J. Blank.

Sewer-Pipe Machine.

No. 72787 Patented Dec. 31, 1867.

Fig. 3.

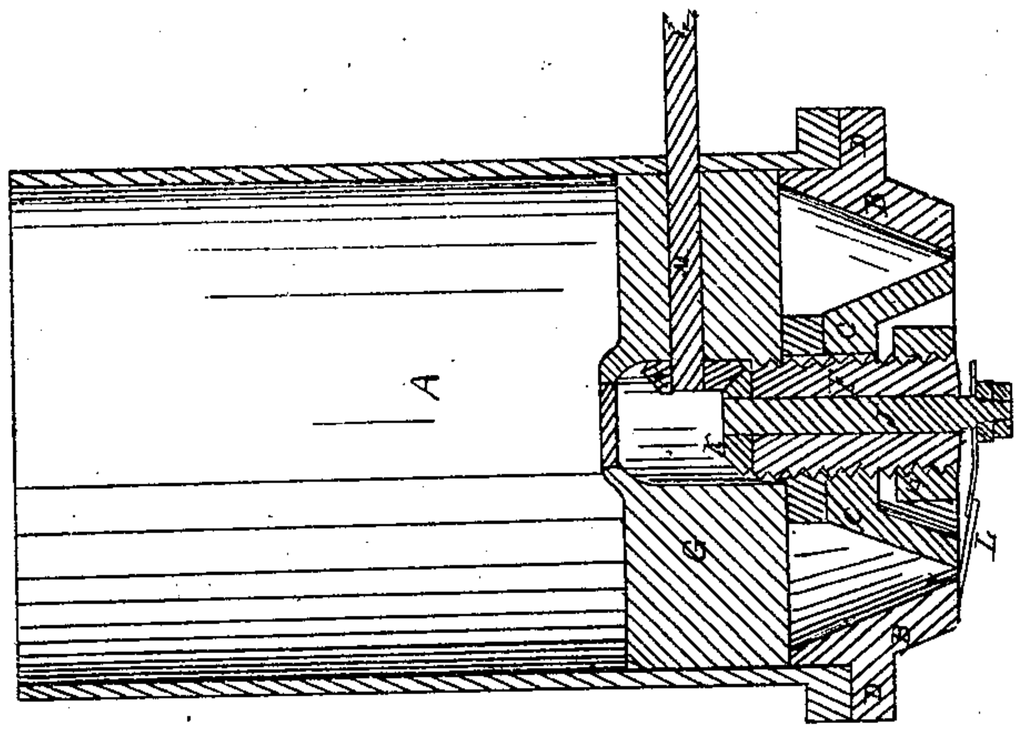


Fig. 2.

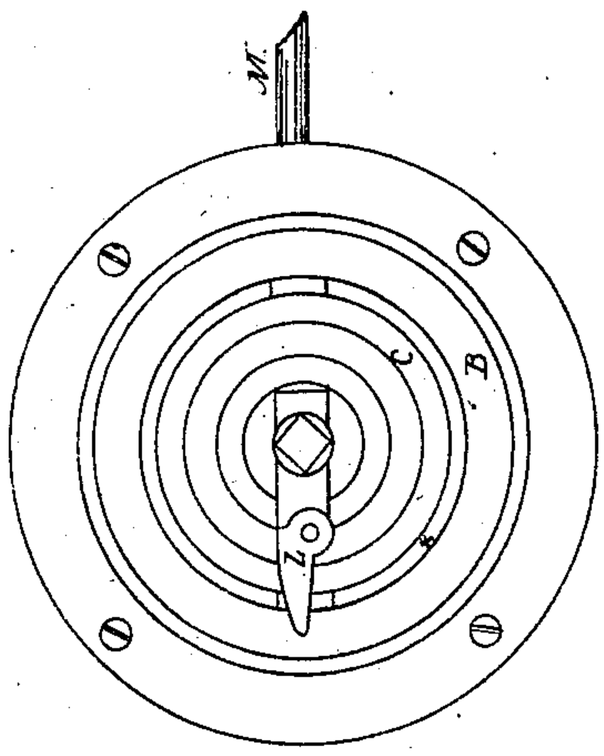
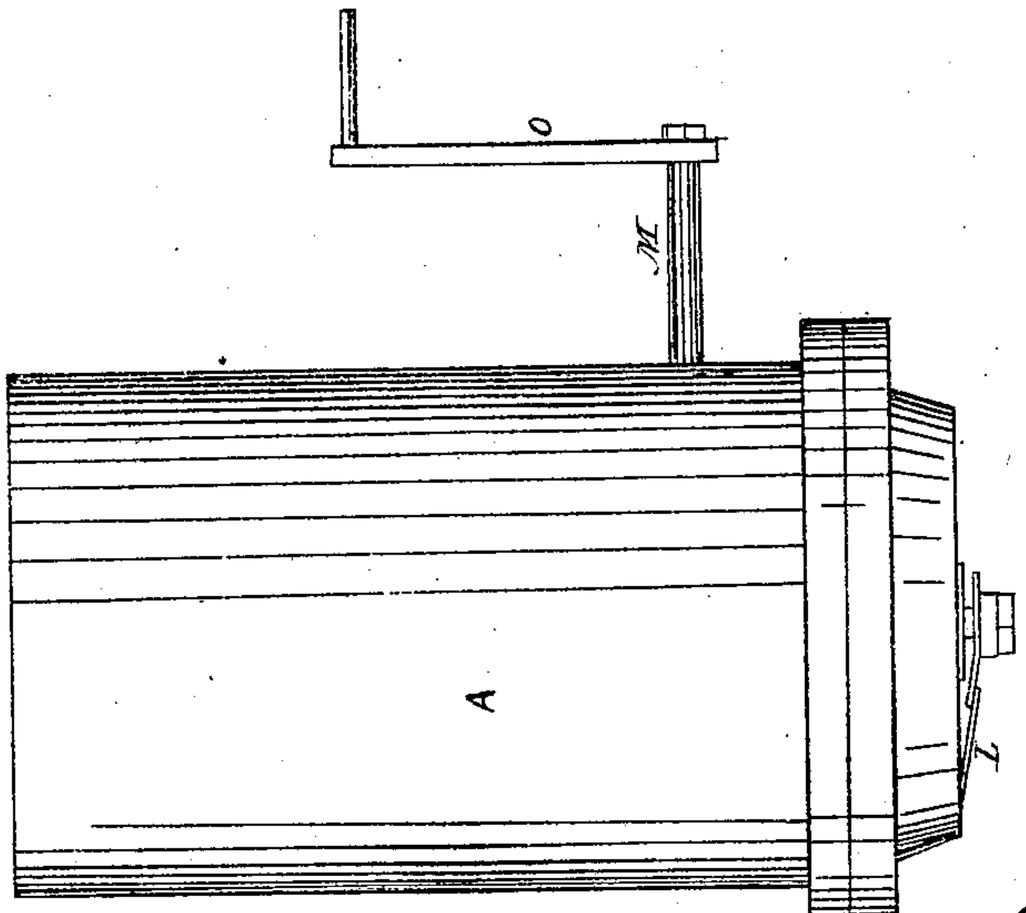


