

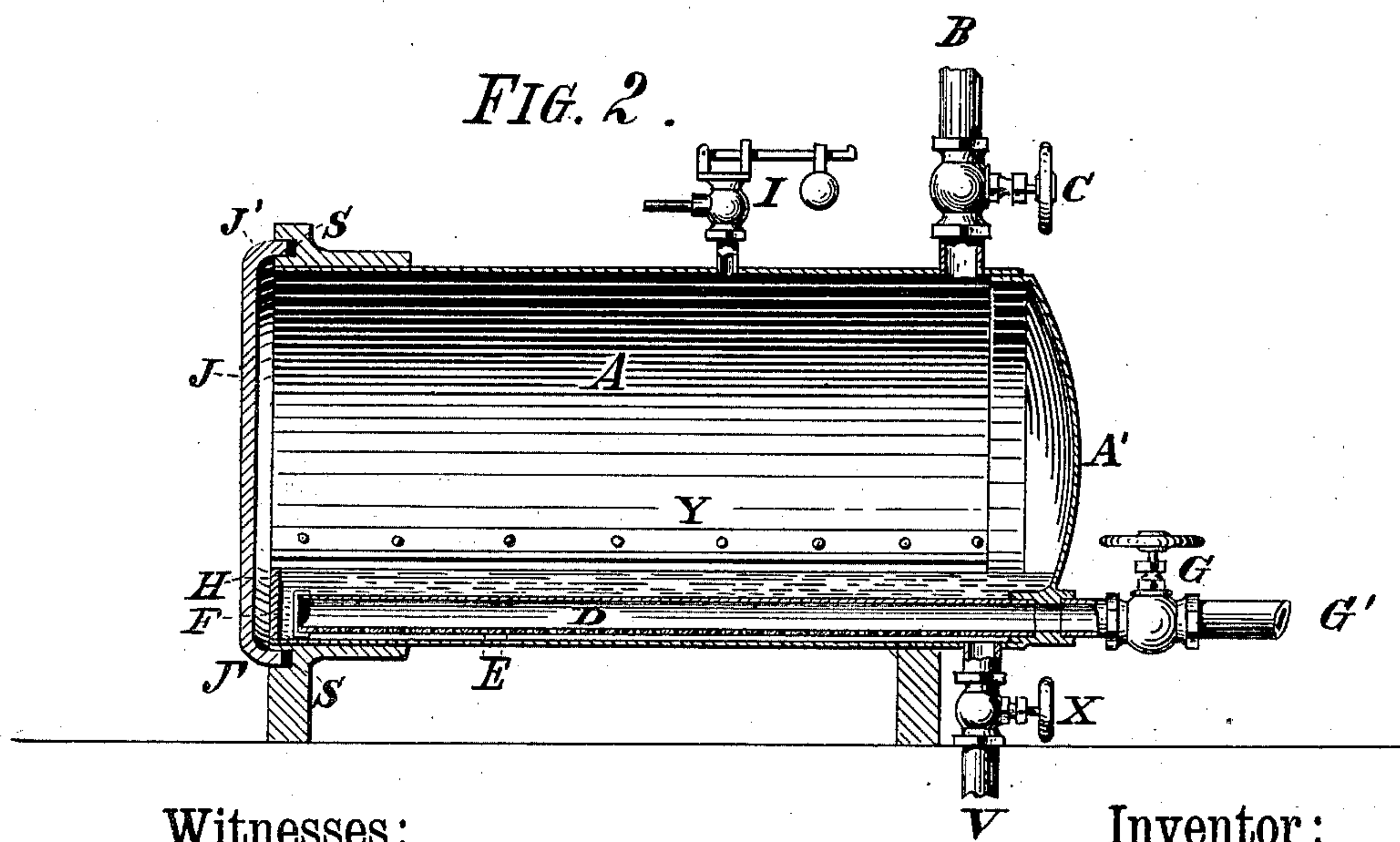
