(No Model.)

P. McLOON.

LIMEKILN.

No. 285,911. Patented Oct. 2, 1883.

Fig. 1.

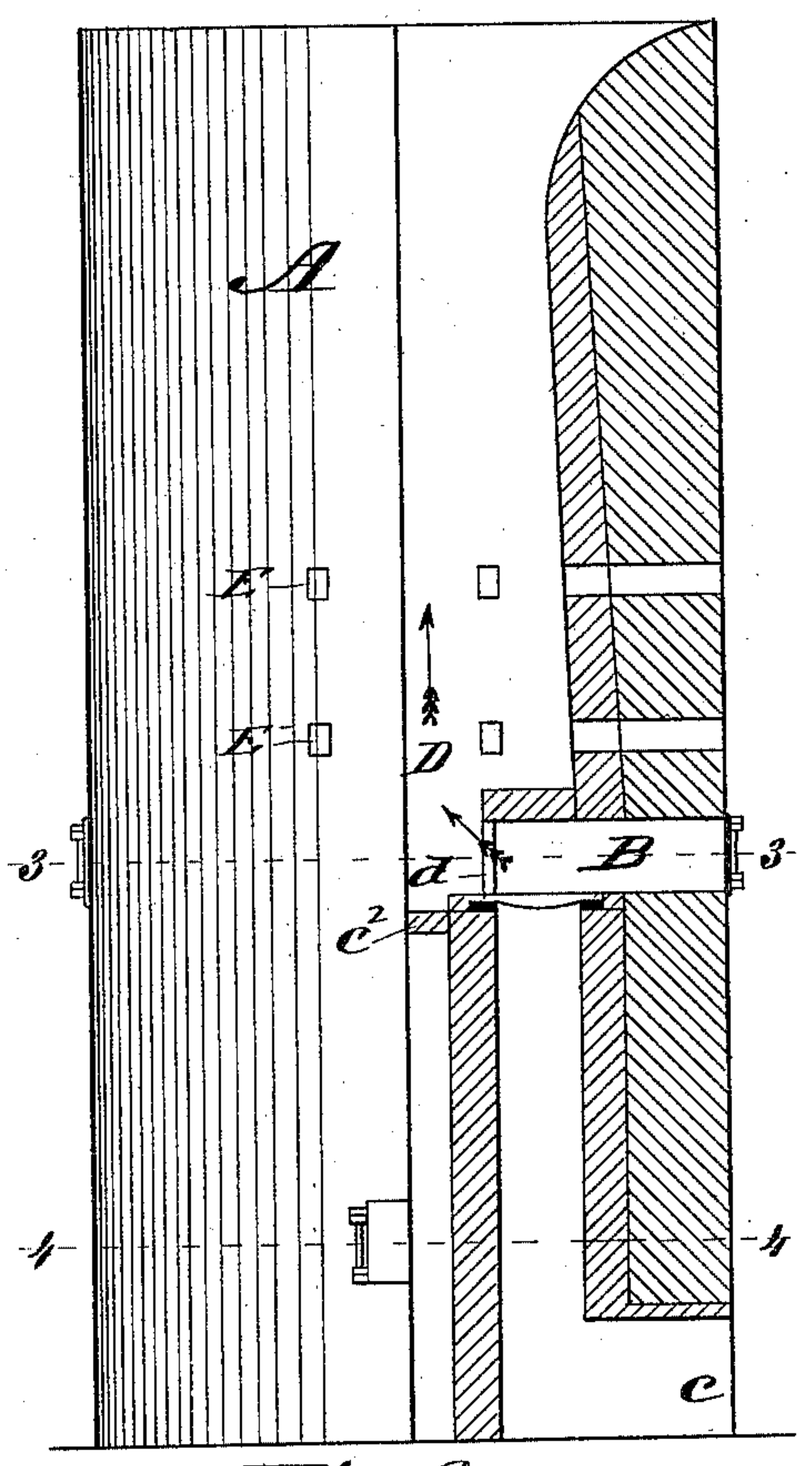


Fig. 2.

