

(No Model.)

H. R. FRISBIE.

SCRATCH BRUSH.

No. 376,800.

Patented Jan. 24, 1888.

Fig. 1

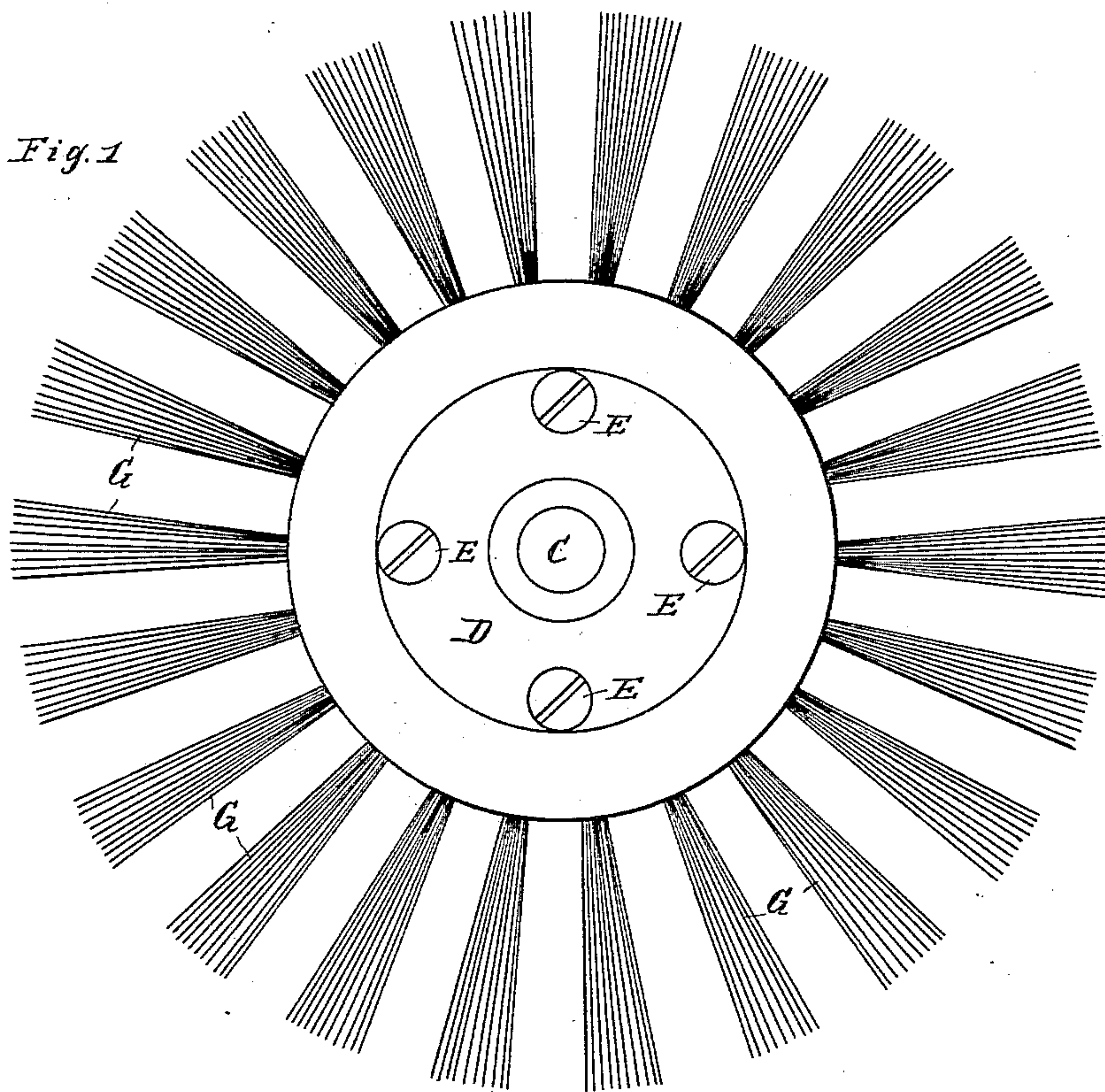


Fig. 2

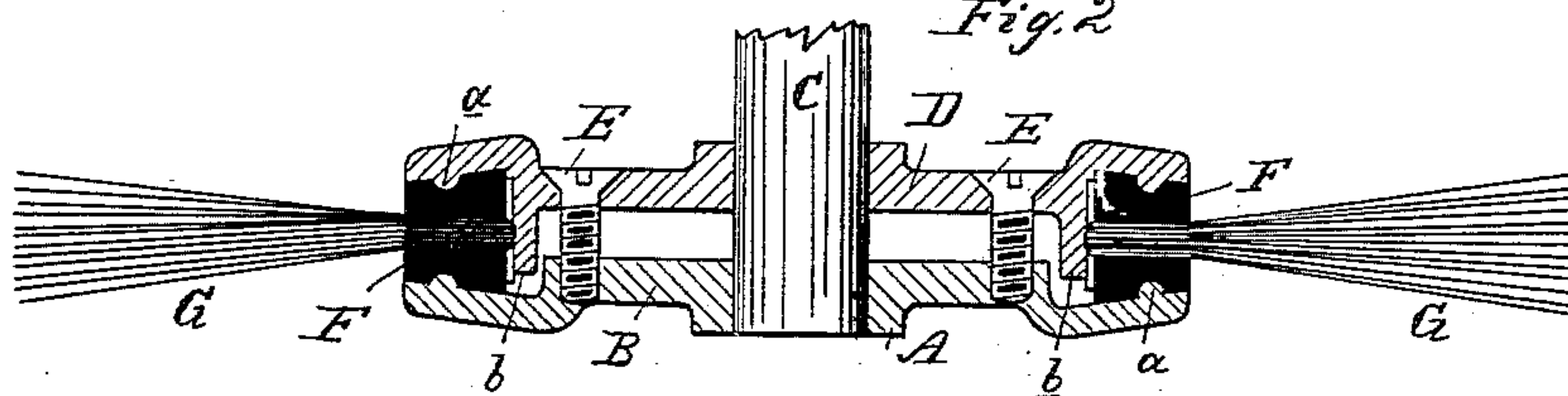
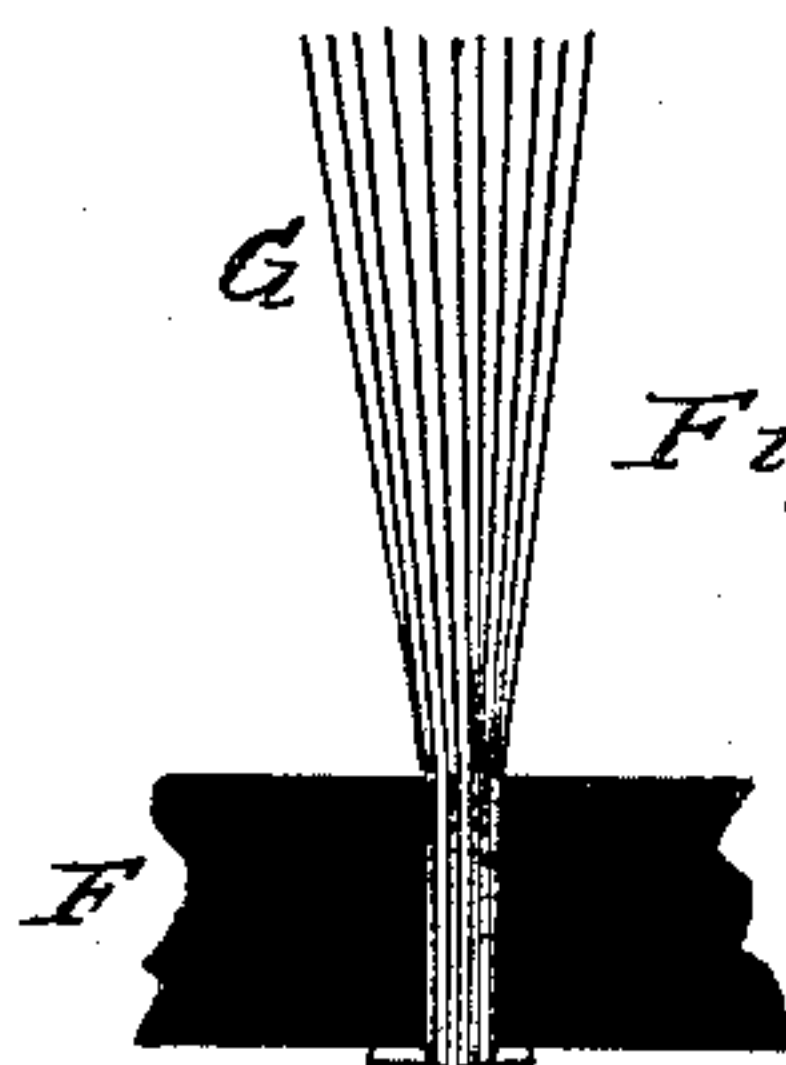


