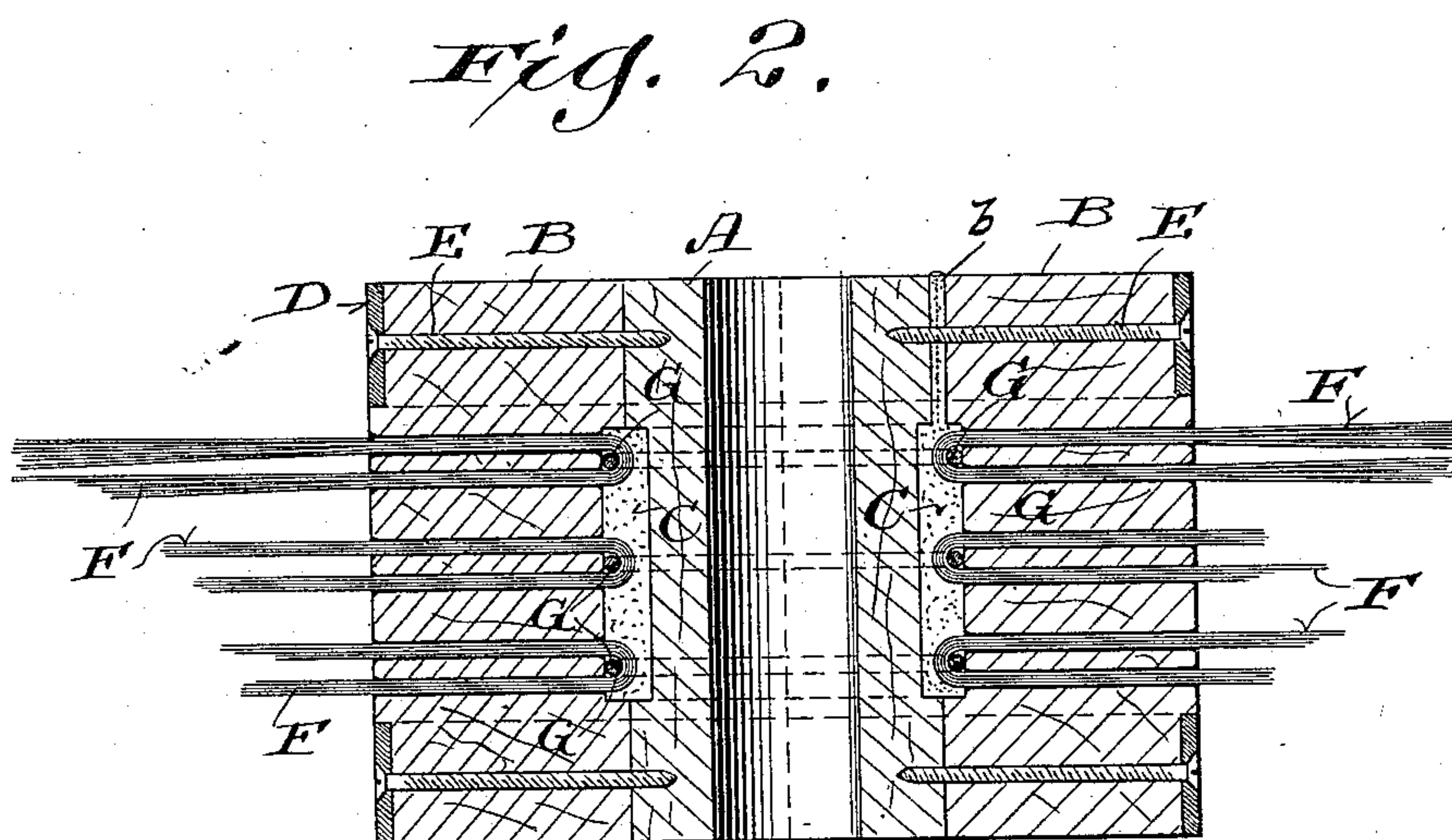
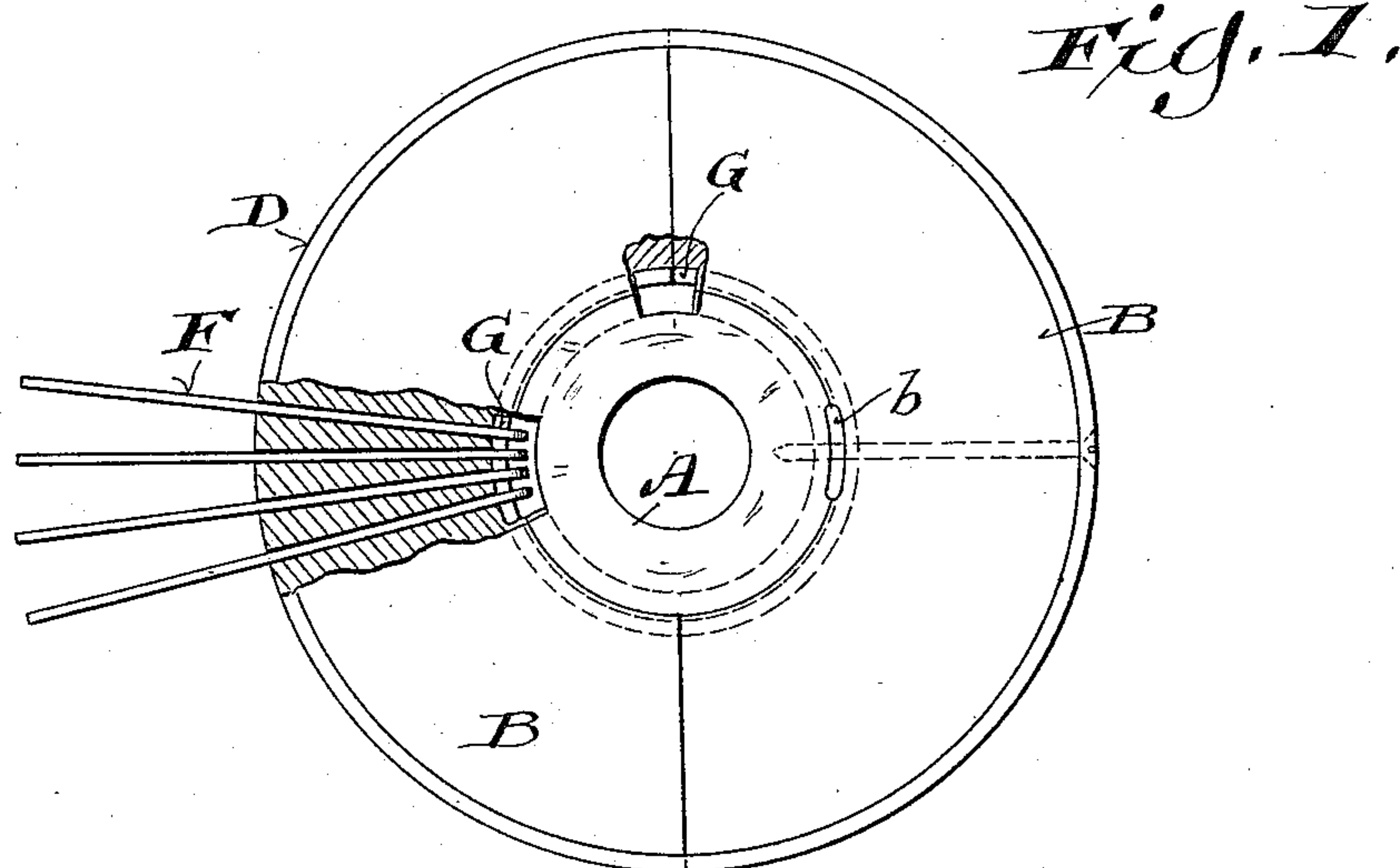


