(Model.)

# M. LEINER.

## BRUSH.

No. 582,478. Patented May 11, 1897.

FIG. 1.

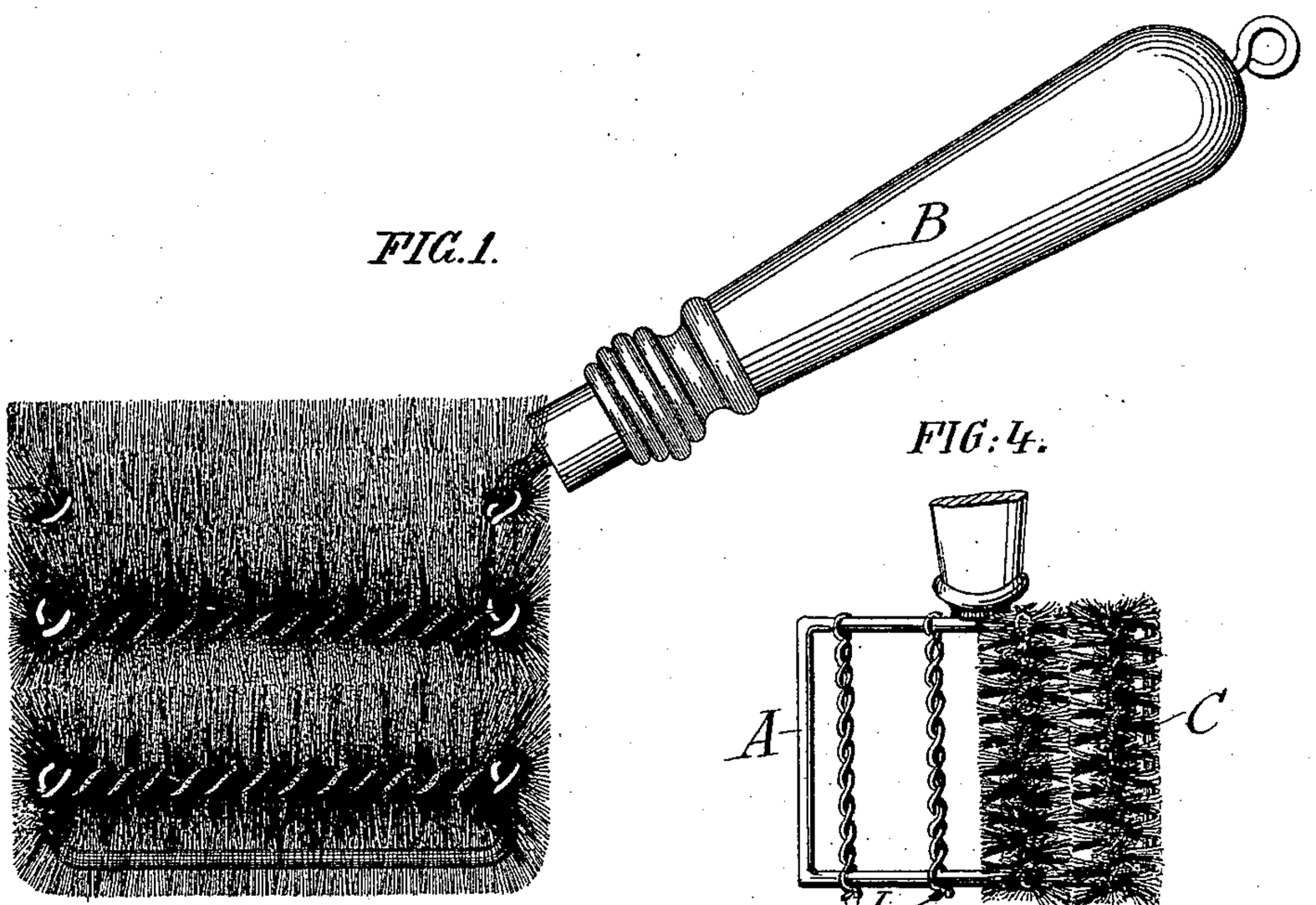


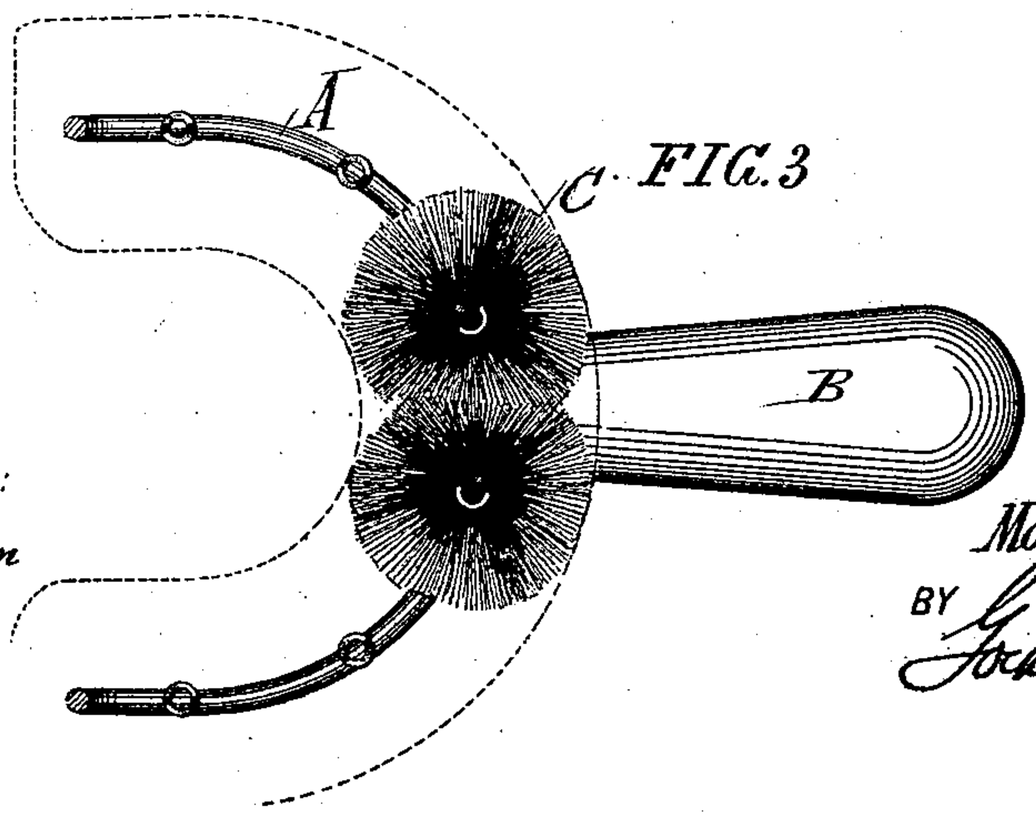

FIG. 4.




FIG. 2.




FIG. 3




WITNESSES:

Bruno von Bültzingslöwen

O. L. Earl.

INVENTOR

Moritz Leiner

BY Fowler & Waegener

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

MORITZ LEINER, OF NEW YORK, N. Y.

## BRUSH.

SPECIFICATION forming part of Letters Patent No. 582,478, dated May 11, 1897.

Application filed January 13, 1897. Serial No. 619,021. (Model.)

*To all whom it may concern:*

Be it known that I, MORITZ LEINER, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Brushes, of which the following is a specification.

This invention relates to certain improvements in brushes of that kind in which the body of the brush is formed of a number of parallel brush sections formed of bristles supported by twisted wires, which style of brushes can be used for a number of different purposes.

The invention consists of a brush formed of a round or flat metal frame of any desired shape, to which are attached transverse brush-sections formed of radial bristles supported by twisted wires, said main frame being provided with a suitable handle either attached thereto or made integrally therewith, as will be described hereinafter and finally pointed out in the claim.

In the accompanying drawings, Figure 1 shows one form of my improved brush adapted to clean round objects, such as bicycle-tires, spokes, tubing, &c. Fig. 2 is a top view of the same, showing some of the sections of the brush removed. Fig. 3 is an end view of the brush, also with some of the sections of the brush removed.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the main frame of my improved brush, which is preferably made of straight or curved shape and formed of metallic wire of suitable thickness, made to overlap at the ends or inserted into a wooden handle B, or bent in such a manner as to form a handle integral with the main frame A. The main frame A must be of sufficient strength to support the required number of brush-sections and capable to resist the pressure exerted on the same. To the main frame A are attached a number of parallel brush-sections