PATENT SPECIFICATION

494,565

Application Date: June 10, 1938. No. 17314/38.

Complete Specification Accepted: Oct. 27, 1938.

COMPLETE SPECIFICATION

Improvements in Filtering Devices

I, ALEXANDER DENHOLM, of British Nationality, of 22, Rue Catinat, Saigon, French Indo China, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to improvements in and connected with filtering devices adapted more especially for use in the continuous filtration of rubber latex.

It is known that latex tends to choke or clog the filtering surface of such devices very quickly, particularly if the filtering surface should be exposed to the air, and the present invention has for an object an improved device by means of which the filters may be quickly and readily replaced in the event of their surfaces becoming clogged.

In accordance with the present invention the improved filtering device comprises one or more hollow filters each adapted to be supported within a tank or the like containing the liquid to be filtered, and each communicating with a common collector for the filtered liquid, the filters being mounted for pivotal movement about the collector pipe such movement serving to operate means for preventing unfiltering liquid from entering the common collector when a filter is moved to be cleaned or replaced.

In the accompanying drawing Fig. 1 is a cross-section through a tank embodying a filtering device in accordance with the present invention, Fig. 2 being a longitudinal section and Fig. 3 a plan.

Referring now to the drawings 1 denotes the tank provided with a plurality of tubular filters 2 of wire cloth or perforated metal. Each filter 2 is mounted on a tubular support 3 adapted to be embraced by one limb 4 of a T-shaped tubular sleeve, the other limb 5 of which embraces a collector pipe 6 disposed transversely of the filters and tank. The collector pipe 6 is provided with a plurality of openings 7 for the passage of the latex to the collecting pipe 6 after passing through the filters 2, one opening 7 being provided for each filter and its associated supporting sleeve. The limbs 5 act as distance pieces spacing the filters 2 throughout the width of the tank 1.

The collector pipe 6 is anchored in the tank by means of a squared end portion 8 engaging in a corresponding aperture in a supporting plate 9 attached to the side of the tank. The other or outlet end of the collecting pipe 6 is provided with a stuffing box 10 to prevent leakage of the latex.

The limbs 4 of the tubular sleeves are provided with handles 12 by which the filters can be swung about the collecting pipe 6, clear of the latex in the tank, as shown in dotted lines in Fig. 2. In the position of the filter shown in chain dotted lines the openings 7 is closed by means of the limb 5 of the tubular sleeve.

In use rubber latex is continuously supplied to the tank, the latex passing through the filters 2 by gravity and thence through the openings 7 into the common collector pipe 6. The filtered latex flows out through the side of the tank ready for coagulation. If any of the filters 2 become clogged or choked it is raised into a vertical position as shown in chain dotted lines in Fig. 2 in which position the clogged filter 2 can quickly be detached from its support 3 and replaced by a clean filter and submerged in the tank 1. The filter 2 which has been removed can then be cleaned ready for re-use.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A filtering device for use in a tank comprising one or more hollow filters adapted to be supported normally in submerged condition within a tank containing the liquid to be filtered and each communicating with a collector for the filtered liquid, the filters being mounted for pivotal movement about the collector pipe, such movement serving to operate means for preventing unfiltered liquid from entering the collector when a filter is moved into a position to be cleaned or replaced.

2. Means for the continuous filtration of rubber latex, constructed and arranged

[Price 1/-]

for operation substantially as described with reference to the accompanying drawing.

Dated this 9th day of June, 1938.

CRUIKSHANK & FAIRWEATHER,
65-66, Chancery Lane,
London, W.C.2,
and
86, St. Vincent Street, Glasgow.
Agents for the Applicant.

Leamington Spa: Printed for His Majesty's Stationery Office, by the Courier Press.—1938.



for operation substantially as described with reference to the accompanying drawing.

Dated this 9th day of June, 1938.

CRUIKSHANK & FAIRWEATHER,
65-66, Chancery Lane,
London, W.C.2,
and
86, St. Vincent Street, Glasgow.
Agents for the Applicant.

Leamington Spa: Printed for His Majesty's Stationery Office, by the Courier Press.—1938.