

No. 638,706.

Patented Dec. 12, 1899.

J. W. GARDNER & A. E. GRANT.
MECHANISM FOR STEAMING COLLARS.

(Application filed Jan. 3, 1899.)

3 Sheets—Sheet 1.

(No Model.)

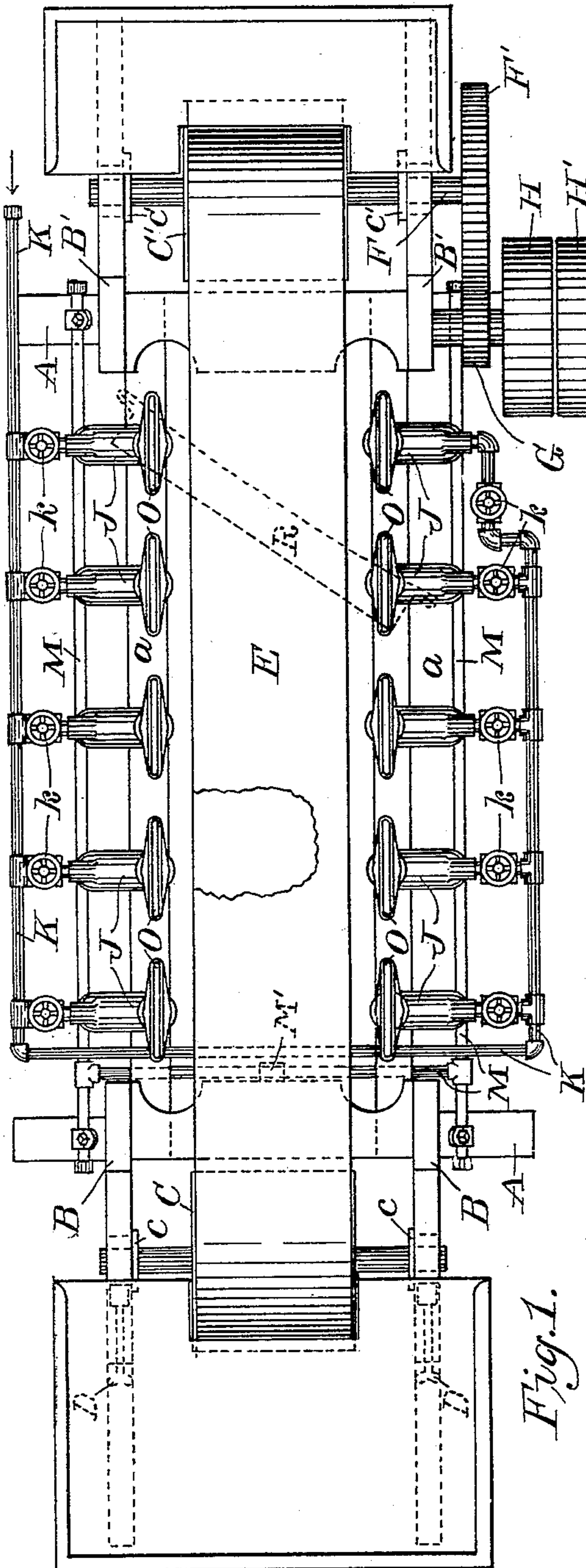


Fig. 1.

