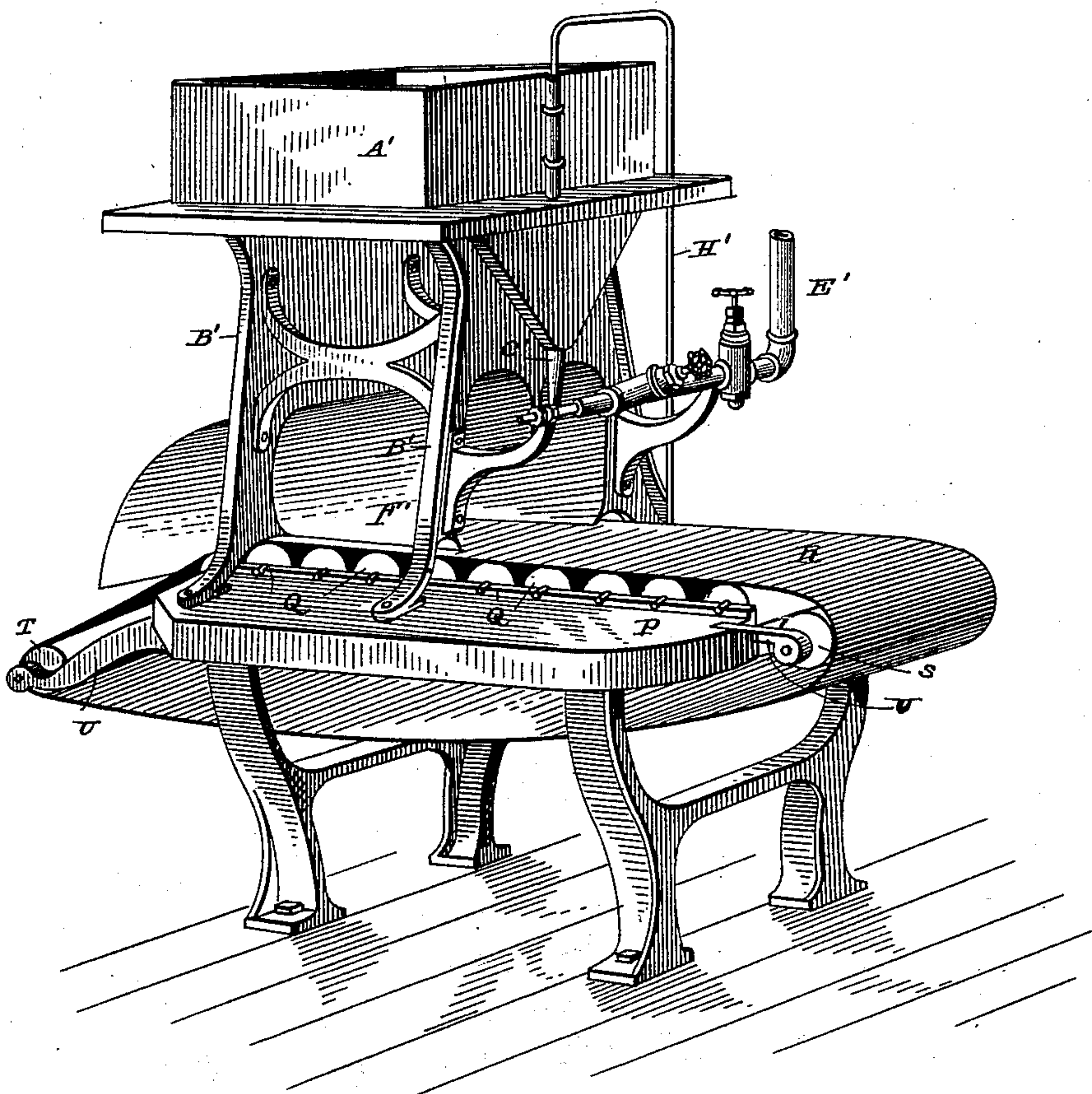


2 Sheets—Sheet 1.

## BRICK SANDING MACHINE.

Patented Jan. 10, 1888.

