

No. 610,619.

Patented Sept. 13, 1898.

A. WYSER.
APPARATUS FOR MERCERIZING.

(Application filed Jan. 3, 1898.)

(No Model.)

2 Sheets—Sheet 1.

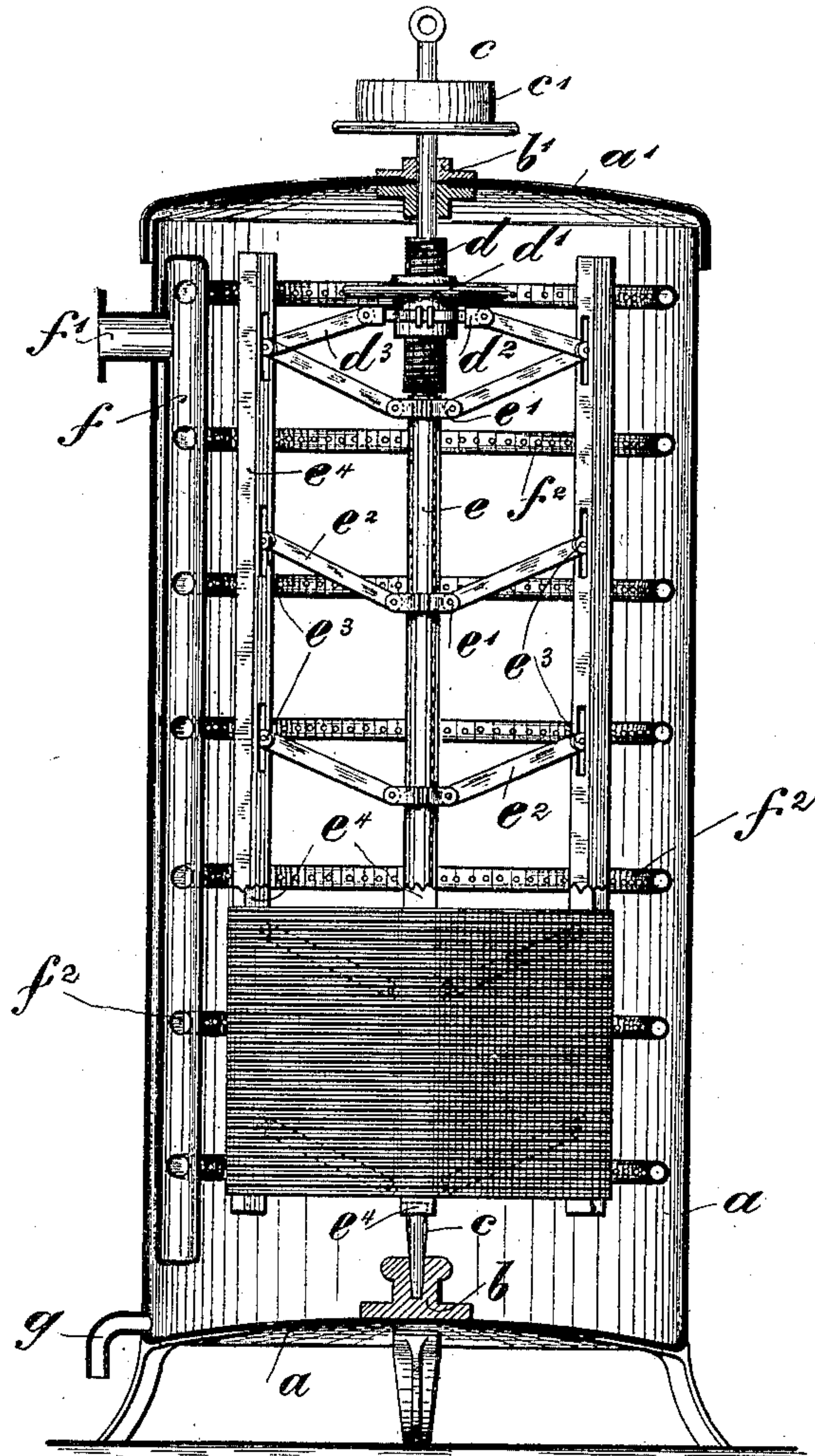
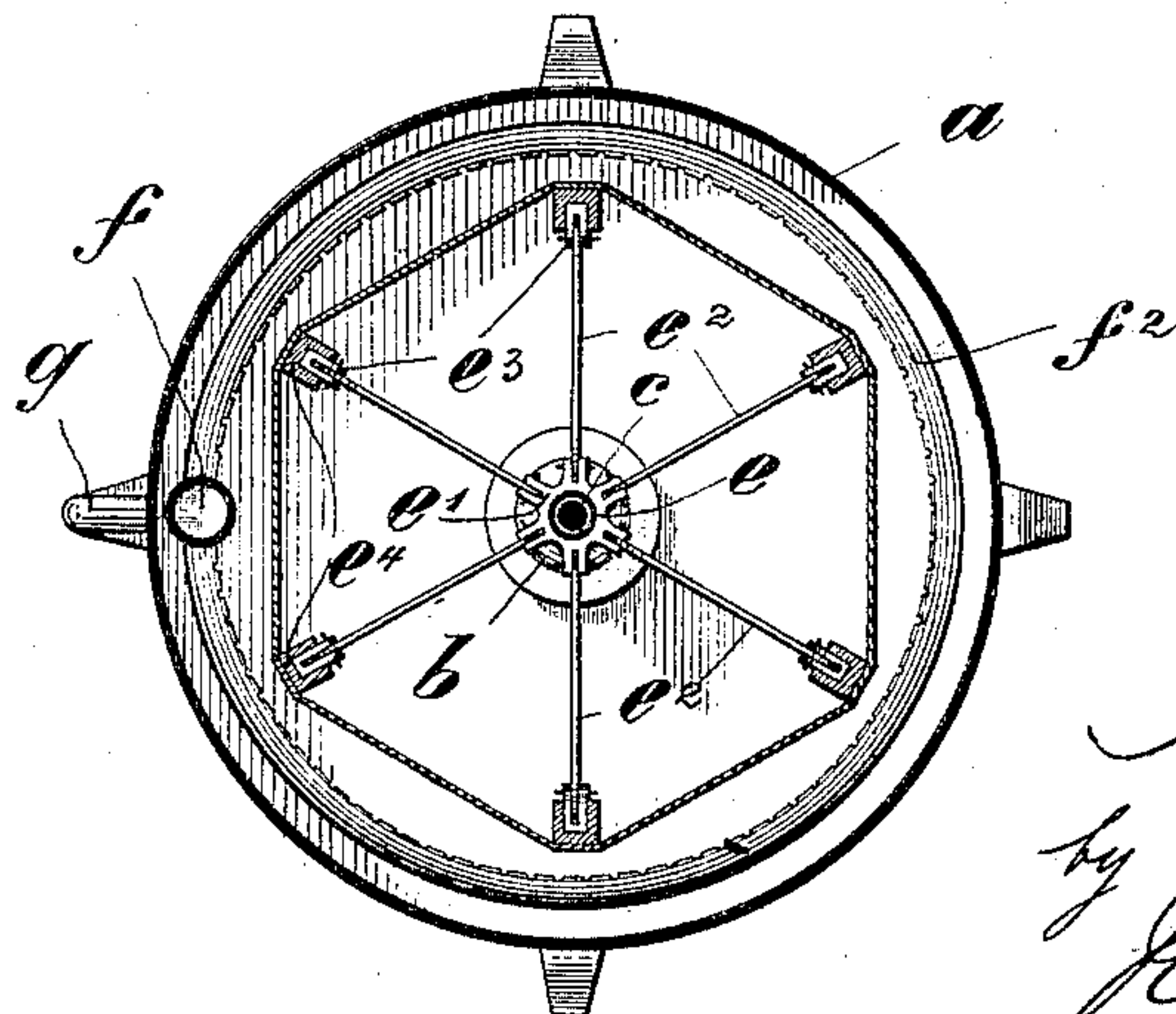


Fig. 1.

