

(No Model.)

2 Sheets—Sheet 1.

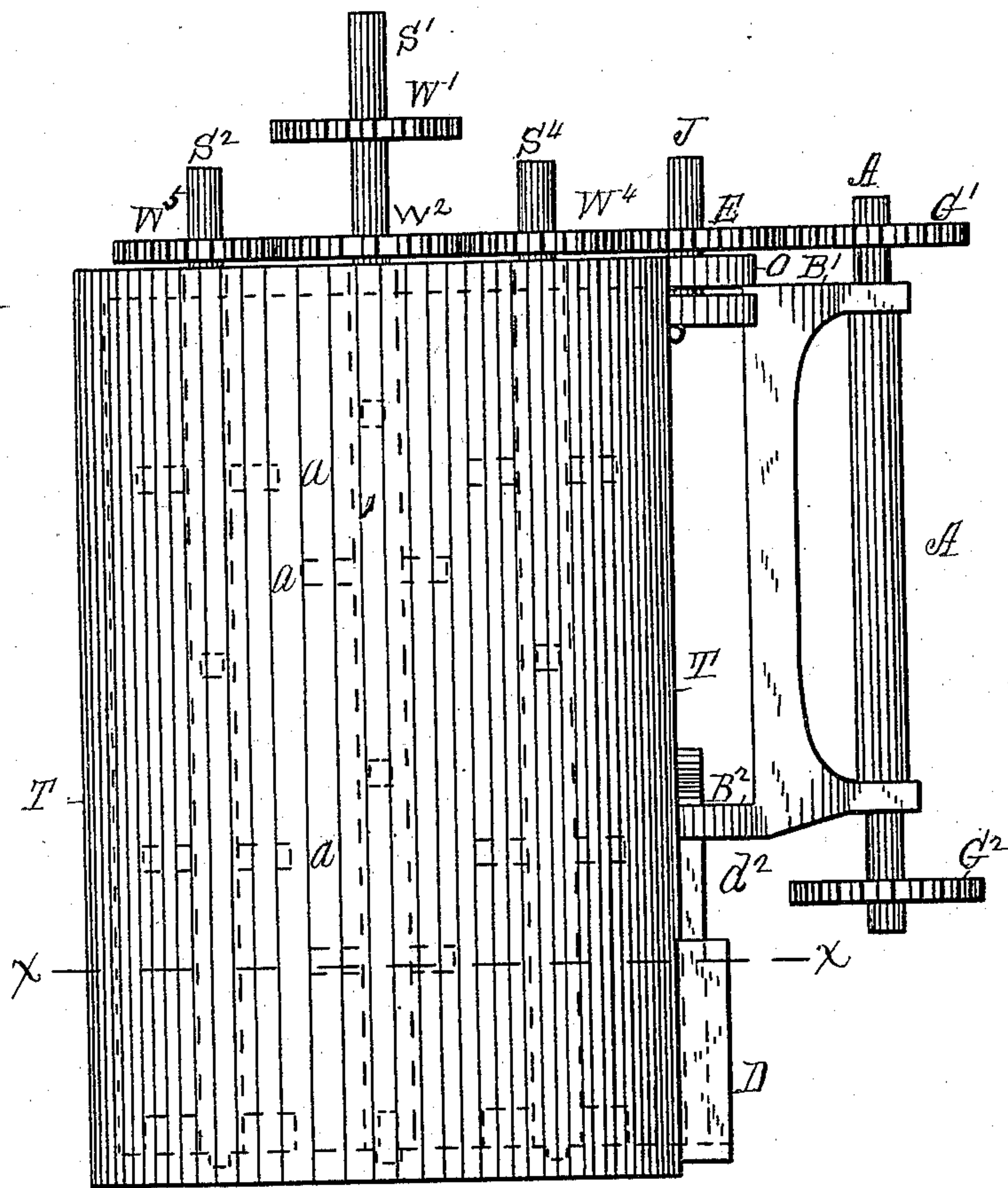
W. W. WINN.

APPARATUS FOR TEMPERING AND PREPARING CLAY FOR MAKING BRICK.

No. 287,074.

Patented Oct. 23, 1883.

Fig. 1.



Witnesses:

Charles S. Brintnall

Stanley M. Holder.

