

(No Model.)

O. BRUNELLE.

SCOURING, SCRATCHING, AND BUFFING WHEEL.

No. 285,222.

Patented Sept. 18, 1883.

Fig. 1.

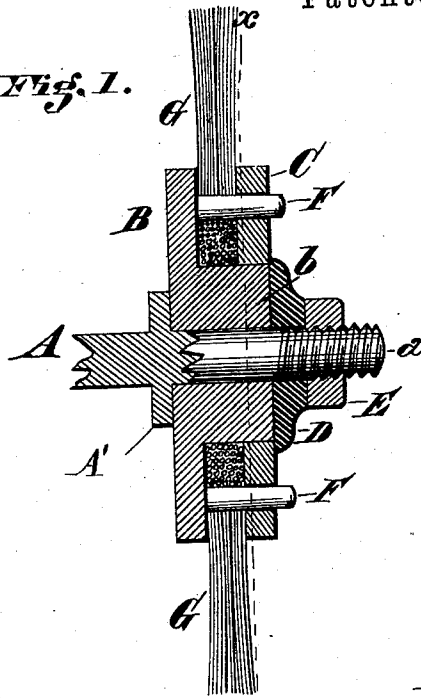
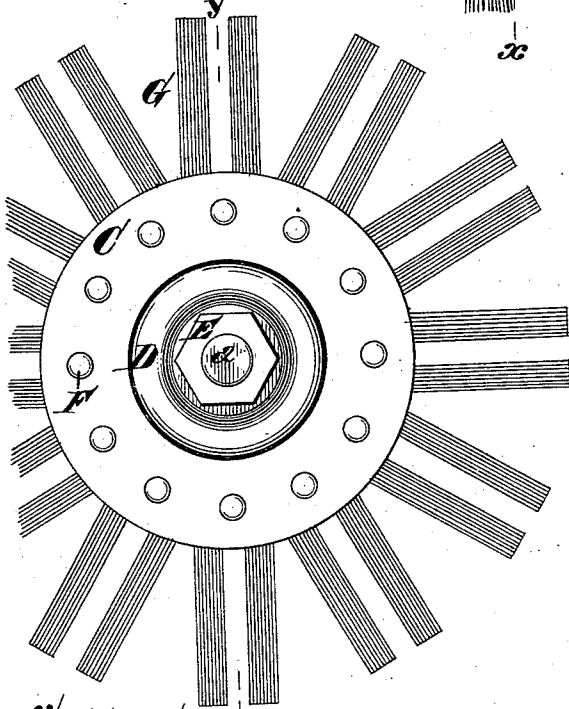
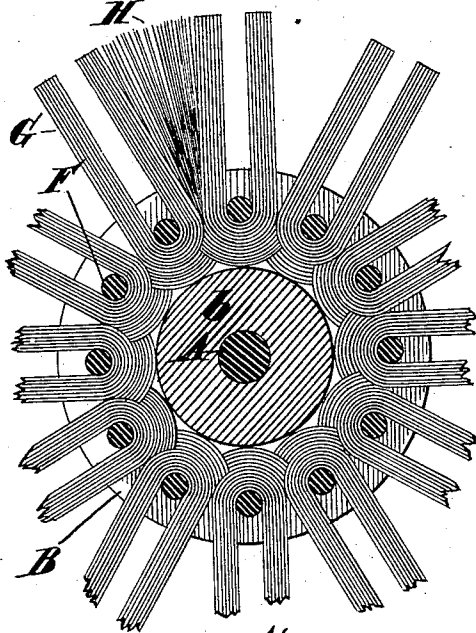


Fig. 2.



Attest
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Fig. 3.



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UNITED STATES PATENT OFFICE.

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SCOURING, SCRATCHING, AND BUFFING WHEEL.

SPECIFICATION forming part of Letters Patent No. 285,222, dated September 18, 1883.

Application filed July 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, ONÉSIME BRUNELLE, a subject of the Queen of Great Britain, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Scouring, Scratching, and Buffing Wheels, of which the following is a specification.

