

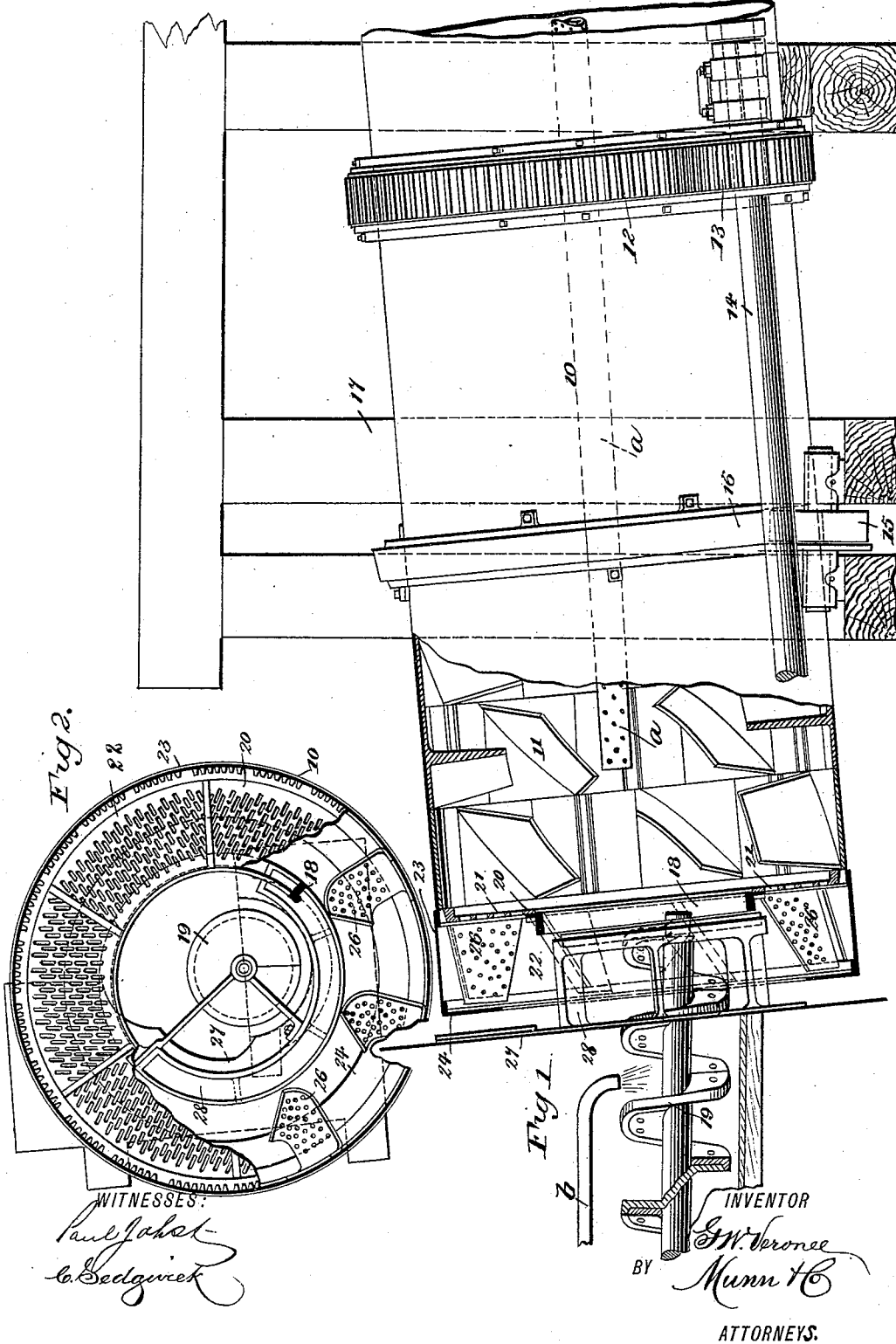
(No Model.)

2 Sheets—Sheet 1.

G. W. VERONEE.
ROCK CATCHER.

No. 471,041.

Patented Mar. 15, 1892.