Inventor:

Walter Williams Winn

By W. C. Hagan his atty

(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

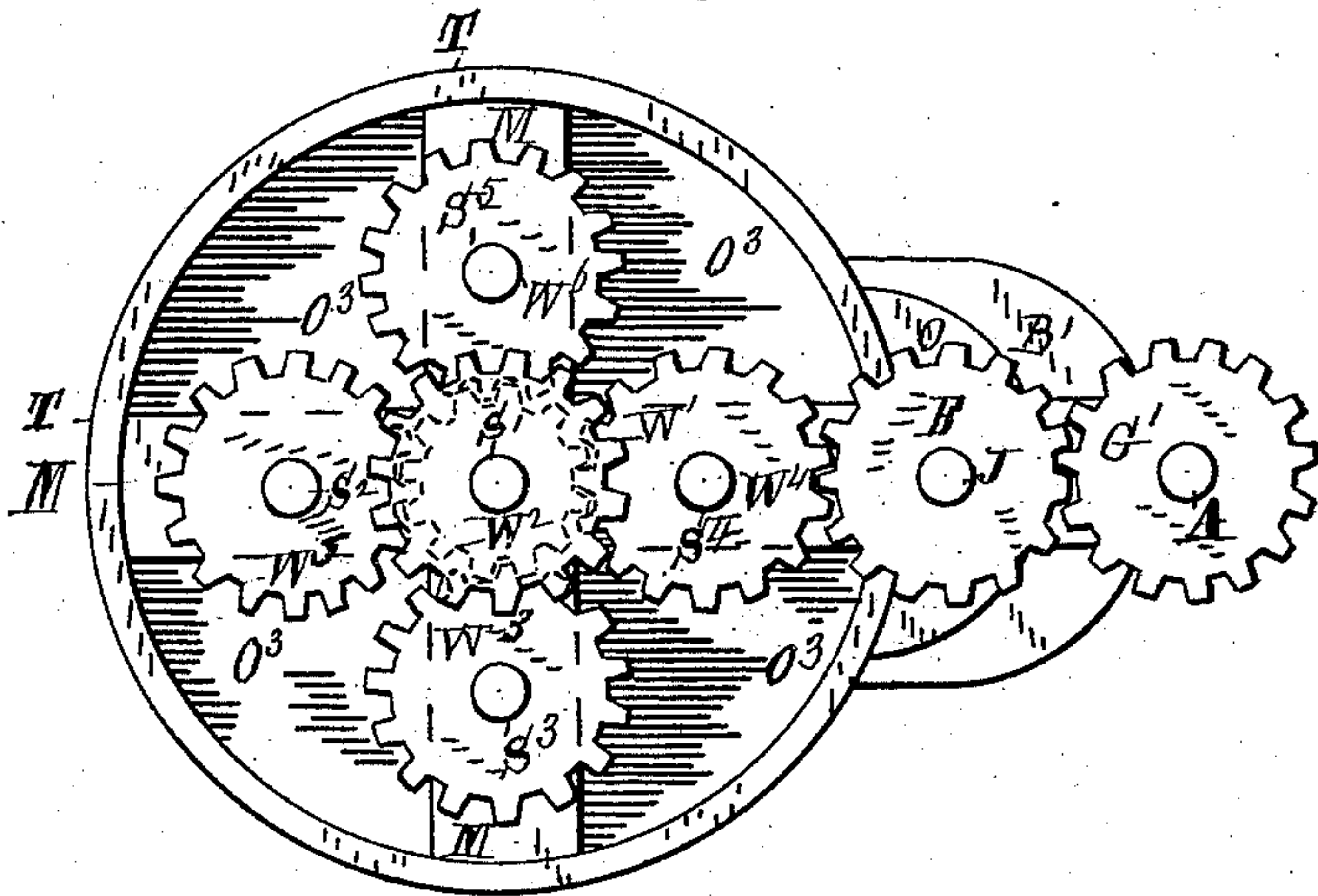
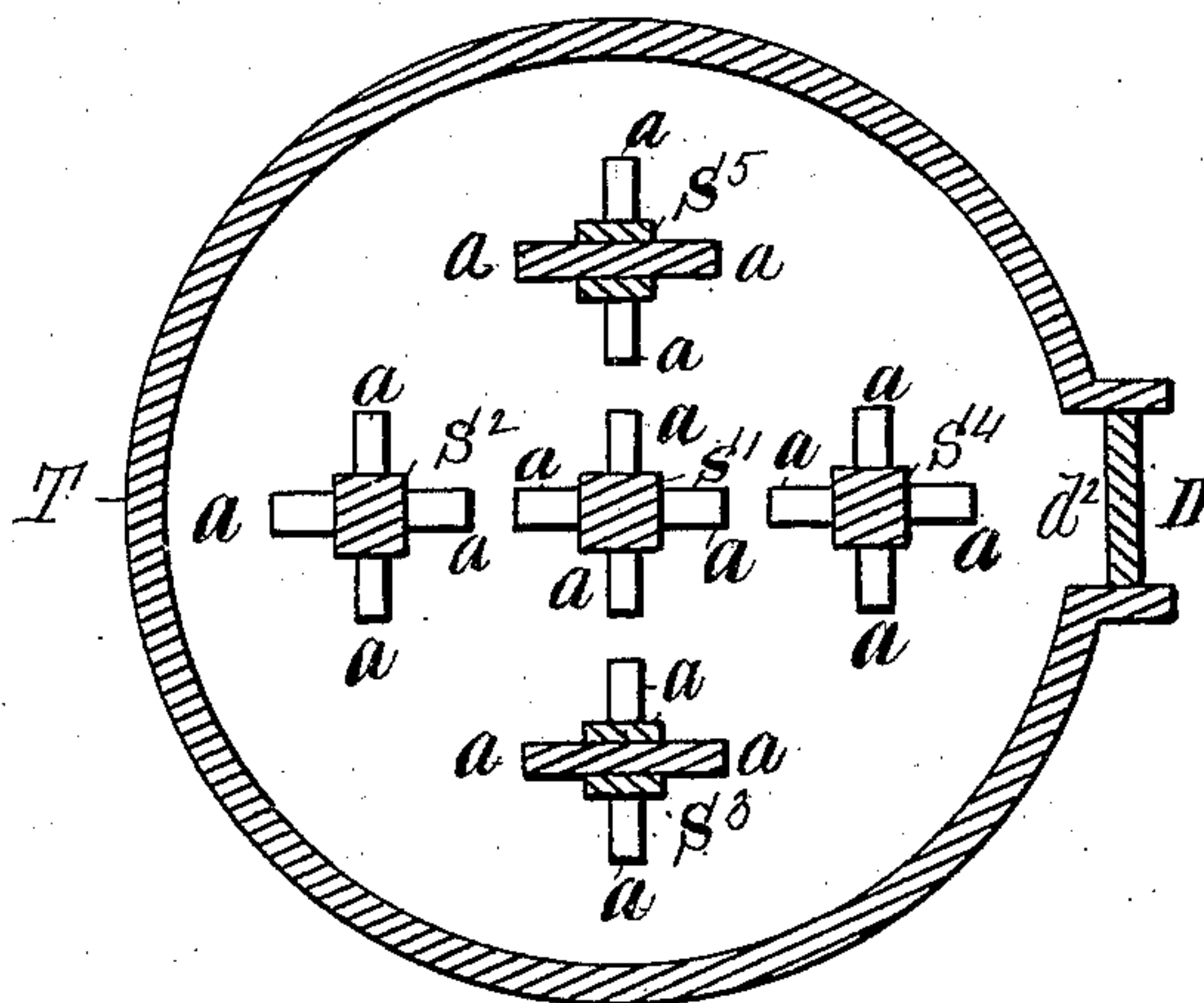


