

(No Model.)

3 Sheets—Sheet 1.

C. L. MARBURG.
MACHINE FOR PREPARING AND CASING TOBACCO.

No. 519,637.

Patented May 8, 1894.

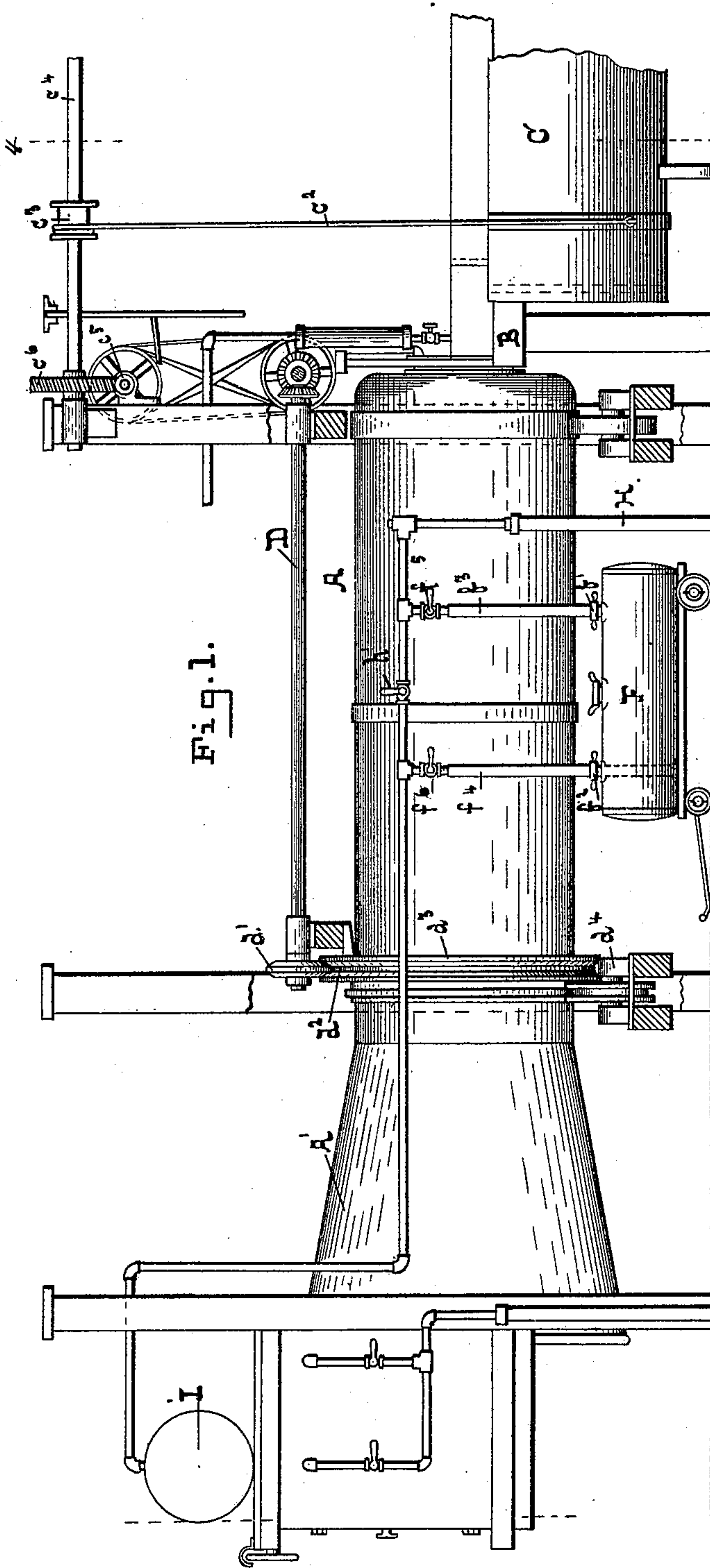


Fig. 1.

