

(No Model.)

E. T. MAPEL.

APPARATUS FOR DELIVERING CLAY TO SEWER PIPE PRESSES.

No. 446,530.

Patented Feb. 17, 1891.

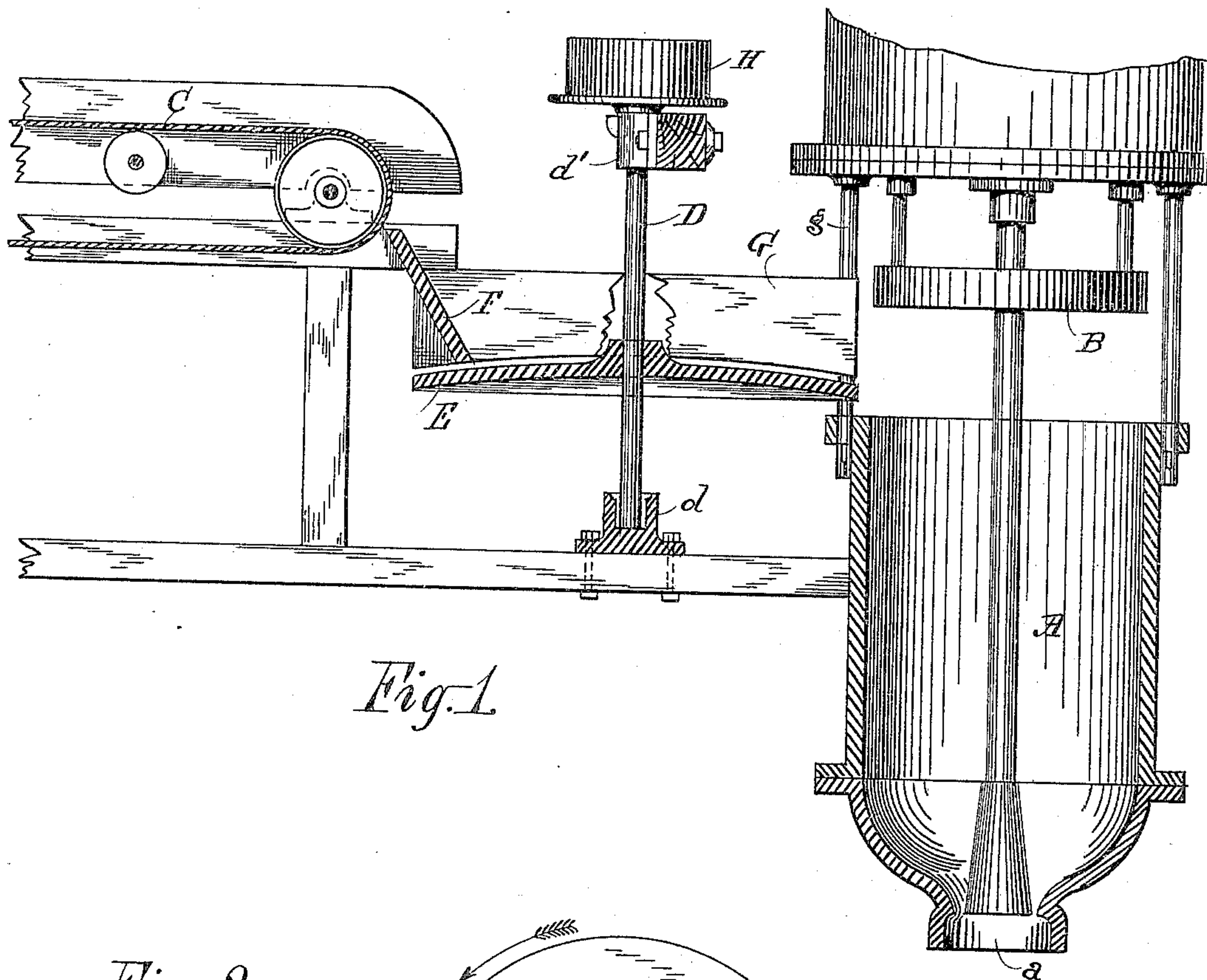


Fig. 1.