Fig. 1.



Witnesses:

J. H. Burroughs

Frank S. Calder.

Inventor

Jacob Blank

United States Patent Office.

JACOB BLANK, OF CUYAHOGA FALLS, OHIO.

Letters Patent No. 72,787, *dated December* 31, 1867.

IMPROVED SEWER-PIPE MACHINE.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JACOB BLANK, of Cuyahoga Falls, in the county of Summit, and State of Ohio, have invented certain new and useful Improvements in Sewer-Pipe Machines; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of the machine.

Figure 2 is a view of the inside.

Figure 3 is a vertical section.

Like letters of reference refer to like parts in the views.

A, fig. 1, is an iron cylinder, to the lower end of which is fitted a die. This die is constructed in two sections, an inner and outer, one of which, B, is the outer section, and C the inner. This outer one is a kind of shell, which forms a continuation of the cylinder, and, as it will be seen, narrows inward, forming an acute angle with the inner section of the die. It also forms a lining to the lower end of the cylinder, and is secured to the same by a flange, D, projecting from around the sides of the shell, and which conforms in size to the flange on the cylinder, to which it is bolted. The inner section of the die consists of a cone-shaped shell, C, above referred to, secured to the cylinder by a screw, F, which enters a cross-piece, G, secured to the inside of the cylinder. This shell is made to slide on over the screw, and is secured, in connection with the same, and to the cross-piece, by the nut H. Passing upward through the screw F, is a spindle, J, to the upper end of which is keyed a mitre-pinion, K, and to the lower end a jointed knife or cutter, L, the purpose of which will hereafter be shown. M is a shaft penetrating the cross-piece G, to the centre of the cylinder. On the inner end of this shaft is keyed a mitre-wheel, N, which is made to engage in the mitre-wheel *k*, and by which the spindle and jointed knife are operated by the crank O, fig. 1.

The practical operation of the machine is as follows: The prepared clay is thrown into the cylinder A, which is then forced out through the die by the application of a hydrostatic press or other power. The distance between the outer and inner sections of the die, marked X, makes the thickness of the pipe, and through which it is forced out when the proper length for a section of pipe is protruded. It is then cut off by means of the knife L, referred to, which, on being turned in the proper direction, is thrown outward, in consequence of the joint across the opening of the die, and thereby cuts off the pipe, which, on being done, by reversing the direction of the knife, it shuts back from across the opening of the die, and thus offers no obstruction to the descent of another length of pipe. It will be obvious that the thickness of the pipe may be varied by increasing or decreasing the space between the two sections of the die, which may be done by using a larger or smaller core or inner section of the die. The size of the pipe may also be varied by the use of a smaller core and outer section, so that any size pipe can be made with equal facility and correctness of shape and size.

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

The jointed knife or cutter, L, when arranged and operated by the spindle J, pinions K N, in combination with the die and cylinder A, for the purpose and in the manner substantially as described.

JACOB BLANK.

Witnesses:

J. H. BURRIDGE,

J. HOLMES.