

No. 859,972.

PATENTED JULY 16, 1907.

S. W. PARKHURST & W. ASHLING.
APPARATUS FOR WASHING FILTERING MEDIUMS.

APPLICATION FILED APR. 9, 1906.

2 SHEETS—SHEET 1.

FIG. 1.

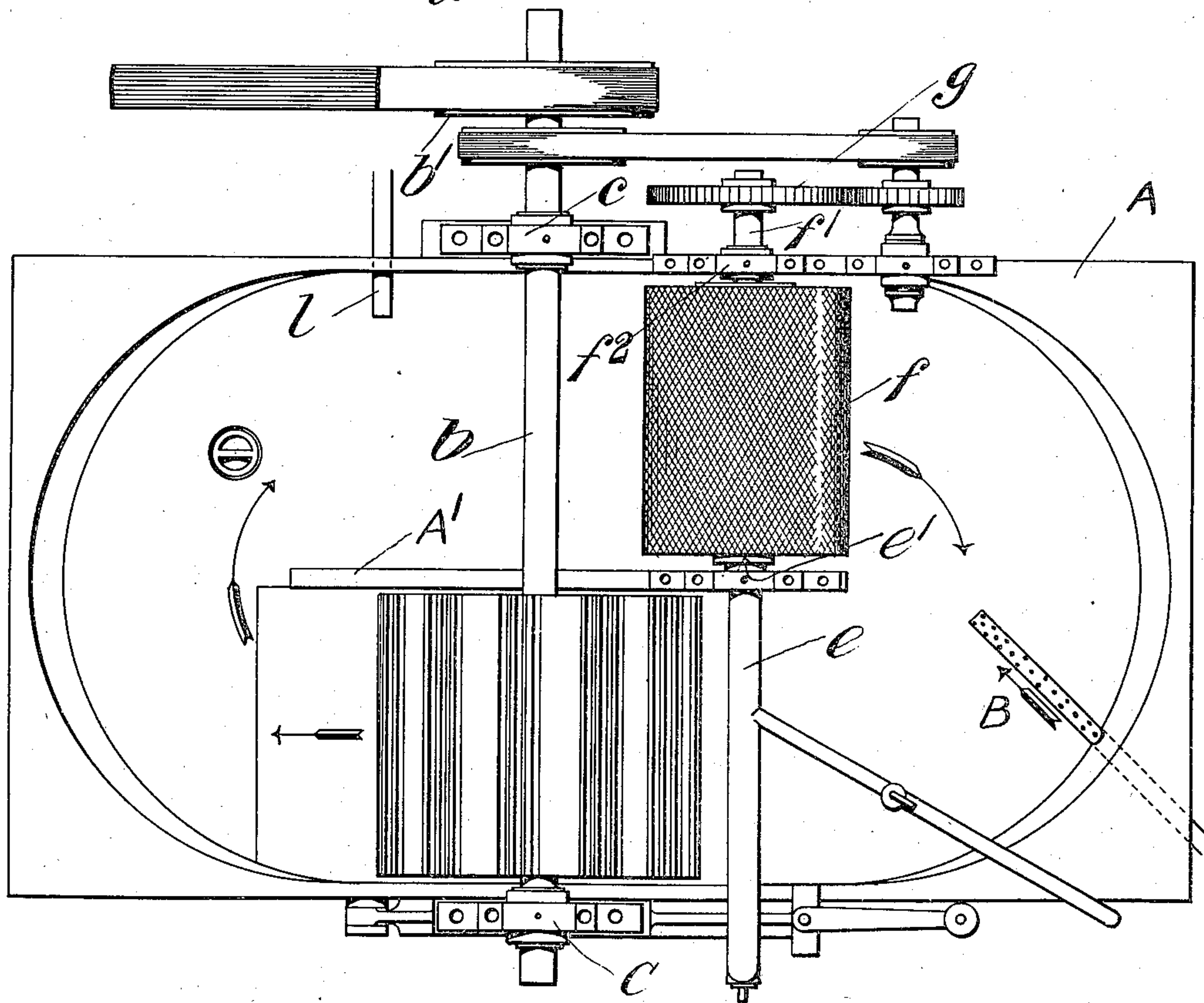
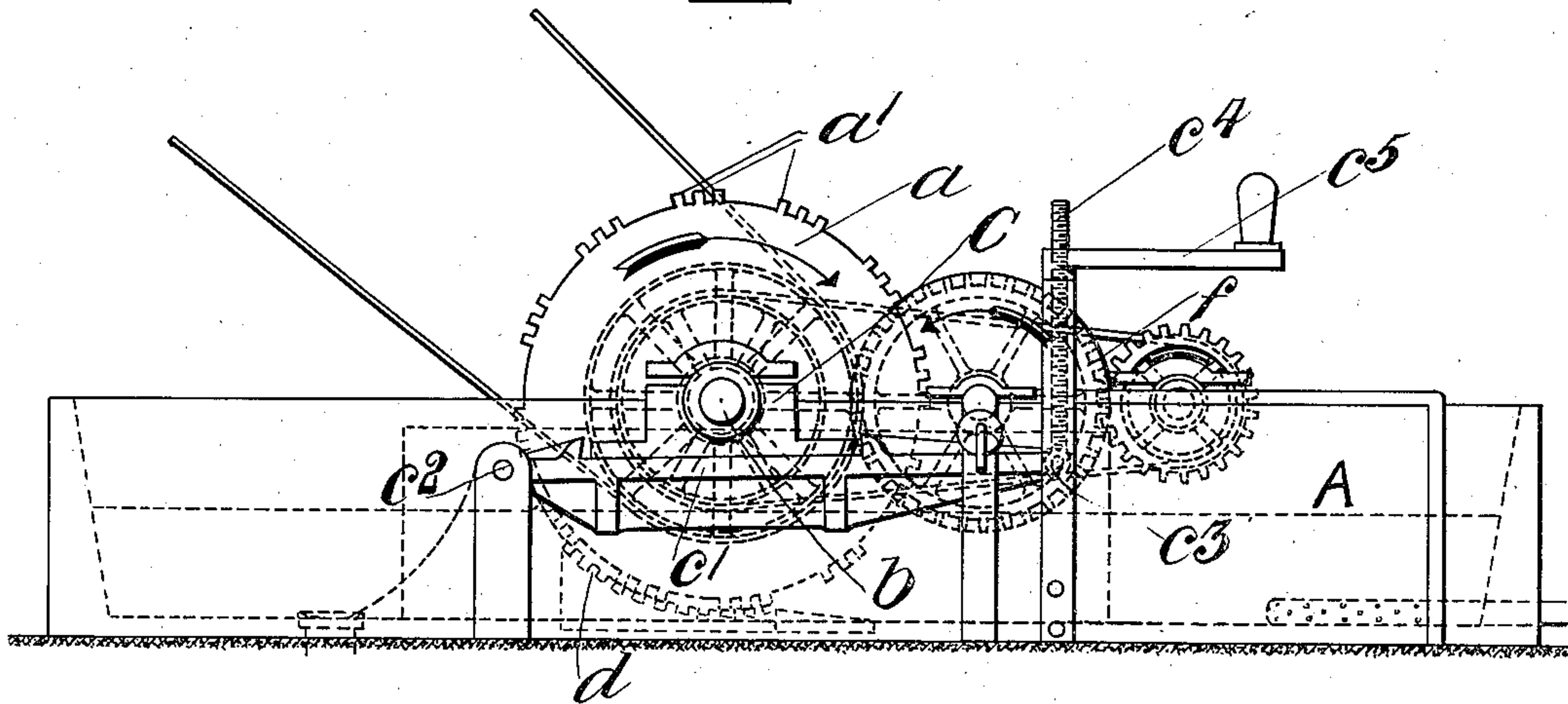