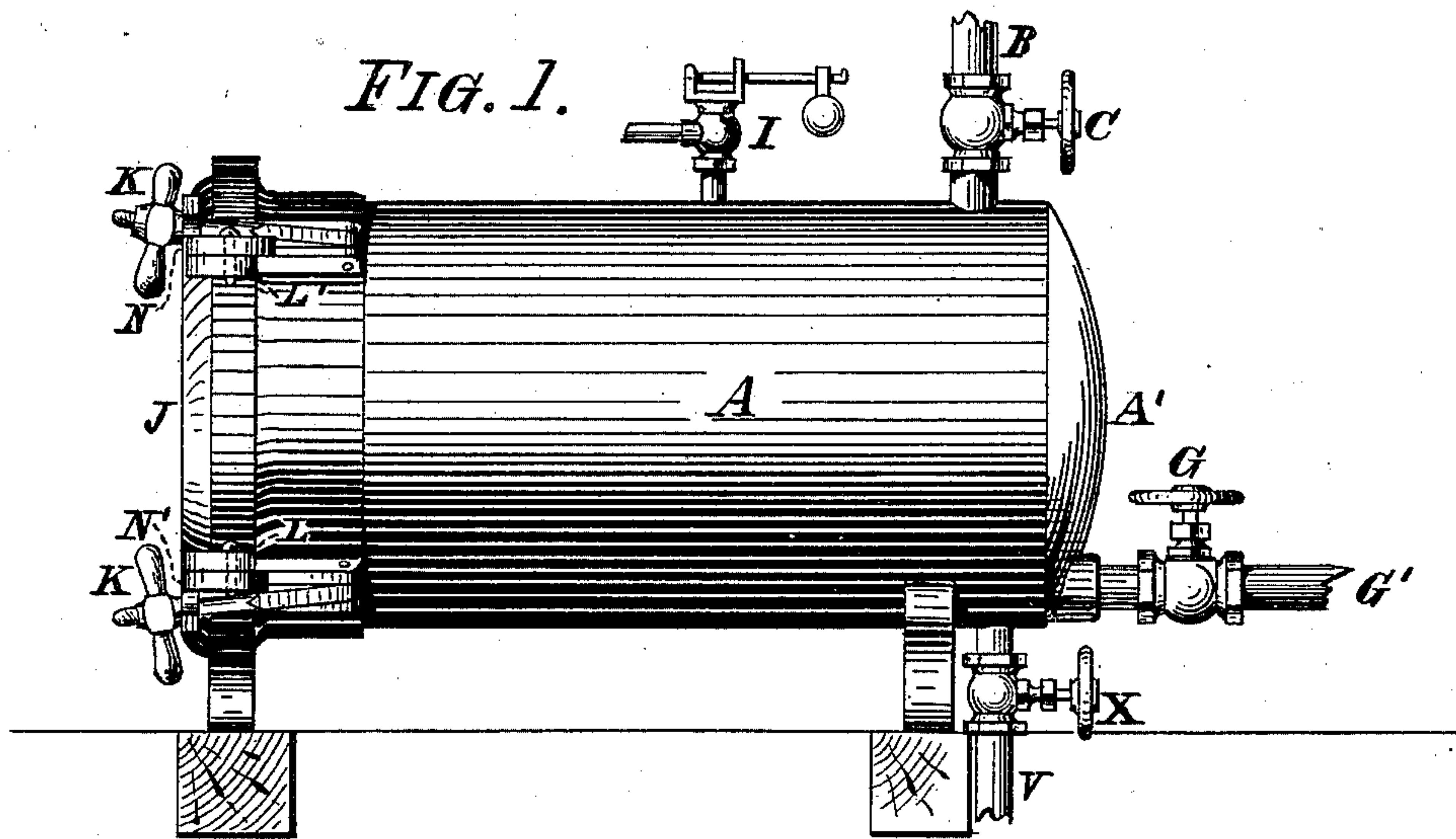
(No Model.)

