J. WALKER.

ROTARY BRICK MACHINE.

APPLICATION FILED MAY 17, 1907.

899,087.

Patented Sept. 22, 1908.

Fig. 1.

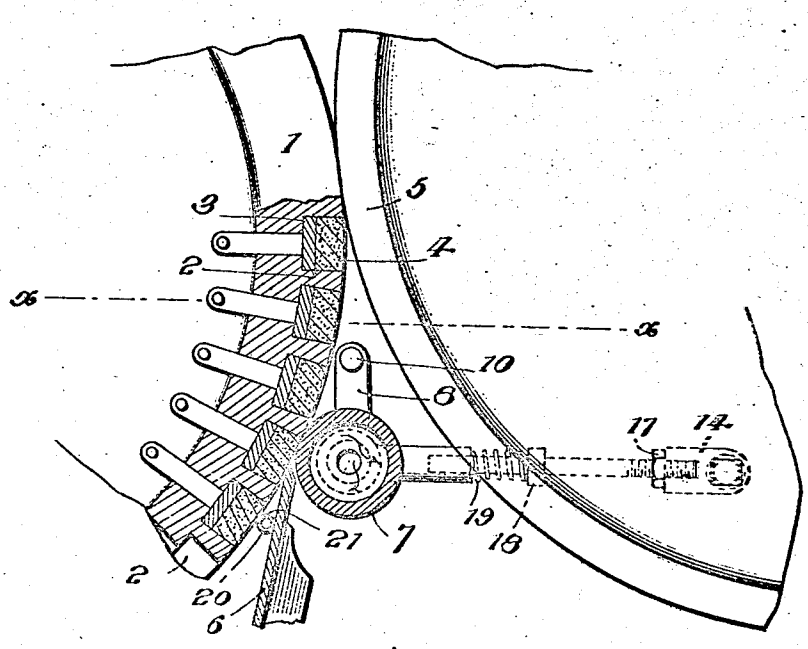
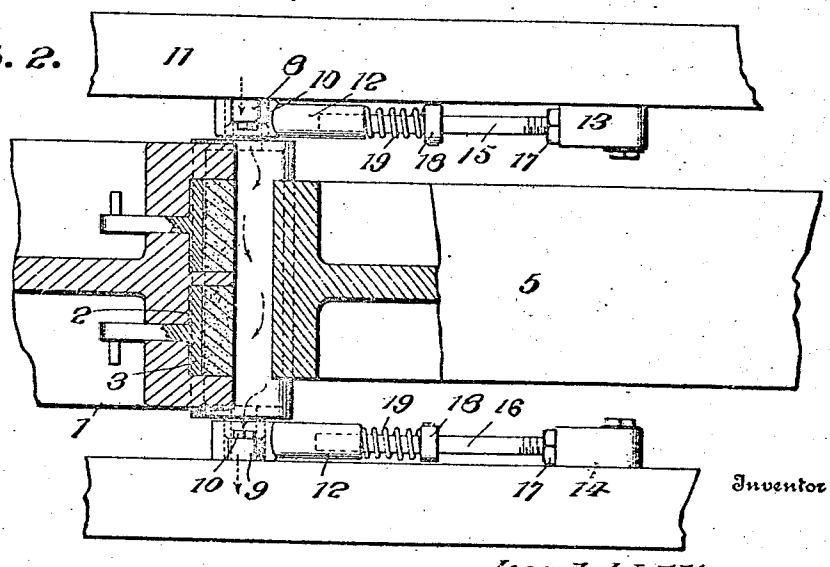


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH WALKER, OF ALEXANDRIA, VIRGINIA.

ROTARY BRICK-MACHINE.

No. 899,087. Specification of Letters Patent. Patented Sept. 22, 1908.

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To all whom it may concern:

Be it known that I, JOSEPH WALKER, a citizen of the United States, residing at Alexandria, in the county of Alexandria and State of Virginia, have invented certain new and useful Improvements in Rotary Brick-Machines, of which the following is a specification.

My invention relates to improvements in brick machines and pertains more particularly to rotary machines.

The object of my invention is to provide a machine of this character in which the brick can be readily trimmed or cut on their outer faces after having been pressed and which will absolutely prevent the brick from cracking or otherwise causing a rough surface.

Another object of my invention is to provide a more simple, cheap and effective attachment which can be readily placed upon any of the well known forms of rotary brick machines.

In the accompanying drawings: Figure 1 is a side elevation of a rotary brick machine, partly broken away, showing my attachment applied and showing the same in section; and Fig. 2 is a horizontal sectional view taken on the line *x*—*x* of Fig. 1.