Fig. 3.



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UNITED STATES PATENT OFFICE.

WALTER W. WINN, OF TROY, NEW YORK.

APPARATUS FOR TEMPERING AND PREPARING CLAY FOR MAKING BRICK.

SPECIFICATION forming part of Letters Patent No. 287,074, dated October 23, 1883.

Application filed March 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, WALTER WILLIAMS WINN, of the city of Troy, county of Rensselaer, and State of New York, have invented a new and useful Improvement in Apparatus for Tempering and Mixing Clay for Making Brick, of which the following is a specification.

My invention relates to certain improvements in clay mixing and tempering machines; and the object of my invention is to better adapt such devices for puddling clay and mixing it, and to do the work more expeditiously.

My invention consists, as will hereinafter be more fully described, in the combination, with a tank or tub adapted to hold the clay, and constructed with a delivery-opening at the bottom, of a central vertical shaft having vertical bearings at the bottom and the top of the tub, and provided with an upper cog-wheel to receive and a lower cog-wheel to transmit motion, four auxiliary vertical shafts arranged between the central shaft and the tub, which are provided with vertical bearings in the bottom and at the top of the tub, and constructed with cog-wheels on their upper ends that gear into the lower cog-wheel on the central shaft, with the latter and the auxiliary mixing-shafts provided with blades or arms that move in alternating horizontal planes of revolution on the shafts, and an offset shaft having bracket-bearings attached to the tub, an intermediately-placed cog-wheel adapted to receive motion from one of the wheels of one of the auxiliary mixing-shafts, and a cog-wheel upon the offset shaft adapted to transmit power therefrom to a machine to mold the clay into brick.

In the accompanying two sheets of drawings, forming a part of this specification, there are shown three figures illustrating my invention, and in all of which the same designation of parts by letter-reference is used.

Of these drawings, Figure 1 shows a side elevation of the apparatus, with a dotted line indicating the position, relatively, of the central and auxiliary mixing-shafts within the tub. Fig. 2 represents in a plan view the tops of the shafts and tub, and the cog-wheels on the upper ends of the shafts arranged within the tub; also the shaft and gear-wheel arranged in offset brackets, and also the shaft and wheel intermediately placed to connect

the wheel on the offset shaft with that on one of the auxiliary mixing-shafts. Fig. 3 shows a transverse section taken on the line *xx* of Fig. 1.

The several parts of the mechanism are designated by letter-reference and their operation explained as follows:

The letter T indicates the tub, and D a delivery-opening formed at the side and bottom of the latter, said opening being constructed with the sliding door *d*.

The letter S' designates the central shaft, provided with the upper cog-wheel, W', for receiving motion, and the lower wheel, W², for transmitting motion.

The letters S² S³ S⁴ S⁵ indicate the auxiliary mixing-shafts, which are arranged within the tub between the central mixing-shaft and the tub, and upon the upper ends of each of which there is arranged one of the cog-wheels W³ W⁴ W⁵ W⁶, all of which are constructed to gear into the central wheel, W², on the shaft S'. All of these shafts, including the central one, have bearings in the tub at the bottom, and at the top in the cross-braces M M, arranged within the tub, and they are all constructed with the radially-arranged horizontal mixing blades or bars *a*, which are placed on the shafts so as to move in differing longitudinal planes.

The letters B' and B² designate two brackets, attached to the tub sides, and A an offset shaft having vertical bearings in said brackets, and G' and G² cog-wheels on said shaft to receive and transmit power.

The letter J designates a short shaft, constructed with vertical bearings in the bracket B', and the upper bracket, O, also attached to said tub; and E indicates a cog-wheel on the shaft J, connecting the gear-wheel G' with the wheel W⁴ on the auxiliary shaft S⁴. As thus constructed, with power applied to the wheel W' on the central shaft, all the other shafts are actuated, and when clay is fed into the tub through the openings O³ it is thoroughly triturated by the arms on the shafts within the tub, and is discharged, when this operation is completed, through the opening *d*.

I am well aware that devices of this kind have been constructed with one central shaft with mixing-blades; but by my improvement four new centers of motion, having opposite revolution to that of the center shaft, have

been added to this older method to better prepare the clay and to hasten its delivery.

5 The combination of a mixing apparatus constructed with my improved method of arranging the triturating-shafts with an offset shaft and geared connection to communicate power therefrom to the machine that molds the clay into brick, furnishes a useful means, as shown, for that purpose.

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

The combination, with the tank, vertically-

arranged central actuating-shaft, circumferential auxiliary shafts, and gear-wheel E, journaled in brackets, as described, of the brackets B' B², fixed to the sides of the tank, and shaft A, having the gear-wheels G' and G², substantially as and for the purpose set forth. 15

Signed at the city of Troy this 2d day of March, 1883. 20

WALTER WILLIAMS WINN.

Witnesses:

STANLEY M. HOLDEN,

CHARLES S. BRINTNALL.