

(No Model.)

G. L. BADGER.

DEVICE FOR POLISHING GRANITE, &c.

No. 481,341.

Patented Aug. 23, 1892.

FIG. 1.

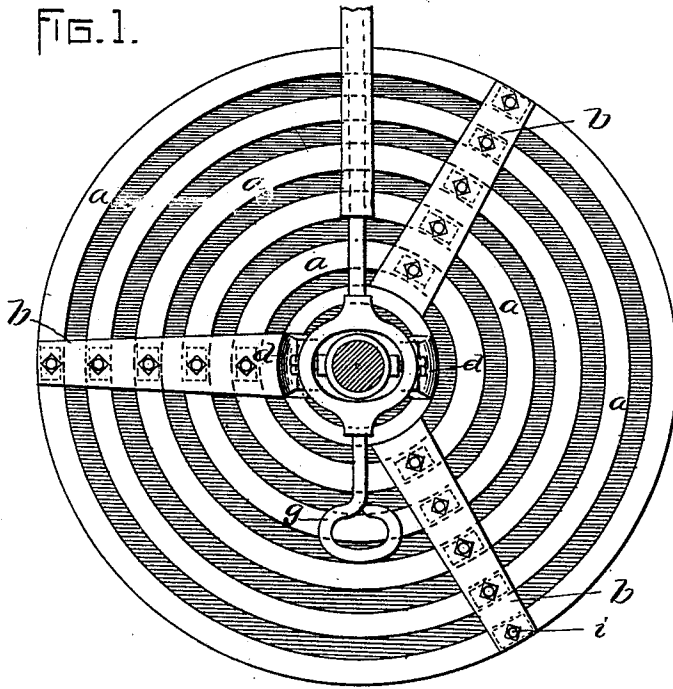
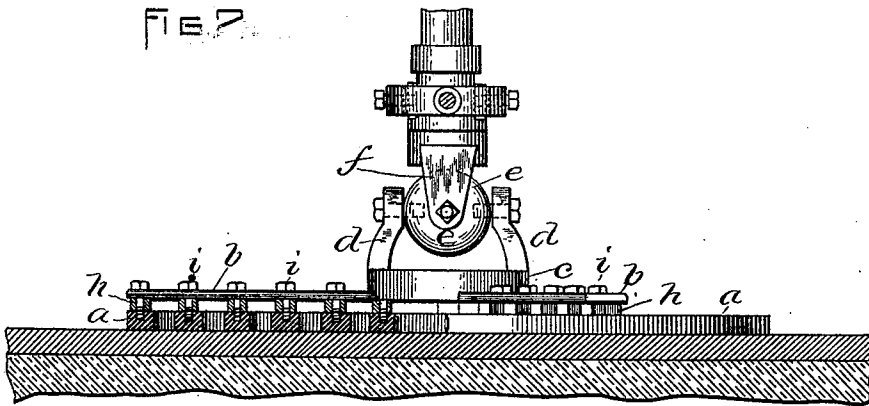


FIG. 2.



WITNESSES:

A. S. Harrison.

H. A. Hall

INVENTOR:

by Geo. L. Badger.
Might, Brown & Crossley.
2 " attro.

UNITED STATES PATENT OFFICE.

GEORGE L. BADGER, OF WEST QUINCY, MASSACHUSETTS.

DEVICE FOR POLISHING GRANITE, &c.

SPECIFICATION forming part of Letters Patent No. 481,341, dated August 23, 1892.

Application filed December 21, 1891. Serial No. 415,689. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. BADGER, of West Quincy, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Devices for Polishing Granite, &c., of which the following is a specification.

My invention has relation to means for polishing granite, marble, and other like material.

Heretofore in the construction of wheels for polishing granite and the like it has been common to form the wheel of a series of rings tied together by means of bars cast with the rings, so as to constitute an integral part thereof, in which case the wheel was made up of alternate bars and spaces, the whole being rigid—that is, so constituted as that one part might not yield independently of another. A wheel of this character operated well enough where the bed of stone, marble, or other material being acted upon was even and without “low corners” or “slack places;” but where these inequalities occurred the polishing device failed to operate on all of the parts.

It is the object of my improvements to overcome the objections aforesaid and to provide a wheel in which any one of the series of rings may yield slightly independently of another or the other rings, so as to reach the low corners or slack places and polish the entire surface of the material to an equal extent.

To these ends my invention consists of a polishing-wheel composed of a series of rings tied together by bars formed independently of the rings and having interposed between the latter and the tie-bars blocks of rubber or other yielding material or springs, so as to permit any one of the rings in the use of the device to yield to a slight extent independent of another or the others, all as will be hereinafter more fully described, and pointed out in the claims.

Reference is to be had to the annexed drawings, forming a part of this specification, the same letters of reference indicating the same parts or features, as the case may be, wherever they occur.

In the drawings, Figure 1 represents a top plan view of my improved polishing-wheel,

the rotating shaft being represented in section. Fig. 2 is a longitudinal sectional view of Fig. 1, showing, also, a piece of material being operated upon and the supporting-bed for the material.

In the drawings, *a* designates rings of any suitable number arranged concentrically, with spaces between them about the width of the rings, though these spaces may be of greater or less extent.

b designates tie-bars arranged to extend across the rings, as shown, and radiating from a common hub *c*, with which said tie-bars are integrally connected. The hub *c* is provided with lugs or ears *d*, by which it is connected to a ball *e*, which ball is in a similar manner connected with a rotating hub or shaft *f*, with which latter device there is connected a handle *g*, which permits the wheel when in operation to be moved over the stone or other material as it is rotated in order to effect a perfect polishing of all parts of the same.

h designates blocks of rubber or other yielding material, (or, for that matter, it might be suitable springs,) which are interposed between each tie-bar *b* and the ring over which it passes, a bolt *i* passing through the tie-bar and block of rubber *h* into the ring in such manner as to hold the rings in proper relative position with respect to each other and the tie-bar and yet so as to permit each ring to yield vertically to a limited degree independent of each and every other ring. It is this provision of means which permits the yielding vertically of each ring independent of the others that constitutes my invention, so that I do not confine myself to the form or arrangement of tie-bars shown, nor to the manner of connecting the tie-bars with the hub, nor to the manner of rotating the wheel or moving it laterally in its use, since these may be varied in form and arrangement without departing from the nature or spirit of the invention.

Having thus described my improvements, I declare that what I claim is—

1. A polishing-wheel for granite, comprising in its construction a plurality of rings, tie-bars connecting the rings, and springs interposed between the rings and tie-bars, as set forth.

2. A polishing-wheel for granite, consisting
of a plurality of rings, a hub *c*, tie-bars con-
nected with said hub and radiating there-
from, springs interposed between the rings
5 and tie-bars, and bolts for connecting the tie-
bars to the rings, as set forth.

In testimony whereof I have signed my

name to this specification, in the presence of
two subscribing witnesses, this 12th day of
December, A. D. 1891.

GEORGE L. BADGER.

Witnesses:

JOHN C. SCOTT,

G. WALTER FLINT.