Fig. 2.



Witnesses:

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Inventor:

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Fig. 3.

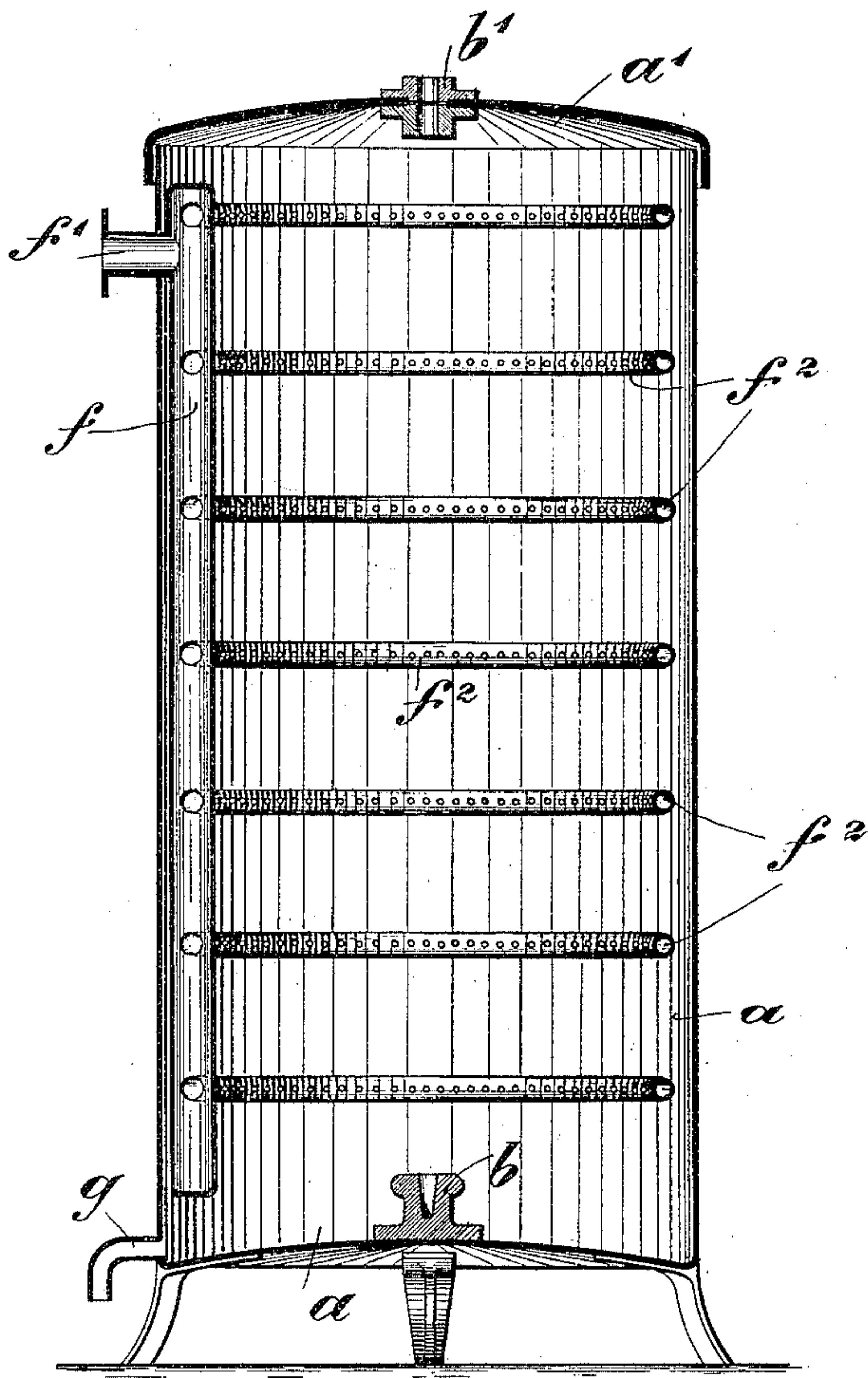
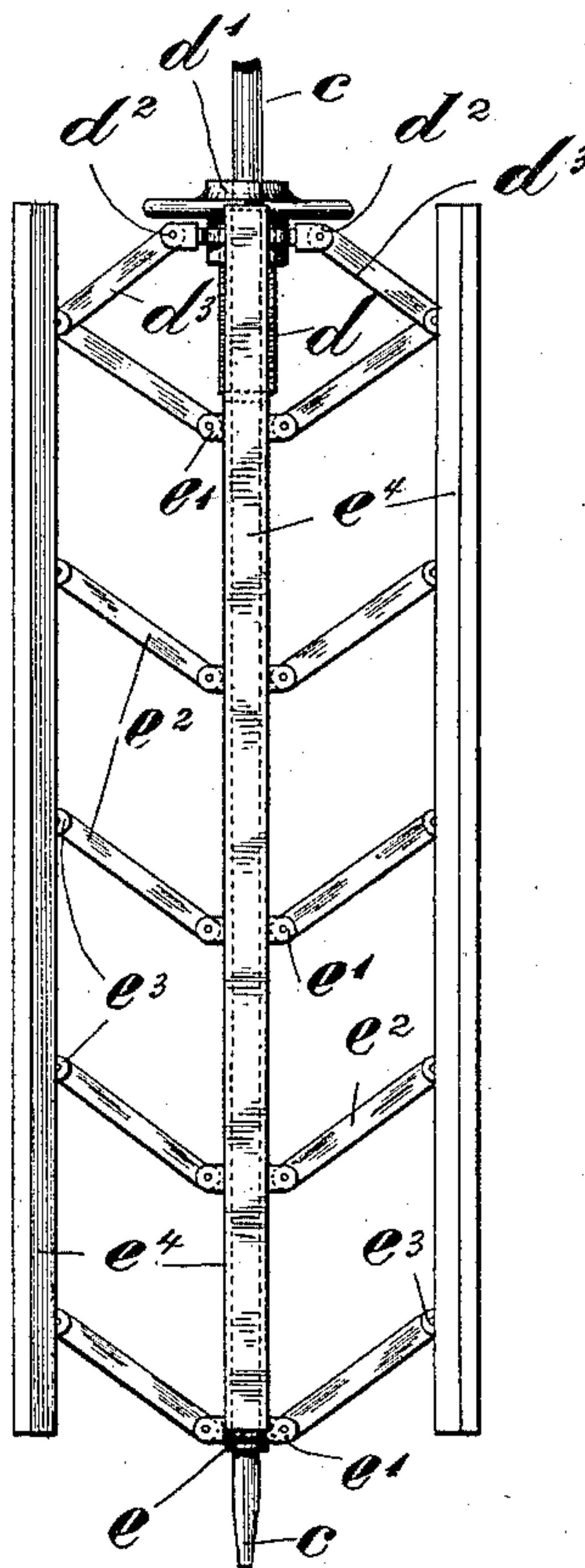


