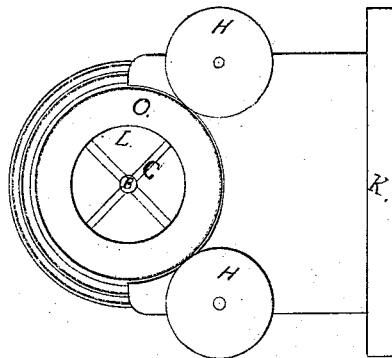
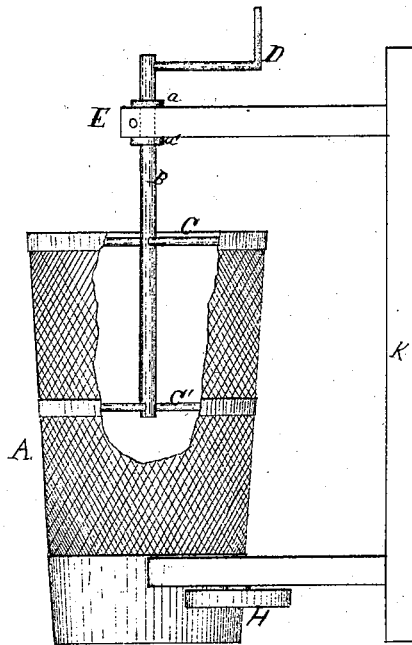


L. B. Fitcher,

Mortar Mixer.

No. 107,534.

Patented Sept. 20. 1870.



L. B. Fitcher } Witnesses
L. B. Sabine }
Luman B. Fitcher Inventor

United States Patent Office.

LEMAN B. PITCHER, OF SALINA, NEW YORK.

Letters Patent No. 107,534, dated September 20, 1870.

IMPROVEMENT IN MANNER OF MOUNTING HOLLOW REVOLVING CYLINDERS.

The Schedule referred to in these Letters Patent and making part of the same

I, LEMAN B. PITCHER, of the town of Salina, in the county of Onondaga and State of New York, have invented a new and improved Manner of Mounting Hollow Revolving Cylinders, of which the following is a specification.

This invention relates to mounting hollow cylinders, to be revolved on or near a level line, and used internally as manufacturing machines, in such a manner that the materials to be wrought can be readily fed into such cylinders at one end, while they are revolving, and sifted out or discharged therefrom.

The utility of such cylinders depends largely upon the convenience with which they may be fed and discharged. When made and mounted substantially as described, they may be advantageously employed in preparing lime, sand, gravel, or other materials for, or working them into mortar compounds; for sifting, screening, or assorting sand, gravel, coal, salt, grain, or other similar articles; in working or commingling earthen, fertilizers, or manures for agricultural purposes; and in commingling, separating, or manufacturing, with or without fluids or heat, any materials capable of being wrought therein, for any purposes whatever.

To make such cylinders easy to be approached and fed into, I mount the receiving end on friction-rollers H H'; and to prevent the cylinder A from working endwise, and also to render it convenient, to revolve them with a crank, D, and otherwise, I mount the discharging end on a half or short shaft, B, connected with and reaching from near the middle of the cylinder outwardly, and resting in a bearing or box, E, outside.

The cylinder A may be made four feet long, more or less, with parallel or diverging sides, with or without a head piece, O, in one end, with a hole, L, in the center thereof, twelve inches, more or less, in diameter. It may be made of perforated sheet metal in the form of

a cylindrical sieve, or of other sifting materials, or made of sheet-iron, or staves of wood, or other suitable materials, as a working and not sifting cylinder, and filled or not with teeth, ribs, or bars, as circumstances may require. It may be constructed in any mechanical manner.

The receiving end is to be mounted on friction-rollers H H', of suitable diameter and proportions, and proportioned and adjusted in any mechanical manner suitable to the cylinder, and the sustaining-frame or foundation K, so as to leave the end of the cylinder free to be approached and fed into.

The discharging end of the cylinder rests on a short shaft, of suitable size and materials, extending from near its middle outwardly fifteen inches, more or less, beyond the cylinder A, and resting in a box or bearing, E, supported by the frame or foundation K.

The shaft is provided with one or more set of cross-arms, C C, connecting it with the cylinder A. It may be otherwise connected, if in such a manner that they are each held in proper position while revolving.

On the shaft, on each side of the box E, collars *a a* are to be adjusted, or by some equivalent means, to prevent the cylinder A working endwise.

To the end of the shaft B a hand-crank, D, is affixed, by which to revolve the cylinder A. It may be revolved in any other mechanical manner.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of parts herein shown, for supporting one end of the cylinder A on friction-rollers H H', and the other end of said cylinder A on a short or half shaft, B, substantially as shown and described, for the purposes set forth.

LEMAN B. PITCHER.

Witnesses:

J. B. SABINE,
N. B. SMITH,