Fig. I



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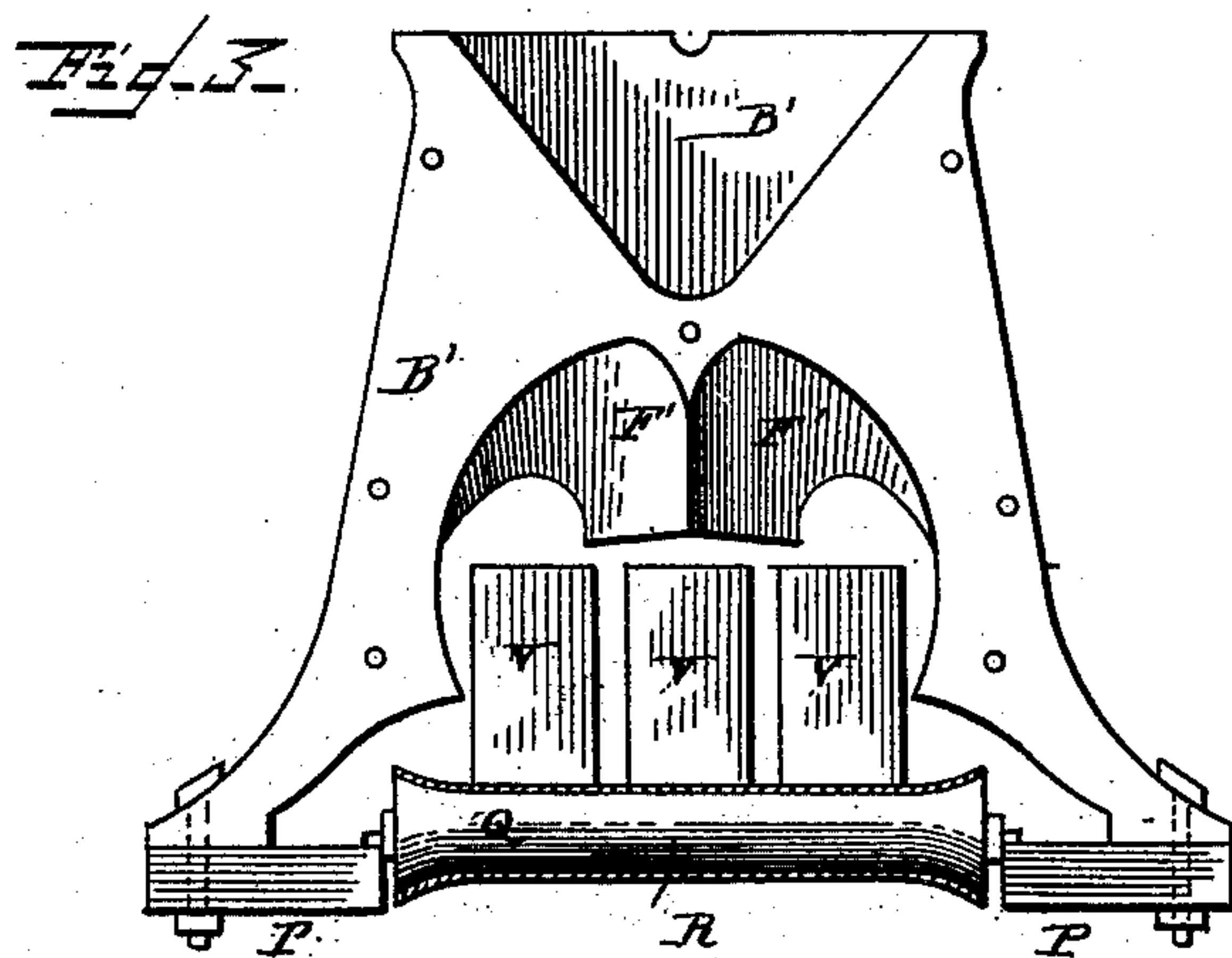
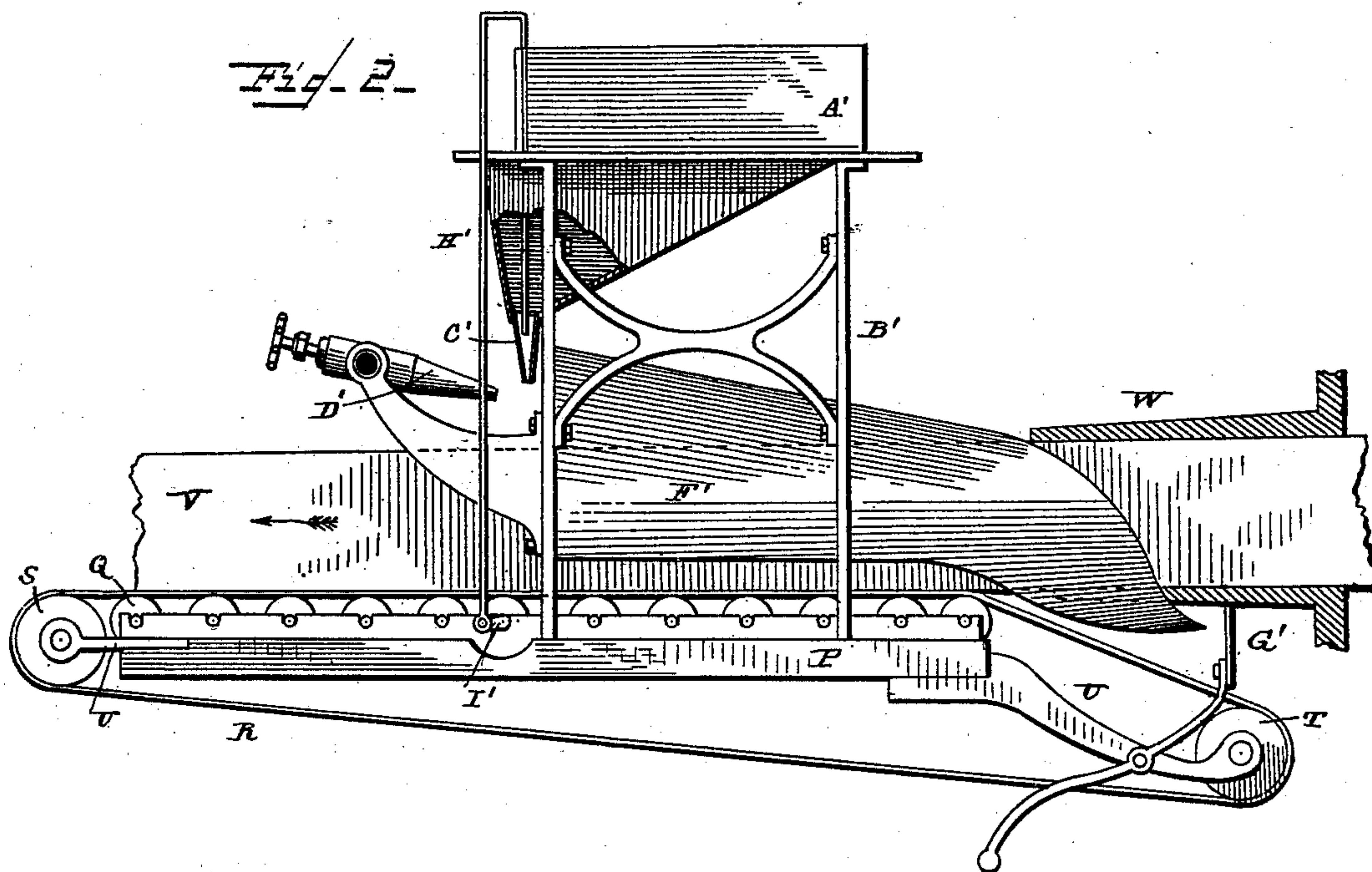
(No Model.)