C, which are formed of twisted wires *d d*, between the convolutions of which bristles are supported in a radial direction. The brush-sections are made in the well-known manner by placing the bristles in position while the supporting-wires are twisted around each other. The brush-sections C are made of required length, so as to be applied to the main frame, the ends of the twisted wires being twisted tightly on the main frame, so that the brush-sections C are firmly held in position thereon. The twisted ends are rounded over the wire of the main frame so that no projecting points can be felt or seen. The parallel brush-sections C are preferably arranged close together, so that a continuous brush is obtained, which can be made of almost any shape and size, according to the purpose for which the brush is required.

It is obvious that the number of brush-sections may be varied in accordance with the shape of the frame or the nature of the work to be done. It will also be observed that the brush-sections may readily be removed by simply untwisting the wire ends, by which they are attached to the frame, thus permitting worn brush-sections to be replaced.

As no wooden back is necessary the brush can be used on both sides with equal facility. The dust and dirt can be readily removed after use by simply striking the brush against a suitable object, while the brush will quickly dry after being moistened. The brush-frame can be made in any suitable shape, either oblong, arc-shaped, or U-shaped. The drawings show the brush-frame bent in the shape of a U, so that it can be used for cleaning round or hollow articles, such as bicycle-tires, spokes, or hollowware.

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

A brush, composed of a double arc-shaped wire frame formed of a single wire bent at its center into the shape of an arc, then inwardly a short distance and then back parallel with the said arc, and the ends of the wire brought together and bent at an angle to said arc and secured in a suitable handle, and parallel brush-sections connecting the two parallel arc portions of the said frame, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

MORITZ LEINER.

Witnesses:
PAUL GOEPEL,
G. S. LEINER.