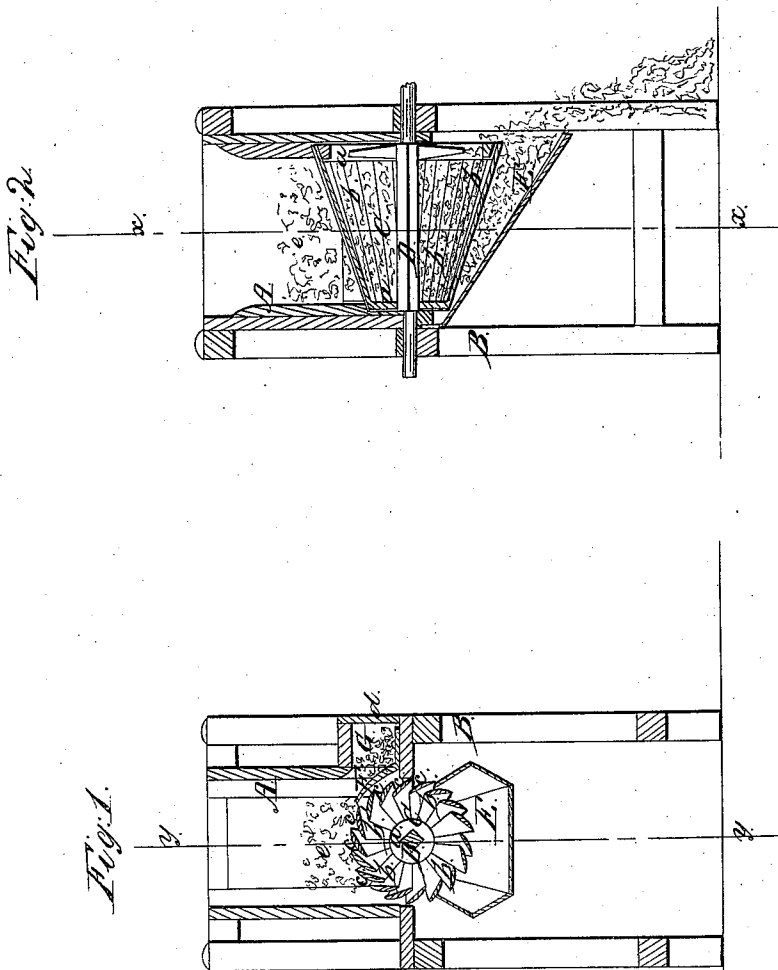


Bamberg & Blaser,

Clay Separator.

N^o 23,888.

Patented May 10, 1859.



Witnesses;
Chas. H. Bamberg,
Blum

Inventors;
C. Bamberg,
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UNITED STATES PATENT OFFICE.

CHARLES BAMBERG AND ROMAN BLASER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN MACHINES FOR SEPARATING STONES, &c., FROM CLAY.

Specification forming part of Letters Patent No. 23,888, dated May 10, 1889.

To all whom it may concern:

Be it known that we, CHARLES BAMBERG and ROMAN BLASER, both of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Device for Separating Impurities and Foreign Substances from Clay Preparatory to the Manufacture of the Same into Bricks, Pottery, and the Like; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figures 1 and 2 are vertical central sections of our invention, the two planes of section (indicated by *xxyy*) crossing each other at right angles.

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

This invention consists in the employment or use of a conical screen of knives in connection with a separator, the above parts being placed within a suitable box and arranged relatively with each other and with discharge-spouts to operate substantially as hereinafter described.

The object of the invention is to separate large gravel, stones, and all coarse foreign substances from clay preparatory to its manufacture into bricks, pottery, &c., in order that said articles will not injure by cracking during baking—a contingency which frequently occurs owing to the presence of foreign substances in the clay.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents a box, which may be of wood and placed in a proper frame B to support it at a suitable height. At the lower part of the box A a conical screen C is placed. This screen is formed of two open or skeleton heads *a a*, one being of larger diameter than the other and both attached to the same shaft D, the bearings of which are in the frame B. To the peripheries of the heads *a a* a series of knives *b* are attached. These knives overlap each other, as shown clearly in Fig. 1, and they are inclined or have a tangential posi-

tion, so as to form spaces *c* for the clay to pass through. (See Fig. 1.) The knives *b* may be constructed of iron or steel and should be attached at such a distance apart on the heads *a a* as not to allow large gravel, stones, or other foreign substances of an improper size to pass between them. The shaft D is allowed to turn freely in its bearings in the frame B, and in the frame B below the screen C an inclined trough or spout E is placed.

E is a separator, which is placed or secured in a box G, attached to one side of the box A. This separator is simply a metal blade or plate, the upper edge of which is quite close to the periphery of the screen C, as shown in Fig. 1, and extends its whole length. The outer end of the box G is provided with a slide *d*.

The operation is as follows: The conical screen C is rotated by any proper means, and the clay *e* is thrown into the box A. The knives *b*, as the screen C rotates, divide or catch the clay which passes between them into the interior of the screen and through the screen into the trough or spout E. All stones, large gravel, and foreign substances that cannot pass between the knives *b* are separated from the periphery of the screen by the separator or plate F and pass into the box G, which may be emptied of its contents from time to time as occasion may require.

It is designed to have the spaces between the knives or plates *b* sufficiently small so as not to permit any foreign substances to pass through of sufficient size to be detrimental to the article to be manufactured.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The conical rotating screen C, in connection with the separator F, placed within suitable boxes A G, constructed and arranged relatively with each other to operate substantially as and for the purpose set forth.

CHARLES BAMBERG.
ROMAN BLASER.

Witnesses:

CHAS. H. BARMM,
F. L. WISE.