(No Model.)

E. M. HICKMAN.

BUFFER WHEEL.

No. 417,723. Patented Dec. 24, 1889.

Fig. 1.

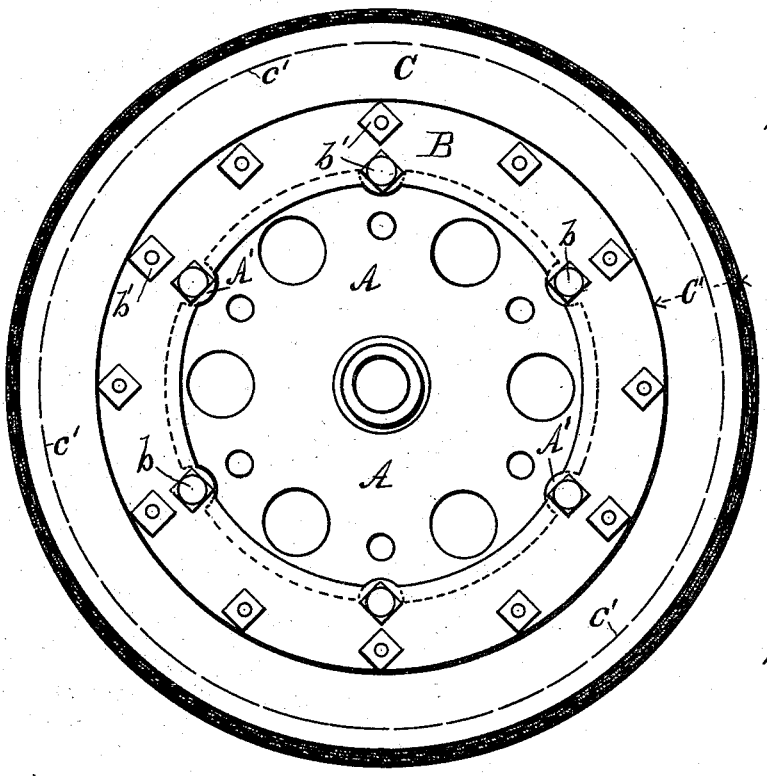
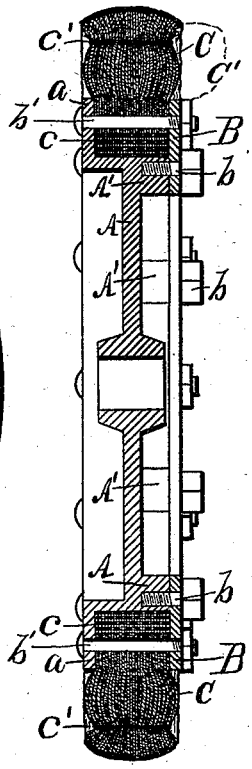


Fig. 2.



WITNESSES

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EDGAR M. HICKMAN, OF ALBION, MICHIGAN, ASSIGNOR TO THE GALE MANUFACTURING COMPANY, OF SAME PLACE.

BUFFER-WHEEL.

SPECIFICATION forming part of Letters Patent No. 417,723, dated December 24, 1889.

Application filed September 16, 1889. Serial No. 323,999. (No model.)

To all whom it may concern:

Be it known that I, EDGAR M. HICKMAN, a citizen of the United States, residing at Albion, county of Calhoun, State of Michigan, have invented a certain new and useful Improvement in Buffer-Wheels; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

In the drawings, Figure 1 is a side elevation of an apparatus involving my invention. Fig. 2 is a sectional view of the same.

It is the purpose of my invention to produce an improved buffer-wheel for polishing metallic surfaces.

To this end A represents a metallic web with a flange *a* at one of its edges.

B is a separate ring or flange adapted to be attached to the web A by bolts *b*, which pass into pillars A′, formed on the web A, or might, if desired, be passed entirely through the web and be provided with nuts at their ends.

C represents sheets of canvas or sail-cloth, or equivalent material. These are preferably bound with glue at their inner peripheries, as shown at *c*, but at their outer peripheries are sewed or bound together, preferably, although not necessarily, by wire at *c′*. This fabric is then bound between the flanges *a* and B by the bolts *b′*, which pass through the said fabric and the flanges. The position of the flanges *a* and B with respect to the fabric is such that a space C′, of considerable width, is left between the said flanges and the outer periphery of the said fabric. This allows space for the fabric to yield, and thus serve as an effectual cushion to the wheel when in action. The outer edges of the fabric are provided with a surface of emery and glue in the usual manner, or any other polishing material may constitute the applied ingredients.

Heretofore disks of canvas extending from the periphery to the shaft have been employed and clamped between like disks of steel or iron, but they have been very heavy, and the expense of the fabric is very considerably in excess of the same in my device. So, also, the disks of metal have extended close to the periphery of the fabric, and this has made the device unyielding, thus causing it to heat the metal being buffed and causing it also to bite in at points and produce uneven work. The same unyielding character of said former buffers has caused them to wear very rapidly.

By my device the buffer is made very elastic, owing to the space C′ between the binding *c′* and the disks or flanges *a* and B. This conduces to uniform work, obviates wholly any liability to heat, enables the device to wear much longer, and the general construction lightens and cheapens the buffer-wheel as a whole.

What I claim is—

The herein-described buffer-wheel, consisting of the web A, having the pillars A′ on one side and provided with the flange *a* on the other side, the removable ring B, bolted to the pillars A′, and the ring of textile fabric C, projecting beyond the periphery of the wheel and secured between the ring B and flange *a*, said ring of textile fabric being bound through at *c′*, substantially as and for the purpose described.

In testimony whereof I sign this specification in the presence of two witnesses.

EDGAR M. HICKMAN.

Witnesses:
WELLS W. LEGGETT,
W. H. CHAMBERLIN.