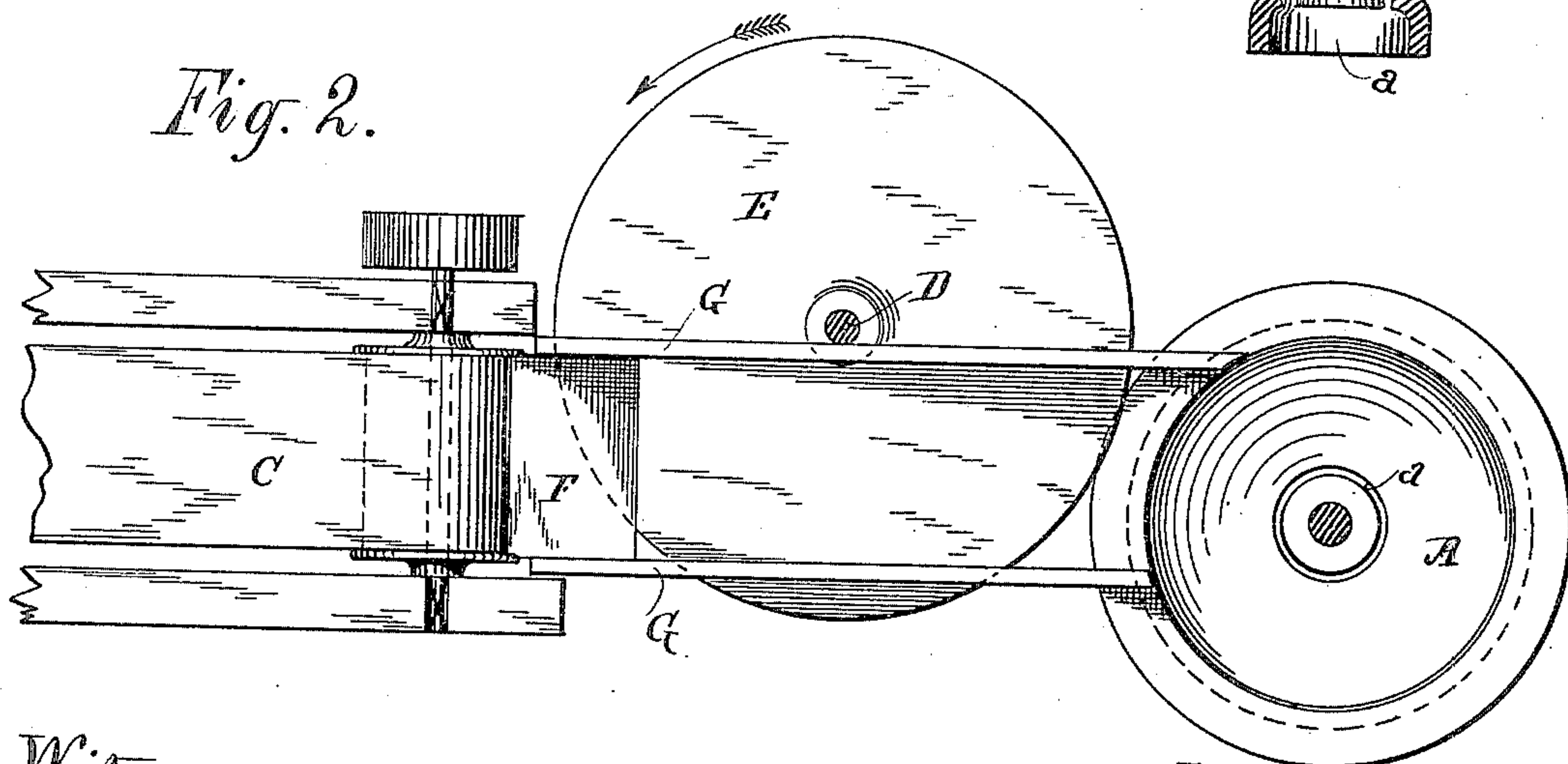


Fig. 2.

Witnesses.  
H. H. Overde,  
J. M. Crites

Inventor.  
E. T. Mapel  
by A. H. Le Marie  
att'y



# UNITED STATES PATENT OFFICE.

ELIJAH T. MAPEL, OF ALAMEDA, CALIFORNIA.

## APPARATUS FOR DELIVERING CLAY TO SEWER-PIPE PRESSES.

SPECIFICATION forming part of Letters Patent No. 446,530, dated February 17, 1891.

Application filed September 27, 1890. Serial No. 366,364. (No model.)

