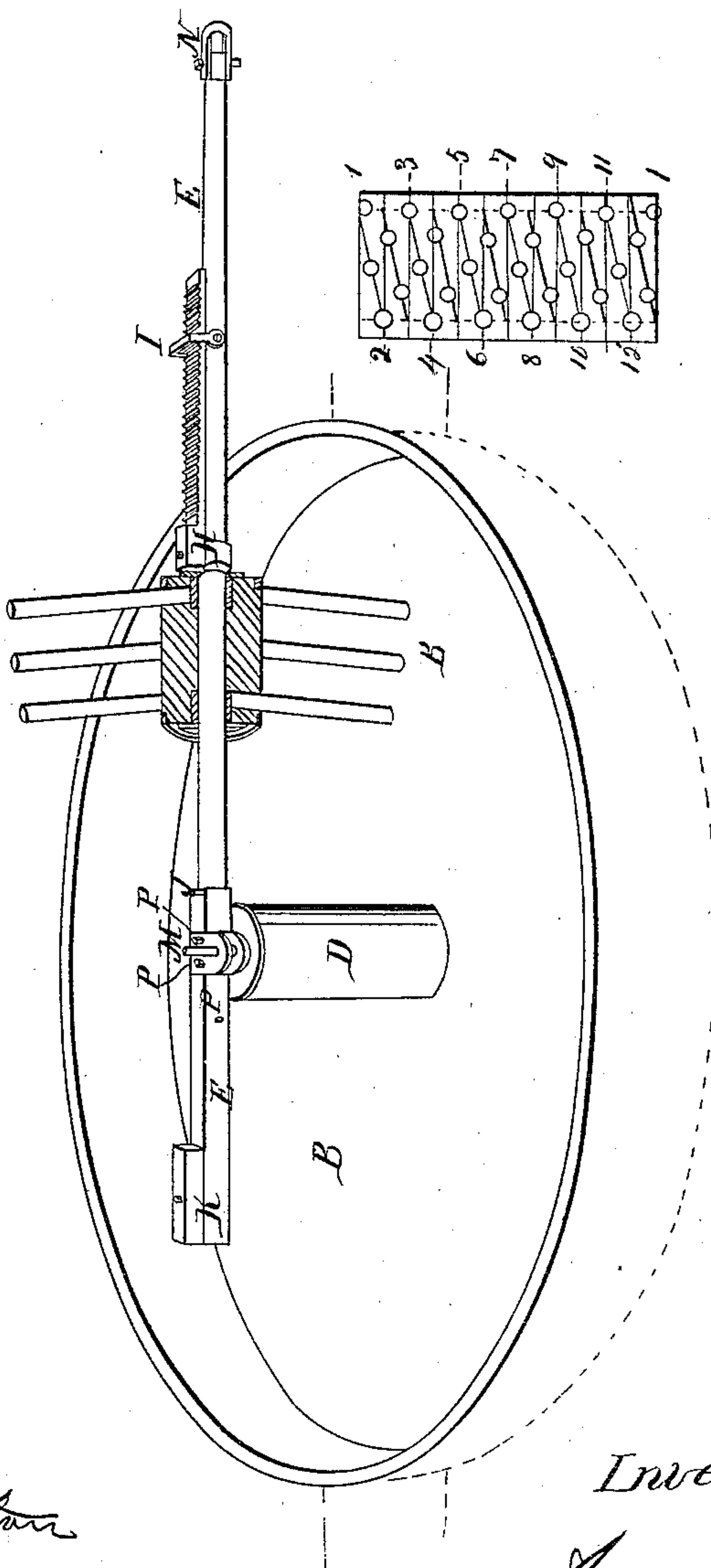


A. Teall,

Mortar Mixer.

No. 1,098.

Patented Mar. 12, 1839.



Witnesses;

*John Burton
Henry Kelly*

Inventor;

Amel Teall

UNITED STATES PATENT OFFICE.

ANSEL TEALL, OF WATERLOO, NEW YORK.

MACHINE FOR MIXING CLAY, MORTAR, &c., FOR MAKING BRICKS AND OTHER PURPOSES.

Specification of Letters Patent No. 1,098, dated March 12, 1839.

To all whom it may concern:

Be it known that I, ANSEL TEALL, of Waterloo, in the county of Seneca and State of New York, have invented a new and useful
5 Machine in the Brick-Making Business, which I call the "Eccentric Mortar-Machine," and that the following is a full and exact description thereof, to be used in a circular pit of thirteen feet diameter and fifteen inches deep as represented by B B, in the drawing hereto annexed.

In the center of the pit is placed the circular center post D, fourteen inches in diameter and two feet four inches long; in the
15 center of the top of this post is a perpendicular hole fourteen inches deep and one and a fourth inch diameter. In this hole is placed an iron bolt, marked M, on said drawing, two feet long and one inch diameter.
20 The top of the center post is covered with a circular iron plate or washer, half an inch thick with a hole through the center, through which passes the iron bolt M. This bolt and washer are not fastened, but left loose for
25 the purpose of removal.

