No. 638,762.

Patented Dec. 12, 1899.

## J. SCHOPP. BRUSH.

(Application filed Oct. 31, 1898.)

(No Model.)

Fig:3

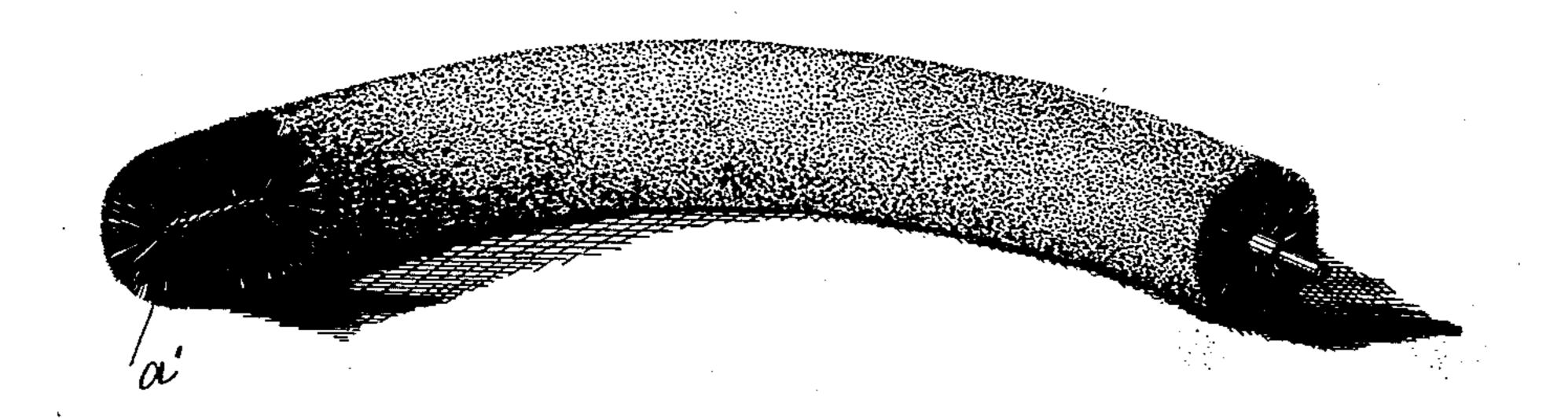
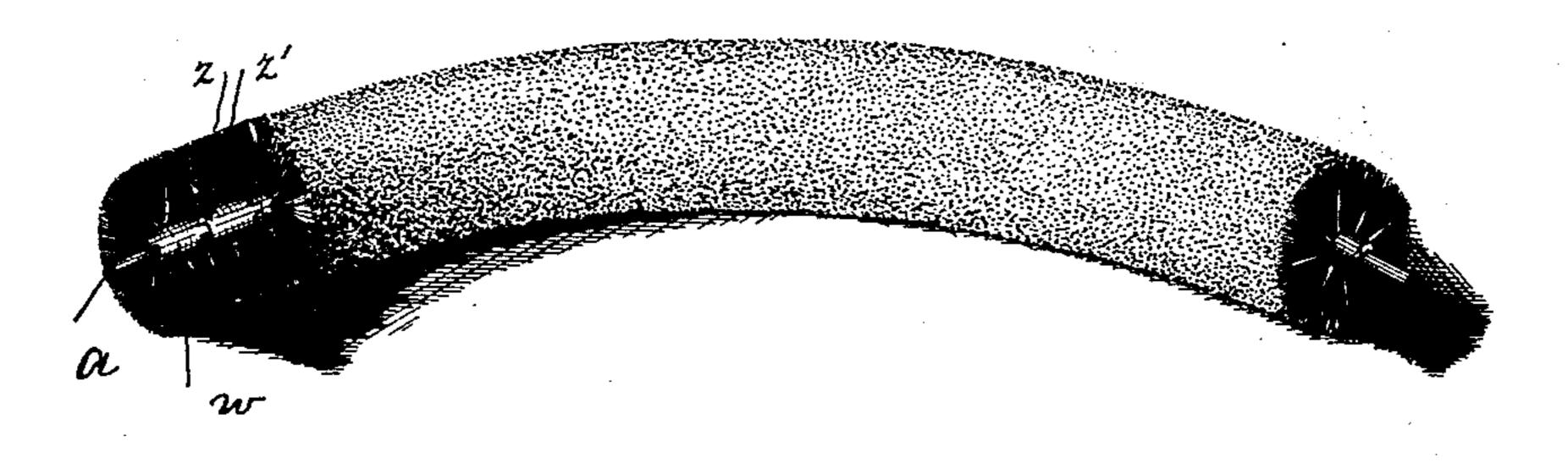
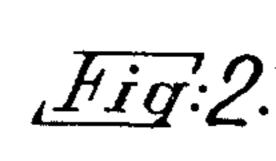
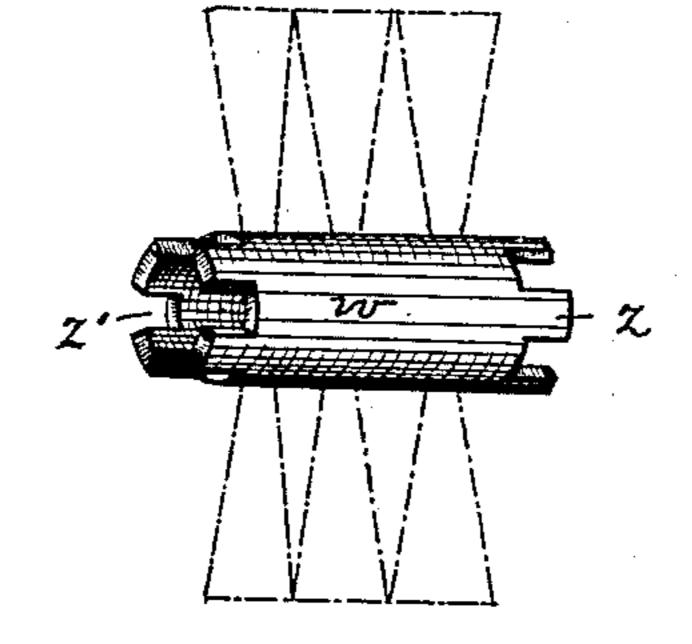