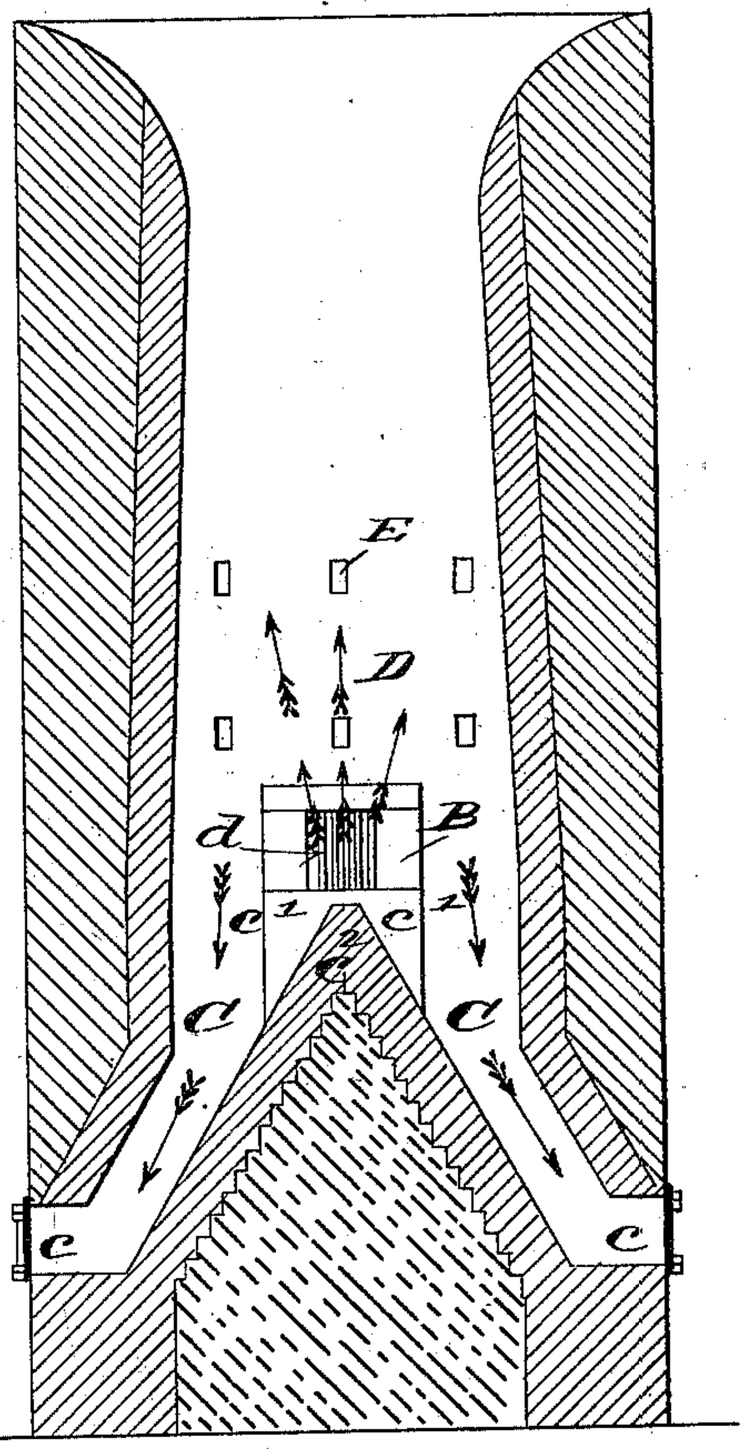


Fig. 3.

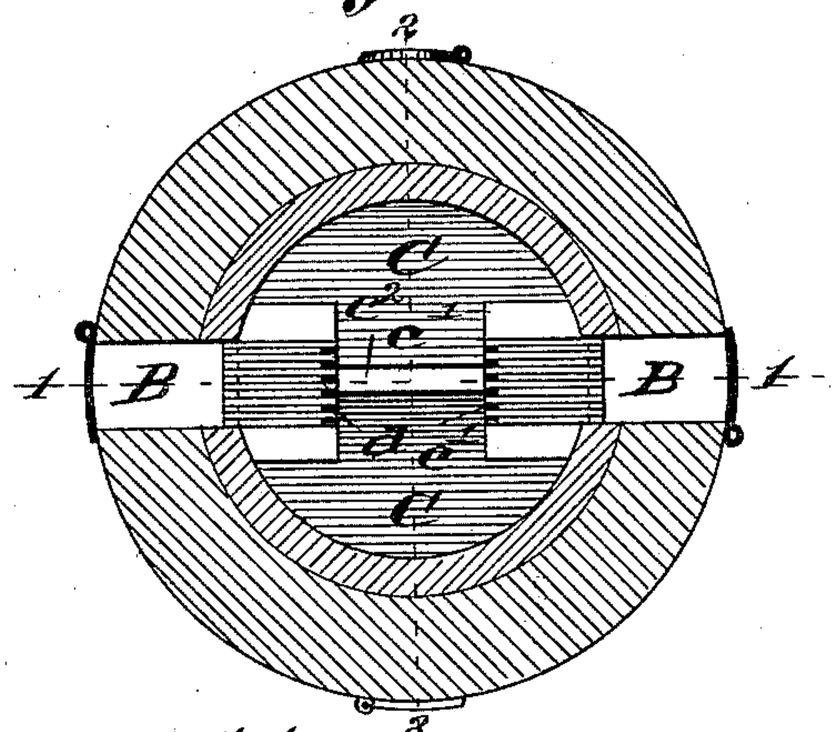
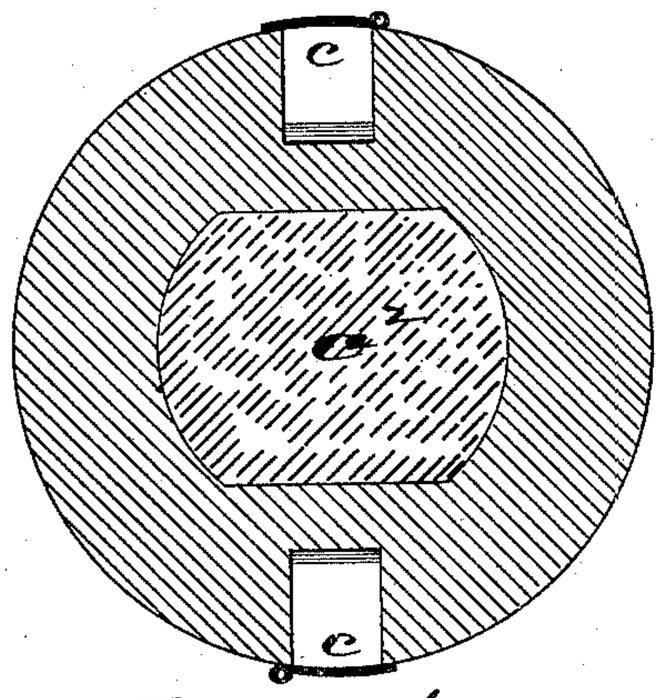