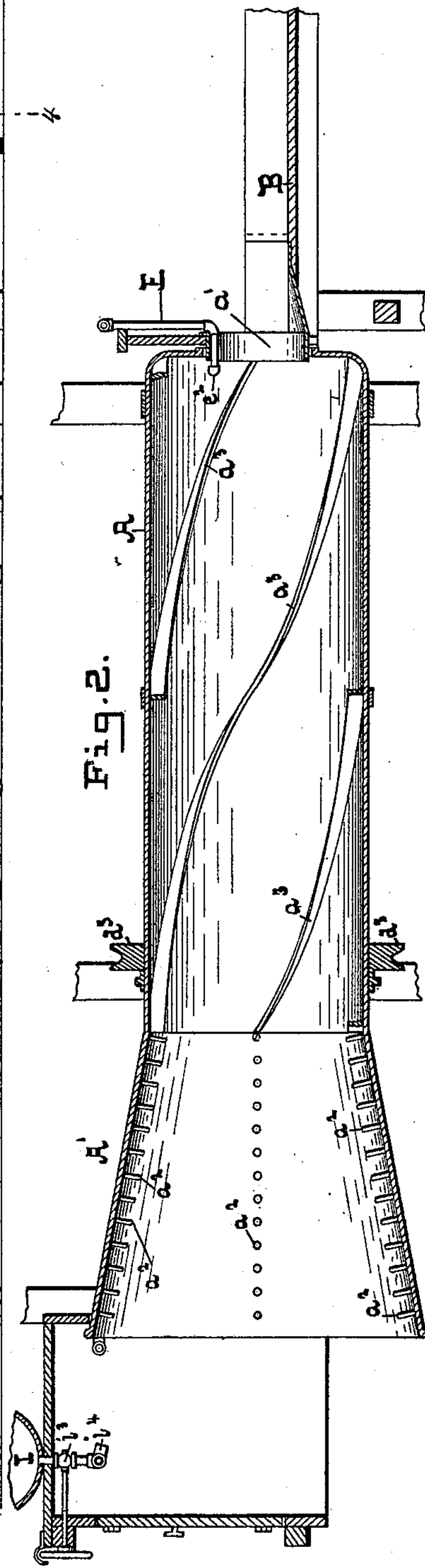


Fig. 2.

Witnesses:

A. O. Babendreier.
G. R. Weaver

Inventor:

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By Price & Stewart
Attorneys