2 Sheets—Sheet 1.

J. A. TAYLOR.  
Boiler for Cooking Fruit.

No. 232,154.

Patented Sept. 14, 1880.



Witnesses:

*Michael J. Stark,*  
*Frank Hirsch,*

Inventor:

*James A. Taylor,*  
*by Michael J. Stark,*  
*Attorney.*

(No Model.)

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FIG. 3.

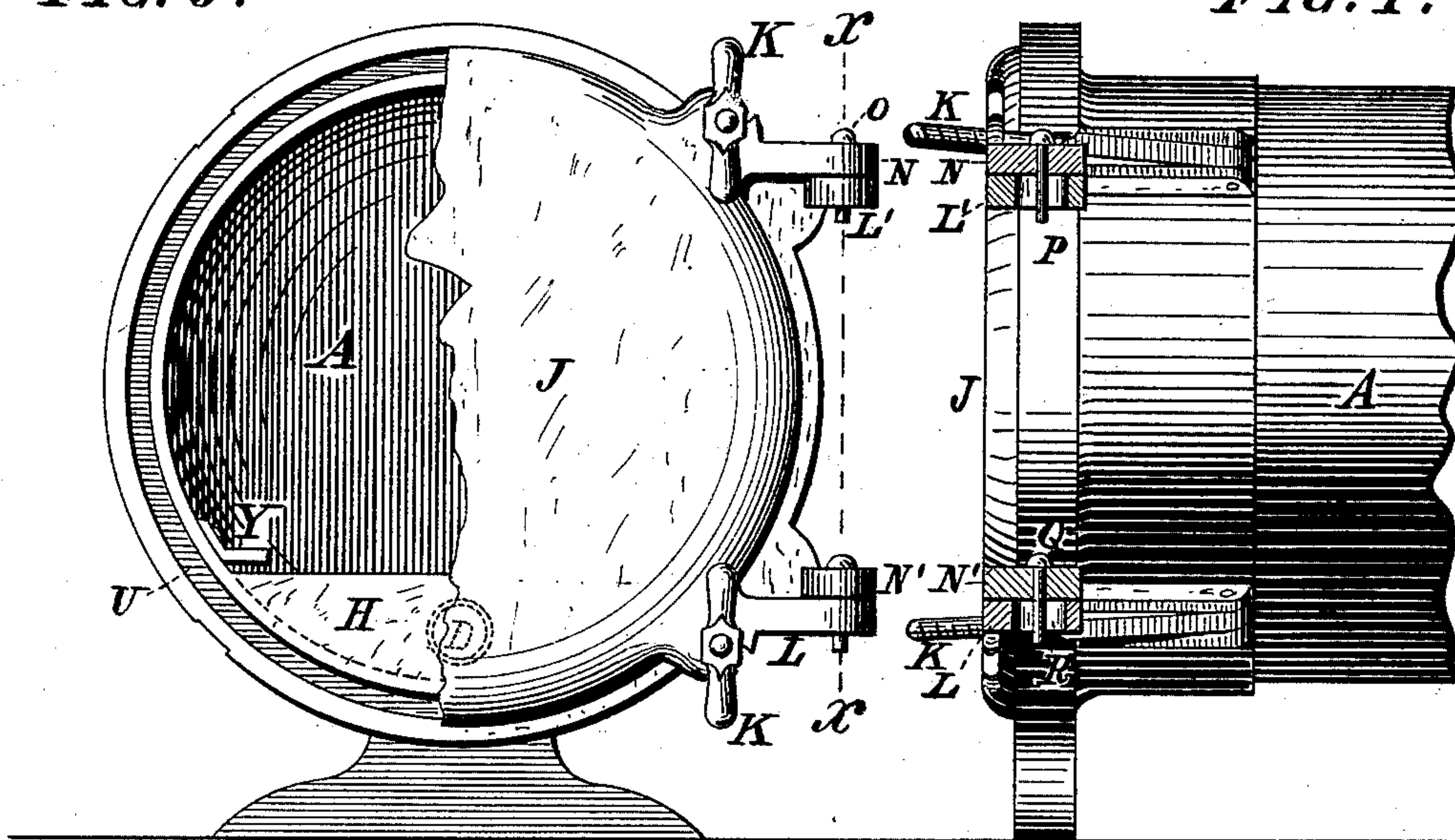


FIG. 4.