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J. I. KNAPP, J. C. MCKENZIE & W. HUMPHREY.  
BRICK SANDING MACHINE.

No. 376,316.

Patented Jan. 10, 1888.



WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN I. KNAPP, JOSEPH C. MCKENZIE, AND WILLIAM HUMPHREY, OF  
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## BRICK-SANDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 376,316, dated January 10, 1888.

Application filed July 8, 1887. Serial No. 243,744. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN I. KNAPP, JOSEPH C. MCKENZIE, and WILLIAM HUMPHREY, citizens of the United States, residing at Adrian, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Devices for Sanding Brick and Tile or Columns of Clay from which Brick and Tile are Made, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to improvements in devices for sanding brick and tile and columns and cylinders of clay from which brick and tile are made.

The object of our invention is to provide means for thoroughly and evenly sanding the column of clay as it passes from the die toward the table where it is to be cut into brick or tile. Referring to the drawings, Figure 1 is a view in perspective of the sanding device. Fig. 2 is a side view of the same. Fig. 3 is an end view.

P indicates a frame or table supported in any suitable manner at the end or die of the machine which forms the clay column. In the top of the frame or table P are journaled a series of rollers, Q, carrying an endless belt, R, which passes over the rollers S and T, supported by brackets U, attached at either end of the frame or table P, said belt being impelled by the moving column of clay, V, as it is forced from the die W of the machine in the direction of the arrow. The movement of the belt and the weight of the column of clay give a rotary motion to the rollers Q, and in this manner the column is carried through the sanding devices to the cutting-table. (Not shown.)

