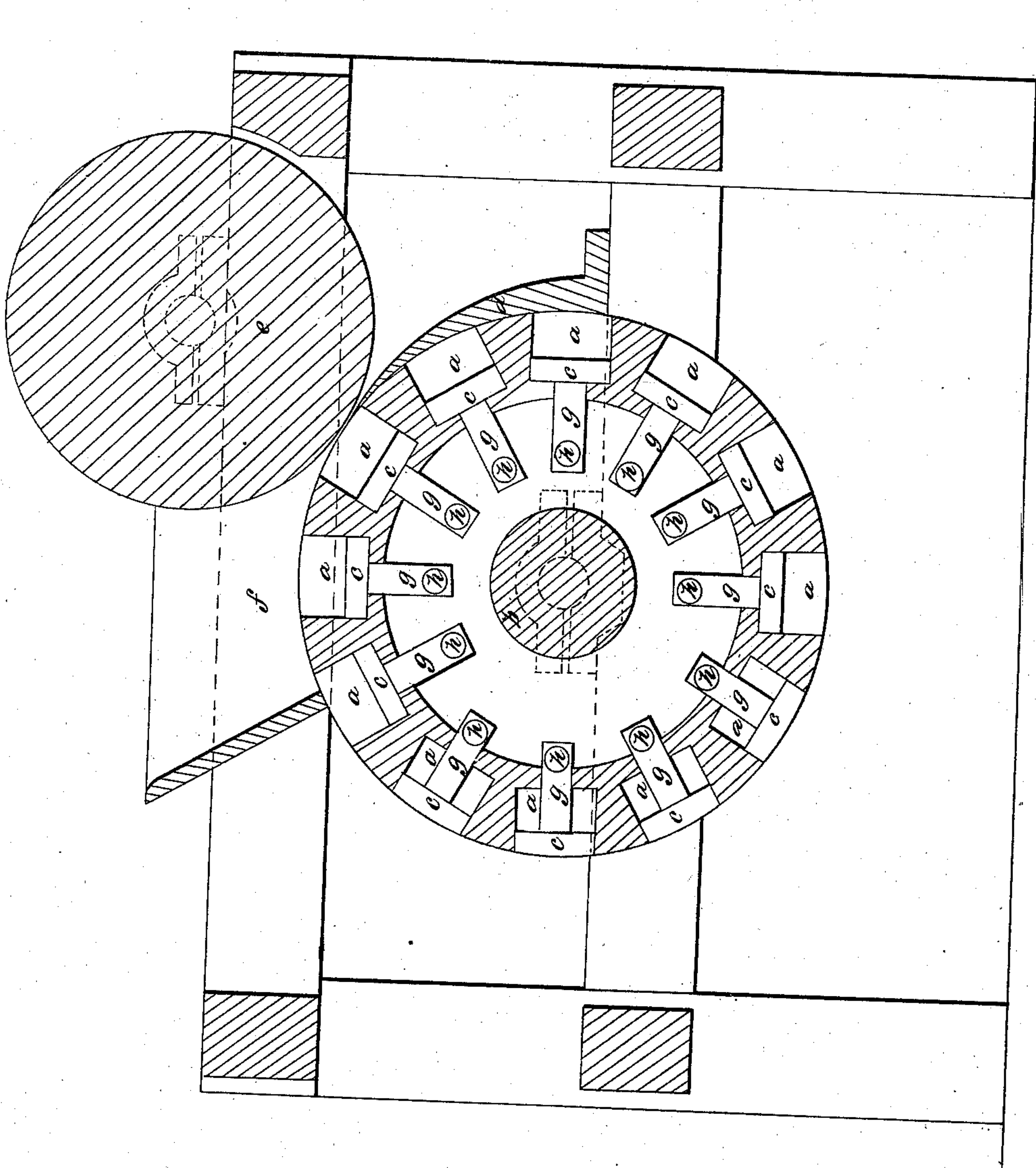


*J. J. Riddle,
Brick Machine.*

No 8,231.

Patented July 22, 1851.



UNITED STATES PATENT OFFICE.

JOHN J. RIDDLE, OF COVINGTON, KENTUCKY.

BRICK-MACHINE.

Specification of Letters Patent No. 8,231, dated July 22, 1851.

To all whom it may concern:

Be it known that I, JOHN J. RIDDLE, of Covington, Kenton county, Kentucky, have made new and useful Improvements in Machines for Pressing and Making Bricks; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation thereof, reference being had to the annexed drawings, making part of the specification.

The object of my improvement in the manufacture of brick by machinery, is to bring and maintain an equal pressure upon all parts of the brick when in the mold and thus to avoid a disturbance of the substance of any part subsequent to pressure and the consequent liability to crack and separate.

In the usual methods of making bricks by pressure rollers there is a point at which the ultimate pressure is attained (usually near the lower point of the hopper or chute and at the point of contact of the roller). The clay in that part of the mold which has passed the point of pressure is liable to work up and protrude in consequence of the concentration of the pressure upon another part. Thus the mass of clay which has first received compression and become set, is liable to be again disturbed and although a knife or scraper may remove any clay which projects beyond the face of the mold, yet this will not rectify the damage as there is an unequal density, and incipient cracks and fissures are produced which develop themselves in the kiln. These defects I remedy by placing a block of the form of a cylindrical segment, in immediate contact with the face of the mold wheel, and extending from the point of contact of the pressure roller, some considerable distance around the wheel so that as the clay is compressed by the roller, so it remains and continues until it has quite left it, when the danger is passed as there is nothing in the mere expansibility of the

clay to affect either the texture or form of the bricks, but it is owing to a pressure being placed upon one part of the surface while another is free that the damage is done, and no subsequent pressure can rectify it.

The principle is here shown as applied to a circular bed of molds, but is of course equally applicable to a straight bed, the lip or casing being also straight so as to fit it.

In the accompanying drawings, (b) is the wheel with the molds (a) in its periphery.

(e) is the pressure wheel or roller.

(d) is the segment of a cylinder which at its upper end is sharpened and inserted under the wheel (e) so as to apply it as near as possible to the point of pressure, so that there may be no intervening space between in which the clay might expand or protrude.

(c) are the heads; (g) the shanks, and (h) the retaining pins of a set of ordinary pistons or followers for the ejection of the bricks after their formation.

(f) is a hopper of the usual form.

Having thus fully described the nature and construction of my improvements in brick machines, what I claim therein as new and desire to secure by Letters Patent is—

The block or lip (d) substantially as described, hugging closely the mold wheel, immediately behind its point of contact with the pressure roller, in order to prevent any disturbance of the mass after having passed the point of contact.

In testimony whereof, I have hereunto set my hand before two subscribing witnesses.

JOHN J. RIDDLE.

Witnesses:

EDWARD H. KNIGHT,
GEO. H. KNIGHT.