The machine has an axle tree or shaft marked E, on said drawing fifteen feet long, of which four and a half feet next the center of the pit is four inches square, the middle part seven feet is round, four inches in
30 diameter, the end most remote from the center post is round, gradually tapering, for three and a half feet, from four to three inches diameter. At the termination of the square and commencement of the round part of this shaft, and through the center thereof passes an iron pin half an inch square, and projecting one inch on each side marked J, on said drawing. Six inches from the center of this pin and on the square part of the shaft are two iron plates, one on the top and one on the underside let into the shaft, and extending five inches farther on the square part, five inches wide, and eight inches long,
45 made semicircular at one end, and that end projecting beyond the side of the shaft four inches, the other end being even with the other side of the shaft. Through the projecting semicircular ends of these plates are circular holes one inch in diameter, the center of the holes being four inches from the center of the shaft. Through these holes passes the aforesaid bolt M. When the machine is in motion the bottom plate is one
50 inch thick and the top plate three fourths

of an inch thick, and both are fastened to the shaft by the screw bolts marked P P. At the round end of the shaft is an iron band fastened on. Through this band and through the center of the shaft is a perpendicular hole, for the purpose of attaching
60 the end of the shaft to a whiffletree by means of a bolt and clevis N. Three and a half feet from this band, passes horizontally through the center of the shaft an iron bolt, which also passes through the extremities of an iron clasp marked I. This clasp plays freely on the bolt, and permits a slide or gage to pass between it and the upper surface of the shaft.
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The slide or gage is three feet long and marked H. It is four inches wide and an inch and a half thick. On the under side of the slide or gage, on the end toward the center post is an iron plate one inch wide and half an inch thick fastened to the slide or gage with screw bolts. To the under side of this plate is fastened an iron band four and a half inches diameter inside. The circular part of the shaft is made to pass freely
70 through this band. Adjoining this band, and toward the center post is an iron plate or washer five inches in diameter with a hole through the center large enough for the round part of the shaft to pass through. 75 There is also another plate or washer of like dimensions on the round part of the shaft toward the bolt J. These washers move freely on the round part of the shaft, and between them is the hub, which is a cylinder twenty two inches long and fifteen inches diameter. Through the center is a cylindrical hole of sufficient size to permit the round part of the shaft to pass easily through. The hub has an iron band at each end outside, and cast iron boxes inside. Into the hub are inserted thirty cylindrical arms or spokes, two and a half inches diameter. The hub is laid out for receiving the arms or spokes as follows: the cylindrical surface
80 is divided into twelve equal parts by lines parallel to its axis. Circular lines are passed around the hub three and a fourth inches from the ends thereof. From the points where the circular line at one end crosses
85 the parallel lines numbers one, three, five, seven, nine, and eleven, draw diagonal lines to the points where the circular line at the other end crosses the parallel lines number two, four, six, eight, ten and twelve. Divide
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these diagonal lines each into two equal spaces. The termination of each of the spaces will be the place for the center of a spoke, each of these diagonal lines containing three spokes; also from the points where the circular line at one end crosses the parallel lines number two, four, six, eight, ten and twelve, draw other diagonal lines between the first mentioned diagonal lines and parallel to them. To the points where the circular line at the other end crosses the parallel lines number three, five, seven, nine, eleven and one respectively, divide these last mentioned diagonal lines into two equal spaces. The center of each of these spaces will be the place for the center of a spoke, each of these last mentioned diagonal lines, containing two spokes. The spokes all stand in the plane of the axis of the hub, but with their tops inclined two inches toward the center post. The ends of the spokes nearest the center post are thirty inches from the center of the shaft, those most remote are thirty two inches, the others gradually varying between these two distances, and all beveled so as to fit the bottom of a level pit as the hub rolls around.

The above dimensions are proper for a pit thirteen feet diameter and fifteen inches deep, but may be varied to suit a larger or smaller pit, or the wishes of the operator. The shaft, hub, spokes, center post and slide may be made of any good, strong wood; if the machine does not balance to suit the operator, he can increase the weight of the

square end of the shaft by the addition of the wooden block marked K, of any desired weight, for the purpose of guiding the horse. One end of a rod or small pole may be inserted into the hole marked P in the shaft a little back of the center post, bored with a suitable inclination to raise the other end of the rod to a proper height and position to fasten the bridle reins to.

By reason of the eccentric motion of the shaft and the revolution of the hub around it, the hub and spokes or arms, which make the mortar, move toward the center of the pit when the horse or moving power is on the same side of the shaft with the center post, and from the center of the pit if the horse or moving power is on the opposite side of the shaft, and by the slide or gage this motion is regulated. The gage is moved by the hand of the operator at his pleasure, toward the center of the pit or from it.

What I claim to be new and of my own invention is—

The slide or gage constructed as herein described in combination with the hub and shaft as herein described, by which the motion of the hub with its arms or spokes is regulated, and they are prevented from moving from the center of the pit faster than the operator wishes.

ANSEL TEALL.

Witnesses:

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HENRY KELLY.