

(No Model.)

F. S. RUTSCHMAN.

MACHINE FOR PLOTTING SOAP, &c.

No. 296,878.

Patented Apr. 15, 1884.

Fig. 1.

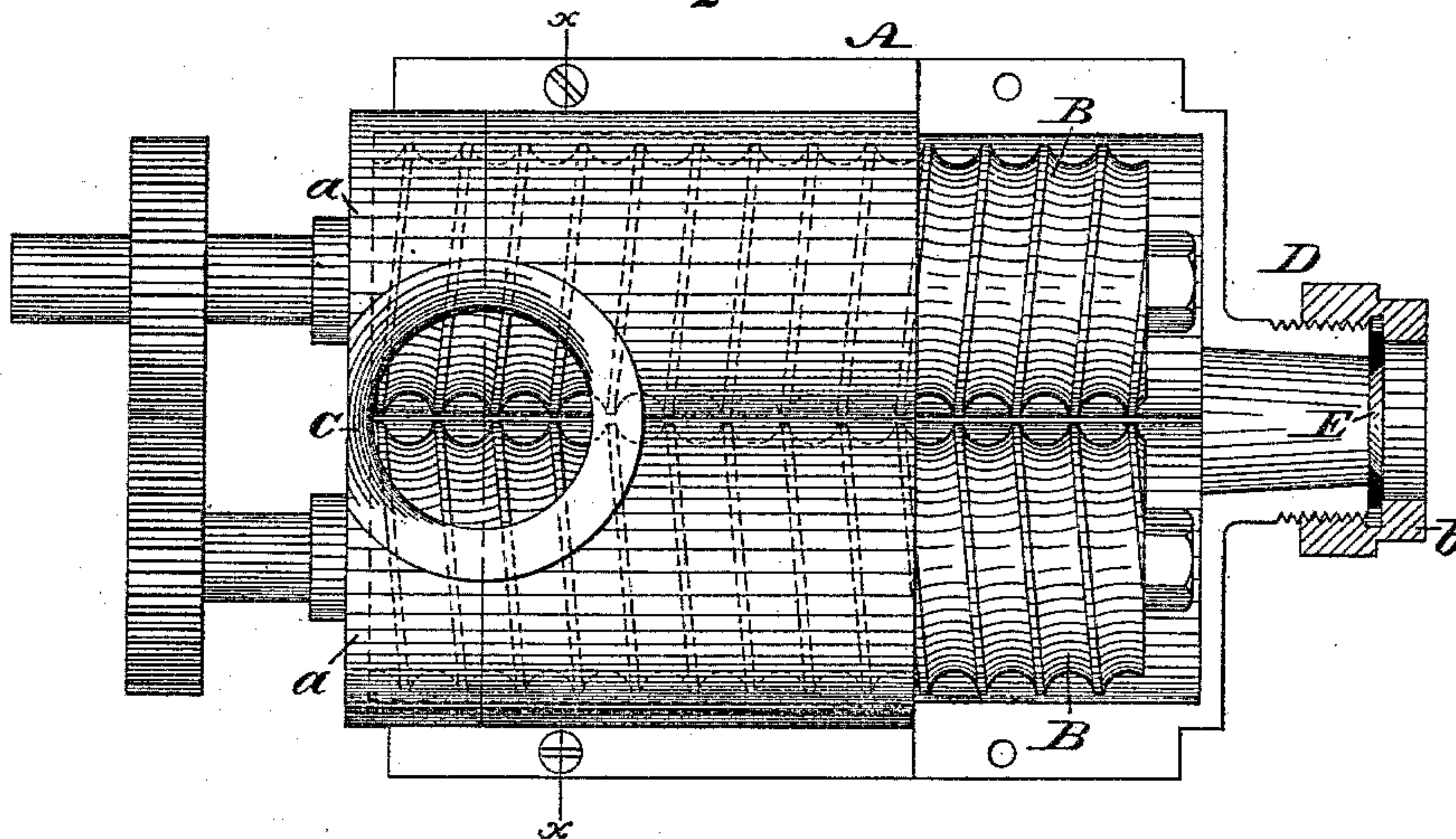


Fig. 2.