My invention relates to an improvement in a buffing and scouring wheel, the object of which is to provide a device for cleaning and scouring castings and other metals, also for polishing and buffing the work, all of which will be fully explained in the description of the accompanying drawings.

Figure 1 is a central vertical section of my improvement on line *y y*, Fig. 2. Fig. 2 is a front elevation of the same. Fig. 3 is a sectional elevation on line *x x*, Fig. 1, with the front disk removed.

In cleaning castings or similar material preparatory to electroplating or other treatment, wire has been used, and great difficulty has been experienced in its use, owing to the breaking of it; also, by the rapid wearing of the wires, the cleaning-wheel soon becomes worn out.

I have devised an improved method of constructing the cleaning and polishing wheel, which holds the wires in a better manner and prevents their liability of breaking off in use. My invention also allows the wires to be easily replaced, which is accomplished by means of a removable disk, which also may be adjusted to any regulated thickness of wheel employed.

A represents the driving-shaft, upon which the disks of the wheel are mounted.

B represents a metallic disk, which is provided with a hub, *b*, which may be keyed to the shaft, if desired, to provide greater security against the disk and its hub rotating on the shaft.

C represents a removable disk, which is pierced at the center with an eye, which fits upon hub *b* of disk B.

D represents a washer, and E a nut tapping upon the spindle *a*, for securing the disk C in position on the hub *b*, and the washer and nut also serve to clamp the disk B against the col-

lar *A'* on the shaft. The washer D may be grooved out, so as to fit over hub *b*, having an annular exterior flange meeting against the surface of disk C, so as to allow a closer adjustment of the said disk; but the form herein shown is the best.

F represents a circular series of pins, which are rigidly secured to the disk B.

Disk C is provided with a circular series of holes, into which the pins F project when the two disks are put together, as shown.

G represents a bundle of wire strands, which are looped around the pins F. The pins being round and the bundles G being made to fill the space between the pins furnish a very superior means of holding the wire and avoiding danger of its breaking. As the strands of one bundle assist to support the strands of another bundle, they each form a flexible support for the other, avoiding a rigid clamp or bight of any particular portion of the wire near the holding-point, and allow the wires to yield under the pressure to which they are subjected in use without danger of breaking. These strands assume the position shown at H, Fig. 3, when they are subjected to pressure for acting on the surface of metals. When the wires are worn out, they can be readily replaced at small cost and a great saving effected. The disks and pins and mode of attaching them to the shaft may be employed in the application of the wheels as buffing-wheels, and flexible fibrous materials—such as twines—looped around the pins, instead of the wires, and such a construction would be included in the second clause of claim herein. The wires and twines, in the motion of the wheel, are caused by centrifugal force to move radially therefrom, thus presenting at the point of contact with the object to be polished or scoured a long flexible semi-yielding scouring-surface.

I claim—

1. A scouring or polishing wheel composed of a shaft, A, fixed disk B, series of pins F, disk C, bundles of flexible wires G, looped around the pins, and means for confining the disks on the shaft, substantially as described.
2. A polishing-wheel composed of a shaft, A, fixed disk B, series of pins F, disk C, bun-

I claim—

1. A scouring or polishing wheel composed of a shaft, A, fixed disk B, series of pins F, disk C, bundles of flexible wires G, looped around the pins, and means for confining the disks on the shaft, substantially as described.

2. A polishing-wheel composed of a shaft, A, fixed disk B, series of pins F, disk C, bun-

dles of flexible fibrous material looped around the pins, and means for confining the disks on the shaft, substantially as described.

5 3. A scouring and polishing wheel composed of a shaft, A, disk B, pins F, disk C, wires G, looped around the pins, and the washer D and nut E, for confining the disks on the shaft, substantially as described.

In testimony whereof I have hereunto set my hand.

ONÉSIME BRUNELLE.

Witnesses:

JNO. E. JONES,

A. GLUCHOWSKY.