FIG. 2.

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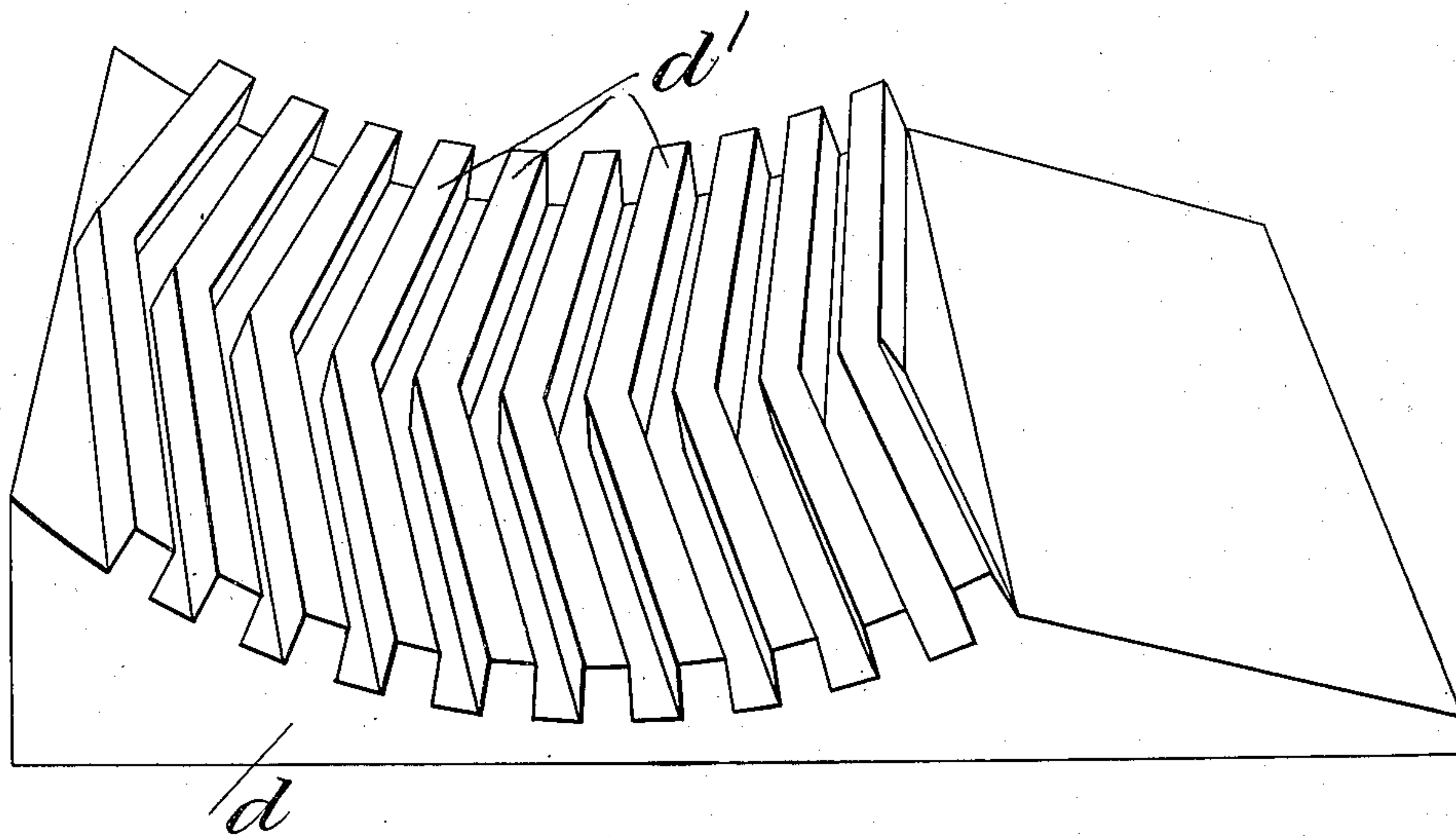
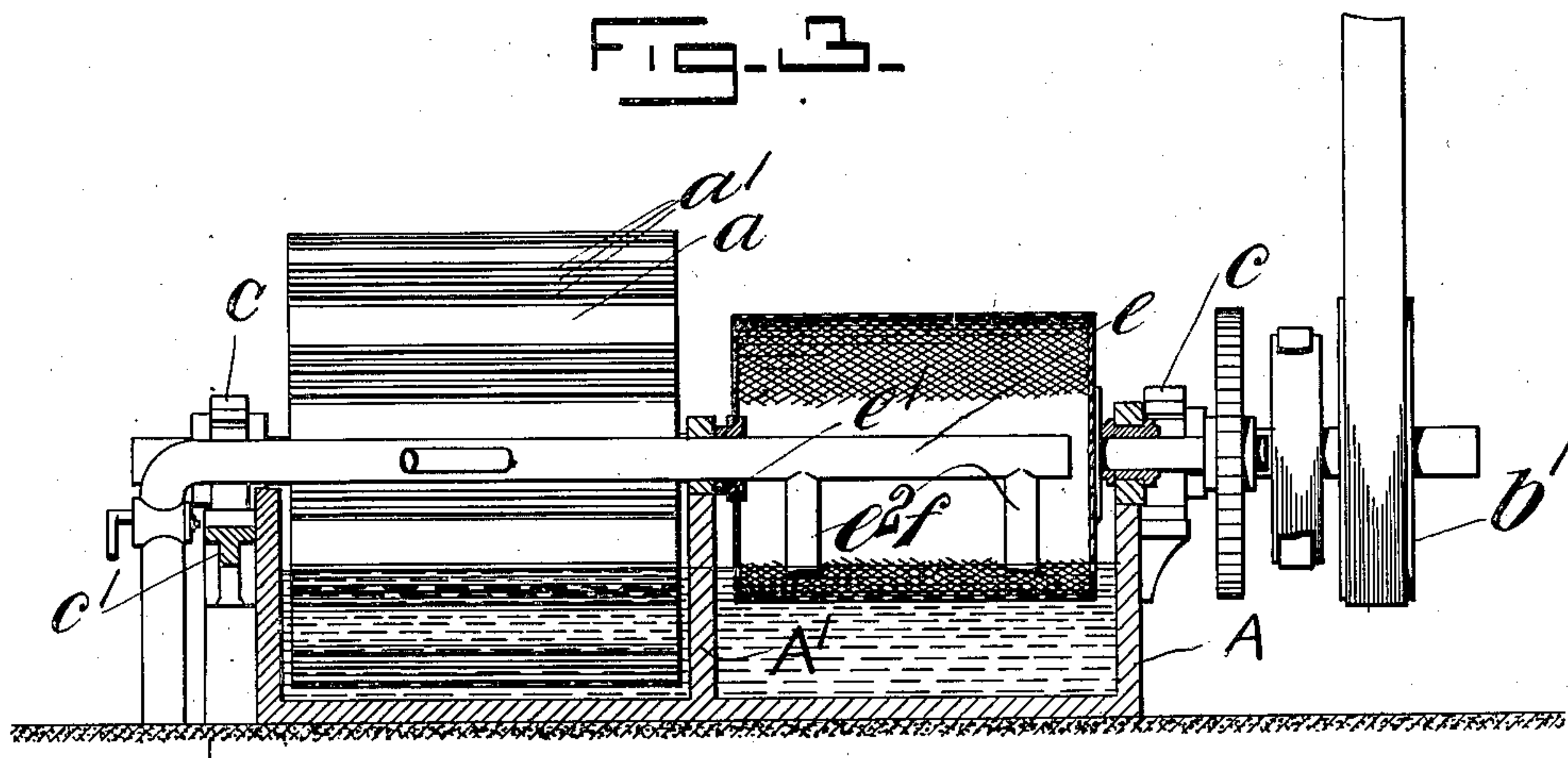
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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