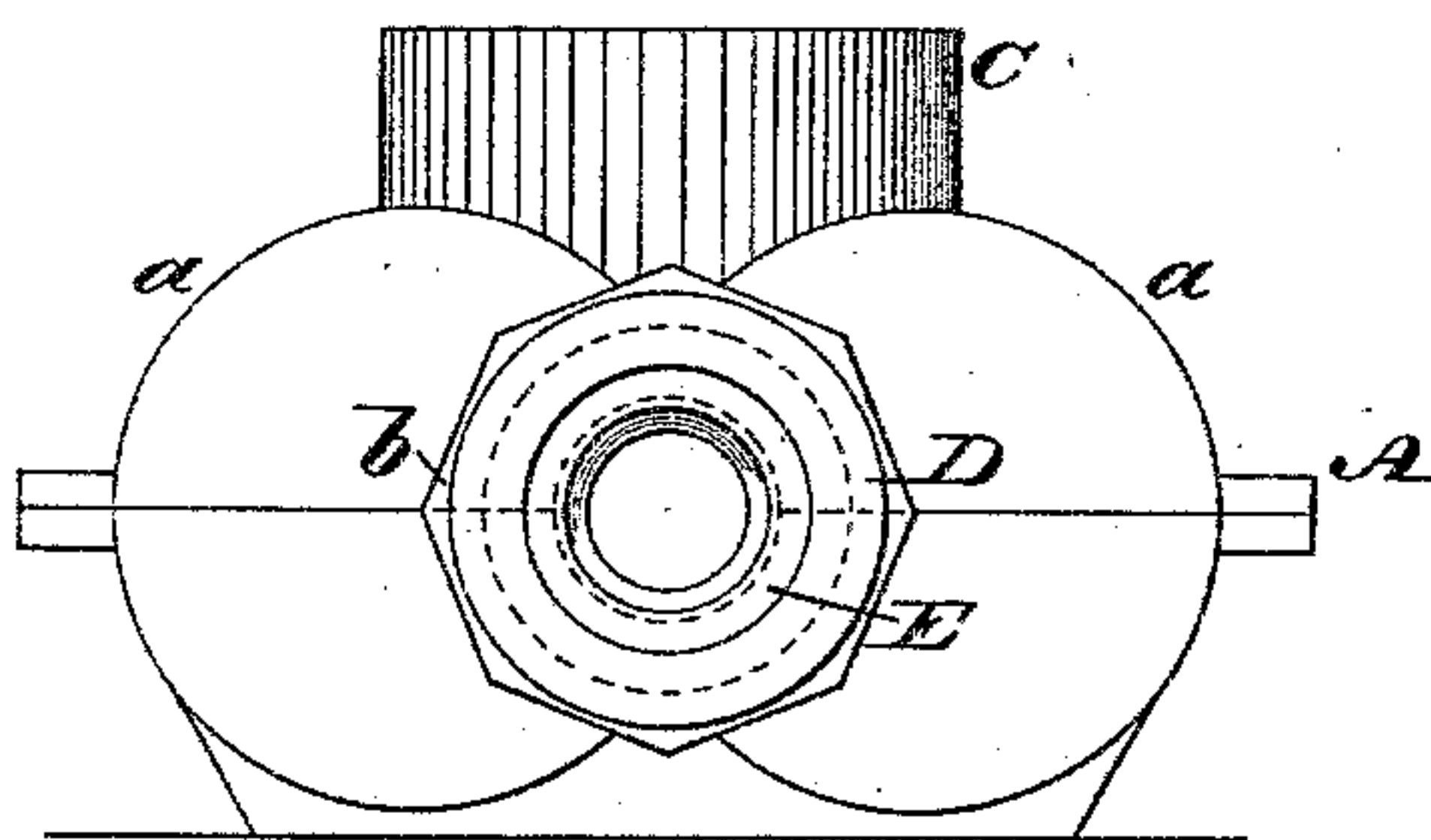


Fig. 3.