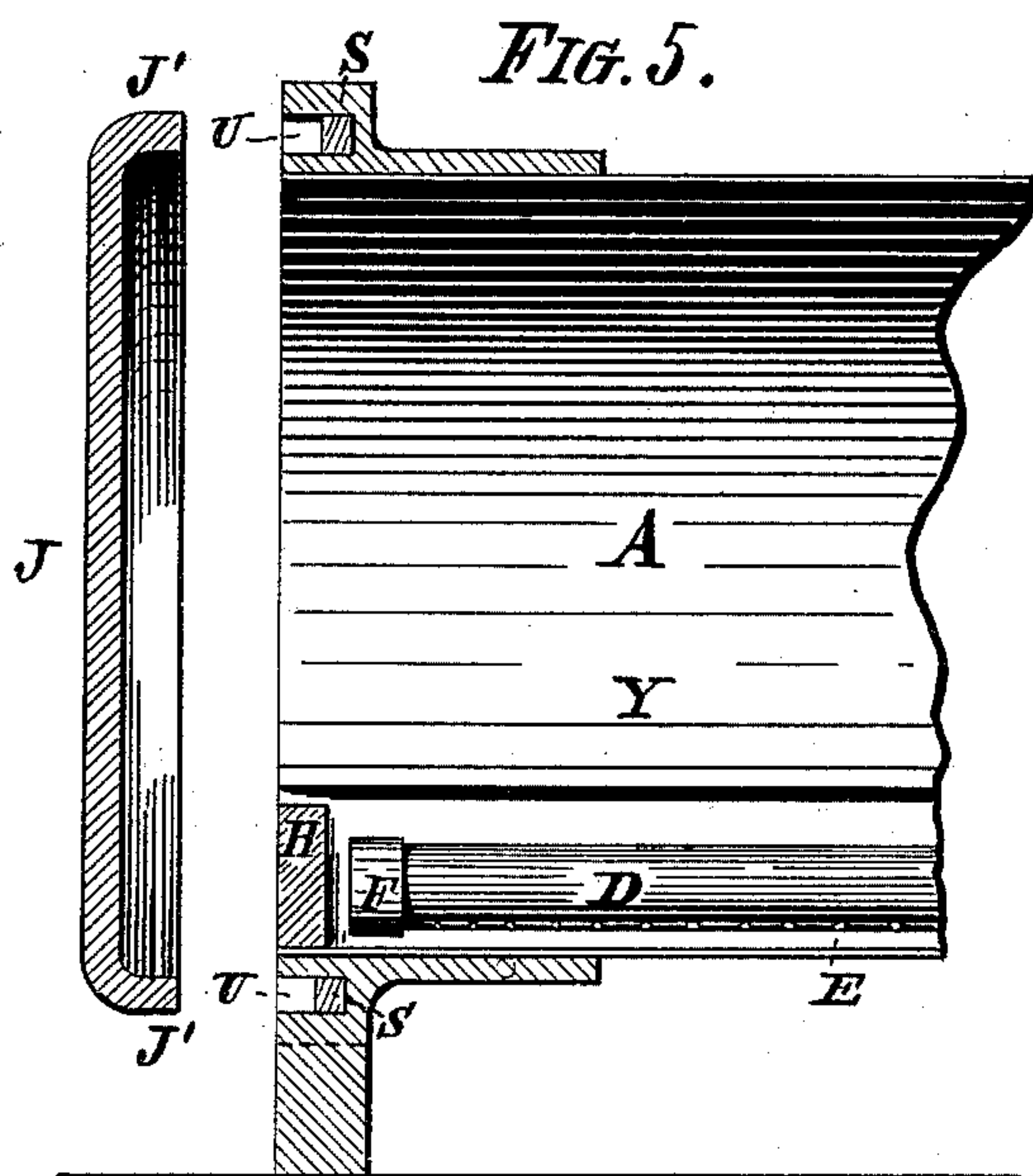
