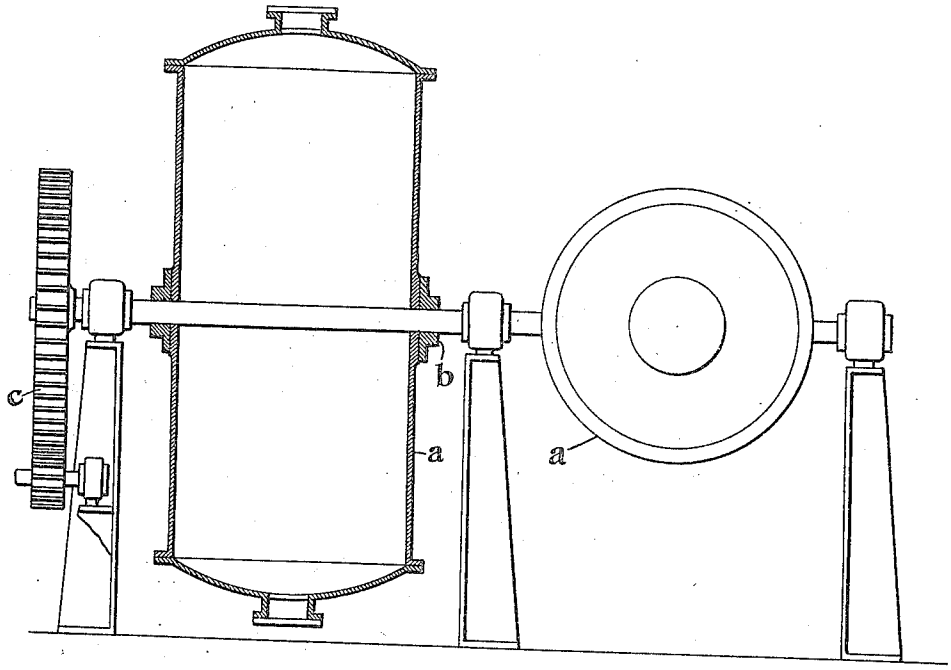
J. BOGAERTS.

MIXING APPARATUS.

APPLICATION FILED OCT. 21, 1918.

1,302,294.

Patented Apr. 29, 1919.



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UNITED STATES PATENT OFFICE.

JOSEPH BOGAERTS, OF SUTTON, ENGLAND.

MIXING APPARATUS.

1,302,294. Specification of Letters Patent. Patented Apr. 29, 1919.

Application filed October 21, 1918. Serial No. 259,165.

To all whom it may concern:

Be it known that I, JOSEPH BOGAERTS, a subject of the King of Belgium, residing at Brighton Road, Sutton, in the county of Surrey, England, have invented certain new and useful Improvements Relating to Mixing Apparatus, of which the following is a specification.

According to the invention I employ for the purpose a rotating casing within which the crude or other oils are admixed with the acid, the form of the casing being such that the substances to be admixed are in the rotation of the casing alternately projected from one end to the other in a direction substantially transverse to the axis of rotation.

An apparatus for carrying out the method of the invention is illustrated in the accompanying drawing which represents a number of cylindrical casings *a* mounted to rotate upon a spindle *b* by means of gear *c* as illustrated. The cylindrical casings *a* are provided so that their length is equal to twice their diameter. The cylindrical casings are provided at their extremities with curved or conical cover plates and in a central position at each end with a cover plate adapted to be removed for the charging or discharging of the casing.

Any number of casings may be mounted upon the same shaft, the casings being equally distributed in the circle.

By having the casings or containers arranged staggered, as shown, it will be seen that rotation proceeds more smoothly and evenly than if but a single container is used or if they are all arranged parallel. By having a number of containers the effect of the shocks of the falling mass upon the apparatus and the driving gear is very much reduced, and if the number is large enough, little shock is felt. The containers are each symmetrically arranged on the shaft.

It is, of course, apparent that the space occupied by the mixture of oil and treating agent should be but a fraction of the entire space, so that the mass may fall with considerable force from the upper upon the lower end. The proportions of dimensions of the containers aid in this respect. The containers must not be too long for the diameter, or centrifugal action might interfere with proper functioning of the apparatus.

I claim:

1. In a device for mixing oil and acid, in combination, a shaft, a series of symmetrical cylindrical containers symmetrically mounted on said shaft with their axes of revolution intersecting the shaft perpendicularly, said containers being balanced in staggered fashion upon the shaft so as to balance on the shaft, whereby the rotation proceeds smoothly and evenly.

2. In a device for mixing oil and acid, in combination, a shaft, means to rotate said shaft, a series of symmetrical cylinders balanced on said shaft transversely of the shaft, each of said cylinders being provided with a cap at each end, said cylinders being arranged in staggered fashion on the shaft so that each cylinder is itself balanced on the shaft and all the cylinders as a whole are substantially balanced on the shaft when all of them are partially filled, and means to drive the shaft.

JOS. BOGAERTS.

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