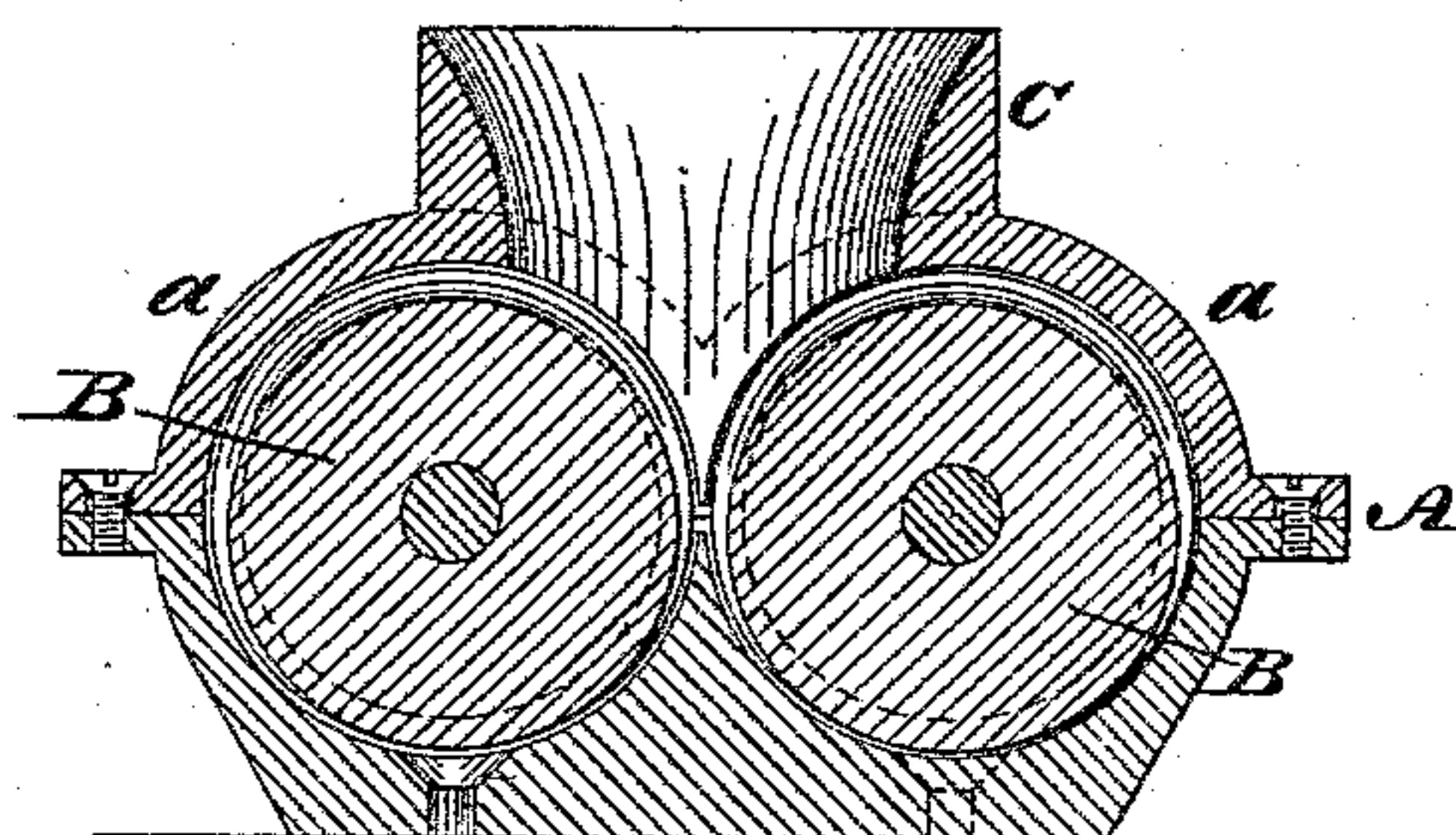
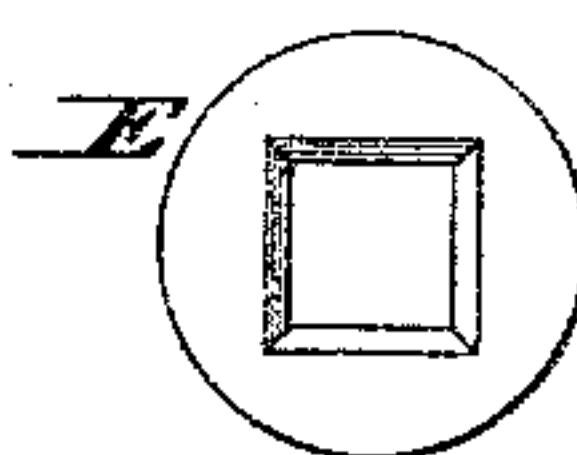
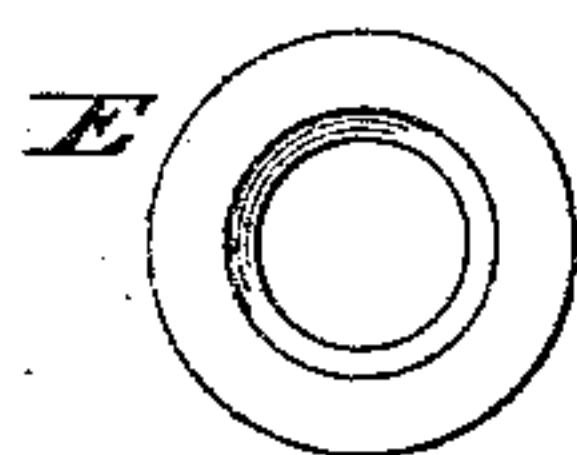