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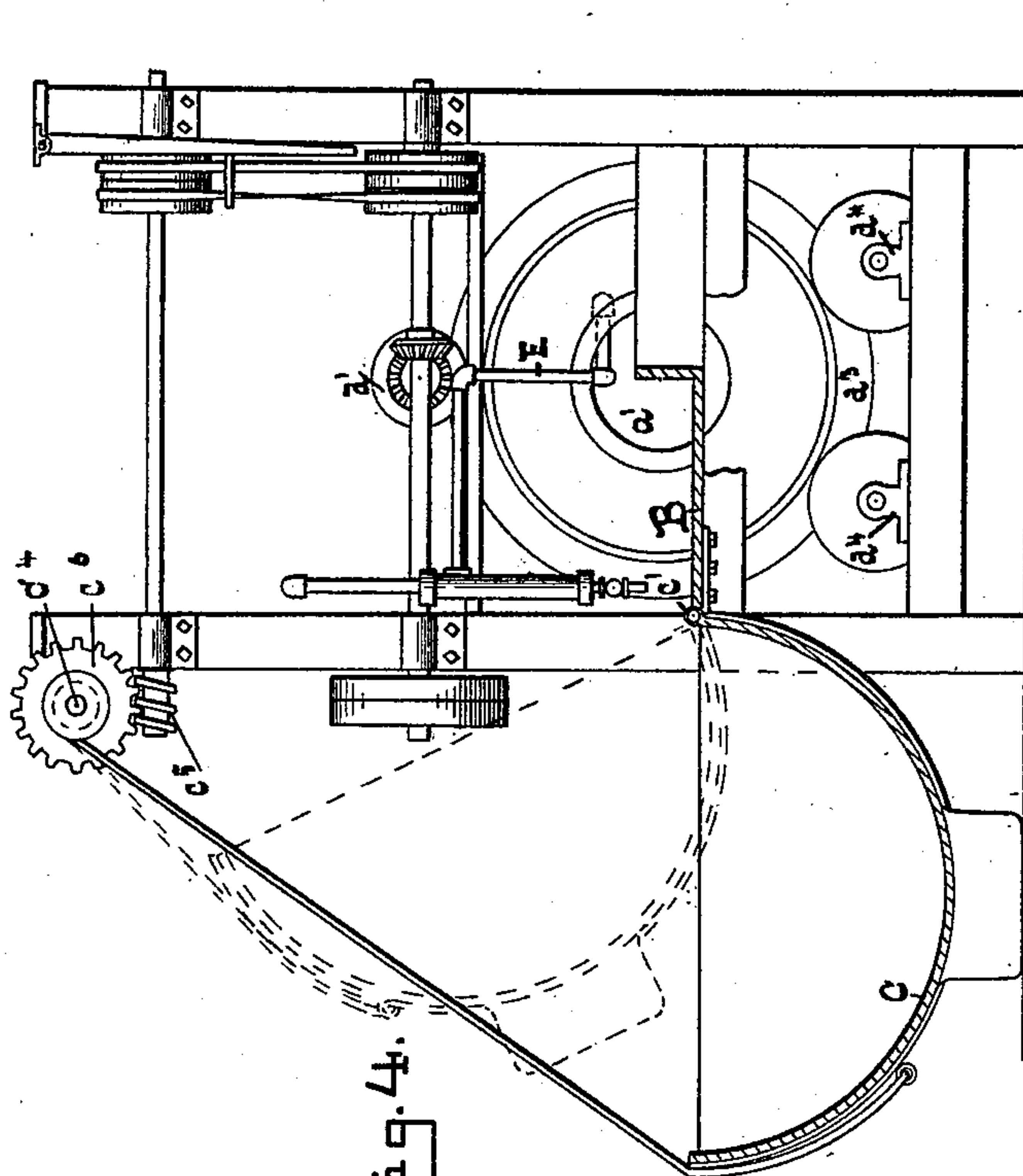


Fig. 4.