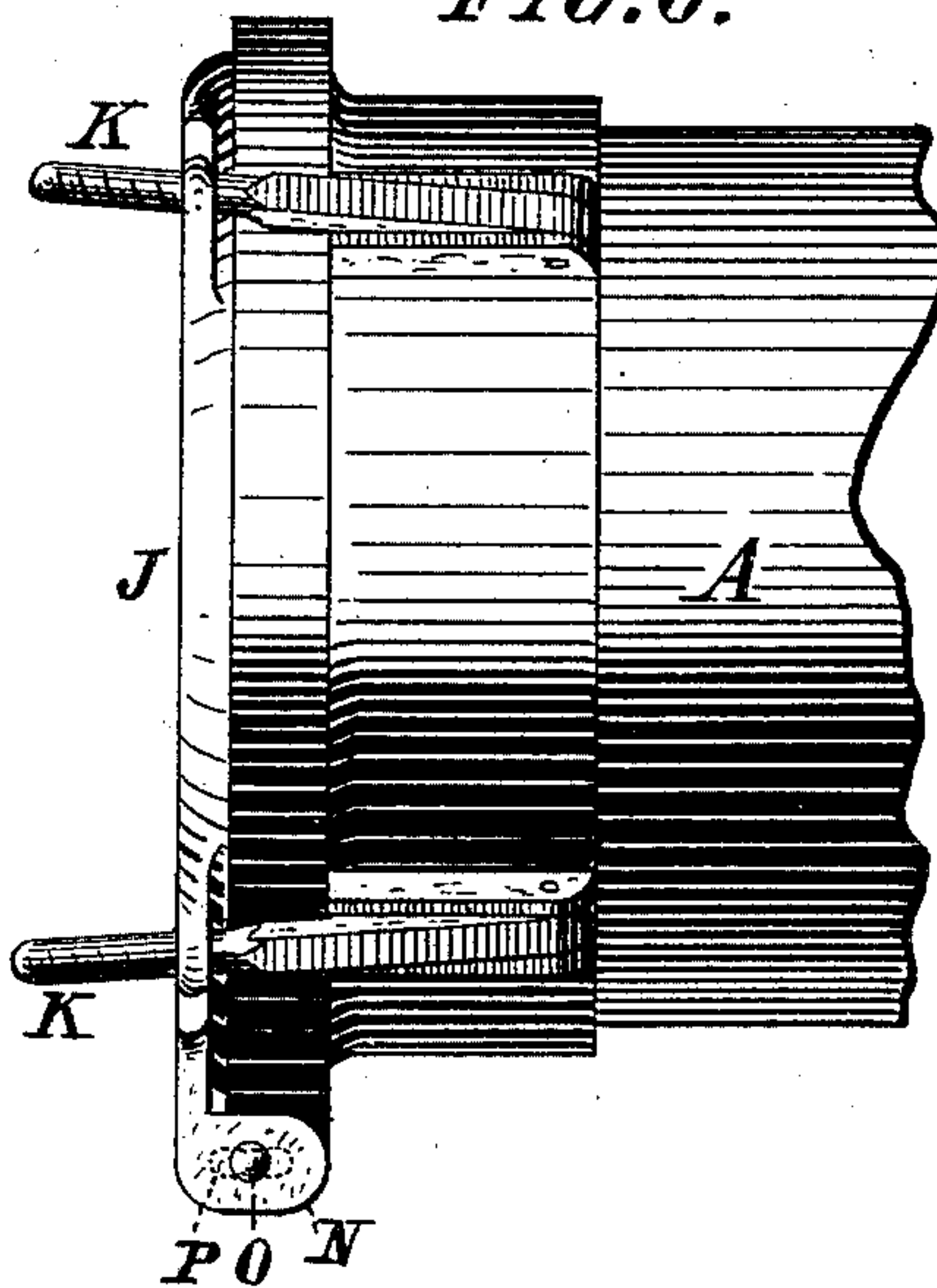


