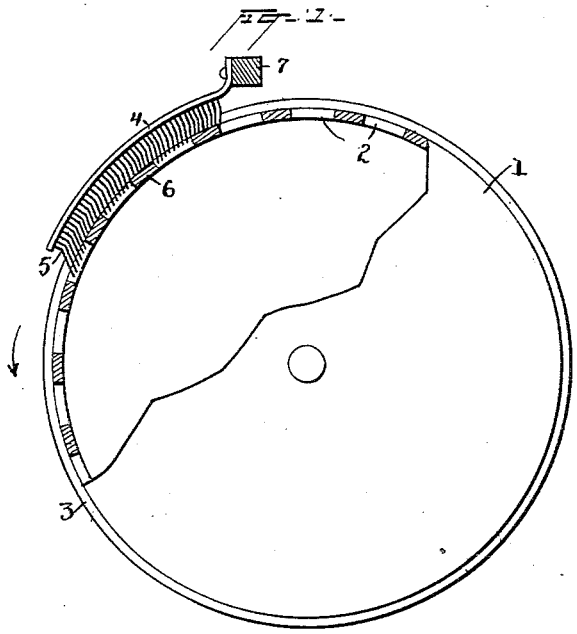
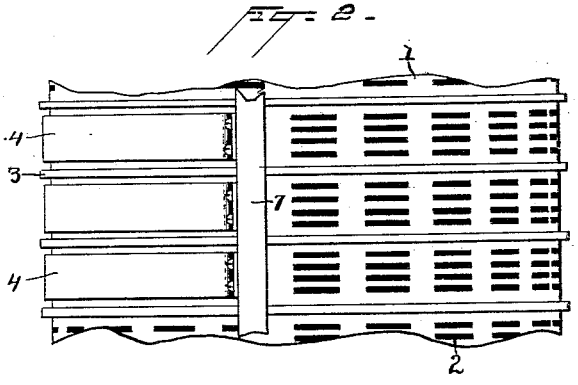
(No Model.)

T. A. EDISON.

ORE SCREENING APPARATUS.

No. 476,532. Patented June 7, 1892.





Witnesses
Morris & Clark.
H. F. Oberly

Inventor
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By his Attorneys
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UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF LLEWELLYN PARK, NEW JERSEY.

ORE-SCREENING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 476,532, dated June 7, 1892.

Application filed October 15, 1891. Serial No. 408,756. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, a citizen of the United States, residing at Llewellyn Park, in the county of Essex and State of New Jersey, have invented a certain new and useful Improvement in Ore-Screening Apparatus, (Case No. 941,) of which the following is a specification.

The object of the present invention is to provide an apparatus for keeping the screen-perforations free from obstruction by lumps of ore too large to readily pass through them; and the invention consists in the combination, with a screening apparatus, of wire pad or card cleaners, as hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 is an end view, partly in section, of a screening-cylinder and my improved cleaning device in position to operate therein. Fig. 2 is a plan view of a short section of the cylinder.

The present invention constitutes an improvement on the circular wire cleaning-brush described in my application, Serial No. 407,459.

In the drawings, 1 is the screening-cylinder, which may be mounted and rotated in any suitable manner. In the cylinder are numerous perforations 2, which are preferably in the form of narrow slits of considerable length. The cylinder may be perforated directly, as shown in Fig. 1, with these small perforations, or the small perforations may be in covers, which are placed over large openings in the cylinder, as set forth in my application above referred to.

3 are circumferential ribs for strengthening the cylinder and between which the brushes rest.

4 is a wire-card brush having a back of canvas, belting, or other suitable material and having wire teeth 5. These teeth are preferably two or two and a half inches long and bent as indicated. Several of these brushes are mounted side by side on a supporting-bar 7, as indicated in Fig. 2, in which figure they are shown rubbing on the cylinder between the ribs. The brushes used are preferably two feet or more long and are allowed to rest by their own weight simply on the surface of the cylinder, although in some cases additional weight may be added to press them forward with greater force. It will be seen that the brushes are of such length that they will be flexible and will bend to follow the contour of the cylinder-surface. As the cylinder rotates, the wires of the brush are bent forward by the solid portions 6 of the cylinder and are then allowed to snap down into the slits or perforations. In this way any particles which have become wedged in the perforations from the inside are forced back into the cylinder. These brushes are much simpler and cheaper than the circular brushes before used, and they are easier to mount; but I find that in practice they are much more efficient.

What I claim is—

1. The combination, with a rotary screen, of a card-wire-brush cleaner resting freely on the surface thereof, substantially as described.

2. The combination, with an ore-screen having elongated perforations, of a card-wire-brush cleaner resting freely on the surface thereof, substantially as described.

3. The combination, with an ore-screening cylinder, of a long flexible card-wire-brush cleaner resting freely on the surface thereof, whereby it will follow the contour of the cylinder and whereby the wire teeth will snap into the perforations to remove obstructions, substantially as described.

4. The combination, with an ore-screening ribbed cylinder, of flexible card-wire-brush cleaners resting freely on the surface thereof between the ribs, whereby they will follow the contour of the cylinder, substantially as described.

5. The combination, with a rotary ore-screening cylinder, of a long flexible card-wire-brush cleaner fixed at its upper end to a suitable support and having its lower end free and resting against the cylinder, substantially as described.

This specification signed and witnessed this 8th day of October, 1891.

THOS. A. EDISON.

Witnesses:
JOHN T. RANDOLPH,
CHARLES M. CATLIN.