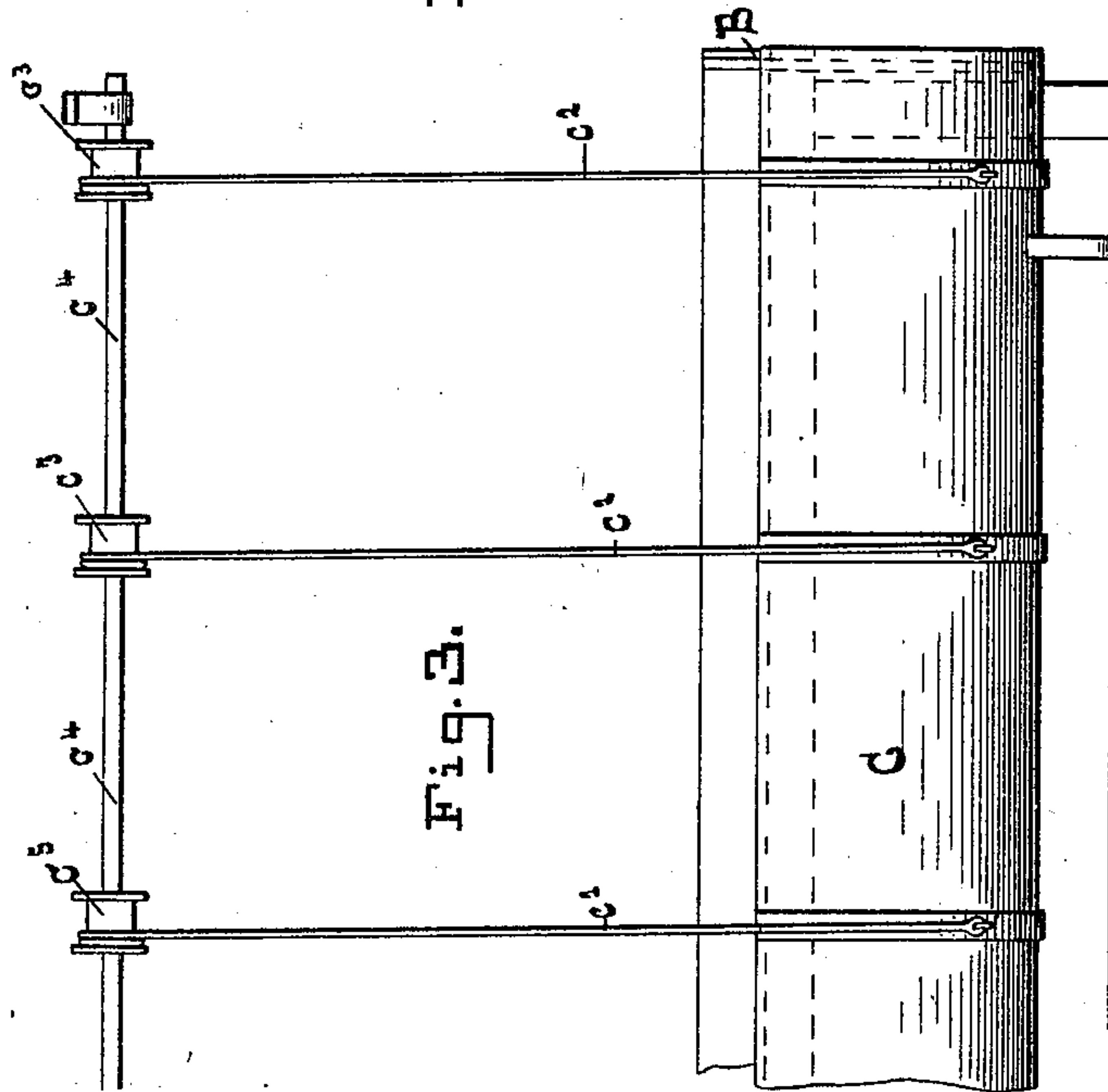


Fig. 3.

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(No Model.)