The roller T, at the rear of the table around which the belt passes, is arranged below the plane of the rollers Q, so that the belt shall be inclined between the end roller Q and the roller T, the inclination being such as to hold the sand thereon and to carry the sand deposited thereon up against the lower face of the tile or column.

A' indicates a hopper supported on a suitable frame, B', above the frame or table P, said hopper being tapered from the top to the

bottom, so as to allow the sand to gravitate to the spout C'. In front of this spout is arranged a nozzle, D', communicating with a steam or compressed-air supply by means of pipe E', and from which nozzle a blast is directed on the sand falling from the spout C', and by means of which the sand is driven backward upon the tile or column and against the curved side walls of the device onto the sides of said tile or column.

An arched tunnel, F', is arranged over and with its curved sides extending down in close proximity with the horizontal portion of the belt and tapering back to the front end of the machine, where its sides curve downward and backward below the plane of the horizontal portion of the belt and into close proximity with the inclined portion thereof, the whole being curved and tapering from the sand-receiving end backward in such manner as to direct the sand acted upon by the blast backward around the sides and to and against a stop, G', from whence it drops upon the inclined portion of the belt and is evenly distributed over the same, being carried by the moving belt over the lower face of the tile or column as the apron moves into contact therewith.

The tunnel is divided in its upper part by a pendent wall or diaphragm extending from its top down nearly to the upper surface of the tile or column, the purpose of which is to divide and cause an equal division of the sand-blast at the front of the tunnel, so that like proportions may be carried to either side to insure the even sanding of the tile or column upon all sides.

H' is an automatic spout-cleaner, which is mounted in suitable guides in the upper part of the frame and arranged to reciprocate through the hopper and in the spout C', and which cleaner is operated from a crank, I', connected with one of the roller-shafts, as shown in Fig. 4.

In Fig. 3 is shown the end of three clay columns, in which case the curved walls of the tunnel act to distribute the sand evenly upon all sides in a manner similar to that in which a single tile or column is sanded, as before described.



From the foregoing it will be seen that as the tile or column is moved forward, acting on the belt to move the same, as before stated, the sand passes from the hopper into and from the spout C', where it is acted upon by the blast from the nozzle and distributed upon the upper surface of the tile or column and directed by the curved walls of the tunnel to and upon the sides of said tile or column and backward against the stop G', where it drops upon the inclined portion of the apron, being evenly distributed over such part, from whence it is carried to and against the bottom of the tile or column in a manner that will be readily understood.

Having now described our invention, we claim—

1. In a device for sanding brick and tile of the character described, a table for receiving the column of clay as it emerges from the machine, a sand-hopper and tunnel arranged over said table, a feed-spout leading from the hopper, and a blast of steam or air to scatter the sand as it emerges from the spout over the clay column, as set forth.

2. In a device for sanding brick and tile, a table for receiving the column of clay as it emerges from the machine, a sand-hopper and tunnel arranged over the table, said tunnel being provided with a pendent wall or diaphragm and with semicircular walls on each side of the pendent wall, whereby the blast of sand is directed onto each side and top of the clay column, as set forth.

3. In a device for sanding columns of clay

from which brick and tile are made, a table and endless carrier for receiving the clay column as it emerges from the machine, said table and carrier being inclined at its rear end, in combination with a tunnel having its rear portions extended and curved downward and inward to direct the sand onto the endless carrier, as set forth, whereby the under side of the clay column is sanded.

4. In a device for sanding brick and tile, the carrier having the inclined portion, and a stop against which the sand is carried to cause the same to be deposited upon the inclined portion of the carrier, substantially as and for the purpose set forth.

5. In a device for sanding brick and tile, the carrier over which the column or tile moves, the tunnel and the sand-hopper, and a blast for forcing the sand into the tunnel to sand the tile or columns, as set forth.

6. In a device for sanding brick and tile, the combination of the carrier, the tunnel constructed substantially as described, the hopper and spout, the spout-cleaner, and the blast, all constructed and arranged to operate substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN I. KNAPP.  
JOSEPH C. McKENZIE.  
WILLIAM HUMPHREY.

Witnesses:

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R. B. ROBBINS.