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Fred. H. Wetmore

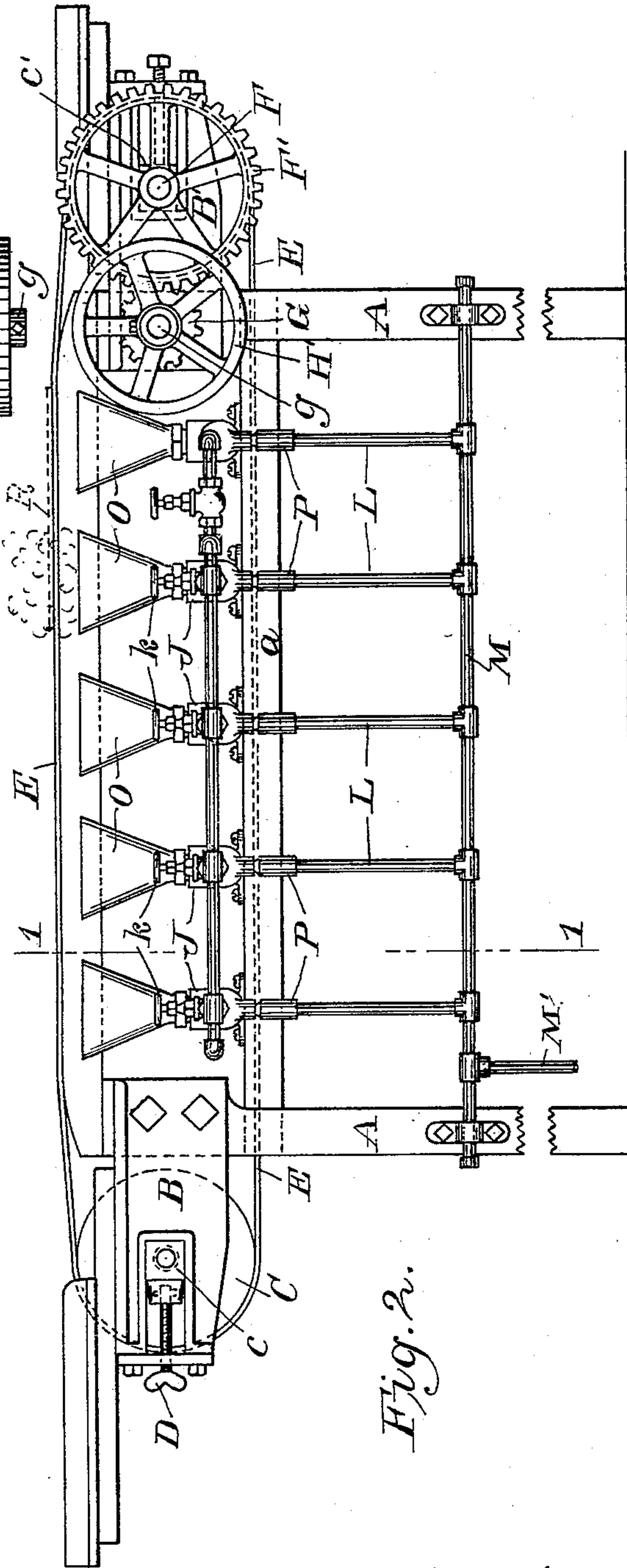


Fig. 2.

