

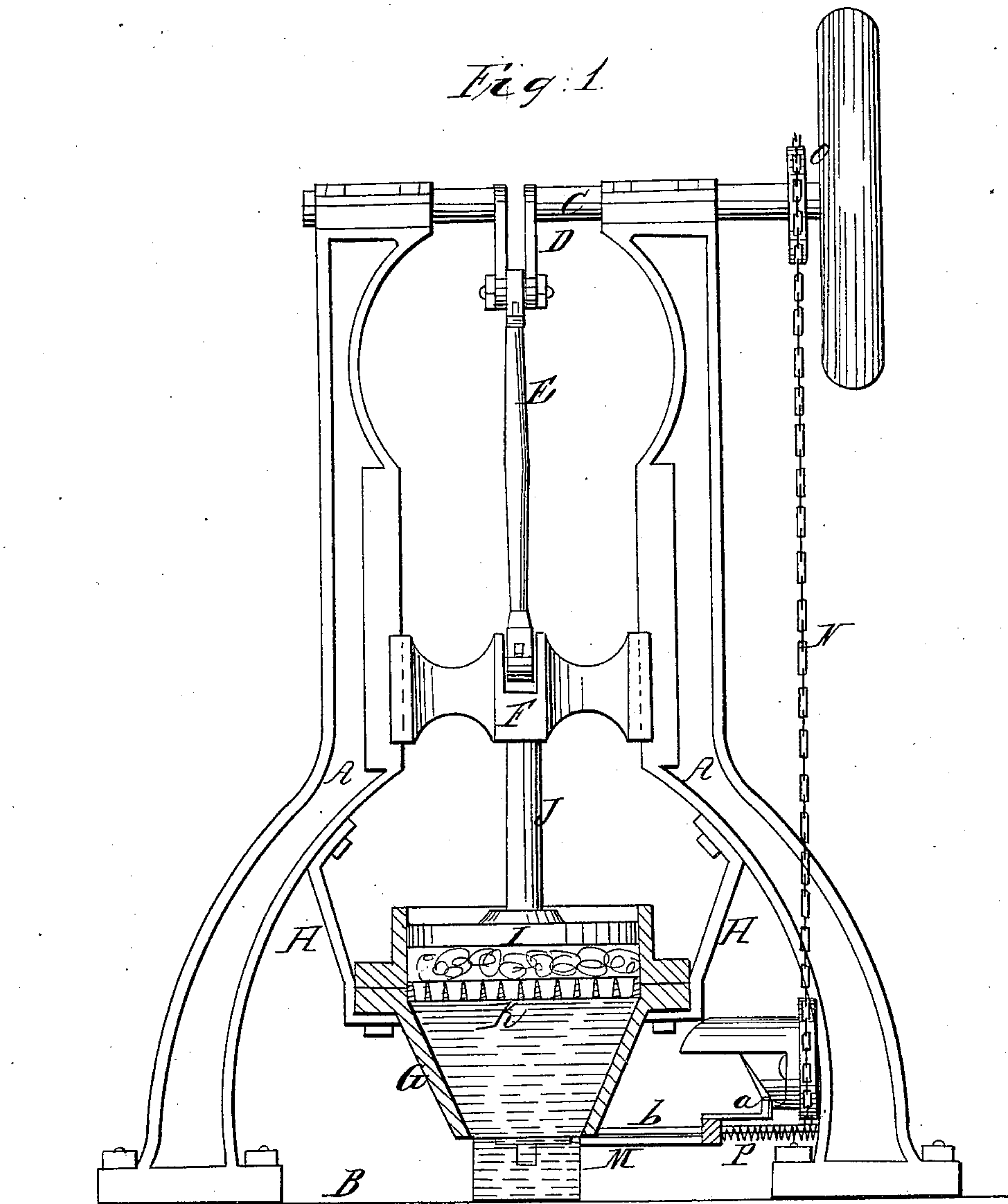
*H. H. Thayer,*

*Pug Mill.*

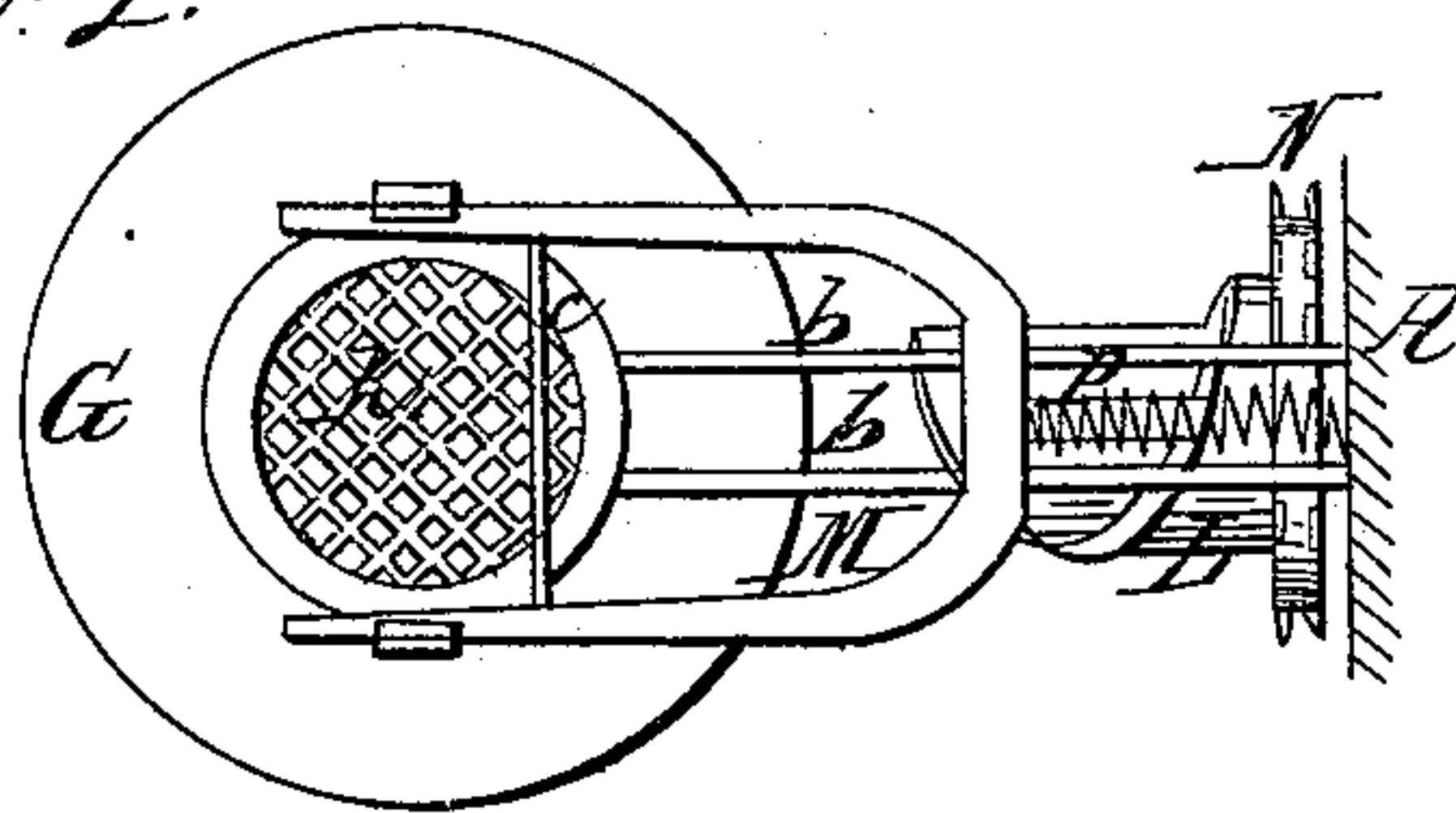
*No 13,017.*

*Patented June 5, 1855.*

*Fig: 1.*



*Fig: 2.*





# UNITED STATES PATENT OFFICE.

H. H. THAYER, OF SANDWICH, MASSACHUSETTS.

## MACHINE FOR KNEADING CLAY.

Specification of Letters Patent No. 13,017, dated June 5, 1855.

