

(No Model.)

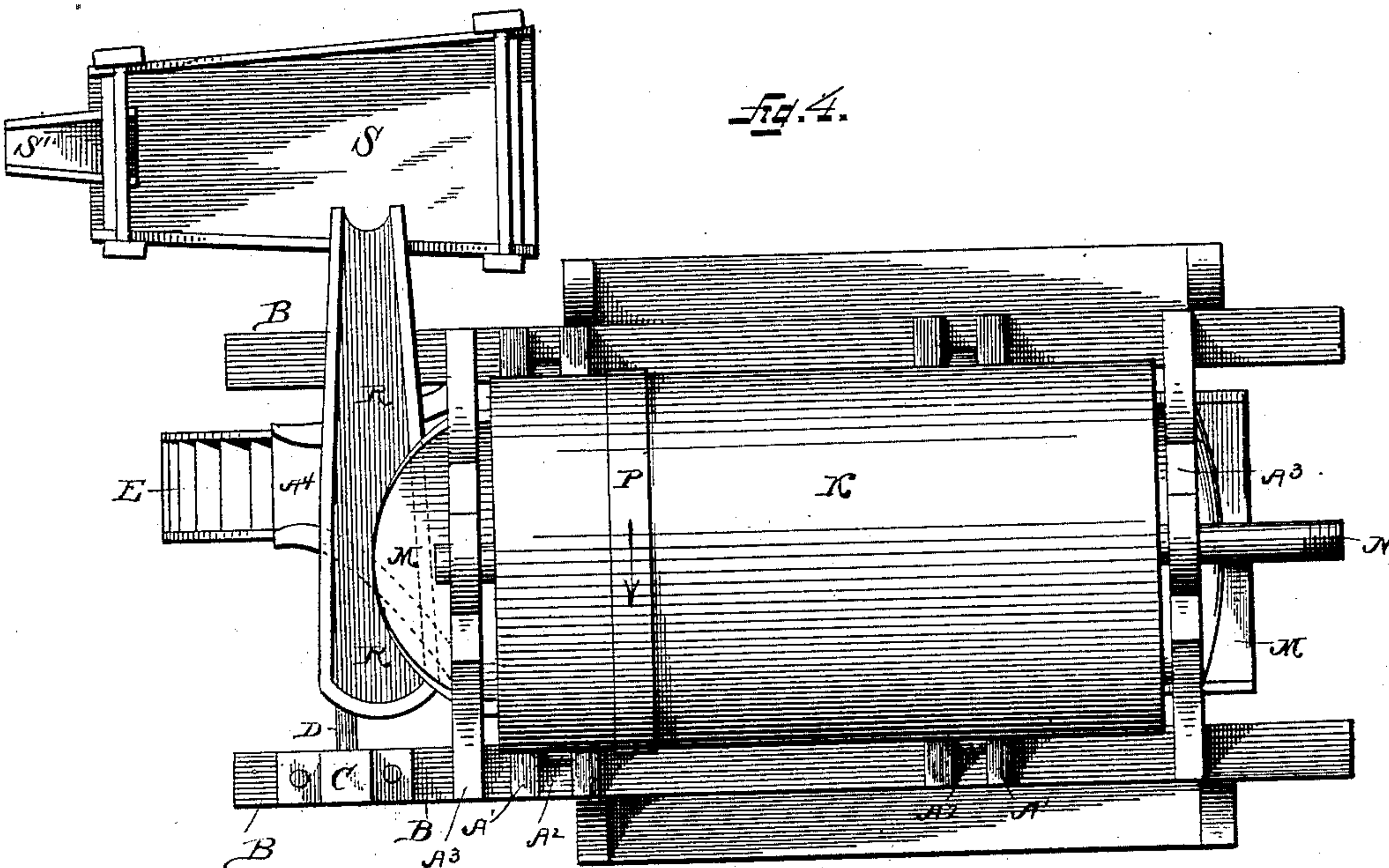
