

O. RIEMANN.
PRESS.

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1,039,444.

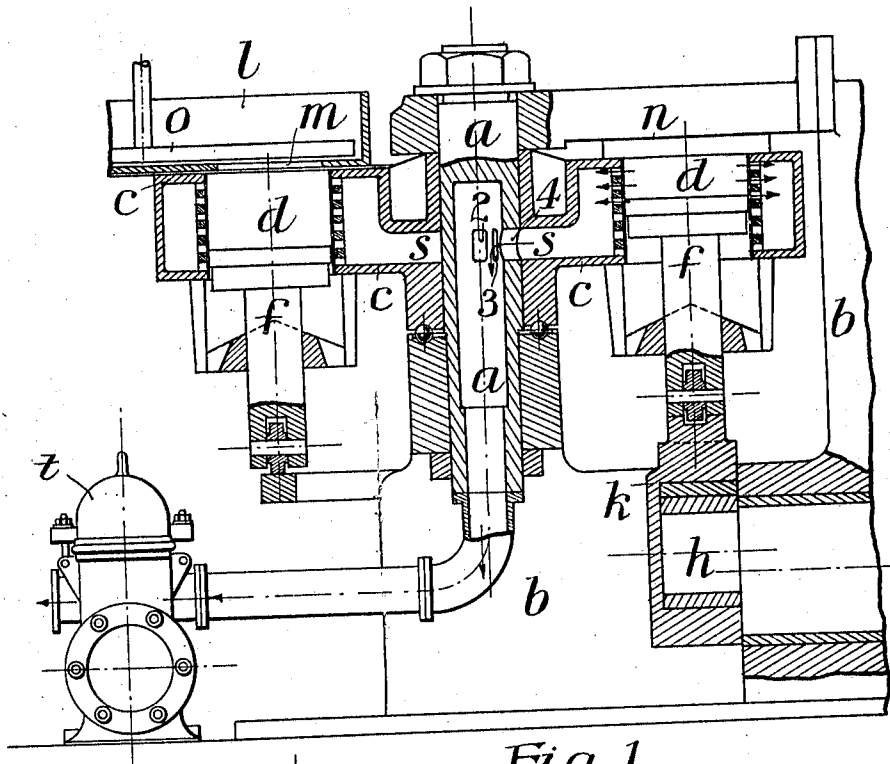


Fig. 1.

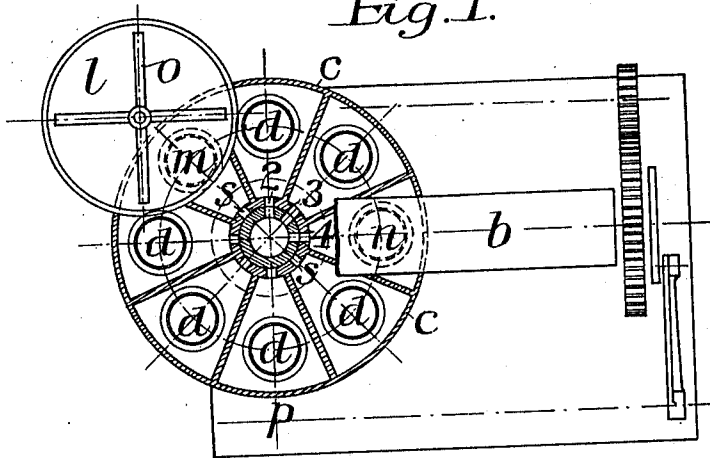


Fig. 2.

Witnesses

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OTTO RIEMANN, OF HAMBURG, GERMANY.

PRESS.

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To all whom it may concern:

Be it known that I, OTTO RIEMANN, a subject of the King of Prussia, and resident of No. 150 Barmbeckerstrasse, Hamburg, in the Empire of Germany, have invented a new and useful Improved Press, of which the following is a specification.

The invention relates to a press with a rotating mold-table for working up such materials as those from which the water held in them is to be removed and the solid constituents obtained.

In the accompanying drawing the new press is represented in Figure 1 by a vertical section, and in Fig. 2 by a horizontal section.

Around a pillar *a* which is formed at its lower part as a pipe and is secured in the machine frame *b*, a table-plate *c* which is provided with a number of molds *d* is revolvably arranged. The walls of these molds *d* are provided with lattice-like openings and are lined within with inserted sieve-like adjuncts. The plungers *f* which are fitted below each with a roller can be moved up and down in the molds *d*, the rollers being guided on a track which has been formed in accordance with the required height of the plungers. Each of the molds is surrounded by an empty chamber. The empty chambers which are separated from one another by walls can be connected by radial passages *s* with the tubular part of the pillar *a* which part is connected with a pump *t* and possesses the openings 2, 3 and 4. Further, in the frame *b* an eccentric shaft *h* is supported which moves a connecting-link *k* up and down, the object and effect of which will be explained in the subsequent description of the working operation.

Above the plate *c* a receptacle *l* is fixed which receives the material from which the water is to be removed. This receptacle *l* presses tightly against the rotating plate *c*, suitable packing material being interposed between, and closes the tops of the molds *c* which move past. An abutment *n* covers in a well known manner the molds opposite the advancing plungers *f*. Further, the receptacle *l* has in its bottom an opening *m* which after each partial rotation of the plate *c* comes above a mold *d* and it is moreover fitted with a stirring device *o*.

The gear for driving the mold-table *c* and

the stamp *f* and also the formation of the charging receptacle *l* are not the subject-matter of the invention.

The operation of the press is as follows: The material to be treated, for example, potato-gratings, pulp or the like is charged into the receptacle *l* and it is brought with the aid of the stirring device *o* into the mold situated at the time underneath the receptacle. When now the mold-table *c* rotates through a distance equal to the distance apart of the molds the passage *s* of the empty space surrounding the mold which has just been charged comes opposite the opening 2 in the tubular pillar *a*, so that the water contained in the charge in the mold is drawn through the filter-like wall by suction by the pump *t* connected with the hollow pillar *a*. On the mold-table *c* rotating further at intervals the molds charged from the receptacle *l* are subjected in succession through the openings 2 and 3 in the hollow axle *a* to the suction action until they finally stop above the connecting-link *k*. During the suction operation which takes place also here through the opening 4, the connecting-link *k* is, by means of the eccentric shaft *h*, carried upward against the plunger *f*, so that the removal of the water effected by the suction-action is supplemented and completed by the work of compression effected by the plunger. The solid constituents remaining behind form cakes which are pushed upward out of the molds, possibly by an ejecting device at *p*, Fig. 2, and are then removed by hand or mechanically.

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

1. The combination in a press for removing water from wet material of a fixed hollow shaft provided with openings in its periphery, a suction pump connected with said shaft, a mold-table revolvably mounted around said shaft and provided with a plurality of molds having perforated walls and with chambers surrounding said walls and with passages running from said chambers to said openings in said shaft, and reciprocating plungers in said molds.

2. The combination in a press for removing water from wet material of a fixed hollow shaft provided with openings in its periphery, a suction pump connected with said shaft, a mold-table revolvably mounted

around said shaft and provided with a plurality of molds having walls having lattice-like openings and sieve-like linings and with chambers surrounding said walls and with
5 passages running from said chambers to said openings in said shaft, and reciprocating plungers in said molds.

In witness whereof I have hereunto signed my name this 29 day of July 1910, in the presence of two subscribing witnesses.

OTTO RIEMANN.

Witnesses:

ERNEST H. L. MUMMENHOFF,
EDUARD HOFF.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."