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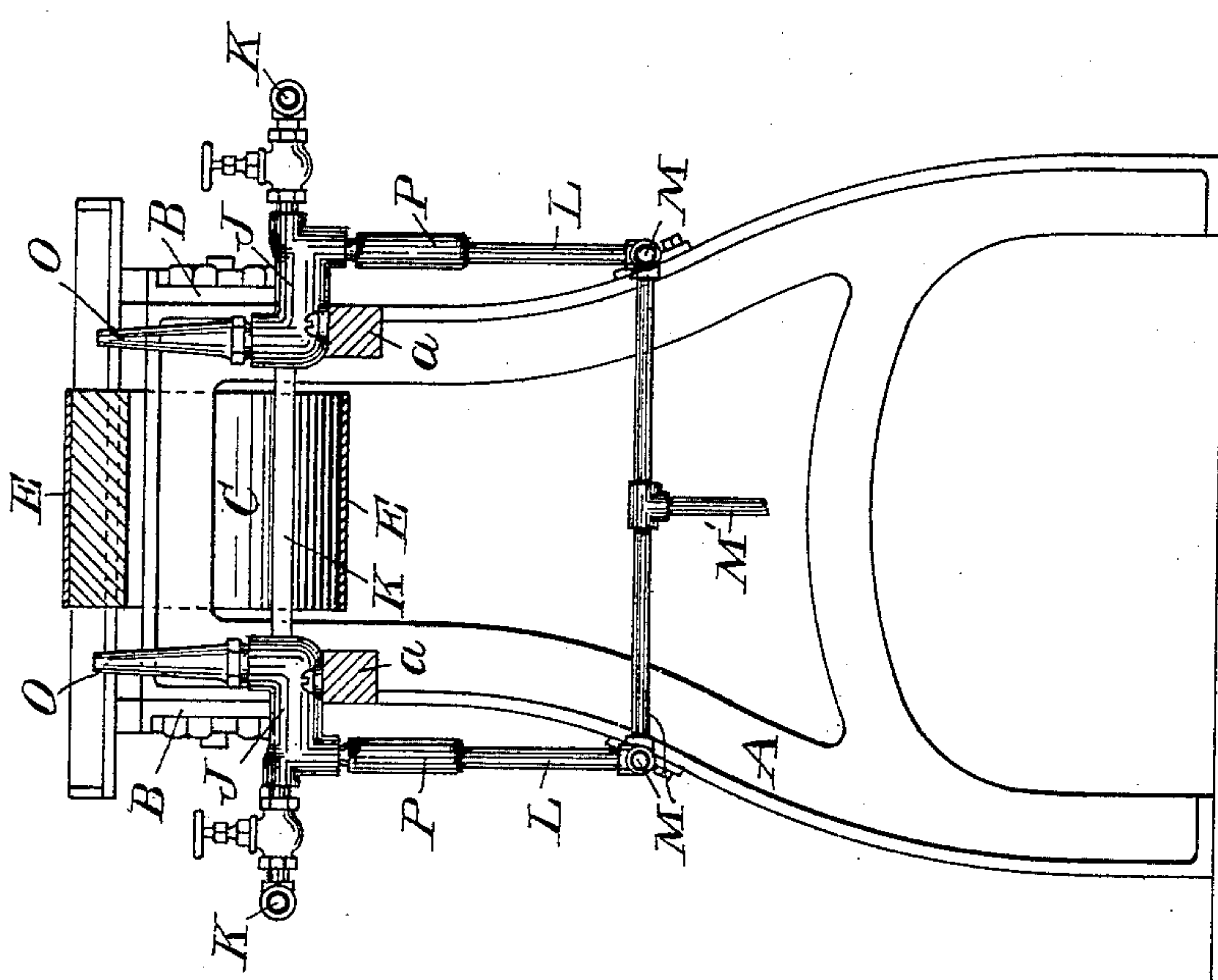
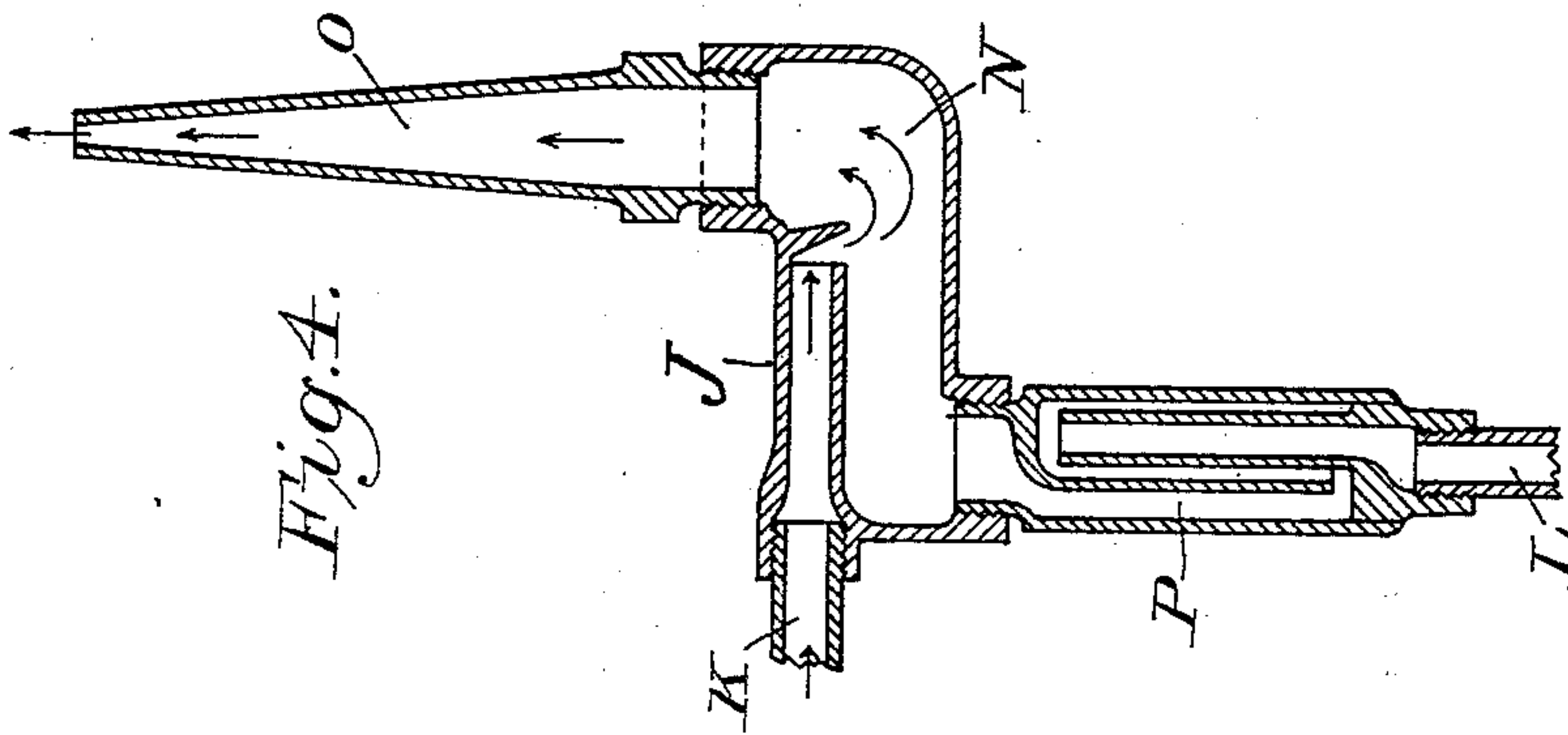
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3 Sheets—Sheet 3.

