No. 711,141. Patented Oct. 14, 1902.

A. R. WIENS.

BRUSH.

(Application filed July 20, 1901.)

(No Model.)

Fig. 2.

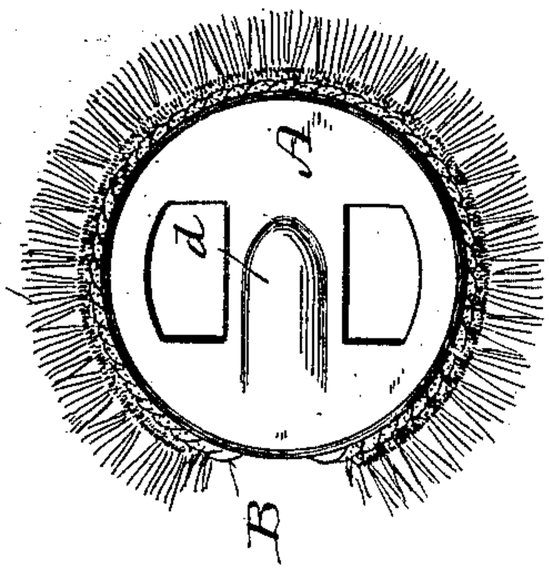


Fig. 4.

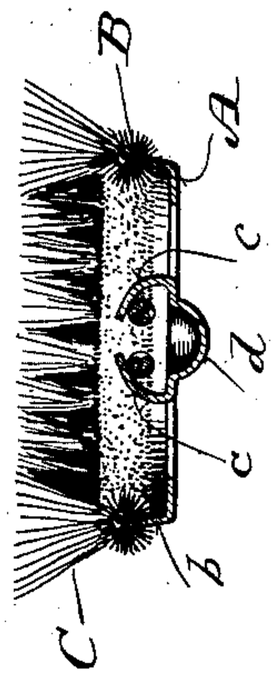


Fig. 1.

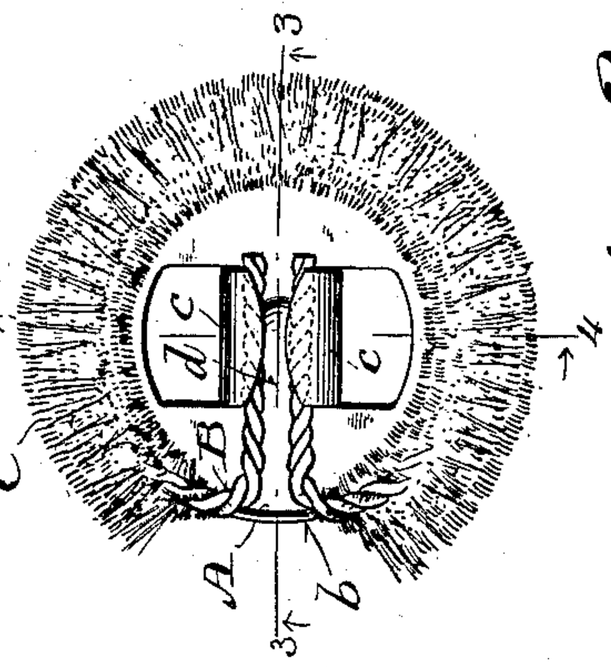
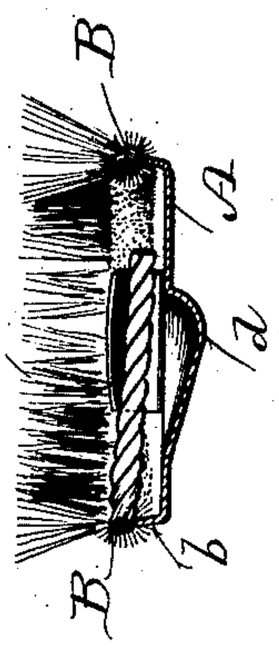


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

ADOLPH R. WIENS, OF MILWAUKEE, WISCONSIN.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 711,141, dated October 14, 1902.

