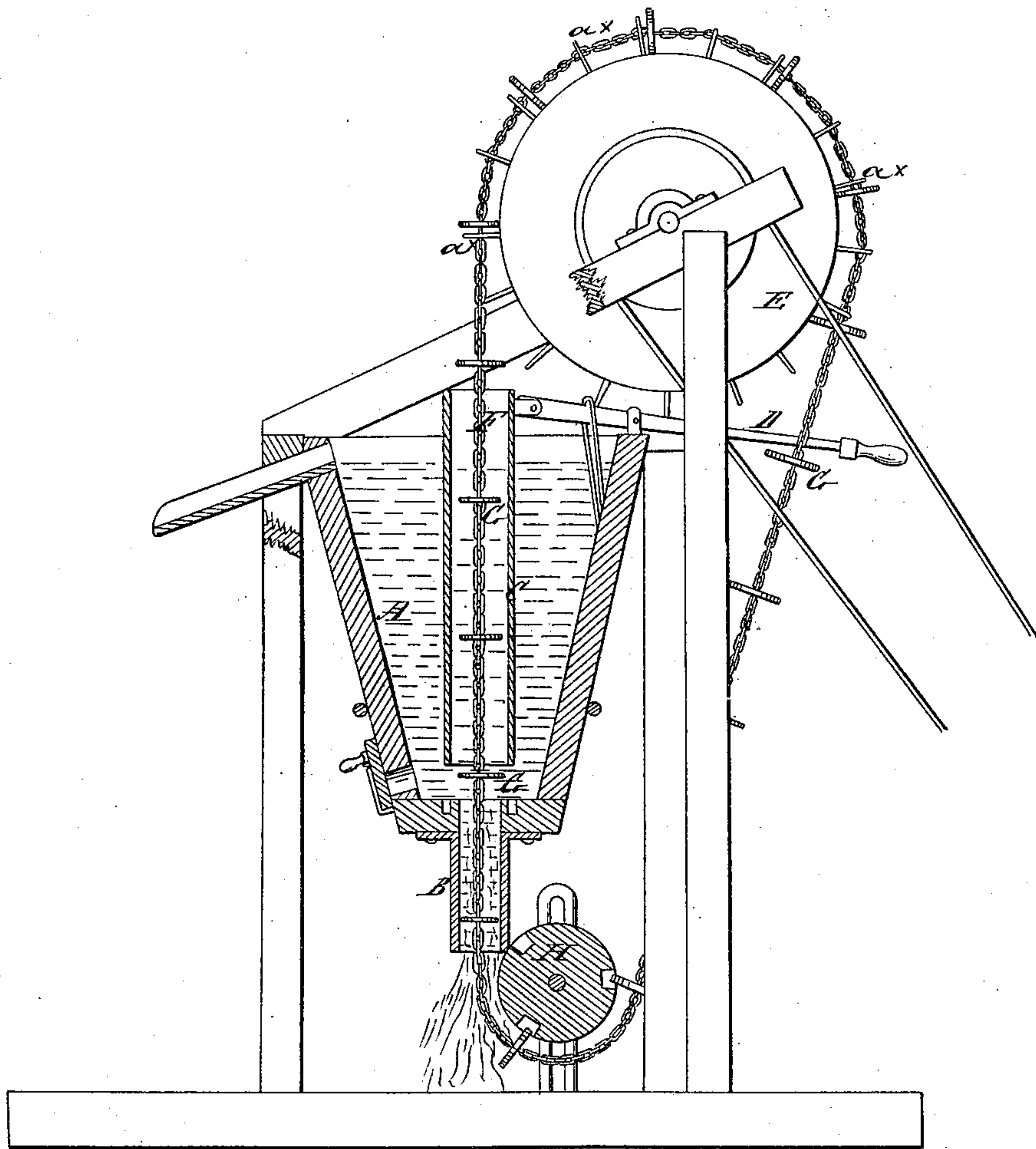


C. Mesler,

Chain Pump.

N° 44,010.

Patented Aug. 30, 1864.



Witnesses
Chas. L. Topliff,
Henry Morris

Inventor
Cornelius Mesler
per Munroe & Co.
attorneys

UNITED STATES PATENT OFFICE.

CORNELIUS MESLER, OF ALMOND, NEW YORK.

IMPROVEMENT IN HYDRAULIC MOTORS.

Specification forming part of Letters Patent No. 44,010, dated August 30, 1864.

To all whom it may concern:

Be it known that I, CORNELIUS MESLER, of Almond, in the county of Alleghany and State of New York, have invented a new and Improved Hydraulic Motor; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, said drawing representing a vertical central section of my invention.

This invention consists in the employment or use of a wheel provided with an endless chain having buckets attached to it at equal distances apart, in connection with a vertical adjustable tube, a stationary tube, and a pen-stock, all arranged substantially as hereinafter set forth, whereby it is believed that a cheap, simple, and durable means is employed for obtaining a large percentage of the power of water.

A represents a pen-stock, which is supplied with water from a pond or reservoir, and B is a vertical tube, secured to the bottom of the pen stock, communicating with it and open at its lower end. The pen-stock may be of quadrilateral form and of any suitable dimensions.

C is a tube, which is placed vertically within the pen-stock, in line with the tube B, and extending above the surface of the water in the pen stock. This tube C is so arranged that it may be raised and lowered, so as to cover the top of the stationary tube B, or have its lower end a greater or less distance above B, a lever D being connected to C for thus adjusting it.

The pen-stock A is fitted within a suitable framing, in the upper part of which a wheel, E, is placed, having its periphery provided with forked arms a^x , to receive an endless

chain, F, which has buckets or circular plates G attached to it at suitable and equal distances apart, said chain passing through the two tubes B C and around a drum, H, at the lower end of the tube B, said drum having its periphery provided with recesses to receive the buckets G and admit of the chain passing freely around it, as shown clearly in the drawing.

From the above description it will be seen that by raising the tube C to admit of the water passing into the tube B, that the water will act upon the buckets G and rotate the wheel E, the power being taken from the shaft of said wheel. The tube C, it will also be seen, serves as a gate, shutting, when fully down, the water entirely off from B, and admitting a greater or less quantity through B, according to the distance it is raised. The length of the tube B should slightly exceed the distance between the buckets, the pen-stock A being provided with a gate at its lower part, to allow the water to escape when necessary. The wheel E may be of any required diameter, and the forked arms a^x serve as stops for the buckets G, and thus prevent the chain from slipping on the wheel.

This device may be cheaply constructed, kept in repair at a small cost, and give a good percentage of the power of the water.

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

The wheel E, endless chain F, provided with buckets G, pen-stock A, stationary tube B, and adjustable tube C, all arranged substantially as and for the purpose herein set forth.

CORNELIUS MESLER.

Witnesses:

WM. HOWE,
N. E. BLAKE.