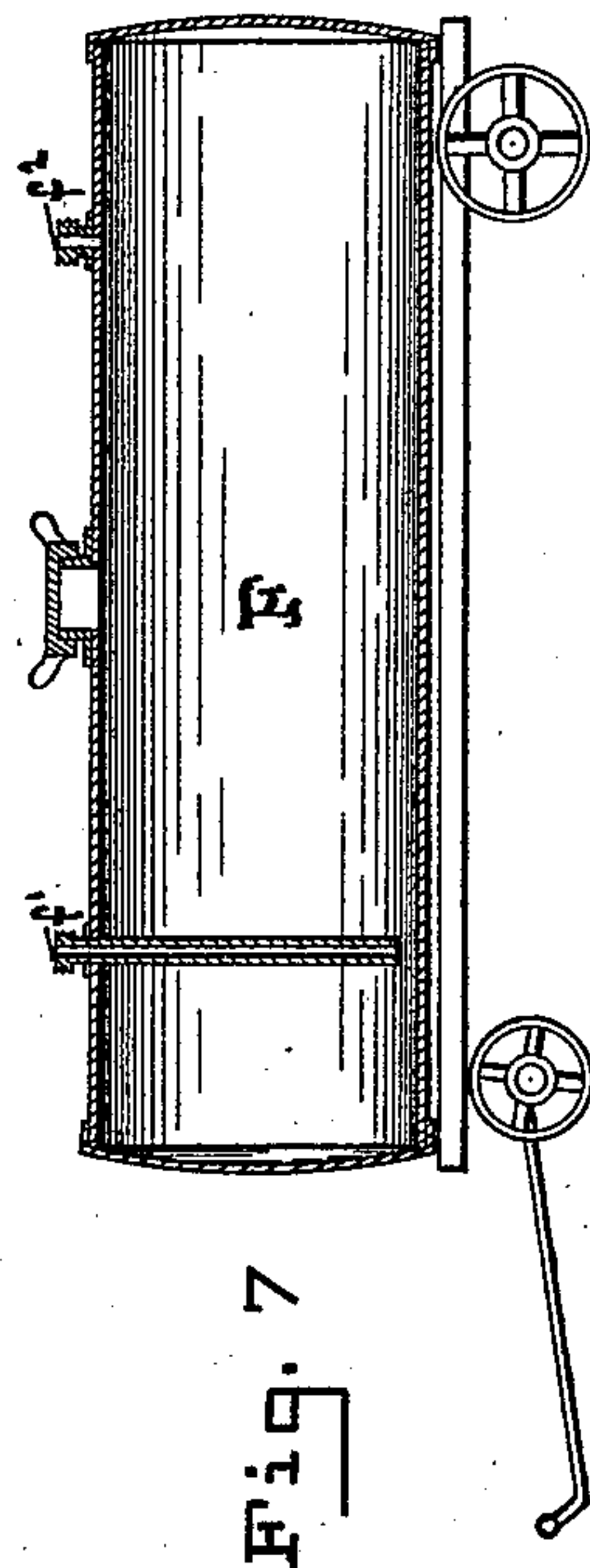
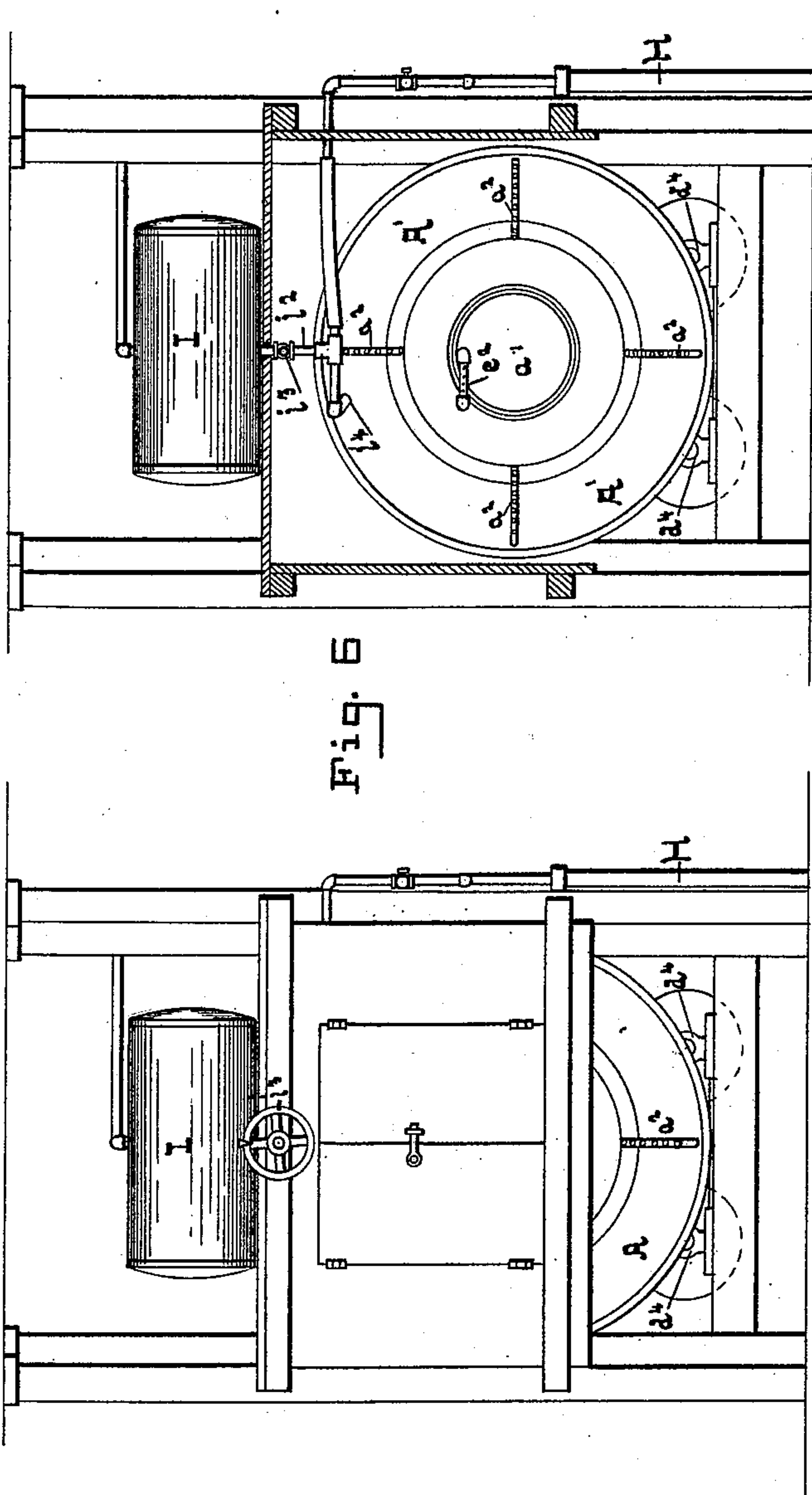
3 Sheets—Sheet 3.