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALFRED WYSER, OF AARAU, SWITZERLAND.

APPARATUS FOR MERCERIZING.

SPECIFICATION forming part of Letters Patent No. 610,619, dated September 13, 1898.

Application filed January 3, 1898. Serial No. 665,443. (No model.)

To all whom it may concern:

Be it known that I, ALFRED WYSER, a citizen of the Republic of Switzerland, and a resident of Aarau, in the Republic of Switzerland, have invented certain new and useful Improvements in Apparatus for Mercerizing Yarn, of which the following is a specification.

This invention has for its object an apparatus for mercerizing yarn, particularly cotton yarn, in which the hanks of yarn are arranged on an adjustable reel which may be axially rotated in a vessel or receptacle, annular pipes being arranged on the walls of the vessel, which pipes are provided with small openings toward the center of the vessel, so that the finishing or mercerizing liquid or water may be ejected or sprinkled onto the hanks of yarn through the said openings in these pipes.

The apparatus is shown in the accompanying drawings as an example, Figure 1 being a vertical section, Fig. 2 a horizontal section on the line xy , Fig. 3 a vertical section of the vessel without the reel, and Fig. 4 an elevation of the reel alone.

a is a preferably vertical cylindrical vessel, the bottom of which carries a foot-step b for receiving a vertical shaft c , which is mounted at the top in a bearing b' in the removable cover a' of the vessel. Outside the vessel the shaft c has a belt-pulley c' or other means of driving it. The shaft has at its upper end close under the cover a' of the lid a threaded part d and is surrounded by a sleeve e , on which hinge-pieces e' are mounted. On the hinge-piece e' links e^2 are mounted, which are attached to the vertical reel-spindles e^4 , also by means of hinges or hinge-pieces e^3 . A nut d' , provided with a hand-wheel, is mounted on the threaded part d of the shaft c , which nut carries in a groove turned in it a ring provided with hinges d^2 . Links d^3 extend from these hinge-pieces d^2 to the uppermost hinges of the reel spindles or bars e^4 . A vertical pipe f , having a nozzle or mouthpiece f' , is attached to the sides of the vessel a , and from said pipe there branches a number of horizontally-placed annular pipes f^2 , which are provided with small openings toward the center of the vessel. Finally, the vessel a has also a discharge-pipe g . The reel device

may, together with the removable lid a' , be withdrawn from the vessel a . If hanks of yarn be placed on the reel-bars e^4 and the nut d' screwed down, the uppermost links d^3 have a tendency to come into a horizontal position. The reel-bars e^4 are thereby somewhat raised and by means of the links e^2 lift the sleeve e until the latter bears against the shoulder of the threaded piece d . The reel-bars e^4 can then rise no farther, and on the nut d' being further screwed down the reel-bars e^4 will be pressed apart, so that the yarn is stretched. The reel device contained in the vessel a in Fig. 1 is shown in this stretched condition. In order to remove the yarn again from the reel device, the nut d' is screwed upward. It thereby draws up with its ring the topmost links d^3 . The reel-bars e^4 follow, and the sleeve e , with the links e^2 , is pushed downward, so that the reel-bars e^4 are approached to one another. When the diameter of the reel device has thus been made smaller, the yarn may be removed. Fig. 4 shows the reel device in such a position. When the yarn has been stretched on the reel device, it is again inserted in the vessel, the nozzle f' is connected with a pipe bringing the mercerizing liquid, the reel is caused to rotate by means of the belt-pulley c' , and the liquid spurts out of the openings of the pipes f^2 onto all parts of the yarn. The nozzle f' is then connected with a water-pipe and the mercerizing liquid, and its residue is rinsed from out of the yarn. The liquid accumulating at the bottom of the vessel may be discharged through the pipe g .

I claim—

1. An apparatus for mercerizing yarns, comprising an adjustable reel which is mounted revolvably on its axis in a vessel which is provided with a sprinkling device, substantially as described.

2. An apparatus for mercerizing yarn or yarns having an adjustable reel revolvably mounted on its axis in a vessel provided with a sprinkling device, the supports of the reel device being hinged both to a sleeve surrounding the spindle and also to the reel-bars and the upper part of the spindle being threaded on which threaded part a nut provided with a hand-wheel is mounted which carries in a groove a ring of hinge-pieces

which are connected with the uppermost hinges by means of links, substantially as described.

3. An apparatus for mercerizing yarns having an adjustable reel which is mounted rev-
5 olubly on its axis in a vessel provided with a sprinkling device, said sprinkling device consisting of annular pipes lying on the walls of the vessel and connected with a main pipe,
10 said device being provided with small open-

ings facing toward the middle of the vessel, substantially as described.

In testimony whereof I hereunto sign my name, in the presence of two subscribing witnesses, this 16th day of December, 1897.

ALFRED WYSER.

Witnesses:

HCH. BOLLIGER,
H. WEHRLI.