FIG. 6.



Witnesses:

Michael Stark,  
Frank Hirsch,

Inventor:

James A. Taylor,  
by Michael Stark,  
Attorney.



# UNITED STATES PATENT OFFICE.

JAMES A. TAYLOR, OF EAST HAMBURG, NEW YORK.

## BOILER FOR COOKING FRUIT.

SPECIFICATION forming part of Letters Patent No. 232,154, dated September 14, 1880.

Application filed April 17, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. TAYLOR, of East Hamburg, in the county of Erie and State of New York, have invented certain new and useful Improvements on a Processing-Boiler for Cooking Fruit, &c., for Preservation; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to processing-boilers for cooking fruit, &c., for preservation; and it consists in the peculiar combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claim.

In the drawings already mentioned, which serve to illustrate my said invention more fully and form a part of this specification, Figure 1 is a side elevation of my improved processing-boiler. Fig. 2 is a longitudinal sectional elevation. Fig. 3 is an end view, partly in section. Fig. 4 is a side elevation, the parts shown in section being those in line X X of Fig. 3. Fig. 5 is a longitudinal sectional elevation, showing the door J removed. Fig. 6 is a plan.

Like parts are designated by corresponding letters of reference in all the figures.

A in the drawings represents the processing-boiler for cooking fruit, &c., for preservation. This boiler is usually heated by steam from any suitable steam-generator led into the boiler through the ingress-pipe B, the supply being regulated by a valve, C. The steam accumulating in this boiler attains the tension, or nearly the tension, of that in said generator, and as a matter of sequence its temperature; but since this temperature is in most cases too high for the purpose of cooking fruit, &c., I have supplied the interior of this boiler with a steam-pipe, D, having a series of perforations, E, and on its end a cap, F. This pipe is provided with a suitable valve, G, and it is in communication with said steam-generator by a pipe, G'. In front of the boiler I have placed a wall, H, reaching upward to project over the highest part of the pipe D a suitable distance. On account of this wall H the lower section of the boiler is converted into a tank

or reservoir capable of receiving and retaining a quantity of water sufficient to submerge said pipe D.

It will now be understood that when said boiler is filled with water up to the level of the wall H, and steam admitted to the apparatus, this steam, escaping through the perforations E in said pipe D, sets the water boiling, and provision being made for the escape of the steam generated, thereby keeps up a temperature in said boiler due to the pressure to which the safety-valve I on said boiler may be set, or, in case an unobstructed escape should have been provided, to that of boiling water under atmospheric pressure—namely, 212° Fahrenheit. By this means I am enabled to perfectly control the temperature in the boiler and retain an even and low heat in the same, no matter what the initial pressure and temperature of said steam may be or may have been, and, what is still more important, to retain a temperature of 212° with high pressure of steam—a result which has not heretofore been accomplished with any other than mechanical means.

In processing-boilers which have a hinged door, J, secured to the boiler by means of clamping-bolts K, there is always a great difficulty in getting a tight joint in said door, and a further objection is the dropping or sagging of the same when open. These two objections are overcome in my boiler by the following means: On the boiler I provide two lugs, L L', and on the door J two more lugs, N N', said door-lugs being respectively above and below those on the boiler A. In the lug N, I provide a fixed pin, O, and in the lug L' I make a slotted aperture, P, Fig. 4, into which the pin O loosely plays. In the lug N' of the boiler A, I provide another pin, Q, and in the lower lug, L, on the door J, I provide another slot-hole, R, in which said pin Q plays.

The direction of the slot-holes P R corresponds to the longitudinal axis of the boiler, and hence it follows that while the door is free to swing around its pins O Q its front or free end cannot sag down, because the pins prevent it from doing so, while there is at the same time sufficient movement of the pins in the slot-holes to allow the door being brought perfectly square upon its face-bearing S and



screwed tightly down upon the same by the clamping-screws K, already mentioned.

The door J is circular in shape, the rim J', of which is faced up to make it perfectly true.

5 In the face of the boiler there is a circular recess, U, Fig. 5, into which is placed the packing-ring S, heretofore spoken of, and into which, furthermore, the rim J' of the door J is made to loosely fit.

10 By this construction the object in view—viz., of providing an anti-sagging door having a lateral movement to allow its being tightly drawn upon its face-bearing—has been accomplished in an inexpensive but highly satisfactory manner.

15 Instead of a safety-valve, I, a plain valve or stop-cock or other analogous means may be provided, which will afford an unobstructed escape of the gas generated in the apparatus, and thereby prevent the accumulation of steam 20 in the boiler above that necessary to properly perform its predesigned functions.

25 In case of high-pressure steam being desired nothing remains to be done but to load the safety-valve to the desired pressure, and then to open the stop-valve X in the escape-pipe V to first drain the water-reservoir and

then to lead off the accumulating water of condensation, when the apparatus will be heated to a temperature due to the pressure desired 30 to be carried.

It is obvious that the manipulations hereinbefore described are carried on after the boiler is filled with the fruit packed in unsealed tin and other cans, which are introduced into the 35 apparatus by means of a truck and trays, the truck being constructed to travel upon rails Y in the usual manner.

Having thus fully described my invention, I claim as new and desire to secure to me by 40 Letters Patent of the United States—

The combination of detachable cover J, boiler A, and fastenings K, said boiler and cover being provided with lugs which have a pin-and-slot connection, as stated, such slot 45 being longitudinal with respect to the axis of the boiler, as set forth.

In testimony that I claim the foregoing as my invention I have hereto set my hand in the presence of two subscribing witnesses. 50

J. A. TAYLOR.

Attest:

MICHAEL J. STARK,  
FRANK HIRSCH.