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MACHINE FOR PREPARING AND CASING TOBACCO.

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Witnesses:

A. O. Babendriker.

C. R. Weaver

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UNITED STATES PATENT OFFICE.

CHARLES L. MARBURG, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF
TO THE AMERICAN TOBACCO COMPANY, OF NEW JERSEY.

MACHINE FOR PREPARING AND CASING TOBACCO.

SPECIFICATION forming part of Letters Patent No. 519,637, dated May 8, 1894.

Application filed November 2, 1893. Serial No. 489,778. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. MARBURG, of the city of Baltimore and State of Maryland, have made certain new and useful Improvements in Machines for Preparing and Casing Tobacco, of which the following is a full description.

Figure 1 is a front side view of the apparatus; Fig. 2, a sectional view of the same; Fig. 3, a view of the receiving box when let down. Fig. 4 is an end view of the apparatus showing the receiving box and table in section, and the end of the revolving cylinder; Fig. 5, an end view of the apparatus showing tank, holding the casing material with the end doors closed; Fig. 6, an end view of the same with the doors opened and showing the interior of the revolving cylinder with the devices for agitating the tobacco while the casing is applied; Fig. 7, a view of the tank from which the casing matter is taken and from which it is discharged into its final tank to be sprayed upon the tobacco.

Viewing Fig. 1, A is a cylinder provided interiorly with screw flanges, as shown in Fig. 2, and enlarged at its end A' into the shape of a funnel. B, a table upon which the tobacco is first placed when taken from the receiving box C which then passes through the opening a' in the cylinder. Suitable means for revolving this cylinder is shown in Fig. 1, in which D is a shaft revolved by appropriate machinery for the purpose, and provided with a pulley d' fitting into a groove d² in a wheel d³ which surrounds the cylinder. A suitable bearing as d⁴ may be located at the bottom in order to give an even and regular movement to the revolution of the cylinder. Any other suitable device for operating the cylinder may be employed.

The funnel-shaped end of cylinder A is provided with pins or pegs a² whose office is to lift and support the tobacco while it is sprinkled with the casing material. At the other end of the apparatus is a steam pipe E entering through the aperture a' of the cylinder. This steam pipe is connected with a source of steam supply and is provided with apertures e², through which the steam escapes and steams the tobacco as it passes. A movable tank F contains the casing compound. This

tank is provided with couplings f'—f² to which are connected the pipes f³—f⁴. These pipes are provided with the cocks f⁵—f⁶. An air-pressure pipe H, connected with a compressed air supply, extends to the casing receptacle I and is provided with the cock h'. The tank I, which contains the liquid casing, is provided with the pipe i² having a cock i³. The other end of this pipe is provided with a spraying device i⁴. This spraying device is so located that it will throw the sprayed casing upon the tobacco as it is lifted and agitated by the pegs a². The receiving box C is hinged as shown at c' and connected with this box are one or more straps or cords c² which are wound upon a suitable reel or reels c³ secured to the shaft c⁴. A worm as c⁵ operates a cog wheel c⁶ and revolves the shaft c⁴.

The mixture or material which is employed in flavoring and giving consistency or color to the tobacco is called in the trade the casing.