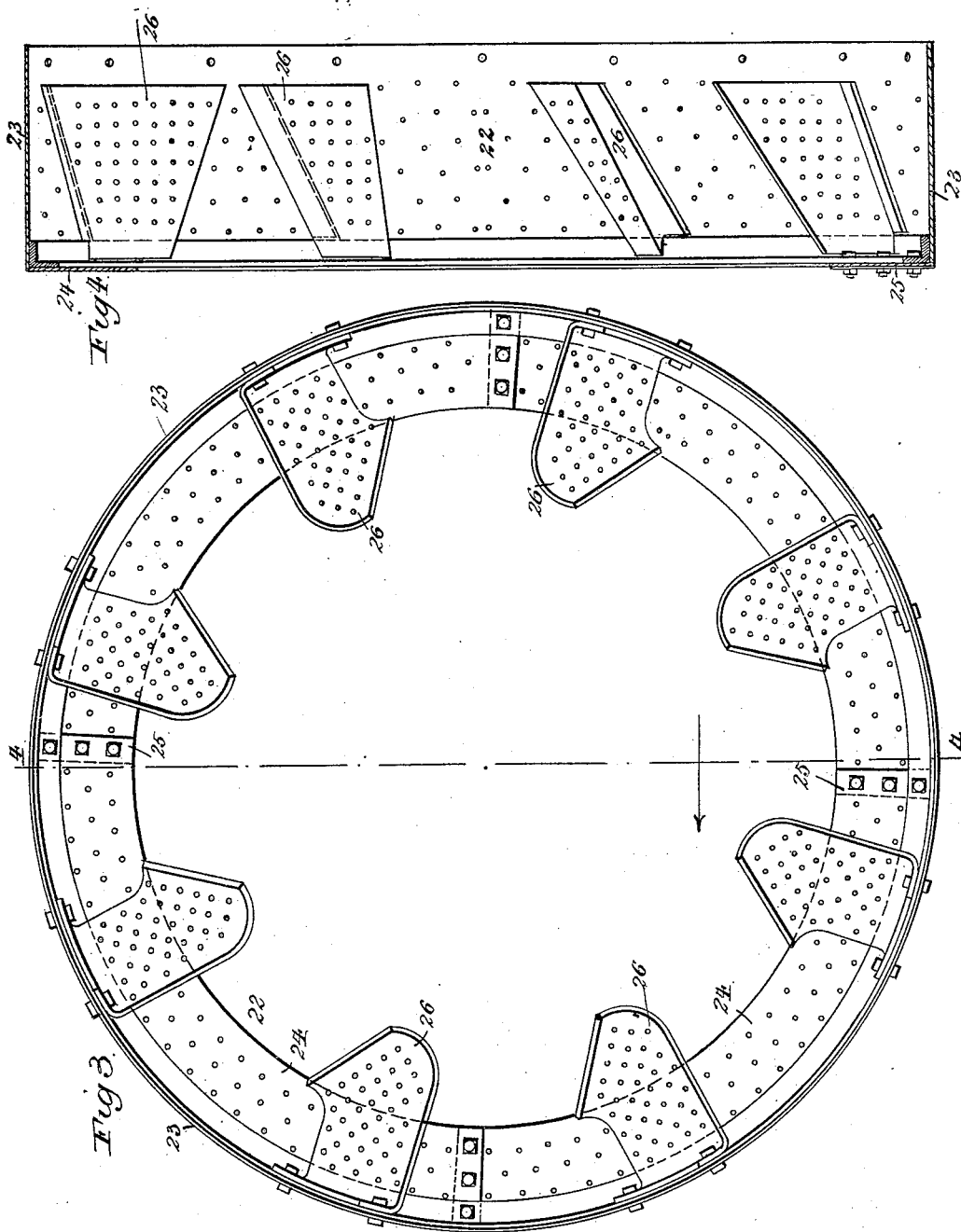
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WITNESSES:

Paul J. ...
C. Sedgwick

INVENTOR

G. W. Veronee
BY *Munn & Co.*

ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE W. VERONEE, OF TEN-MILE HILL, SOUTH CAROLINA.

ROCK-CATCHER.

SPECIFICATION forming part of Letters Patent No. 471,041, dated March 15, 1892.

Application filed September 17, 1891. Serial No. 405,960. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. VERONEE, of Ten-Mile Hill, in the county of Berkeley and State of South Carolina, have invented a new and Improved Rock-Catcher, of which the following is a full, clear, and exact description.