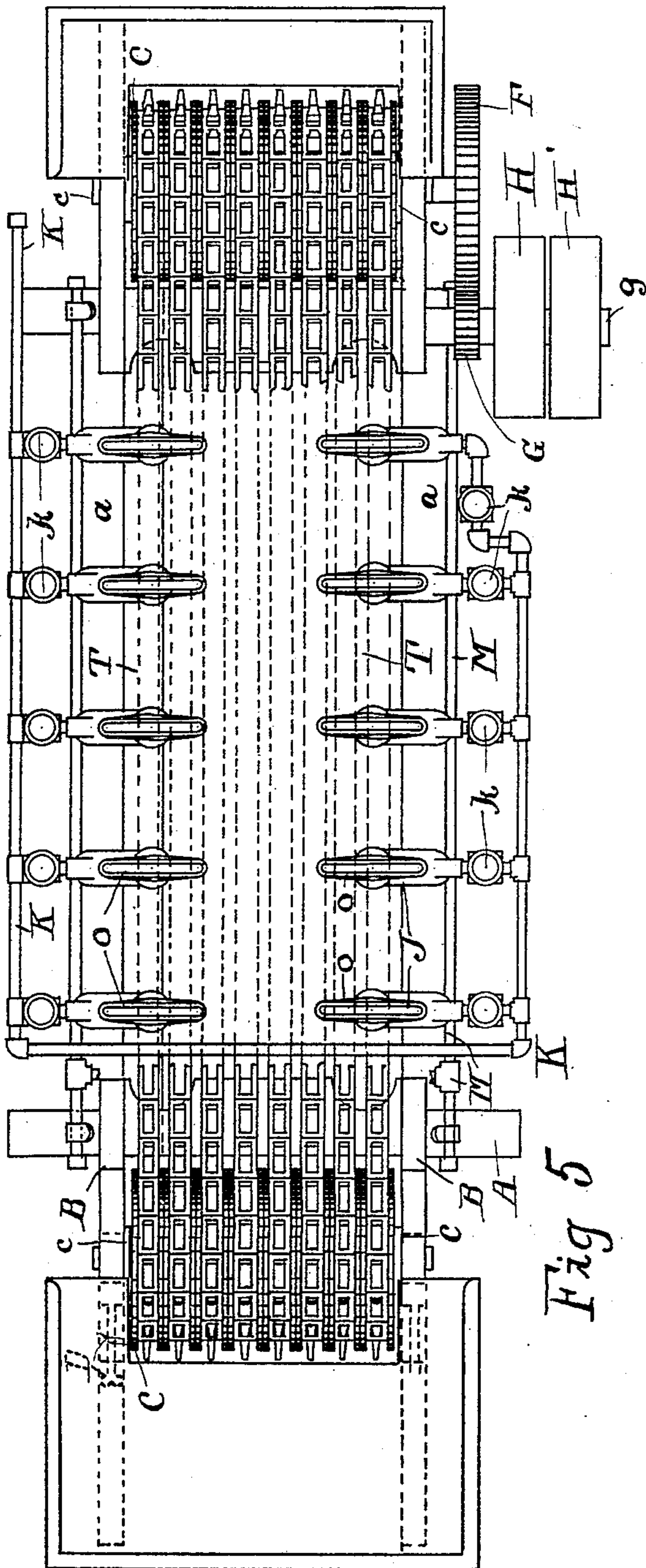


Fig 5

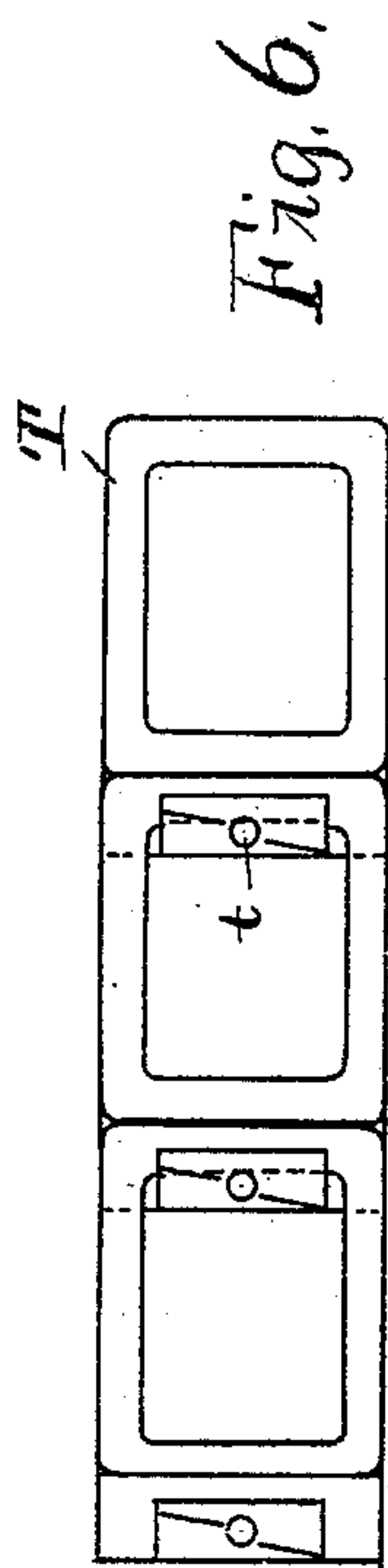


Fig. 6.

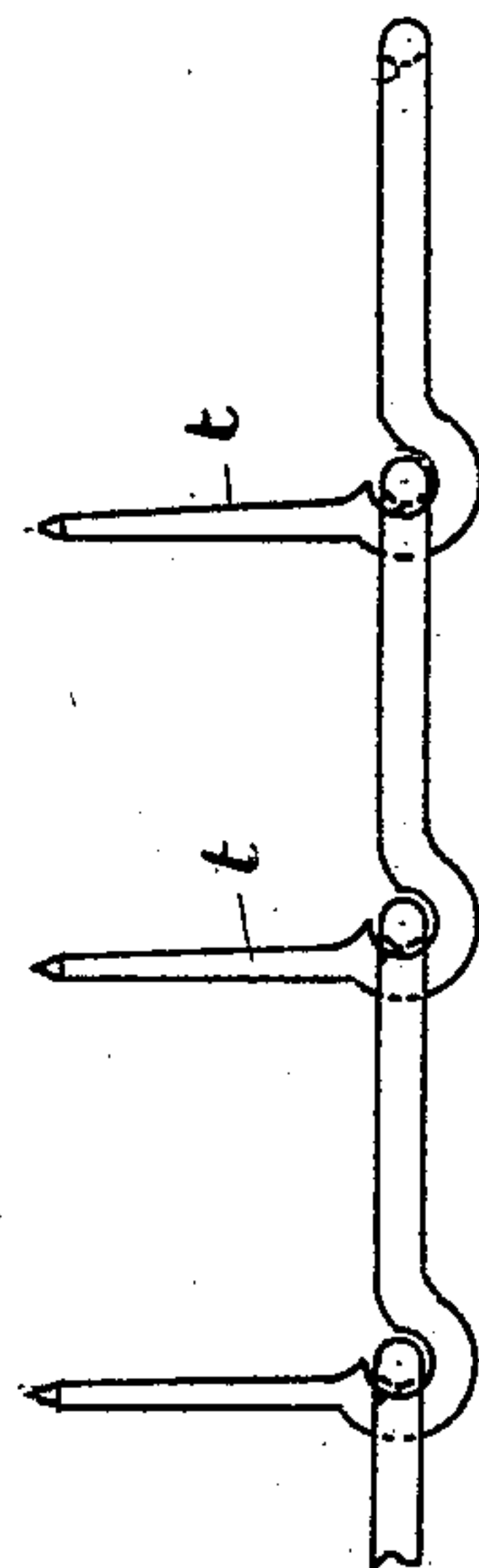


Fig. 7.

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UNITED STATES PATENT OFFICE.

JOHN WRIGHT GARDNER AND ALBERT EUGENE GRANT, OF TROY,
NEW YORK.

