No. 713,201. Patented Nov. 11, 1902.

E. R. BURNS.

BUFFING WHEEL.

Application filed Aug. 8, 1902.

(No Model.)

Fig. 1.

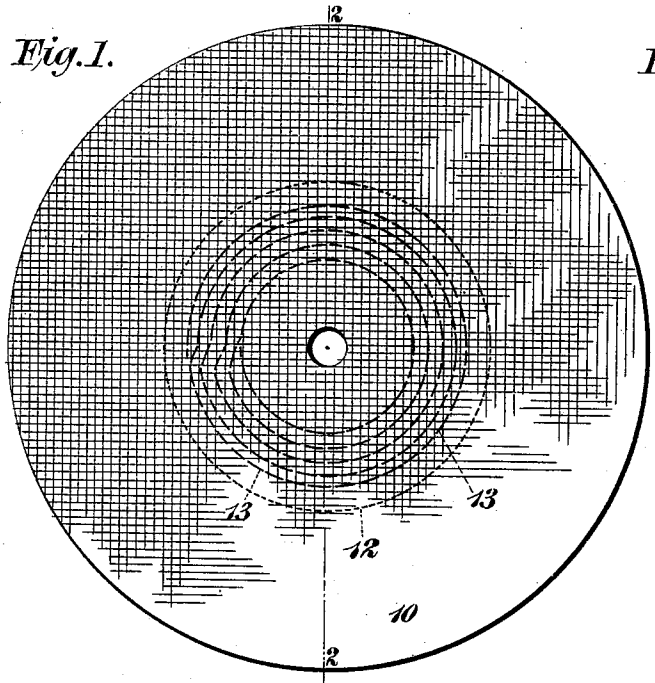


Fig. 2.

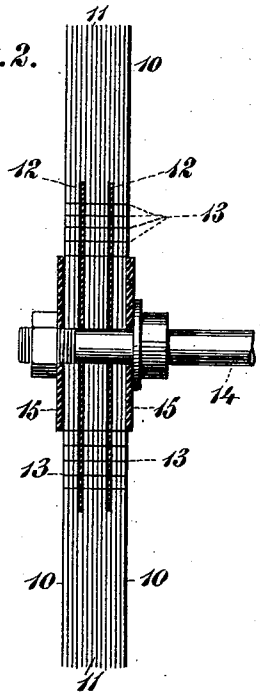


Fig. 3.

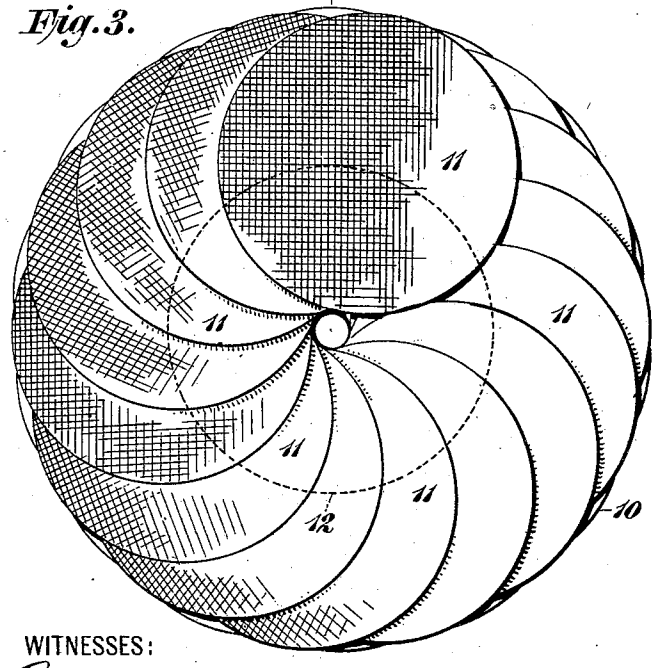
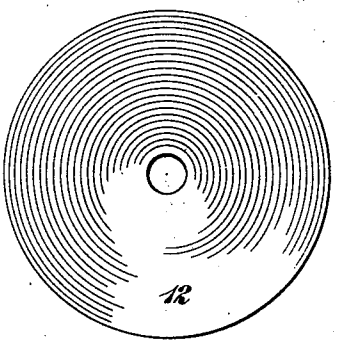


Fig. 4.



WITNESSES:

Gustave Dieterich.

Edwin H. Dieterich.

INVENTOR

Egbert Reed Burns

BY

Chas. C. Gill

ATTORNEY

THE MORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EGBERT REED BURNS, OF BROOKLYN, NEW YORK.

