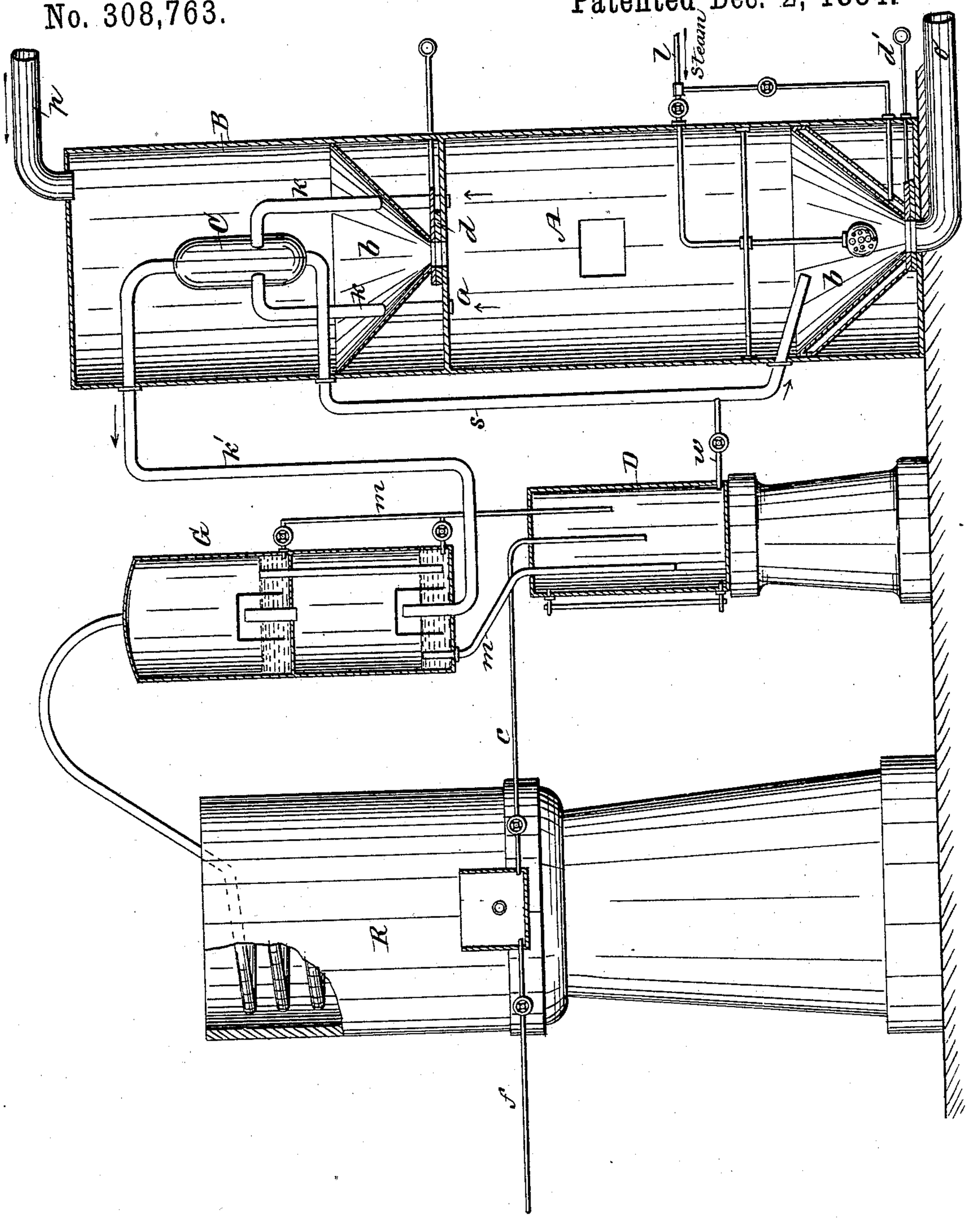
(No Model.)

J. M. FOY.

STILL FOR THE MANUFACTURE OF BRANDY.

No. 308,763. Patented Dec. 2, 1884.



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JOHN M. FOY, OF SAN FRANCISCO, CALIFORNIA.

STILL FOR THE MANUFACTURE OF BRANDY.

SPECIFICATION forming part of Letters Patent No. 308,763, dated December 2, 1884.

Application filed June 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. FOY, of San Francisco, in the county of San Francisco and State of California, have invented a new and Improved Still for the Manufacture of Brandy from Fruit, &c., of which the following is a full, clear, and exact description.

My improvements relate to apparatus for distilling brandy from fruits, the refuse skins or pomace from wine-presses, the refuse of canning establishments, and all such pulpy substances.

The special object is to furnish a still that can be operated with facility and almost continuously, so as to save the usual delay required in discharging those of usual construction; and the invention consists in certain novel features of construction, as hereinafter described and claimed.

Reference is to be had to the accompanying drawing, forming part of this specification, which is a sectional elevation of a distilling apparatus with my improvements.

A is the still; B, the heater, made in one with the still. G is the doubler, and R the condenser. The still A and heater B are separated by a partition, *a*, in which is an opening fitted with a slide, *d*, and both are provided with cone-shaped bottoms *b*. The bottom *b* of the still is formed double or with a jacket, so that the charge may be heated by steam admitted to the space for distilling wines or rum from molasses.

The means for heating in heater B consist of a metal drum, C, from the sides of which three pipes, *k*, for the vapors descend to the still A, and a pipe, *s*, from the bottom of the drum passes to the bottom of the still, for discharge of the condensed portions. The drum C also connects to the doubler G by pipe *k'*. This drum and pipes, arranged in this manner, serve to heat the charge in the heater by the vapors arising from the still, and act also as a safety-trap, as in case the mash fouls or foams up in boiling it cannot pass beyond the drum, because the heavier parts forced up must of necessity pass back by pipe *s*.

The doubler G and condenser are similar to those in common use, but I combine with them a tank, D, that receives all the low wines from the doubler by pipes *m m*, and also receives by pipe *c* from the condenser any spirit not of sufficient quality and strength. A valved pipe, *w*, connects tank D with still A, for running off the low wines to a second distillation. *f* is the pipe for running off the finished brandy.

l is the steam-supply pipe passing directly into the still, with a branch to the jacketed bottom for use when required.

d' is the discharge-slide to a pipe, *o*, and *p* is the charging-pipe to the heater.

The operation is as follows: Heater B is filled, the gate *d* then opened to let the contents down into the still, the gate then closed, and the heater again charged. Steam is then admitted to the still, when the contents boil and the vapor passes up the pipes *k* to drum C, where the part of the watery vapors condensed returns to the still by pipe *s*, while heat is given off to the charge in heater B. The vapor passes onto the doubler G, where it gains additional strength and purity, and from thence goes to the condenser. As soon as the charge in still A is exhausted of its spirit the slide *d'* is drawn to allow discharge of the contents. The slide is then closed and the still charged from the heater as before. These operations may proceed rapidly, and the delays usually necessary for charging and discharging a still are saved.

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

1. The combination, with the still A and the heater B, of the drum C, arranged in the heater, the pipes *k*, extending from the sides of the drum down into the still, and the pipe S, extending from the bottom of the drum through the side of the heater, thence down and into the bottom of the still, substantially as herein shown and described, and for the purpose set forth.

2. The combination, with the condenser R, the doubler G, the still A, the heater B, and the drum C in the heater, and communicating with the condenser and the bottom of the still, of the low-wine tank D, the pipe *c*, the pipes *m*, and the pipe *w*, extending from said tank to the pipe that leads from the drum C to the bottom of the still, substantially as herein shown and described.

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Witnesses:
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