

No. 667,809.

Patented Feb. 12, 1901.

E. TAEGE.
MILK HEATER.

(Application filed Nov. 8, 1900.)

(No Model.)

Fig. 1.

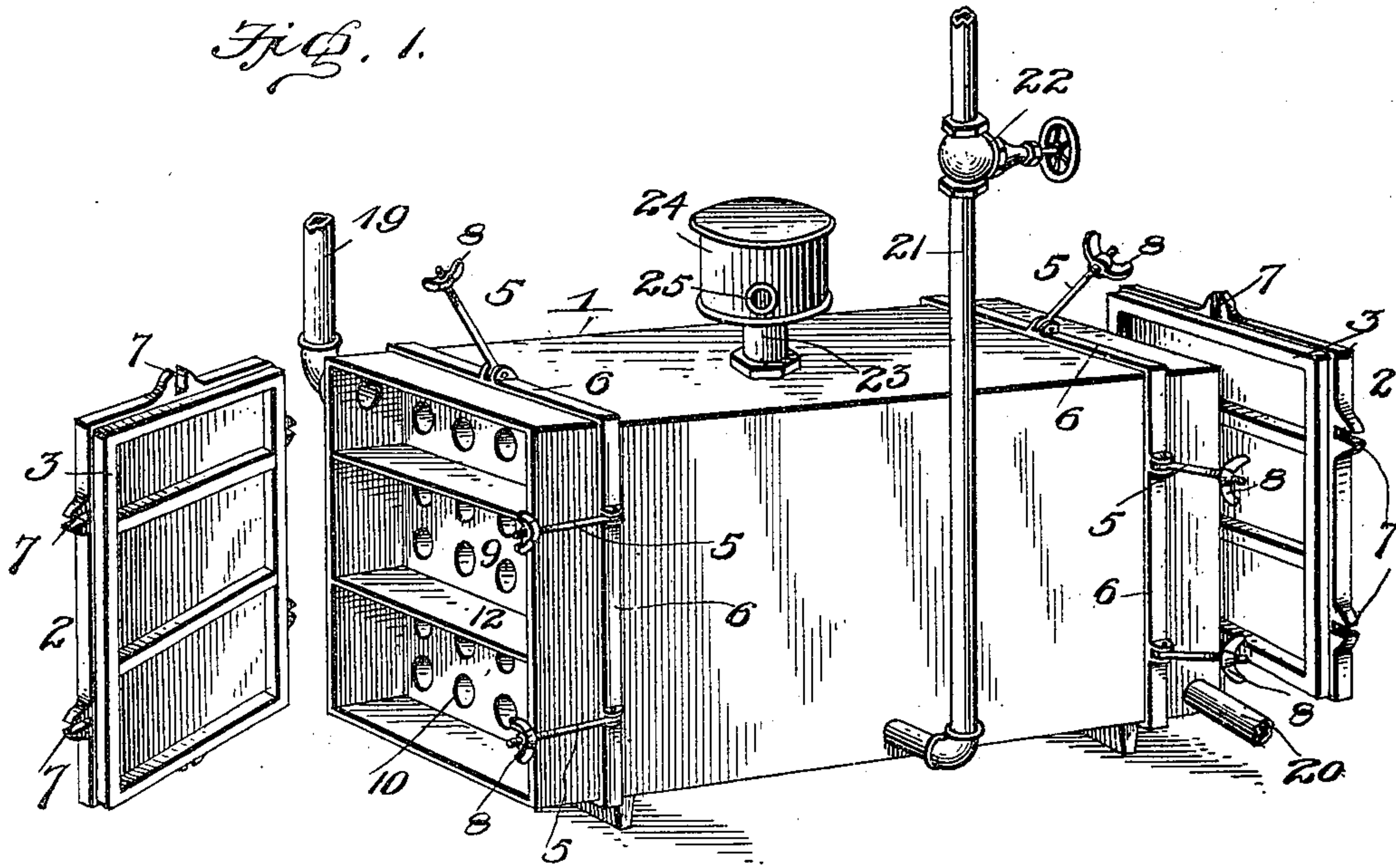
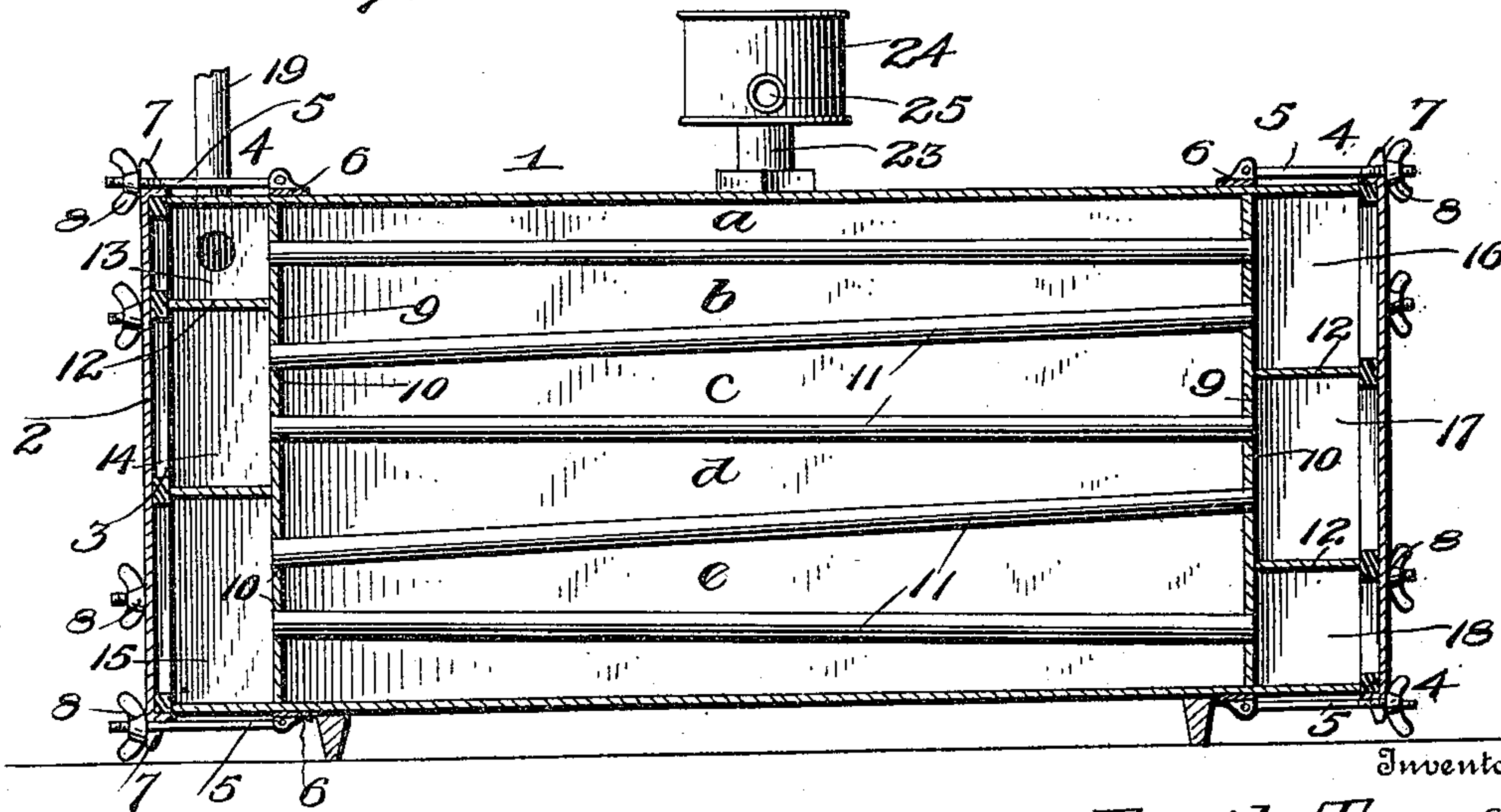


Fig. 2.