MECHANISM FOR STEAMING COLLARS.

SPECIFICATION forming part of Letters Patent No. 638,706, dated December 12, 1899.

Application filed January 3, 1899. Serial No. 701,039. (No model.)

To all whom it may concern:

Be it known that we, JOHN WRIGHT GARDNER and ALBERT EUGENE GRANT, citizens of the United States of America, and residents of the city of Troy, county of Rensselaer, State of New York, have invented certain new and useful Improvements in Mechanism for Steaming Collars, of which the following is a specification.

Our invention relates to improvements in laundry machinery; and the object of our invention is to provide a means for steaming collars in such a manner that the steam may be brought in contact with the collars as the collars move above the steam-ejectors, providing for the application of a very limited amount of steam to the collars. We attain this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan. Fig. 2 is a side elevation. Fig. 3 is a section along the lines 1 1 on Fig. 2. Fig. 4 is a section of a steam-ejector. Fig. 5 is a plan of a modified form. Fig. 6 is a plan of the traveling chain. Fig. 7 is a side elevation of said chain.

Similar letters refer to similar parts throughout the several views.

In ironing collars whose points or tabs are intended to be turned over it is convenient, if not necessary, to moisten the fold-line of the collar. By doing so the tab is more easily turned over and the surface of the collar is not broken or cracked. It is also desirable to remove the high polish that is acquired by ironing laundered goods, such as shirts and collars, and by bringing steam in contact with the surface in a limited quantity it renders what is known in the trade as a "domestic finish."

To the frame A we secure, usually in a bracket B, a roller-pulley C, journaled in boxes c, said pulley capable of adjustment in its journal by means of screws D or other suitable adjusting apparatus. To the opposite end of the frame from that occupied by the bracket B we arrange a similar bracket B' and a roller-pulley C', similarly journaled in boxes c'. An endless apron E is placed over each of the pulleys C C'. To the spindle F, upon which the roller-pulley C' is mounted,

we secure a gear-wheel F', meshing with the pinion G, which is mounted on the shaft g, which carries the loose and operating pulleys H H'.

Mounted on the cross-piece a of the frame A we secure on one or both sides of the frame a series of steam-ejectors J J, which we supply with steam from the pipe K, passing to each of the ejectors. Each of said ejectors has a control-valve k. Connected with each of the ejectors is an exhaust-pipe L, which carries the water of condensation to the connecting exhaust-pipe M, which has an outlet, preferably about midway between the sides of the machine, at M'.

The steam-ejectors may be constructed as shown in Fig. 4, in which the steam enters through the pipe K into the condensing-cylinder N, passing out through a long flattened contracted nozzle O, the water of condensation passing out through a suitable trap P into the exhaust-pipe L. We do not, however, limit ourselves to the ejectors herein shown and described, nor to the means for connecting up the gears for the purpose of giving motion to the apron.

In Figs. 5, 6, and 7 we show a modified form of our steamer. Instead of an endless apron passing over the pulleys we place a series of chains T T, each of the links of said chains provided with an upwardly-projecting prong t, upon the points of which a collar may be supported. The points of the prong t are made rather sharp, so that they shall cover but a very minute surface of the collar. In this modified form the ejectors O O are preferably arranged crosswise of the frame rather than parallel thereto in order that the steam may be delivered to the whole of the collar.

The operation of our machine is apparent. A collar R is placed upon the apron E or upon the points of the prongs t, when it is carried by the movement of the apron or chains along the length of the machine. When the form shown in Fig. 1 is used, the collar is so placed that the steam emitted from the ejectors shall impinge upon the fold-over line near the point of the collar. When placed on the points of the prongs t in Fig. 5, the collar is so arranged that the steam will come in contact with the whole length thereof.

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

1. In a device for steaming collars, the combination of a movable support for the collar;
5 a series of steam-ejectors placed on one or both sides thereof, so arranged that the collars may pass successively in contact with steam emitted from each of said ejectors.
2. In a device for steaming collars, the combination of a movable support; a series of
10 pointed prongs attached to said support, with a series of steam-ejectors placed beneath said

support, so arranged that the steam from the ejectors will pass through said support and come in contact with the collar placed thereon, substantially as described. 15

Signed by us at the city of Troy, New York, this 17th day of December, 1898.

JOHN WRIGHT GARDNER.
ALBERT EUGENE GRANT.

Witnesses:

JOHN B. GROAT,
FRED H. WETMORE.