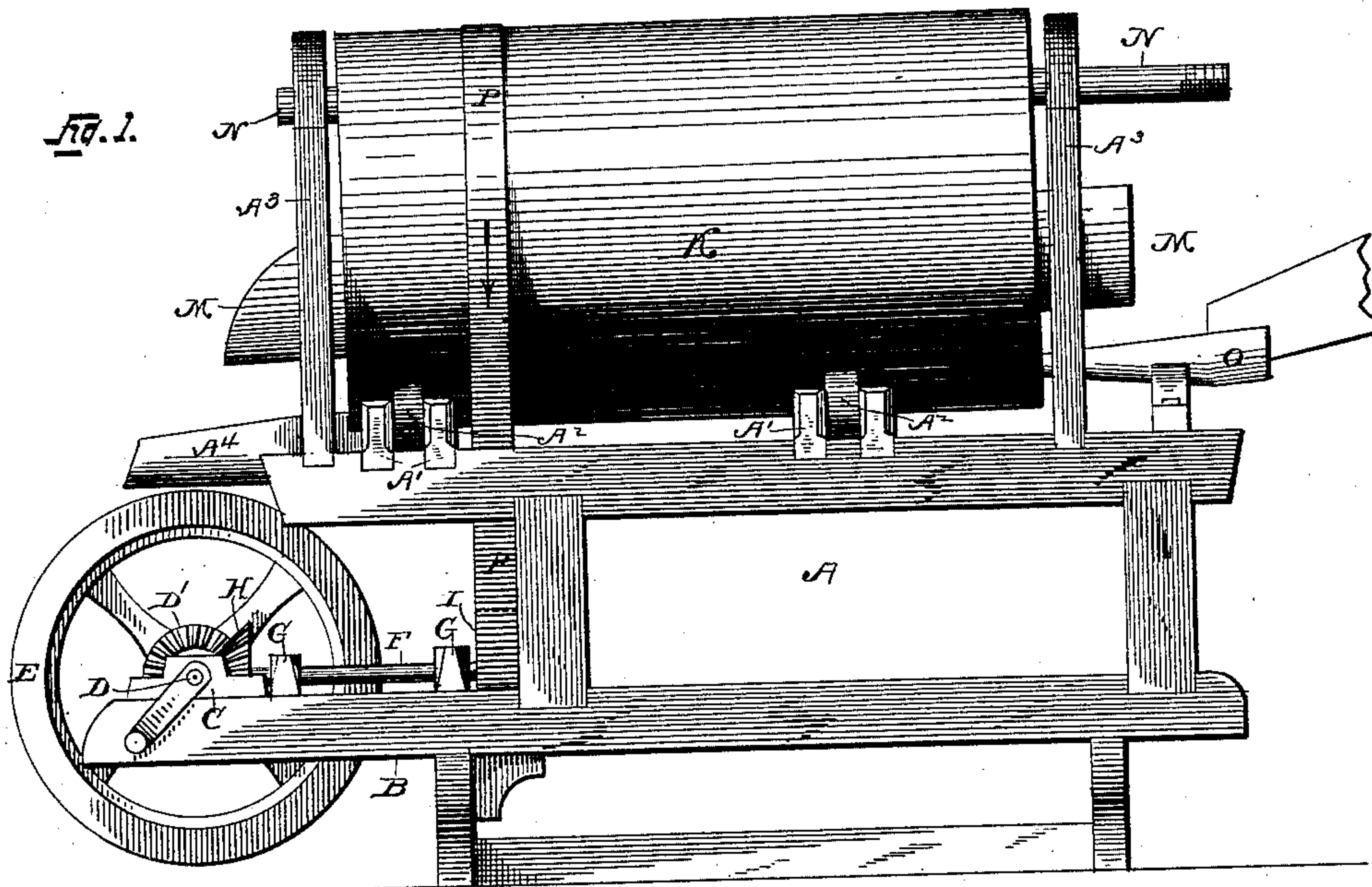
2 Sheets—Sheet 1.