The operation of the device is as follows: The tank F having been supplied with casing is coupled to the pipes f³, f⁴ by the couplings f', f². The pipe f⁴ below the coupling extends down or nearly down to the bottom of the tank F as shown in dotted lines in Fig. 1. The cocks f⁵—f⁶ are opened and the cock h' is closed. Compressed air is then admitted through the tube H, into the tank F, through the pipe f³, exerts its pressure upon the top of the liquid casing in the tank, and forces it out through the pipe f⁴ and cock f⁶ into the tank I. The cocks f⁵ and f⁶ are then closed and the tank F is removed if desired as the casing material has passed therefrom into the tank I, and the compressed air passes direct through cock h' to exert its pressure upon the casing in that tank. The tobacco is placed by the attendants into the receiving box C and when sufficiently full motion is given to the worm c⁵ which revolves the shaft c⁴ and brings the receiving-box up into the position shown in dotted lines in Fig. 4, or further if desired, until it will dump the tobacco on the table. When in this position the tobacco is easily taken therefrom by the attendant or attendants and placed upon the table B. From thence it is passed into the cylinder through the aperture a', and the cylinder at the same time is revolved. The

steam is admitted through the pipe E to contact with the tobacco, the effect of which is to soften the tobacco and open its pores and prepare it to receive its casing. The screw
 5 flanges a^3 impel the tobacco forward until it passes into the funnel-shaped end A' where it is received upon the pins a^2 which lift and agitate the tobacco as they revolve. The
 10 cock v^3 is opened and the casing material contained in the tank I is ejected therefrom by the pressure of air through the spraying device v^4 which is received by the tobacco while it is agitated and thoroughly distributed throughout.

15 It will be seen from this arrangement that the steaming and casing of the tobacco are separate and distinct; that the steaming of the tobacco begins at one end of the cylinder and by the time the tobacco has reached the
 20 other end it has become sufficiently soft and moist and when in that condition there are devices which separate and agitate it located at that end and in position to receive the casing from its tank. That end of the cylinder
 25 is flared or funnel-shaped, and this accomplishes two purposes, it receives the casing material allowing it to run off and thus keep the rest of the cylinder clean and free from gumming, it separates the tobacco by making
 30 it occupy a larger space, and being provided with the agitating devices insures that the casing will be evenly distributed.

What I claim, and desire to secure by Letters Patent, is—

35 1. In a tobacco preparing and casing apparatus the combination with a revolving cylinder provided with means for impelling the tobacco therethrough and means for applying steam to the tobacco during its passage,
 40 of a funnel-shaped end to said cylinder opposite to the entrance end for the tobacco, provided with separating and agitating devices,

and means for applying the casing material thereto while it is so separated and agitated.

2. In a tobacco preparing apparatus the
 45 combination with a revolving cylinder having an open end for receiving the tobacco and means for impelling the tobacco therethrough of a table B, located in front of the open end
 50 of the cylinder, a hinged box wherein the tobacco is placed and arranged, means for hoisting said box and holding it in position to enable the operator to take the tobacco therefrom and prepare it to enter the cylinder.

3. In a tobacco preparing and casing apparatus, the combination with a portable tank
 55 for holding the casing material, of a stationary tank, and connections between them through which the casing is forced from the portable to the stationary tank means for supplying compressed air to the portable tank
 60 and thereby forcing the casing to the stationary tank, and means for applying compressed air to the stationary tank to thereby spray the casing therefrom upon the tobacco. 65

4. In a tobacco preparing and casing apparatus, the combination with a portable tank F provided with the pipe f^4 extending to near the bottom of said tank, of the compressed
 70 air pipe H, and the stationary tank I, means for connecting and disconnecting the pipe H with the tank F and with the pipe f^4 , means for connecting and disconnecting the tank I with the pipe H and thereby force the casing material from tank F to tank I and forcing it
 75 out of tank I to be sprayed upon the tobacco, substantially as described.

Signed at Baltimore, in the State of Maryland, this 24th day of October, A. D. 1893.

CHARLES L. MARBURG.

Witnesses:

WASHINGTON I. TUTTLE,
 FELIX R. SULLIVAN.