(No Model.)

J. P. WIENS.
METAL CLEANING BRUSH.

No. 574,972.

Patented Jan. 12, 1897.



Witnesses:
Geo W. Young
H. E. Oliphant

Inventor:
John P. Wiens
By H. G. Underwood
Attorney

UNITED STATES PATENT OFFICE.

JOHN P. WIENS, OF MILWAUKEE, WISCONSIN.

METAL-CLEANING BRUSH.

SPECIFICATION forming part of Letters Patent No. 574,972, dated January 12, 1897.

Application filed May 25, 1896. Serial No. 593,068. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. WIENS, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Metal-Cleaning Brushes; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide a simple, economical, and non-crystallizing wire brush for cleaning metal castings; and it consists in certain peculiarities of construction and combination of parts hereinafter set forth with reference to the accompanying drawings and subsequently claimed.

In the drawings, Figure 1 represents a side elevation of a rotary metal-cleaning brush constructed according to my invention and partly broken away. Fig. 2 represents a sectional view of the brush.

Referring by letter to the drawings, A represents a center block, herein shown in the form of a shaft-bushing. This center block is turned down midway of its length to form an annular groove that registers with corresponding concave recesses cut in the inner faces of hub-sections B to form an annular chamber for a filling C of lead or solder poured through a runner-opening *b* intermediate of the center block and one of said sections. The hub-sections B are non-metallic, wood being the preferred material, and while but two of these hub-sections are shown their number may correspond with any arbitrary division of a circle.

The ends of the hub-sections are shown turned down to receive stay-bands D, that come flush with the remaining face of the hub and are also shown held in place by screws E, run through the same and said hub-sections into the center block above specified.

The hub-sections B are bored radially to provide openings in pairs at suitable intervals circumferentially of said sections, the dimensions of the hub and the series of paired openings being such as may be found necessary or desirable. Run through each pair of the radial openings is a series of preferably flat spring-wires F, the latter being looped on a stay-wire G, laid in against the concave portion of the corresponding hub-section.

The wires F and G being properly assembled in connection with the hub-sections B, the latter are in turn assembled on the center

block A and then secured by the stay-bands D and screws E, after which the filling C of lead or solder is poured in the chamber provided for the same, this operation completing the brush.

In practice the brush is made fast to a power-driven shaft or clamp, and flat spring-wires being preferably employed for the strands of said brush they are set so as to come edgewise on the castings to be cleaned, whereby the best results are attained, these wires or strands being of any suitable length.

Inasmuch as the wire brush-strands are not strained against metal where they project from the hub, they do not crystallize and break off, as would be the case were the hub-sections of metal. Hence the brush will last and be effective until said strands are worn down to mere stubs.

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

1. A metal-cleaning brush comprising a center block provided with an annular groove, segmental non-metallic hub-sections having their inner faces provided with concavities registering with the aforesaid groove to form a chamber, looped spring-wires run through radial openings arranged in plural series of pairs circumferentially of the hub-sections, stay-wires arranged in the loops of those aforesaid against the concavities of said hub-sections, stay-bands on the aforesaid hub-sections, screws run through the stay-bands and hub-sections into the center block, and a filling of lead or solder in said chamber.

2. A brush comprising a center block and non-metallic segmental hub-sections cut out to form an intervening chamber when assembled and bound together, each hub-section being provided with radial openings in plural series of pairs circumferentially thereof; stay-wires in said chamber circumferentially of the same, spring-wires looped on the stay-wires and extended through said openings, and a filling of lead or solder in the aforesaid chamber.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

JOHN P. WIENS.

Witnesses:

N. E. OLIPHANT,
H. ROLOFF.