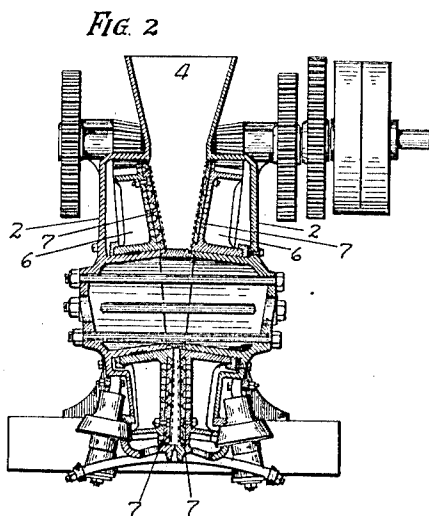
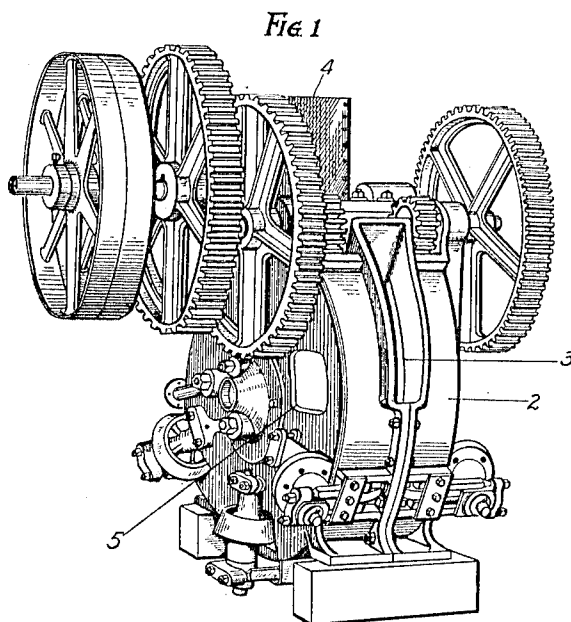


J. T. ANDERSON.
ROTARY PRESS.
APPLICATION FILED APR. 25, 1912.

1,040,842.

Patented Oct. 8, 1912.
2 SHEETS-SHEET 1.



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2 SHEETS—SHEET 2.

FIG. 3

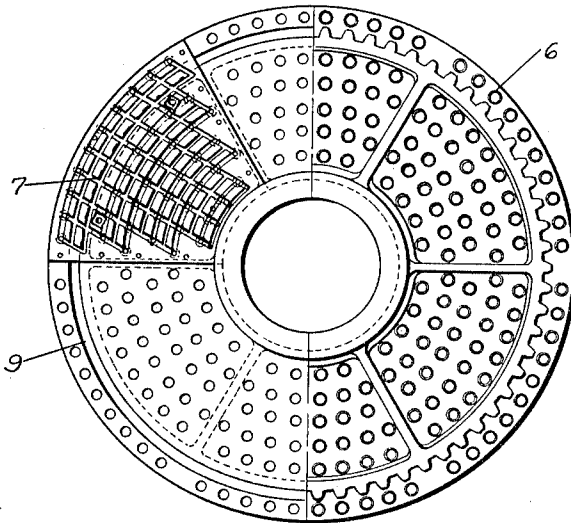


FIG. 4

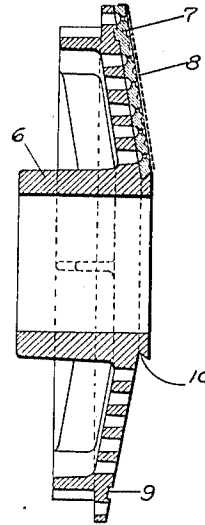


FIG. 5

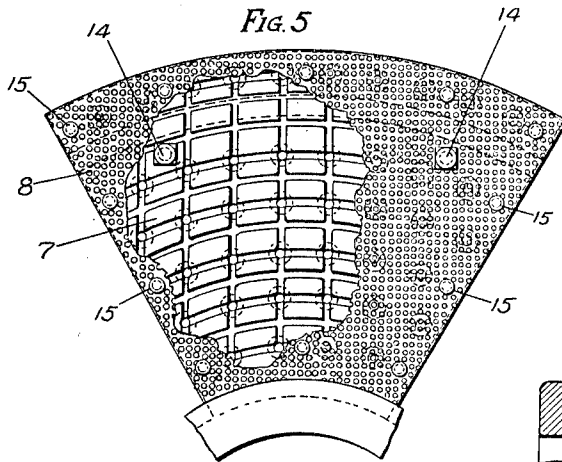
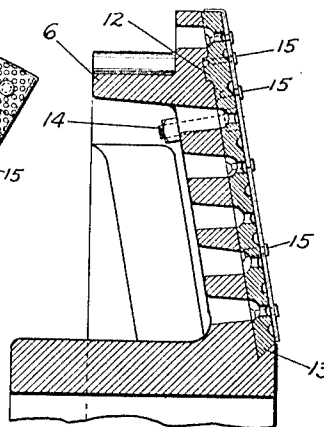


FIG. 6



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UNITED STATES PATENT OFFICE.