Fig. 4.

Fig. 5.



WITNESSES:

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MACHINE FOR PLOTTING SOAP, &c.

SPECIFICATION forming part of Letters Patent No. 296,878, dated April 15, 1884.

Application filed July 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS S. RUTSCHMAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Machines for Plotting Soap, &c., which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 is a top or plan view of a machine for plotting soap, &c., embodying my invention, part of the casing thereof being removed. Fig. 2 is an end view thereof. Fig. 3 is a vertical section in line *xx*, Fig. 1. Figs. 4 and 15 5 are views of different forms of dies that may be employed.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a machine for plotting soap, formed of a casing having two spiral conveyers arranged parallel within a casing, on opposite sides thereof, constructed of two bodies communicating with each other at their place of junction, whereby the soap is discharged properly plotted and in such condition that it retains its shape, and may be sliced or otherwise manipulated without liability to break or crumble.

Referring to the drawings, A represents a casing formed of two partly-cylindrical-shaped bodies, *a*, arranged parallel and communicating on their inner sides or place of junction. Within the casing two cylinders, B, are mounted, the same being placed side by side and having their peripheries spirally grooved, the groove of one cylinder extending in reverse direction to that of the other cylinder, the two cylinders being geared together and receiving power in any suitable manner, their direction of rotation being toward each other. The casing A has a hopper or inlet, C, and a discharge-spout, D, the latter being, at or about the middle of the proper end of said casing, moved around both conveyers, and also between the same, and in said spout is a die, E, which is held in place by a union-coupling or nut, *b*. The opening of the die may be of any suitable contour, the latter being imparted to the soap as it leaves the spout, two forms of dies being shown in Figs. 4 and 5.

The operation is as follows: A mass of soap is fed into the casing through the hopper or inlet C, and carried along by the two spiral cylinders and conveyed through the casing to the discharge end of the same, where the streams of soap unite, forming a single stream, which enters the spout D, and is forced through the die E, thus having the contour of the latter imparted to it. The soap, as shaped or plotted, is directed on a table or other support, where it may be sliced or otherwise manipulated according to requirements. It will be seen that the mass while within the casing is so thoroughly worked, intermingled, and incorporated by the two conveyers that it is discharged in a homogeneous condition, whereby the material after leaving the die retains its shape, and may be sliced or otherwise manipulated without liability to break or crumble.

By unscrewing the nut *b* the die E may be removed and replaced by one of different contour, which latter being applied will be held by the nut again fitted to the discharge-spout and clamping the die thereto.

It is evident that by the means hereinbefore stated, candy, glue, and other plastic substances may be plotted, it being necessary to employ a die adapted to impart the proper shape to said substances.

A single screw has been used in machines for plotting soap; but the operation of the same is such that the soap receives a twisted shape and glazed surface as it leaves the screw, thus necessitating a perforated plate or breaker to overcome the injurious effects of the same, this being obviated by my construction; and I therefore disclaim the use of a single screw.

I am also aware of the use of two cylinders distinct from each other, communicating with different spiral conveyers, and likewise disclaim the same.

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

1. In a machine for plotting soap, &c., two spiral conveyers arranged side by side, in combination with a casing formed of a two-part body, the two conveyers being located in the opposite sides of said casing, substantially as and for the purpose set forth.

2. A casing having an inlet and outlet and

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aremovable die, in combination with two spiral conveyers, the grooves or threads whereof are pitched in reverse order, said conveyers being arranged parallel in opposite sides of said casing, substantially as and for the purpose set forth.

5 3. A casing formed of two bodies communicating with each other at their places of junction,

tion, in combination with two spiral conveyers arranged parallel in the opposite bodies of said casing, substantially as and for the purpose set forth.

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Witnesses:

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