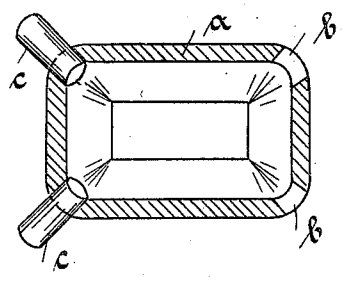
E. LÜTTMANN.

METHOD OF AND APPARATUS FOR REMOVING COAGULATED LUMPS OR THE LIKE FROM THE DIES OF EXTRUSION PRESSES.

APPLICATION FILED JULY 15, 1909.

956,386. Patented Apr. 26, 1910.



Witnesses:

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UNITED STATES PATENT OFFICE.

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METHOD OF AND APPARATUS FOR REMOVING COAGULATED LUMPS OR THE LIKE FROM THE DIES OF EXTRUSION-PRESSES.

956,386. Specification of Letters Patent. **Patented Apr. 26, 1910.**

Application filed July 15, 1909. Serial No. 507,815.

To all whom it may concern:

Be it known that I, ERNST LÜTTMANN, a subject of the Emperor of Germany, residing at Breslau, Germany, have invented certain new and useful Improvements in Methods of and Apparatus for Removing Coagulated Lumps or the Like from the Dies of Extrusion-Presses, of which the following is a specification.

This invention relates to methods of and apparatus for removing from the dies of extrusion presses the coagulated lumps or other solid bodies which become fixed in the corners thereof, and interfere with the discharge of the stream of material.

It comprehends, essentially, the production of a die for a press of the type specified formed with openings through which devices may be inserted for the purpose of dislodging the lumps or similar bodies and forcing the same into the moving stream of material, whence they are discharged through the opening or mouth of the die.

A structural embodiment of the invention is illustrated in the accompanying drawing, wherein the figure is a transverse sectional view of the improved die.

The die *a* shown in said figure is formed with a plurality of openings *b* suitably arranged in its corners, where the lumps or bodies usually lodge. These openings are normally closed in any desired manner. If, in the course of the pressing, the stream of clay or other material issues from the die with roughened or mutilated edges, the openings are uncovered and devices are inserted therethrough so as to engage the lumps or bodies and force them into the stream. Such devices may be in the form of rods, or they may, as illustrated, be constituted by pins *c* which act in the manner of plungers or pistons. After having been moved inwardly through the openings, the pins will be returned to their normal position by the pressure of the moving stream. Where the lumps are unusually large, they can be broken up by means of sharpened rods or similar devices which are inserted through openings *b*. The pins or other dislodging devices may then be operated in the manner above described, if found necessary, to force the fragments of such lumps and the smaller lumps into the stream.

I claim as my invention:

1. The method of removing coagulated lumps or the like from the die of an extrusion press which consists in dislodging the lumps from the portions of the die whereon they have become fixed, and forcing said lumps into the moving stream of material passing through the die.

2. The method of removing coagulated lumps or the like from the die of an extrusion press which consists in dislodging the lumps from the portions of the die whereon they have become fixed, breaking up the larger lumps, and forcing the smaller lumps and the fragments of the larger lumps into the moving stream of material passing through the die.

3. The method of removing coagulated lumps or the like from the die of an extrusion press which consists in inserting devices through openings in the die to engage the lumps and force the same into the moving stream of material passing through the die.

4. The combination, with an extrusion press die having a plurality of openings formed therein, of members movable in said openings into the interior of the die, for dislodging the lumps fixed therein and forcing the same into the moving stream of material passing through the die.

In witness whereof I have signed this specification in the presence of two witnesses.

ERNST LÜTTMANN.

Witnesses:
ERNST KATZ,
ERNST BLEISH.