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ROTARY PRESS.

1,040,842.

Specification of Letters Patent.

Patented Oct. 8, 1912.

Application filed April 25, 1912. Serial No. 693,084.

To all whom it may concern:

Be it known that I, JOHN T. ANDERSON, a citizen of the United States of America, and resident of Davenport, Iowa, have invented a certain new and useful Improvement in Rotary Presses, of which the following is a specification.

My invention relates to improvements in continuous or rotary presses commonly used for squeezing the surplus moisture from brewers' and distillers' spent grains and also the offal from starch, glucose and beet sugar factories; and has particular reference to the formation of the perforated squeezing disks and to the perforated sheet metal screens used in connection with presses of this nature, acting as strainers, permitting the water to escape while retaining the material being pressed.

The principal object of my invention is to provide means for readily and easily removing and replacing the strainers in the event of accidental injury, or for cleaning them without the necessity of dismantling the press as at present. This I accomplish by the mechanism shown in the accompanying drawings in which,

Figure 1 is a perspective view of the press. Fig. 2 is a longitudinal cross section thereof, showing my improvement in position. Fig. 3 is a front and rear elevation of a squeezing disk, the left hand half showing the front face with one screen plate in place, the other half showing the rear face. Fig. 4 is a longitudinal cross section of a disk, with a screen plate and screen in section in the upper half. Fig. 5 is an enlarged view of a screen plate with screen in position and partially broken away. Fig. 6 is an enlarged sectional view of a screen plate and screen, showing method of securing same to the disk frame.

Similar numerals refer to similar parts throughout the several views.

As the general construction and operation of the press as shown is well understood by those familiar with the art and as the press as a whole forms no part of my invention, a detailed description and explanation thereof is deemed unnecessary.

In addition to the usual inlet 4 and outlet 3 the shell 2 is provided with a hand hole 5 for purposes that will appear later. Within the shell and mounted to rotate at a certain peculiar angle one to the other are

the oppositely arranged perforated squeezing disks 6—6. To the face of these disks it is the common practice to rivet segmental perforated sheet metal screens with openings of a size and shape best suited to the material being pressed. If a bolt or wrench or other hard foreign substance was accidentally dropped into the wet grains, as same were being fed to the press, these light sheet steel or copper screens would be so badly damaged and torn as to make their renewal necessary. In such an event the entire press must be dismantled to remove the squeezing disks in order to apply new screens. As these presses are of great weight, and are often located in most inaccessible places, the task of dismantling is very great and expensive. To avoid this task of dismantling and to effect a quick and easy replacement of damaged screens, and to easily remove obstruction from the perforations of the squeezing disks, I have provided the segmental screen plates 7, to which are riveted or otherwise secured the perforated sheet metal screens 8. The disk 6 is provided on the front side with the annular groove 9 near its out edge, and the beveled ring portion 10 at its central opening or axis, and on the reverse side with gear teeth by which it is revolved.

The screen plate 7 is provided with the circular rib 12 on its under side near the outer edge or edge of greatest circumference, while the inner edge, or edge of least circumference is beveled as at 13. These screen plates are of a number and size that when arranged on the face of the disk with their radial edges in close contact they will completely cover the disk from the outer edge thereof to the central opening. To prevent movement of the segmental screen plates, relative to the disks when in the act of squeezing, the rib 12 engages the groove 9 and the beveled edge 13 engages the beveled ring portion 10, in addition to which they are secured by the bolts 14, two to each segment, passing entirely through the disks, screen plates and screens. The screens 8 are secured to the screen plates by the rivets 15 or in any other suitable manner.

Constructed in this manner, it is readily seen that the nuts on the retaining bolts 14 can be easily and quickly removed through the hand hole 5 and the screen plate with its screen taken out through the outlet opening

3. In this manner any or all of the screen plates can be removed or replaced without dismantling the press and without exertion.

What I claim as my invention is—

5 1. In combination, a continuous rotary press comprising a casing, disks consisting of a circular frame provided with integral gear teeth on one face and removably attached segments on the other face, and
10 screens secured to said segments.

2. In combination, a continuous rotary press, a casing, disks within said casing, consisting of segments removably attached to a circular frame work, and screens secured to
15 said segments.

3. In combination, a continuous rotary press, a casing, squeezing disks consisting of a gear ring and removably attached segmental sections, and screens secured to said sections.
20

4. In combination, a continuous rotary press, a casing, squeezing disks provided with integral gear teeth on one side, an inte-

gral bevel ring and an annular groove on the other side, removably attached segments engaging said ring and groove and screens secured to said segments. 25

5. In combination, a continuous rotary press, a casing provided with a discharge opening, segmental squeezing disks within said casing removable and replaceable through said discharge opening, and screens secured to said segmental sections. 30

6. In combination, a continuous rotary press, a casing, squeezing disks, within said casing, provided with an integral bevel ring and an annular channel, removable segments with a beveled portion to engage said bevel ring, and a depending rib to engage said annular channel. 35 40

Signed by me at Davenport, Iowa, this 20th day of April 1912.

JOHN T. ANDERSON.

Witnesses:

WM. HETZEL,

OTTO KINNEMANN.

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