SIDNEY WILLIAM PARKHURST AND WILLIAM ASHLING, OF WANDSWORTH, ENGLAND.

APPARATUS FOR WASHING FILTERING MEDIUMS.

No. 859,972.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed April 9, 1906. Serial No. 310,850.

To all whom it may concern:

Be it known that we, SIDNEY WILLIAM PARKHURST and WILLIAM ASHLING, subjects of His Majesty the King of Great Britain, residing at Wandsworth, in the county of Surrey, England, have invented a new and useful Improvement in Apparatus for Washing Filtering Media, of which the following is a specification.

This invention relates to apparatus for washing filtering media, and has for its object to provide a machine wherein filtering media particularly of that kind used in the filtration of beer, wines and spirits may be conveniently and effectively disintegrated and cleaned.

In order that this our invention may be more readily understood and carried into practical effect, reference is hereby made to the accompanying sheet of illustrative drawings, wherein:

Figure 1 is an elevational view of a washer constructed in accordance with our invention. Fig. 2 is a plan view thereof. Fig. 3 is a section on line A. B. of Fig. 1, while Fig. 4 is a view of an important detail of the machine shown separately.

Referring to these drawings wherein like letters of reference indicate corresponding parts wherever occurring *a* represents an iron or other metal roller or drum located within a suitable tank A and provided with a number of ribs *a*¹ conveniently arranged around its periphery and preferably parallel to the axis of the said drum *a*. This drum *a* is carried upon a shaft *b* which latter is mounted in suitably arranged plumber-blocks C and *c*.

The plumber block C is mounted upon a movable arm *c*¹ hinged at *c*² to the body of the tank A and at its other end *c*³ to the lower end of an adjusting screw *c*⁴. By this means the rotation of the adjusting handle, or nut *c*⁵ causes the raising or lowering of the drum *a* in relation to a suitably ribbed stationary plate *d* located beneath the roller *a*. In order to permit of this adjustment the plumber block C is provided with a "Sellars" block bearing or some other bearing which permits of a limited movement of the shaft it carries.

The shaft *b* is provided with a belt pulley *b*¹ to enable the drum *a* to be rotated at a convenient speed.

The tank A is provided with a central rib or partial partition A¹ which apart from other uses serves to assist in supporting a siphon pipe *e*. In a bearing *e*¹ carried by this siphon pipe *e* one end of a wire gauze cylinder *f* is mounted, the other end of such cylinder carrying a short spindle *f*¹ mounted to revolve in a bearing *f*² supported by the wall of the tank A. The rotation of this wire gauze cylinder is effected by the gearing *g* which is so constructed and arranged that such gauze cylinder rotates in a direction opposite to that of the disintegrating drum *a* and at approximately half the speed of rotation of such drum *a*. The portion of the siphon pipe *e*, within the gauze cylinder *f* aforesaid, is provided with

two or more depending branches *e*² having open ends and an auxiliary pipe *h* connected with a water supply may be associated with the main siphon to start the operations of such main siphon when necessary.

The tank A it will be understood is provided with an exhaust plug *i* and a water supply pipe *j* which latter is preferably constructed in a manner which will insure the water being sprayed into the said tank A.

It will be understood that suitable cocks are provided in connection with both the water supply and the exhausting siphons.

The operation of the machine is as follows:—The filtering media to be washed is introduced into the tank A at the position indicated by the arrow B and the water supply is turned on. The rotation of the drum *a* in the direction indicated causes the said filtering media to be drawn between it and the stationary ribbed plate *d* up the incline *k*, around the tank in the direction indicated, under the rotating gauze cylinder *f* and between the disintegrating drum *a* and stationary plate *d* again. The material is allowed to perform this cycle of operations continuously until the treatment is complete *i. e.*, until the media has been disintegrated to its correct degree of fineness and has been thoroughly washed. The dirty water is during the process siphoned off through the pipes *e*² and *e* the filtering media being restrained by the wire gauze cylinder *f*.

The stationary plate *d* is preferably provided with angular ribs *d*¹ as shown separately in Fig. 4 but it will be understood that we do not confine ourselves to the particular form or direction of these ribs *d*¹, neither do we confine ourselves to a disintegrating drum constructed in the particular manner shown but reserve the right to vary these details if found desirable or convenient.

We may, if desirable, provide a pipe *l* for the introduction of steam for enabling the filtering media to be sterilized.

What we claim as our invention, and desire to secure by Letters Patent, is:—

The apparatus for washing filtering media consisting of the combination of a disintegrating drum mounted to rotate within a tank; a stationary disintegrating plate located beneath said drum; means for adjusting said drum in relation to said plate; a water supply to said tank; a stationary siphon; a wire gauze drum surrounding said siphon, and means for rotating said wire drum in a direction opposite to the direction of rotation of the disintegrating drum, substantially as specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

SIDNEY WILLIAM PARKHURST.
WILLIAM ASHLING.

Witnesses:

A. G. THORNTON.
B. ESCREW.