*To all whom it may concern:*

Be it known that I, ELIJAH THOMAS MAPEL, a citizen of the United States, residing at Alameda, in the county of Alameda and State of California, have invented a new and useful Apparatus for Delivering Clay to Sewer-Pipe Presses, of which the following is a specification.

My invention relates to a certain mode of delivering clay to sewer-pipe presses, whereby the proper distribution of the clay throughout the press-cylinder is secured; and it has for its object to provide a cheap, convenient, and compact device for this purpose.

Briefly explained the said invention consists in the interposition between the ordinary clay-conveyer and the press-cylinder of a peculiarly-shaped transmitting-wheel, which is rotated usually at a greater speed than the conveyer and acts in connection with a fixed chute and guides, as will be more fully explained hereinafter.

Referring to the accompanying drawings, which form part of this specification, Figure 1 is a sectional elevation of my improved apparatus, showing it in position between the clay-conveyer and the press; and Fig. 2 is a plan of the same.

Similar parts are indicated by similar letters of reference in both views.

Let A represent the cylinder into which the clay is thrown, *a* the annular orifice through which the clay is pressed out, and B the steam-actuated piston which does the pressing. These parts do not differ materially from the usual construction.

C is the conveyer which brings the tempered clay to the delivering apparatus and through it to the press. Were the clay delivered to the press directly from the conveyer it would fall to one particular spot in the cylinder, and this would require frequent stoppages in order to spread it out properly. It is to avoid this that my improved transmitting apparatus has been devised.

D is a shaft vertically set up midway between the conveyer and the press. This shaft steps in a block *d*, and is also fitted at the upper end in a box *d'*, both of which are bolted to suitable timbers, as shown.

Upon the shaft D is keyed or otherwise secured a wheel E, which extends from below

the inner end of the conveyer to a point above the upper edge of the press-cylinder, and whose office is to transmit the clay from the former to the latter. Wheel E may be made of any suitable material, and it is slightly curved downward from its center to its periphery like a segment of a hollow sphere to facilitate the discharge of the material it has to transmit.

The clay brought by the conveyer is dumped down a chute F onto the wheel E, whence it is thrown by centrifugal force into the cylinder A, the wheel being revolved under ordinary circumstances at a higher rate of speed than the conveyer to provide for a proper delivery of the material.

To prevent the clay from being scattered in all directions, I place on each side of the chute side boards or guides G G, which extend across the upper face of the wheel from the sides of the chute near the conveyer to suitable supports *g* close to the press. The clay being confined on three sides by the chute and the guides has no way of escape left but the passage leading to the cylinder, into which it is cast in continuous and even layers as long as the wheel is revolved at the proper speed.

The shaft D and wheel E are turned in the direction indicated by the arrow in Fig. 2 by means of a pulley H or any other suitable mechanism.

I am aware that intermediate transmitting contrivances, such as belts, &c., have been used for delivering clay from conveyers to sewer-pipe presses prior to my invention; but so far as I have been able to ascertain such devices are very costly, occupy a great deal of space, and can be manufactured only in a few large cities in this country, whereas my improved clay-deliverer is of compact form, is handled with ease, and may be built cheaply and in a short time wherever there is a foundry and a machine shop.

Having described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. An apparatus for delivering clay to sewer-pipe presses, consisting of a vertical shaft, a downwardly-curved wheel mounted thereon, and means to rotate the same, substantially as set forth.

2. An apparatus for delivering clay to sewer-

pipe presses, comprising a rotatable downwardly-curved wheel, a chute thereabove, and guides to confine the clay dumped upon said wheel, so as to compel its escape in one direction, substantially as set forth.

5 3. The combination, with a sewer-pipe press, of a conveyer and an intermediate downwardly-curved wheel adapted to transmit the clay from said conveyer to said press by centrifugal force, substantially as set forth.

10 4. In an apparatus for delivering clay to sewer-pipe presses, the combination of a con-

veyer, a chute thereunder, a rotatable downwardly-curved wheel below said chute, and guides running from each side of said chute across the face of said wheel, substantially as set forth. 15

In testimony whereof I have hereunto set my hand and affixed my seal in the presence of two witnesses.

ELIJAH T. MAPEL. [L. S.]

In presence of—

HORACE D. RANLETT,  
LEE D. CRAIG.