Application filed July 20, 1901. Serial No. 69,013. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH R. 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 Brushes; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to brushes of that class employed in connection with shaking-sieves comprising screen-cloth tops and woven-wire bottoms, the object being to automatically clean the screen-cloth. Hence said invention consists in certain peculiarities of construction and combination of parts hereinafter particularly set forth with reference to the accompanying drawings and subsequently claimed.

Figure 1 of the drawings represents a plan view of my improved brush; Fig. 2, a similar view of the same inverted; and Figs. 3 and 4, sectional views of said brush, respectively indicated by lines 3 3 and 4 4 in the first figure.

Referring by letter to the drawings, A indicates a sheet-metal disk having an upper annular flange *b*, a pair of struck-up transverse tongues *c* bent in toward each other, and an elongated gradually-deepened outwardly-convex end depression *d*, radially alined and receding from its greatest depth into the horizontal surface of the disk, this depression being midway of the tongues and deepest central of said disk, where it is preferably conical, but blunt at the point. The form of depression may be other than that herein set forth, and the disk, with or without a depression of any kind, constitutes the brush back or bottom. Over the edge of the disk flange is an annularly-bent core B, of twisted wires, holding the bristles C of the brush, the ends of the core being turned in parallel to each other under the disk tongues *c*, that clamp said core in place. The bristles C of the brush are longest upward from core B to attack screen-cloth of a shaking-sieve, and where they are shortest outward from said core they become felted by impact of said brush against the sieve-frame, whereby a cushion is formed that prevents wear of said frame. It is also to be understood that the twisting and bending of the wires in the brush-core results in the attainment of a sufficient amount of elasticity to compensate for shock that would be otherwise the case from impact of the brush against the sieve-frame.

The brush is supported on the woven-wire bottom of a shaking-sieve, and owing to the peculiar form of back depression, above specified, said brush has combined rocking and rotary motion in flight over said bottom when the sieve is in operation, whereby the best cleaning results of the bristles in contact with the screen-cloth of said sieve is attained, it being understood that the motion of the aforesaid sieve causes automatic flight of said brush and that this flight is erratic, the brush-bristles working through the meshes of said screen-cloth of the sieve to keep them free and open.

While I have shown a preferred mode of connecting the back disk and core of the brush, it is possible to vary the same without departure from my invention in its most generic sense.

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

1. A shaking-sieve brush having a disk-like back or bottom formed with struck-up transverse tongues, an annularly-bent elastic core of twisted wires arranged horizontally on the disk and having inturned ends clamped against said disk under the tongues of same, and bristles held by the twisted core-wires.

2. A shaking-sieve brush having a disk-like back or bottom formed with an upper annular flange, an annularly-bent elastic core of twisted wires held in connection with the disk to overlie the flange of same, and bristles held by the twisted core-wires.

3. A shaking-sieve brush having a disk-like back or bottom formed with an upper annular flange and a central depression, an annularly-bent elastic core of twisted wires held horizontally on the disk to overlie the flange of same, and bristles held by the twisted core-wires.

4. A shaking-sieve brush having a disk-like back or bottom formed with an elongated gradually-deepened outwardly-convex and rounded end depression diametrically thereof, an annularly-bent elastic core of twisted wires held horizontally on the disk, and bristles held by the wires.

5. A shaking-sieve brush having a disk-like back or bottom formed with struck-up transverse tongues, a depression between the tongues and an upper annular flange, an annularly-bent core of twisted wires arranged over the disk flange and having inturned ends clamped against the disk under its tongues, and bristles held by the twisted core-wires.

6. A brush for shaking-sieves having a disk-like back or bottom formed with an elongated projection radially alined and receding from its greatest depth into the horizontal surface of said back or bottom.

7. A shaking-sieve brush the back of which consists of a disk provided with a central depression, an annularly-bent elastic core of twisted wires held horizontally on the disk, and bristles held by the core-wires to radiate therefrom in different lengths, the greater lengths of these bristles being uppermost to attack screen-cloth of a sieve whose frame opposes the outer lesser lengths of said bristles that become felted by impact against said frame to thereby form a cushion.

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.

ADOLPH R. WIENS.

Witnesses:
N. E. OLIPHANT,
B. C. ROLOFF.