Fig. 3



Attest:
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By his Atty
Wm. S. Sprague

UNITED STATES PATENT OFFICE.

HENRY R. FRISBIE, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO
THE DETROIT PATENT BRUSH COMPANY, OF SAME PLACE.

SCRATCH-BRUSH.

SPECIFICATION forming part of Letters Patent No. 376,800, dated January 24, 1888.

Application filed February 3, 1887. Serial No. 226,354. (No model.)

To all whom it may concern:

Be it known that I, HENRY R. FRISBIE, of Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Scratch-Brushes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in what are technically termed "scratch-brushes," adapted for the cleaning of metal surfaces from sand, &c.

The invention consists in the peculiar construction and combination of the various parts, as more fully hereinafter described and claimed.

Figure 1 is a side elevation of my improved scratch-brush. Fig. 2 is a central cross-section of the same. Fig. 3 is a detached section of the rubber base of the brush.

In the accompanying drawings, which form a part of this specification, A represents the hub of the wheel, such hub being formed by two bosses, one of them being a part of what may be termed a "fixed jaw," B, for such it becomes when secured to the shaft C. The other boss is formed upon the movable jaw D, and the two jaws are secured together by set-screws E, and when thus fastened together they become the rim of a wheel. Upon the interior faces of both these jaws, and extending the whole distance around the wheel, as shown, there are formed projections *a*, care being taken that they are so situated with relation to each other when the parts are in place that such bosses are immediately opposite each other, for the purpose hereinafter explained. The inner faces of the two jaws are converging from an interior point, to assist the projections in performing their function.

F is a rubber ring, preferably rectangular in cross-section, and this ring is perforated at regular intervals to receive the bunches of wire G, which form the brush proper. These bunches are made by bending a number of lengths of wire in the middle, and then forcing such bight of the wire through one of the perforations in the ring, and so on until all the perforations are filled. While the natural

spring of the rubber will generally hold these in place, they may be secured in any of the known ways of securing bristles in an ordinary brush-head. The ring thus forming the brush-head is ready for use. In order to put it to use, the movable jaw is removed and the ring put in position in contact with the fixed jaw, when the movable jaw is moved up against the opposite side of the ring and the two jaws secured together by the set-screws, thereby compressing the ring into the form of the interior face of the jaws and holding the wire brushes rigidly in place, and at the same time allowing a sufficient elasticity at the periphery of the ring to prevent the accidental breaking of the wires at that point when the brush is in active and rough use. In order to render the better service, it is preferable that the movable jaw be cast with an annular ledge, *b*, which forms a point of resistance for the interior end of the bight of the wire brushes and prevents the giving in that direction and under pressure of the elastic rubber ring.

What I claim as my invention is—

1. The combination, with the jaw B, provided with inwardly-extending projections, and the removable jaw D, provided with like projections, of the rubber ring carrying the wires G and held between the outer ends of said jaws, substantially as described.

2. The combination, with the jaws B D, formed with projections *a* and having their inner faces converging from an interior point, of the rubber ring F, carrying the wires G and secured between the converging faces of said jaws, substantially as described.

3. The combination, with the shaft C and the jaw B, fixed thereon and formed with projections *a*, of the movable jaw D, formed with projections *a* and annular ledge *b*, the inner faces of said jaws converging from the shaft outwardly, and the rubber ring F, carrying the wires G and held between the converging faces of said jaws, substantially as and for the purpose specified.

HENRY R. FRISBIE.

Witnesses:

H. S. SPRAGUE,
E. T. SCULLY.