A. J. KNISELY.

Improvement in Clay-Mixers.

No. 132,670. Patented Oct. 29, 1872.

Fig. 1.

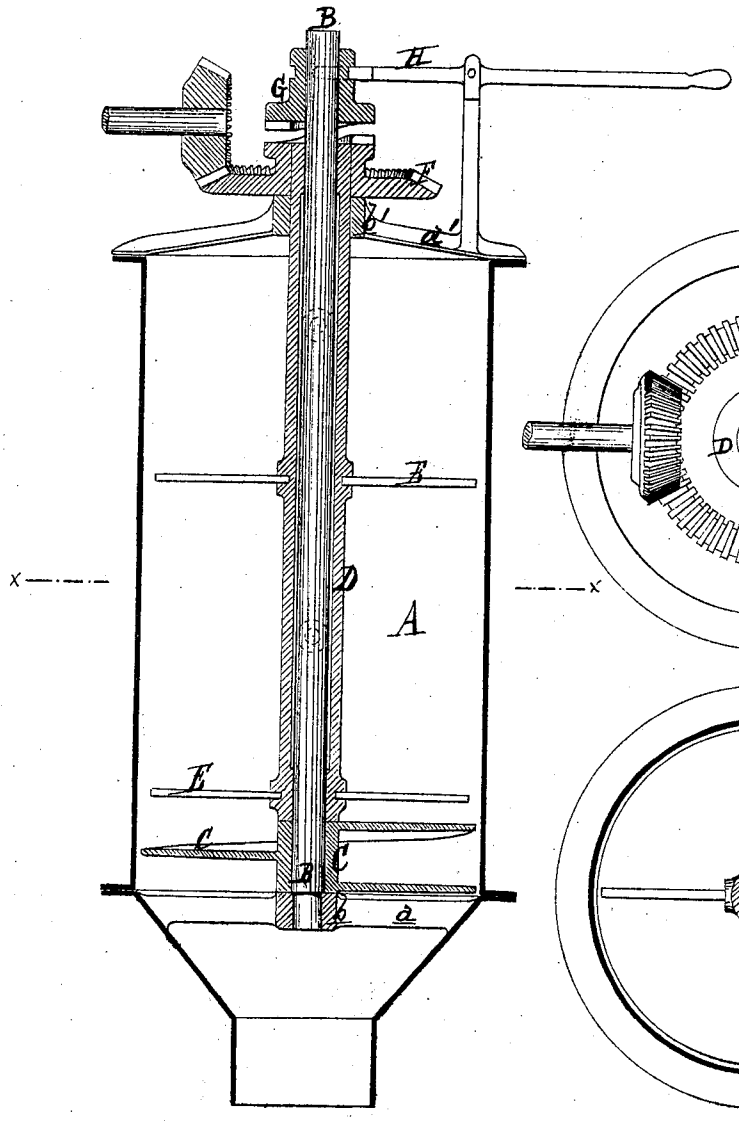


Fig. 2.

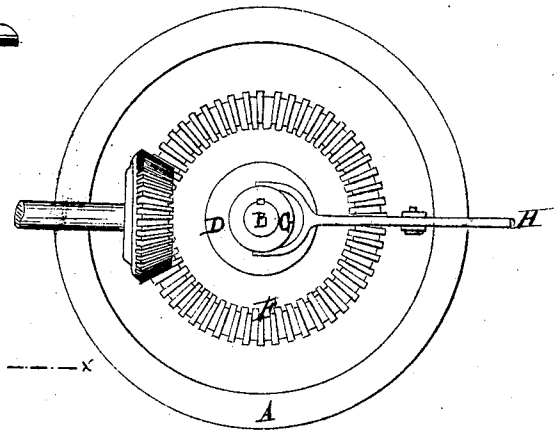
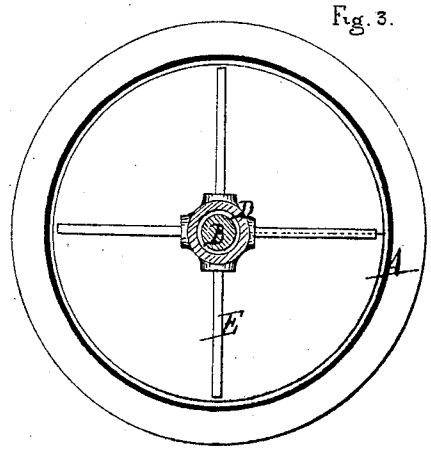


Fig. 3.



Witnesses:

Wm H Lotz.

Emile Wagner

Inventor:

Abraham J. Knisely

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

ABRAHAM J. KNISELY, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN CLAY-MIXERS.

Specification forming part of Letters Patent No. **132,670**, dated October 29, 1872; antedated October 26, 1872.

To whom it may concern:

Be it known that I, ABRAHAM J. KNISELY, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Clay-Mixers for Brick-Machines; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a vertical section of my mixer; Fig. 2 is a top plan; and Fig. 3 is a cross-section on the plane *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of this invention relates to a machine for mixing clay to supply a brick-machine, and so arranged that, while the mixing process is continuous, the discharge of the mixed clay occurs only at intervals, at the will of the attendant, by means of a clutch, with which he may throw the discharge-screw into or out of gear with the mixing-shaft. The invention consists in the peculiar construction and arrangement of the screw-shaft within a hollow shaft carrying the mixing-arms, rotated continuously, and the employment of a clutch or equivalent device, by means of which the former is coupled to or detached from the latter at regular intervals, or independently, at the will of the attendant, whereby a more perfect mixing of the clay is obtained before it is forced into the molds of a brick-machine to which the mixer is attached.

In the drawing, A represents a cylindrical mixing-tub, having a spider or bridge-tree, *a*, in the lower part over the discharge-throat. In the hub of this spider there is formed a step, *b*, in which is journaled the lower end of a shaft, B, carrying one or more convolutions of a discharge-screw, C. Around this shaft there is sleeved a hollow shaft, D, carrying the mixing-arms E, and supported at the lower end by the hub of the screw. The hollow shaft passes through a bearing, *b'*, in a bridge-tree, *a'*, at the top of the tub, and has keyed to its upper end a pinion, F, by means of which it is rotated continuously from any convenient source of power. The shaft B projects above the hollow shaft, and there is feathered on it a clutch-box, G, operated by a hand-lever, H, which clutch-box engages with a clutch on the hub of the pinion, to cause the screw-shaft to rotate with the mixing-shaft, and thus force the clay from the tub into the mold-boxes of a brick-machine below it. By disengaging the clutch-box from the pinion the screw-shaft will stand idle, while the mixer continues its work.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The construction and arrangement, with relation to the tub A and bearings *b b'*, of the shaft B, discharge-screw C, hollow shaft D, mixing-arms E, clutch-pinion F, and clutch-box G, substantially as described, for the purposes specified.

2. A clay-mixing machine, so arranged that while the mixing-shaft is continuously rotated the discharge-screw has an independent movement, substantially as and for the purpose set forth.

ABBAHAM J. KNISELY.

Witnesses:
WM. H. LOTZ,
EMILE WAGNER.