*To all whom it may concern:*

Be it known that I, HARLOW H. THAYER, of Sandwich, in the county of Barnstable and State of Massachusetts, have invented a new and useful Machine for Kneading Clay for Pottery; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a front view of my improved machine, the inverted conical press chamber being bisected vertically through its center. Fig. 2, is an inverted plan of the press chamber and device for cutting off the discharged clay.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to a new and useful machine for kneading clay for pottery, and consists in the employment of an inverted conical press chamber, having a plunger working within it, said chamber being provided with a screen peculiarly constructed as will be presently shown and described.

My invention further consists in the combination of the press chamber, and a device for cutting off the discharged clay.

A, A, represents two uprights constructed of wood or metal and secured to a proper base B. On the upper ends of the uprights a horizontal shaft C, is fitted in suitable bearings, said shaft having a crank D, upon it to which the upper end of a connecting rod E, is secured, the lower end of the rod being attached to a guide F, the ends of which are grooved and fit over the inner edges of the uprights A, A, which serve as ways. To the lower parts of the uprights A, A, an inverted conical press chamber G, is attached by arms or braces H, H. The lower end of said chamber is a short distance above the surface of base B. The upper end of the chamber G, is of a true cylindrical form for a short distance, in order to allow a plunger I, to work therein, said plunger being connected to the guide F, by a rod J. At the lower part of the cylindrical portion of the press chamber and between the cylindrical portion and the conical, there is a screen or perforated plate K, the apertures of which are of taper form. The lower orifices being smaller than the upper ones, the orifices are of rectangular form as shown clearly in Fig. 2. To the lower part of one of the uprights A, there is

attached a cam L, against the edge of which the shank (a) of a fork M, bears, said fork M, being underneath the chamber G, and working on guide rods (b) (b) the ends of which are attached to the lower edge of the chamber G, and one of the uprights A. The inner end of the cam L, has teeth or projections upon it which fit in the links of a chain N, which passes around the cam and also around a toothed wheel O, on the shaft C.

P, is a spiral spring which is attached to the back end of the fork M and to the frame A. The prongs of the fork have a wire (c) attached to them, as clearly shown in Fig. 2.

The clay properly moistened is placed in the upper part of the chamber, and power being applied to the shaft C, the plunger I, forces the clay through the screen or perforated plate K, which on account of its taper orifices compresses the clay as it is forced through them. Upon the succeeding stroke of the plunger, the clay is again compressed by being forced through the lower end of the chamber G, owing to the inverted conical form of said chamber. As the plunger I, rises the fork M, is forced forward underneath the chamber G, by the cam L, which is rotated by the chain N, and the wire (c) cuts off the clay discharged from the press chamber, the fork being forced back to its original position, when the prominent portion of the cam, has passed the shank (a) of the fork, by means of the spiral spring P. The clay is worked over till it is properly kneaded. The machine may be driven by any kind of power and it works effectively and rapidly.

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

1. The employment of the inverted conical chamber G, provided with a screen or perforated plate K, which has its apertures of taper form, said chamber having a plunger I, working in its upper cylindrical portion, for the purpose as herein set forth.

2. I also claim the press chamber G, constructed as above described, in combination with the reciprocating fork M, for cutting off the clay discharged from the press chamber, the fork being operated substantially as herein shown and described.

HARLOW H. THAYER.

Witnesses:

WM. L. NYE,  
CHARLES B. HALL.