Referring now to the drawings, 1 represents the mold carrying wheel which is provided with mold openings 2 on its outer periphery and having plungers 3 for forcing the bricks 4 therefrom. The compressor roller or wheel 5 compresses the brick within the mold, all of which is well understood by those skilled in the art, and needs no further description. After the bricks are formed it is necessary to trim the outer face of the brick so as to have a smooth flat brick, and, in order to do this at the same molding operation, I provide a knife 6 which may be of any desired structure or character.

In machines of this character it has been found very difficult to cut the bricks perfectly smooth as the knife breaks the clay and leaves the outer face of the brick uneven. It has also been found difficult to so arrange the knife that it can be operated upon the brick while under pressure, as the arrangement of the molding and pressure wheels is such that a knife can not be arranged to operate upon the brick while under pressure.

My invention is to provide means whereby the knife can operate upon the brick while under pressure. In order to accomplish this result, I provide a roller 7 which is rotatably mounted between the L-shaped arms S and 9. The said arms 8 and 9 are pivotally mounted at their upper ends, as indicated at 10, to the frame 11 of the brick molding machine, with the roller 7 bearing against the outer periphery of the brick molding wheel 1. The said arms, as shown, are L-shaped and the portion 12 is of a tubular form. Pivotally carried by the frame 11 are blocks 13 and 14 which have screwed therein the rods 15 and 16 and the said rods are locked by the lock-nuts 17. The opposite ends of the rods pass into the tubular portion 12 and are independently movable therein. The said rods carry stops 18 and surrounding the rods between the stop and the arms are coil-springs 19 which normally force the arms inwardly and hold the roller at the proper tension against the brick. The knife, as shown, being in contact with the brick just below the roller, the brick is under pressure and therefore the knife will not tear or break the brick, but will make a clean and even cut.

In order to slightly soften the brick at the point of contact with the knife, I provide a horizontal pipe 20 which is supplied with steam and is provided with a series of openings 21 which throw the steam upon the brick and thus cause the knife to make a clean cut.

In order to vary the tension of the roller the rods 15 and 16 are screwed in or out of the blocks 13 and 14. The roller 7 is made hollow and the journals thereof are provided with openings. The opening in one journal serves as a steam inlet and the opening in the other journal serves as an exhaust, whereby the steam is passed through the roller and the same kept very hot for the purpose fully understood by those skilled in the art.

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

1. The combination with a rotary brick machine, of a pressure roller bearing against the outer periphery of the brick molding wheel, a knife operating upon the outer face of the brick while under pressure of the roller, and means for supplying steam between the knife and the brick.

2. The combination with a rotary brick machine, of a pressure roller bearing against the outer periphery of the brick molding wheel, a spring holding the roller under tension, means for varying the tension of the spring, a knife operating upon the outer periphery of the brick just below the point of

contact of the roller with the brick, and a pipe between the knife and wheel to supply steam to the brick at the point of contact of the knife with the brick.

3. The combination with a rotary brick machine, of pivoted arms carried by the machine, a roller mounted between the lower end of said arms and bearing upon the outer periphery of the brick molding wheel, springs bearing against said arms, and a knife operating upon the outer face of the brick just below the point of contact of the roller with the brick.

4. The combination with a rotary brick machine, of L-shaped arms pivotally mounted at their upper ends within the machine, a roller rotatably mounted between said arms, rods pivotally and adjustably mounted upon the frame of the machine and telescoping within said arms, and springs surrounding the rods and bearing against said arms and normally holding the roller against the wheel under tension.

5. The combination with a rotary brick machine of an auxiliary pressure roller bearing against the outer periphery of the brick molding wheel, spring tension means for said auxiliary pressure roller, a knife upon the outer face of the brick wheel under pressure of the roller and a steam supply pipe between the knife and the brick molding wheel and having openings adapted to supply steam between the point of the knife and the brick.

6. The combination with a rotary brick machine of pivoted arms carried by the machine, a roller mounted between the lower ends of said arms and bearing upon the outer periphery of the brick molding wheel, said arms carrying horizontal sleeves, horizontal rods entering said sleeves and having their outer ends pivotally connected to the machine, means for longitudinally adjusting said rods, a collar carried by each of said rods, coil springs between the sleeves and collars and normally holding the roller against the molding wheel, and a knife operating upon the outer face of the brick just below the point of contact of the pressure roller with the brick.

7. The combination with a rotary brick machine, of pivoted rods carried by the machine, sleeves slidably mounted upon said rods and having upwardly extending members pivoted to the frame, a roller mounted between said sleeves and bearing upon the outer periphery of the brick molding wheel, springs surrounding said rods and normally holding the sleeves in their outward position, means for longitudinally adjusting said rods, a knife operating upon the outer face of the brick just below the point of contact of the pressure roller with the brick, and a steam pipe between the knife and extending parallel with the periphery of the molding wheel, and the said pipe having openings for spraying steam on the brick at the point of contact of the knife.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH WALKER.

Witnesses:
P. H. MOORE,
C. R. WRIGHT, Jr.