BUFFING-WHEEL.

SPECIFICATION forming part of Letters Patent No. 713,201, dated November 11, 1902.

Application filed August 8, 1902. Serial No. 118,844. (No model.)

To all whom it may concern:

Be it known that I, EGBERT REED BURNS, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Buffing-Wheels, of which the following is a specification.

The invention relates to improvements in buffing-wheels; and it consists in the novel features, arrangement, and combination of parts hereinafter described, and particularly pointed out in the claims.

The object of the invention is to produce a buff-wheel possessing superior qualities and having a firm central portion and a loose flexible peripheral portion, the body of the wheel being formed of two exterior disks, a series of spirally-arranged smaller disks held between the center and the periphery of the two outside disks, and a stiff-core portion at the center of the wheel, the said outer disks, spirally-arranged disks, and core portion being firmly secured together by lines of sewing extending transversely through the wheel and engaging the component parts thereof.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a buffing-wheel constructed in accordance with and embodying the invention. Fig. 2 is a central vertical section of same on the dotted line 2 2 of Fig. 1. Fig. 3 is an elevation of the buffing-wheel with one of the outer disks removed, so as to disclose the spirally-arranged inner disks; and Fig. 4 is a detached elevation of one of the core-pieces for stiffening the central portion of the wheel.

In the drawings, 10 10 denote the two outer large plain disks for the wheel, these disks by their size determining the full diameter of the wheel and constituting the opposite sides of the same. Between the side disks 10 10 are arranged in spiral form a series of smaller disks 11, the latter being about equal in diameter to about one-half of the diameter of the disks 10 and being arranged in a substantially uniform manner around the center of said disks 10, as illustrated in Fig. 3. A sufficient number of the smaller disks 11 will be employed to produce a wheel of the desired thickness. At the center of the wheel will be employed a suitable core or stiffener for imparting a degree of rigidity to the central portion of the wheel, and in the present case I interpose between the smaller disks 11 two cardboard disks 12 12, the latter being centrally of the wheel and considerably less in diameter than the wheel, as illustrated in Fig. 2.

I have found that the loose flexible buff-wheel constructed in the manner described, with the disks 10 11, of cotton or filamentous material, and having a stiffener or core at its center, to be of great efficiency in practical use.

The buff-wheel constructed in the manner described enables the employment in its construction of what has heretofore been practically waste material, although I do not limit the present invention to the use of this waste material. Flexible buff-wheels have heretofore been made from a series of cotton disks placed against each other of from ten to eighteen inches in diameter, and these wheels when worn down to about from four to eight inches in diameter are considered to be useless and are called "hubs," which are thrown away. In accordance with my invention I make use of the then smaller disks contained in the aforesaid hubs for the disks 11 of my wheel, the disks from the hubs being arranged spirally, as shown in Fig. 3, between the large new disks 10 and having embedded within them at the center of the wheel a stiffener, such as the cardboard disks 12, the whole, as illustrated, being secured together by lines of sewing 13. It is not necessary that all of the lines of sewing 13 shall pass through the stiffener-disks 12, it only being necessary that the disks 12 shall be firmly held. The lines of sewing 13 secure the disks 10 11 12 firmly together at the central portion of the wheel, and the outer edges of the disks 10 11 constitute the periphery of the wheel, and when the whole is constructed a loose flexible buff-wheel having a firm center is produced.

In Fig. 2 I illustrate diagrammatically a spindle 14, having clamping heads or plates 15 for holding the buff-wheel and imparting to it its proper rotation; but the invention is not limited to any special means for holding

or rotating the wheel, said wheel constituting in itself a new article of manufacture and usually having a central opening to receive the spindle upon which it may be placed.

In the foregoing description I have presented the preferred construction of the buffing-wheel; but it is to be understood that I do not confine the invention to a technically spiral arrangement of the disks 11 encircling the center of the disks 10, since the main object in this regard is that the disks 11 shall overlap each other in series and be so arranged around the center of the disks 10 as to form a wheel of substantially uniform thickness.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The buff-wheel comprising the outer side disks, the series of smaller overlapping disks arranged between and intermediate the center and periphery of the said side disks, and a central stiffener or core for imparting a requisite rigidity to the center of the wheel; substantially as set forth.

2. The buff-wheel comprising a body portion made up of the series of circularly-arranged overlapping disks 11, and a central stiffener or core, the whole being secured together around the center of the wheel; substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 7th day of August, A. D. 1902.

EGBERT REED BURNS.

Witnesses:
CHAS. C. GILL,
ARTHUR MARION.