Fig. 3 represents a perspective view of the compressible pad hereinafter referred to, forming a part of the buffing wheel.

Similar reference characters indicate the same or similar parts in all the figures.

In the drawings, 12 represents a rigid disk of any suitable material, preferably aluminum or other metal, the disk being dished so that it has a projecting side and a recessed side, the former being preferably convex and the latter concave, as shown by Fig. 2. The sides of the disk converge from the center toward the periphery, so that the latter is reduced to a relatively thin edge adapted to enter the crease between the up-

per 13 and the sole 14 of a boot or shoe. The disk is provided centrally with a hub 16 which projects from the recessed side of the disk and is internally threaded to engage the threaded portion of a rotary shaft 17 which imparts rotation to the disk.

18 represents an annular pad of compressible elastic material, preferably rubber, said pad being substantially V shape in cross section and adapted to bear on the outer and inner sides of the disk and to cover the periphery of the same, the elasticity of the pad being such that it is adapted to be sprung into place upon the disk.

19 represents a flexible cover of any material suitable for the removal of the glaze from patent leather, the preferred material of the cover being textile fabric such as cotton duck or canvas. The cover is preferably composed of a single substantially circular sheet of greater diameter than the disk, the margin of the cover being preferably provided with a gathering cord or string contained in a pocket formed by hemming the margin of the cover and adapted to contract the marginal portion of the cover and hold the cover bent or folded across the margin of the pad and disk. The central or body portion of the cover is placed against the projecting side of the disk and covers the same, the marginal portion of the cover being folded across the edges of the pad and disk and then contracted by suitably manipulating the tying cord 20.

21 represents an annular clamping plate which is adapted to surround the hub and is movable thereon toward and from the recessed side of the disk, the outer edge of the clamping plate being adapted to bear on the contracted marginal portion of the cover and press the latter, together with the corresponding portion of the pad 18 against the inner side of the disk.

22 represents a nut which is engaged with an external screw thread formed on the hub 16 and is adapted to force the clamping plate 21 toward the inner side of the disk to cause the clamping plate to secure and confine the inwardly turned marginal portion of the cover. The clamping plate 21 and nut 22 constitute simple and effective means for detachably securing the cover in its proper position on the disk, the said plate and nut being removable from the

disk to permit the application of the cover thereto.

The described appliance is particularly adapted to remove the glaze from patent leather at one side of a crease as stated, the cloth cover acting when the appliance is rapidly rotated to quickly remove the glaze without injuring the grained surface of the leather on which the glaze or enamel coating is formed. The pad 18 forms a yielding support for the portion of the cover which acts on the upper leather and also yieldingly supports the portion of the cover which is in rubbing contact with the welt or sole so that the latter is not injured or abraded.

In practice, the glaze on the upper leather, is rendered brittle by applying a volatile solvent such as acetone to the portion of the glaze which is to be removed, just before the operation, the solvent rendering the glaze brittle so that it is adapted to be quickly abraded and removed by the cloth cover. Said cover is not an abradant of the grained surface of the upper leather nor of the grained surface of the welt against which the cover rubs during the operation.

It is obvious that the described appliance may be used for other purposes requiring the application of a rubbing surface to one or both sides of the crease between a boot or shoe upper and a welt or inner sole. It is also obvious that any other suitable means

may be employed in securing the cover in its working position.

I claim:

1. A buffing wheel comprising a disk of rigid material having a thin periphery and dished to form a projecting side and a recessed side, an elastic annular pad substantially V shaped in cross section and adapted to bear on the rigid periphery and portions of the sides of the rigid disk, a flexible cover formed to bear on the external surface of the pad, and means for detachably securing the cover to the disk.

2. A buffing wheel comprising a disk having a thin periphery and dished to form a projecting side and a recessed side, an elastic annular pad substantially V shaped in cross section and adapted to bear on the periphery and portions of the sides of the disk, a cover composed of a sheet of flexible material formed to cover the projecting side of the disk and the pad, the margin of the cover being adapted to conform to the recessed side of the disk, a clamping plate adapted to enter the said recessed side and means for pressing the plate toward the disk to secure the cover in place.

In testimony whereof I have affixed my signature, in presence of two witnesses.

WILLIAM WINSLOW CROOKER.

Witnesses:

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