Fig:1.







William Shiller. William Schulz.

Foliann Schopp per Roeder & Brieren, Attorneye.

## United States Patent Office.

JOHANN SCHOPP, OF DUSSELDORF, GERMANY.

## BRUSH.

SPECIFICATION forming part of Letters Patent No. 638,762, dated December 12, 1899.

Application filed October 31, 1898. Serial No. 695,005. (No model.)

To all whom it may concern:

Be it known that I, JOHANN SCHOPP, a citizen of Germany, and a resident of Dusseldorf, Germany, have invented certain new and use-5 ful Improvements in Brushes, of which the following is a specification.

This invention relates to an improved brush for a street and road sweeping machine which collects the dirt in the center of the 10 path of the machine, so as to be more readily removable.

In the accompanying drawings, Figure 1 is a perspective view of my improved brush; Fig. 2, a detail of one of the rings w, and Fig. 15 3 a perspective view of a modification of the brush.

The letter a represents the curved fixed brush-axle of the street-sweeper, which is arched rearwardly from both ends toward the 20 center.

The axle a is surrounded by a hollow curved shaft, to which the bristles or other sweeping devices are secured. This hollow shaft is composed of a series of rings w, that interlock at 25 their edges by means of tongues z and grooves z'. Thus the entire shaft is made flexible or jointed, and motion imparted to one of the i

rings will be transmitted to all of the other rings.

The brush is driven at one or both ends in 30 a suitable manner and will collect the dirt and dust along the center of the path of the machine, from whence it may be readily raised and dumped into the cart by a conveyer.

If desired, the shaft may be composed of a 35 continuous flexible cable a', Fig. 3, curved to a greater or less degree.

What I claim is—

1. A street-sweeping machine provided with a curved brush-axle, and a brush having a 40 flexible shaft that is revolubly mounted upon said axle, substantially as specified.

2. A street-sweeping machine provided with a fixed curved brush-axle, and a brush having a shaft composed of a series of interlock- 45 ing rings that are revolubly mounted upon said axle, substantially as specified.

Signed by me at Dusseldorf, Germany, this 13th day of October, 1898.

JOHANN SCHOPP:

Witnesses:

WILLIAM ESSENWEIN, GEO. P. PETTIT.