W. J. MUNCEY.

ORE WASHER.

No. 318,014.

Patented May 19, 1885.



WITNESSES

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

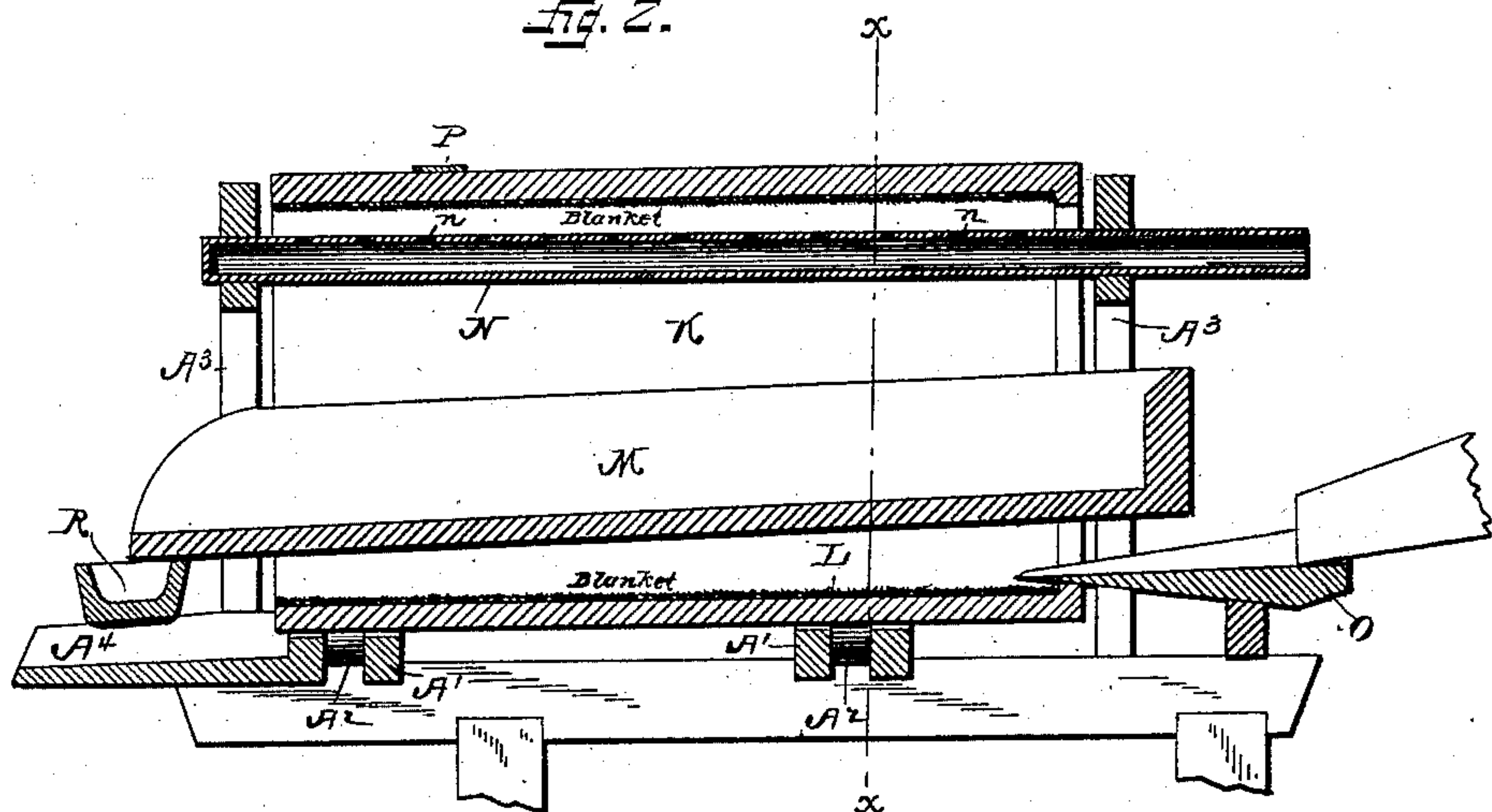
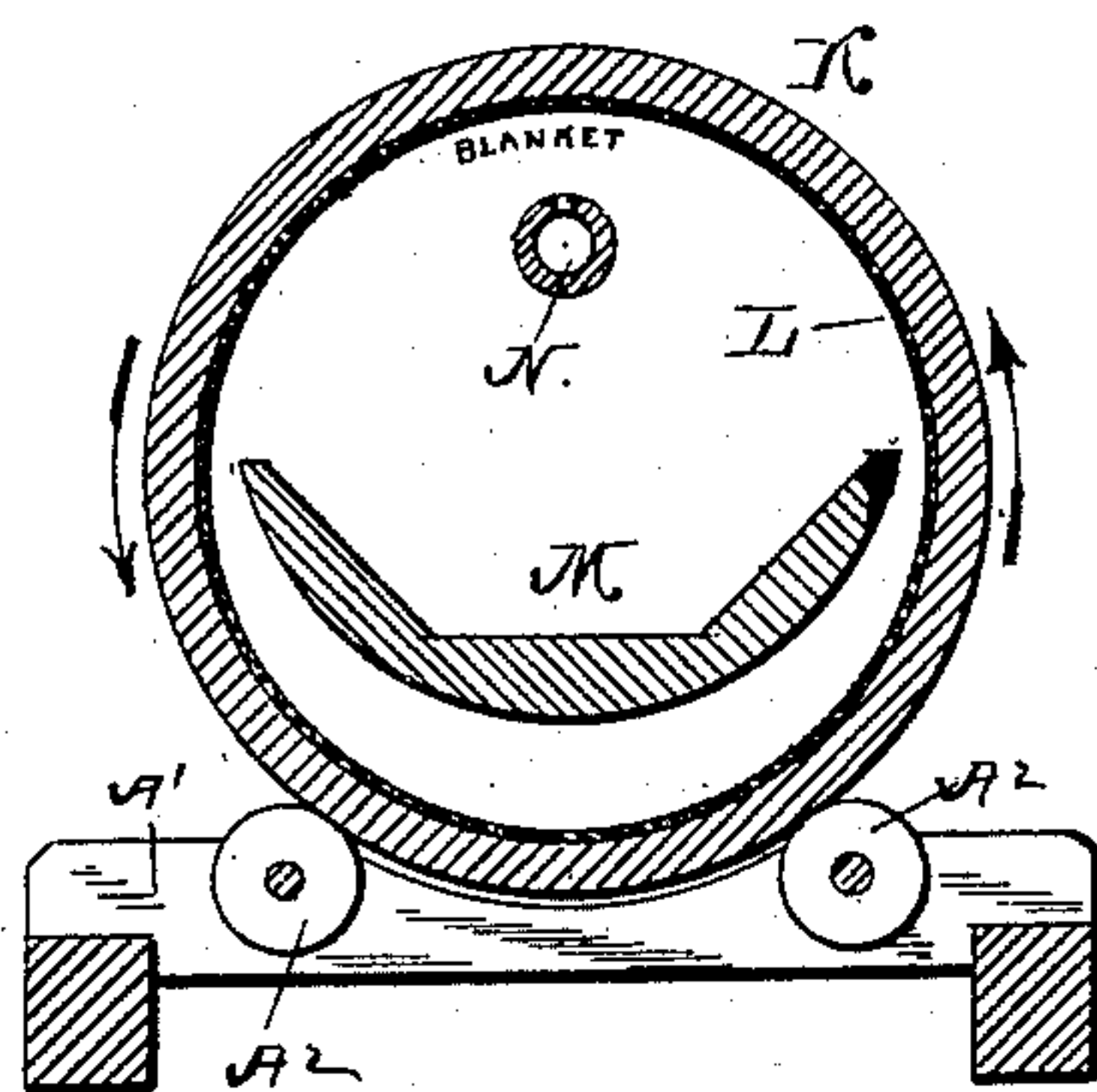


