

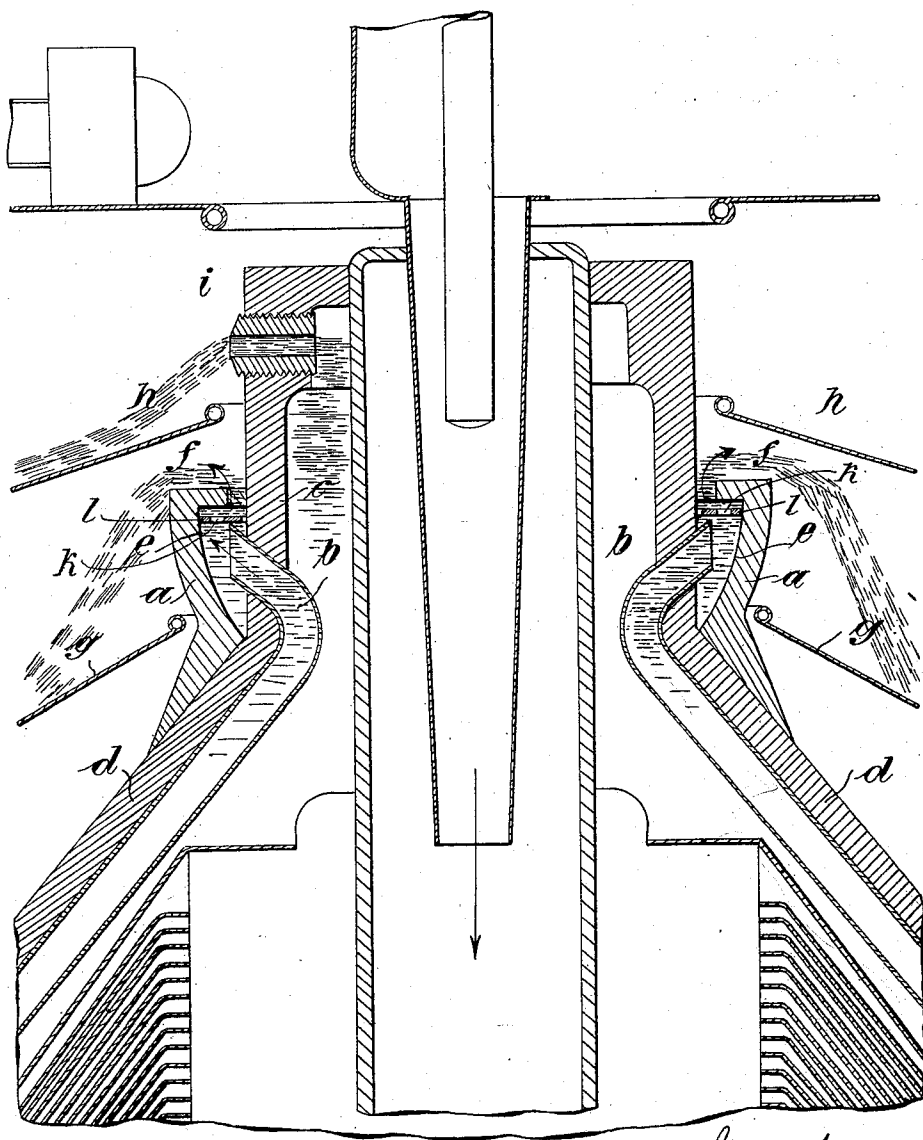
No. 698,332.

Patented Apr. 22, 1902.

J. E. SIEDEL.
CENTRIFUGAL SEPARATOR.

(Application filed Dec. 12, 1901.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHANNES ERNST SIEDEL, OF GÜSTROW, GERMANY.

CENTRIFUGAL SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 698,332, dated April 22, 1902.

Application filed December 12, 1901. Serial No. 85,631. (No model.)

To all whom it may concern:

Be it known that I, JOHANNES ERNST SIEDEL, residing at 6 Domstrasse, Güstrow, Mecklenburg-Schweren, Germany, have invented certain new and useful Improvements in Centrifugals; of which the following is a specification.

This invention is an improvement in centrifugal separators; and its object is to prevent the formation of froth or foam therein, and it is especially applicable to centrifugal machines for separating cream from milk.

My invention consists in the construction of parts hereinafter described and claimed, and is illustrated in the accompanying drawing, which shows the upper part of a centrifugal separator in vertical section with my improvement applied thereto. To prevent formation of froth in such separator, a ring *a* is placed around the upper part of the drum *d* and adjacent to and surrounding the skimmed-milk outlets, and between ring *a* and the head *c* of the drum is an annular channel *e*, into which the outlet-pipes *b* lead. The inner wall of the ring *a* may be vertical or oblique or curved upward and outward, and the upper part thereof may have an internal flange *f*, partly closing the channel *e*. The inner edge of this flange *f* lies above the mouth of the skimmed-milk outlet-pipes *b*.

The manner of operation of the device is as follows: While the separator is in operation, the skimmed milk coming from the pipes *b* does not escape directly onto the cover-plate *g*, but first fills the annular space *e*, and then flows in a thin sheet over the flange *f* of the ring into the space between the cover-plates *g* and *h* and does not issue in streams from one or several circular openings onto plate *g*, but in a thin sheet over a solid ring, whereby the formation of froth is wholly avoided.

In order to avoid the disadvantageous ef-

fects which might arise by the issue of an undesirable quantity of fluid in consequence of too-rapid centrifugal action, a ring *k*, provided with a number of holes *l*, is placed in the channel *e* beneath flange *f*, by which direct passage of too-large quantities of liquid is checked. Frothing of the cream can likewise be prevented in the same manner.

Having thus described my invention, what I therefore claim as new, and desire to secure by Letters Patent thereon, is—

1. In a centrifugal separator, the combination of a drum, its outlet-pipes, a chamber surrounding the ends of the pipes having an internal flange over which the liquid escapes in a thin sheet, and a perforated body between the extremities of the outlet-pipes and the projecting edge of the said chamber, substantially as and for the purpose set forth.

2. In a centrifugal separator, the combination of a drum its outlet-pipes, a bowl-shaped ring attached to the drum around the outlets of the pipes, having an inwardly and horizontally projecting flange at a distance from the outlets of said pipes, and a perforated ring inside of the first ring between the outlet-pipes and the flange, substantially as and for the purpose set forth.

3. In a centrifugal separator, the combination of a drum, its outlet-pipes, a bowl-shaped ring, attached to the drum around the outlets of the pipes, having an inwardly and horizontally projecting flange above the outlets of said pipes, and a perforated ring inside of the first ring and above the outlet-pipes, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

JOHANNES ERNST SIEDEL.

Witnesses:

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