Fig. 4.



Attest.

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J. K. Worthington

Inventor;

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by C. D. Moody atty

UNITED STATES PATENT OFFICE.

PATRICK McLOON, OF GLENCOE, MISSOURI.

LIMEKILN.

SPECIFICATION forming part of Letters Patent No. 285,911, dated October 2, 1883.

Application filed May 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, PATRICK McLOON, of Glencoe, St. Louis county, Missouri, have made a new and useful Improvement in Limekilns, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a side elevation, half in section, the section being on the line 1 1 of Fig. 3; Fig. 2, a vertical section on the line 2 2 of Fig. 3; Fig. 3, a horizontal section on the line 3 3 of Fig. 1, and Fig. 4 a horizontal section on the line 4 4 of Fig. 1.

The same letters of reference denote the same parts.

A prominent feature of this improvement is the extension of the shaft or shafts, through which the lime is withdrawn from the kiln, several feet below the level of the fire place or places, to enable the lime to become cooled down by the time it reaches the outlets from the shaft. An additional feature is having a pair of draw-shafts directly opposite each other, for the purpose of enabling the charge to settle evenly in the kiln.

A represents a limekiln of the usual form, saving as modified by the present improvement. B B represent the fire-places. They are located, as seen in Figs. 1, 2, at a level considerably above the outlets *c c* of the draw-shafts C C, in practice being about six or seven feet higher than the outlets. The fire-places are also, and as shown more distinctly in Figs. 1, 3, made, preferably, to project at their inner ends into the main chamber D of the kiln, the fire-places projecting in practice each about one-third across the chamber D, and the outlets *d d* from the fire-places being directly at the extreme inner ends thereof. This last-described feature—namely, the extending of the fire-places into the chamber D—enables the heat to be applied to better advantage at the center of the kiln. The shafts C C are directly opposite each other, and they extend from the level of the bottom of the fire-places downward and outward to the opposite sides of the kiln, substantially as shown in Figs. 2, 3, 4. At their upper ends, *c' c'*, the shafts are much larger than at their outlets *c c*, the wall c^2 separating the shafts being quite narrow at its top. The principal feature, however, of the shafts is their extreme length. The projection of the fire-places crosswise into the chamber D, and the arrangement of the outlets *d d* at the ends of the fire-places, enables the heat to be delivered in a body directly into the center of the charge. This desirable result is further promoted by having the outlets *d d* directly opposite each other. Owing to the shafts C C being opposite each other the charge settles evenly.

E E represent peep-holes or for the insertion of pokers.

I claim—

In a limekiln having inclined draw-shafts extending from a point which is level with inwardly-projecting fire-places arranged opposite each other, the horizontal outlets *c c*, at the lower ends of the said draw-shafts, and the expanded or free space between the apex c^2 and the wall of the kiln, the said apex being arranged relatively to the fire-place grates, substantially as described.

PATRICK McLOON.

Witnesses:

SARAH RETTKER,

D. P. THOMAS.