My invention relates to improvements in rock-catchers adapted to be used with the common cylinder washers which are employed to wash and clean phosphate rock and ores of various kinds; and the object is to produce a simple and efficient rock-catcher which may be secured to any of the cylinder washers and which will cause the mud, fine rock, and trash to be quickly separated and will deliver the rock to the washer.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken side elevation, partly in vertical section, of my rock-catcher, showing it applied to a cylinder washer. Fig. 2 is a broken inside view of the cylinder and rock-catcher. Fig. 3 is an enlarged inside end view of the rock-catcher, and Fig. 4 is a cross-section on the line 4 4 in Fig. 3.

The cylinder washer 10 is of a common form, having the inside flanges 11, which are adapted to carry the material in the washer toward the upper end of the cylinder, and the cylinder is provided with a gear 12, which is secured to its outer surface and which meshes with a pinion 13 on the driving-shaft 14. The cylinder is inclined in the usual way, and it also rests upon a friction-roller 15, which engages a roll 16 on the cylinder, and the whole is supported in a frame-work 17. In the lower end of the cylinder is an opening through the ring 18, and a screw 19 is arranged to feed the cylinder with the material to be washed. The above construction is of the common form, and I claim no part of it as my invention.

At the lower end of the main cylinder 10 is an end plate 20, which fills the entire end of

the cylinder between the shell of the cylinder and the ring 18, and this plate is perforated, as shown at 21, so that the mud and waste material will flow through it. The rock-catcher 22 is also of a cylindrical form, and it is secured to the lower end of the cylinder 10, as best shown in Fig. 2. It is provided with an outer shell 23, which is perforated so that the finer particles may run to waste through it, and it has an end flange 24, which is comparatively narrow and which is perforated so that the mud and fine particles of rock may run to waste through it, and the chips and such material as will float will rise on the water and flow off over the edge of the flange.

The catcher 22 is made in two parts, which are united by bolts, as shown at 25, and which enable it to be easily adjusted upon the washer. Bolted to the shell of the catcher are inwardly-extending curved flanges or lifting-buckets 26, which are perforated so that the waste material will run through them, and these flanges are adapted to scoop up the material in the bottom of the catcher and drop it upon the screw 19, so that it will be delivered to the washer, and as the waste material is constantly running through the perforations in the flanges and in the walls of the catcher and over the edge of the catcher-flange it will be seen that the material delivered to the screw and carried into the washer will be comparatively clean rock, so that by using the catcher the rapid washing of the rock is greatly facilitated.

Below the catcher and surrounding the screw is a back plate 27, which may be secured to any convenient support, and this forms an abutment for the open frame-work 28, which is mounted on the screw between the back plate and the ring 18 of the washer, and the back plate will thus serve as an abutment to receive the thrust of the washer.

It will be understood that in using the washer and rock-catcher a plentiful supply of water is allowed to run into the same, and I prefer to supply the water by a perforated pipe *a*, projecting into the cylinder, and by means of a pipe *b*, which delivers water to the feed-screw. From the foregoing description

it will be seen that the washer will be supplied with comparatively clean rock.

Having thus described my invention, I claim as new and desire to secure by Letters
5 Patent—

1. The combination, with the cylindrical washer and its feed-screw, of a cylindrical catcher secured to the feed end of the washer, said catcher having a perforated end flange
10 and having curved flanges extending inward from its shell, substantially as described.

2. The combination, with the washer-cylinder and its feed-screw, of a perforated plate secured at the free end of the washer and
15 provided with a central opening to receive material from the screw and a cylindrical catcher secured to the end of the washer, said catcher having an end flange and having in-

wardly - extending curved and perforated flanges, substantially as described. 20

3. The combination, with the washer and its feed-screw, of the perforated cylindrical catcher secured to the lower end of the washer, said catcher having a perforated end flange and having inwardly-projecting curved and
25 perforated flanges arranged to deliver upon the feed-screw, substantially as described.

4. The combination, with the washer-cylinder, of an abutment-plate supported at the lower end of the cylinder and a frame-work
30 arranged between the abutment-plate and the cylinder-head, substantially as described.

GEORGE W. VERONEE.

Witnesses:

J. B. JENKINS,

C. BISSELL JENKINS.