Inventor

Emil Taege

Witnesses

C. Hunt
Parsons

By

A. B. Wilson & Co.

Attorneys

UNITED STATES PATENT OFFICE.

EMIL TAEGE, OF ARLINGTON HEIGHTS, ILLINOIS.

MILK-HEATER.

SPECIFICATION forming part of Letters Patent No. 667,809, dated February 12, 1901.

Application filed November 8, 1900. Serial No. 35,829. (No model.)

To all whom it may concern:

Be it known that I, EMIL TAEGE, a citizen of the United States, residing at Arlington Heights, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Milk-Heaters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to milk-heaters.

The object of the invention is to provide a device of this character which will be simple of construction, durable in use, and comparatively inexpensive of production and which may be easily and quickly separated for the purpose of cleaning.

With this and other objects in view the invention consists in certain features of construction and combination of parts, which will be hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a perspective view of my improved heater with the heads removed, and Fig. 2 is a longitudinal sectional view with the heads in place.

Referring to the drawings, 1 denotes the casing of the heater, which is preferably rectangular in form and is provided near its ends with removable heads 2, which are calked along their sides, as shown at 3, where they engage the end of the casing and are held in place by fastenings 4, which consist, preferably, of rods 5, pivoted to straps 6 and engage slotted ears 7 on the edges of the heads and are provided with clamping-nuts 8. The casing at each end is provided with a vertical partition 9, having apertures 10 for the ends of the milk-circulating pipes 11, which are arranged in banks *a*, *b*, *c*, *d*, and *e* and which are alternately inclined in opposite directions, as shown in Fig. 2. The casing at each end between the vertical partition and its head is provided with horizontal partitions 12, forming at one end the chambers 13, 14, and 15 and at their inner end the chambers 16, 17, and 18, which communicate with the circulating-tubes. Each head is provided on its inner side with a packing to engage the edges of these horizontal partitions, and thereby form a water-tight joint.

19 denotes a milk-inlet pipe which com-

municates with the chamber 13, and 20 denotes a milk-outlet pipe which communicates with the chamber 18.

21 denotes a steam-inlet pipe provided with a controlling-cock 22, and 23 denotes an overflow-pipe having a cup 24, provided with an outlet-pipe 25.

In operation steam is turned on and, condensing, the resultant water fills the casing and passes up through the pipe 23 into the cup 24, from which it escapes through a pipe 25. The milk is fed through the pipe 19 to the chamber 13, passes through the bank of tubes *a* into the chamber 16, thence from the chamber 16 through the bank of tubes *b* into the chamber 14, thence from the chamber 14 through the bank of tubes *c* into the chamber 17, thence from the chamber 17 through the bank of tubes *d* into the chamber 15, and thence from the chamber 15 through the bank of tubes *e* to the chamber 18, from whence it is led by the pipe 20 to any desired point.

Any number of tubes may be employed without departing from the spirit of the invention, and when a large or a small number is employed a proportionate number of horizontal partitions may obviously be used.

When it is desired to cleanse the heater, the nuts 8 are loosened, allowing the rods 5 to be swung from engagement with the slotted ears 7 and the heads to be removed, thus affording access to that portion of the interior with which the milk comes in contact.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my invention will be readily understood without requiring an extended explanation.

The device is exceedingly useful for the purpose for which it is designed and may be placed upon the market at a comparatively small cost.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

A milk-heater consisting of a casing pro-

vided with open ends and milk-chambers, circulating-tubes communicating at their opposite ends with said milk-chambers, steam inlet and outlet pipes for said casing, and removable heads at the ends of said casing for closing said milk-chambers, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EMIL TAEGE.

Witnesses:

W. M. HAYES,
WM. GUENTHER.