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM J. MUNCEY, OF GUNNISON, COLORADO.

ORE-WASHER.

SPECIFICATION forming part of Letters Patent No. 318,014, dated May 19, 1885.

Application filed March 13, 1885. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. MUNCEY, a citizen of the United States, residing at Gunnison city, in the county of Gunnison and State of Colorado, have invented new and useful Improvements in Ore-Washers, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to an improvement in ore-washers; and it consists in the peculiar construction and combinations of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of an ore-washer embodying my invention. Fig. 2 is a detailed vertical longitudinal sectional view of the cylinder, showing the receiving-trough and the water-pipe located therein. Fig. 3 is a detailed vertical transverse sectional view of the same. Fig. 4 is a top plan view of the ore-washer.

A represents a rectangular supporting-frame, which has projecting beams B. To the ends of these beams are secured bearing-blocks C, in which is journaled a transverse shaft, D. To this shaft is fixed an overshot water-wheel, E, the upper side of which is slightly below the level of the upper side of the supporting-frame. A miter gear-wheel, D', is secured to the shaft D.

A shaft, F, is journaled in blocks G at right angles to the shaft D, and to one end of this shaft F is fixed a miter gear-wheel, H, that meshes with the gear-wheel D'. To the inner end of the shaft F is fixed a pulley, I.

Transverse beams A' are bolted to the upper side of the frame A in pairs, between which, and near the ends thereof, are journaled the anti-friction bearing-rollers A².

Standards A³ rise from the frame A, near the ends thereof, and between these standards, and resting on the rollers A², is placed a cylinder, K, which is open at its ends, and is slightly inclined, its inlet end being a little higher than its discharge end.

A spout, A⁴, is located above the water-wheel and slightly below the discharge end of the cylinder. The cylinder is lined on its inner side with a blanket, L, similar to those now in common use in sluices, for receiving the precious metals from the ore pulp.

M represents a trough, which is secured to

the standards A³ in a slightly-inclined position, parallel with the cylinder, and extends longitudinally through said cylinder, the edges of the trough coming nearly in contact with the inner sides of the cylinder, as shown at Fig. 3.

N represents a pipe that is supported by the standards A³, and extends through the cylinder near the upper side thereof. The end of this pipe at the discharge end of the cylinder is closed, and in the upper side of this pipe, throughout the length of the cylinder, is made a series of perforations, n.

An inducting-trough, O, communicates with the inlet end of the cylinder, near the lower side thereof.

An endless belt, P, passes over the cylinder and under the pulley I.

A spout, R, communicates with the discharge end of the trough M, and leads to a tank, S, which is preferably located to one side of the ore-washer. This tank has a discharge-spout, S', at one end, near the upper side thereof.

The lower end of the sluice rests on the trough O.

The operation of my invention is as follows: The tailings from the sluice pass through the cylinder, and the water is discharged upon the water-wheel, causing it to revolve, and this revolution of the water-wheel is communicated to the cylinder, as will be readily understood by reference to the drawings and from the foregoing description. Clear water is forced through the pipe N, either by hydraulic pressure or a force-pump, or by any other suitable means, and jets up through the openings n against the upper side of the cylinder. A portion of the clear water passes down the sides of the cylinder; but the major portion of it falls into the trough M. As the cylinder revolves, the tailings are carried up with it, and are met by the descending current of clear water, which carries off the mud and slime, while the metal is retained by the blanket and carried up above the trough M, where it is acted upon by the jets from the pipe N and caused to fall into the trough M, and is conveyed to the tank S and therein deposited. As the cylinder rotates, every portion of the surface of the blanket lining thereof is presented successively to the action of

the jets from the water-pipe and thoroughly cleansed thereby, so that the fuzzy surface of the blanket is prevented from becoming filled with sand or slime, and thus the blanket is constantly kept in condition to arrest the metallic particles.

Having thus described my invention, I claim—

1. The combination of the rotating cylinder having the blanket lining, the trough located in the cylinder and extending there-through, and the perforated water-pipe in the cylinder, above the trough, substantially as described.

2. The combination of the supporting-frame, the rotating cylinder secured therein, the water-wheel located beneath the discharge end of the cylinder, the trough extending through the cylinder, the perforated pipe above the

trough in the cylinder, and gearing connecting the water-wheel with the cylinder, whereby the rotation of the wheel is imparted to the cylinder, for the purpose set forth, substantially as described.

3. The combination of the rotating cylinder having the blanket lining, the trough located in the cylinder and extending there-through, the perforated water-pipe in the cylinder, above the trough, and the receiving-tank communicating with the discharge end of the trough, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WM. J. MUNCEY.

Witnesses:

WM. N. MOORE,

E. G. SIGGERS.