

(No Model.)

W. A. KNIPE.
POLISHING WHEEL.

No. 317,800.

Patented May 12, 1885.

Fig. 1.

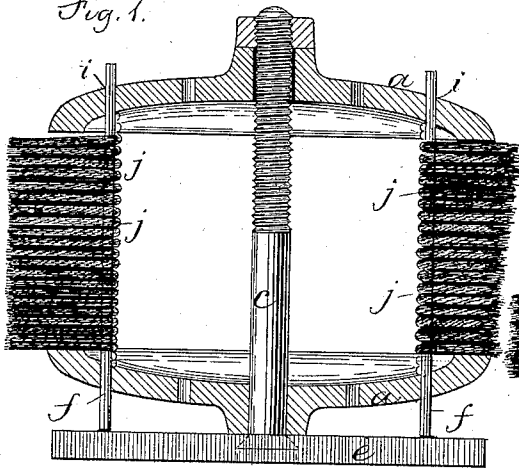


Fig. 2.

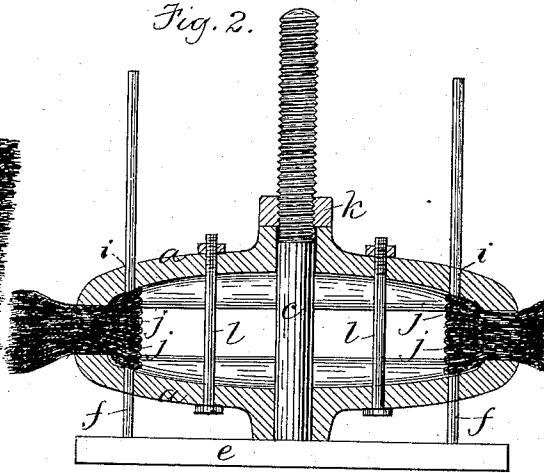
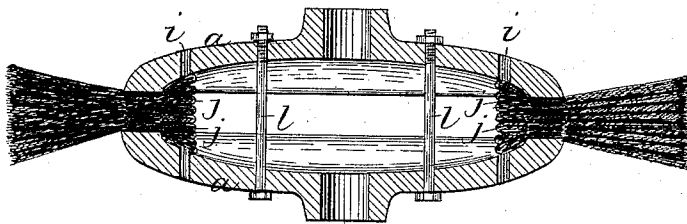


Fig. 3.



WITNESSES:

A. L. White
Horace Brown.

INVENTOR:

W. A. Knipe
by *myself* & Brown
Attys

UNITED STATES PATENT OFFICE.

WILLIAM A. KNIPE, OF HAVERHILL, MASSACHUSETTS.

POLISHING-WHEEL.

SPECIFICATION forming part of Letters Patent No. 317,800, dated May 12, 1885.

Application filed September 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. KNIPE, of Haverhill, in the county of Essex and State of Massachusetts, have invented certain Improvements in Polishing-Wheels, of which the following is a specification.

This invention has for its object to provide an improved polishing or buffing wheel, of that class in which the polishing or buffing material is composed of textile material, such as wool, cotton, &c., in threads or filaments, which are confined between clamping-plates and radiate from the margins of said plates.

The invention consists in the improved wheel which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figures 1 and 2 represent sectional views showing the wheel at different stages of its manufacture. Fig. 3 represents a sectional view of the wheel as completed and ready for application to an arbor.

The same letters of reference indicate the same parts in all the figures.

In carrying out my invention I provide two metal disks, *a a*, preferably somewhat dished or concave on their inner surfaces, as shown, and each containing a series of orifices, *i*, near its margin. I place one of the disks on a fixed vertical spindle, *c*, which projects upwardly from a bed or table, *e*, and place a series of rods, *f*, in the orifices *i*, the lower ends of said rods resting on the table *e*. I then place on each rod *f*, above the disk, a number of bunches of yarn or thread, *j*, of textile material, preferably wool, said bunches bearing at their central portions against the rods, with their free ends extending outwardly. After placing the desired number of bunches of yarn or thread on each rod, I place the other plate *a* on the stud *c*, so that its orifices will receive the rods *f*, and then by means of a nut, *k*, screwed onto said stud, I press the last plate downwardly upon the material arranged on the rods, as shown in Fig. 2, thus compressing said material, and clamping it tightly between the margins of the two plates. I next se-

cure the disks together by means of bolts *l l*, passed through orifices near the central portions of the disks. The wheel is then removed from the stud, and the rods *f* are removed from the orifices in the plates, as shown in Fig. 3. The wheel is now ready to be secured to the arbor which rotates it, the bolts *l l* holding the parts of the wheel together when it is not applied to the arbor. It will be seen that the pieces of thread or yarn are thus securely held, so that they radiate from the axis of rotation of the wheel.

No permanent devices are used between the disks *a a* to hold the yarn hence; the entire space between said disks is filled with the yarn, which is therefore made very solid and compact.

The wheel thus made is adapted for any of the purposes for which this class of wheels are used; but it is particularly intended for use in carrying out the process of cleaning and polishing leather described in an application for Letters Patent filed with this application.

I claim—

1. As an improved article of manufacture, the rotary polishing-wheel composed of the plates *a a*, having central apertures to receive a stud or arbor and detachably secured together, and the radiating bunches of yarn or thread clamped between the proximate faces of the plates, substantially as described.

2. In a rotary polishing-wheel, the combination of the plates *a a*, having concave inner surfaces, and central arbor-receiving orifices, the radiating bunches of yarn or thread clamped between the impinging faces of said plates, and bolts *l l*, connecting said plates between said faces and the central orifices, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 28th day of August, 1884.

WILLIAM A. KNIPE.

Witnesses:

WILLIAM H. MOODY,
JOHN T. MINITER.