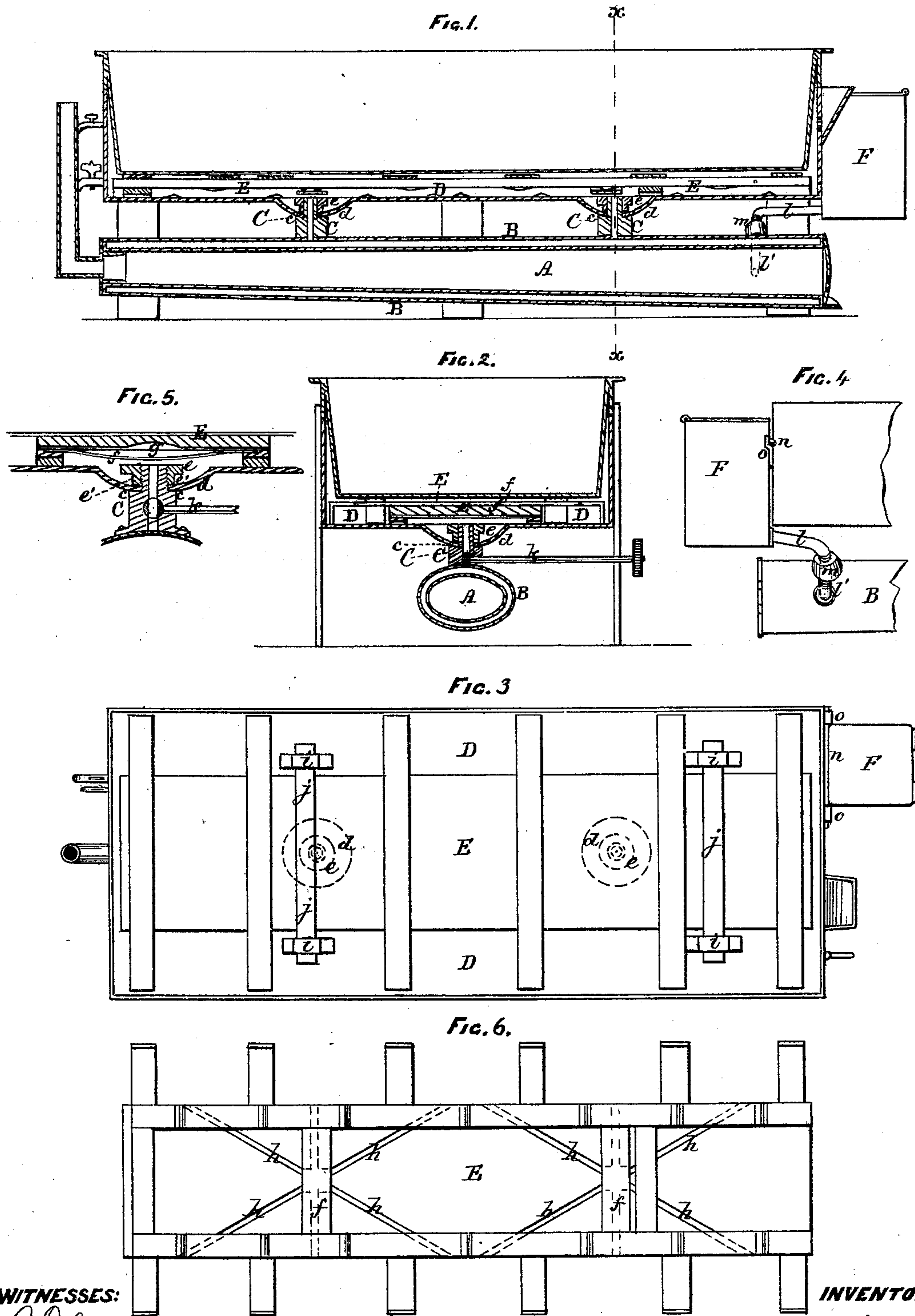


WILLIAM H. OBITTS.
Improvement in Cheese-Vats.

No. 126,321.

Patented April 30, 1872.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. OBITTS, OF ELYRIA, OHIO.

IMPROVEMENT IN CHEESE-VATS.

Specification forming part of Letters Patent No. 126,321, dated April 30, 1872.

To all whom it may concern:

Be it known that I, WILLIAM H. OBITTS, of Elyria, in the county of Lorain and State of Ohio, have invented a new and useful Improvement in Cheese-Vats, of which the following is a specification:

My invention consists of certain improvements on the cheese-vat patented by me November 22, 1870, as hereinafter more fully described.

In the accompanying drawing, Figure 1 represents a longitudinal vertical section of my improved cheese-vat. Fig. 2 represents a vertical cross-section of the same in line *x x*, Fig. 1. Fig. 3 represents a plan or top view of the same, the curd-vat being removed. Fig. 4 is a view of the separable connecting-pipes and their globe-nut of the supply-tank and stove. Fig. 5 is an enlarged section of the communicating necks and the distributing-board. Fig. 6 is a bottom view of the bottom distributing-board detached.

The fire-chamber *A* having a water-jacket, *B*, around it and constructed in a tapering form, is arranged beneath the vat and attached to the same by tubular necks *C*, secured to the jacket *B*, and which extend through the bottom of the water-chamber *D*, so as to render it detachable in a manner to be presently described. In the bottom of the water-chamber *D*, where the screw ends of the tubular necks pass through it, are formed depressions *d*, in which the screw-burrs *e*, which screw upon the reduced ends of the necks *C*, have their bearings. These screw-burrs *e* have circular rims *e'* on their under side, which, bearing against the upper side of the bottom of the depressions *d*, form with the same a water-tight joint over the bottom of the chamber *D* around the screw-necks, while the shoulders *c* on these necks, being drawn firmly up against the under or convex side of the depressions *d* on the under side of the bottom of chamber *D* by means of the screw-burrs *e*, form the water-tight joint around the necks *C* on the under side of the chamber *D*. By these means the fire-chamber is not only rendered easily removable from the vat, but the same means also form the necessary water-tight joints around the necks *C*, through which the water passes from the space around the fire-chamber to the water-chamber *D* and back. With the hot

water a certain amount of steam issues, through these necks with considerable force, the openings in the necks *C* being comparatively small. These constant streams directed always against the same points on the under side of the distributing-board *E* would, in a very short time, thoroughly saturate and rot and destroy this board, and also when too hot tend to melt the curd; and to prevent this I cover these spaces on the under side of the board *E* with plates *f*, of any suitable sheet metal, and so bent as to allow of a free circulation of the hot water through the hollow space *g* and cross-channels *h*, and without in any way interfering with the free circulation of the water through the necks *C*, thereby thoroughly protecting the points of the board, against which the streams issuing from the necks would otherwise be forcibly and continuously directed. As these streams would be apt at times to lift and shake the board, I lock the same down by means of bars *j* passing over it, one near each end of it, and under loops *i* formed in corresponding suitable places on the bottom of chamber *D* near its sides, as shown in Fig. 3. The reservoir *F*, which serves to supply water to the space around the fire-chamber, when the valve *k* in the necks *C* are closed to prevent the water in the chamber *D* from being heated too much, is connected to the said space by two short tubes, *l l'*, united and made continuous by means of a hollow globe-nut, *m*, which, when the fire-chamber is to be removed from under the vat, is screwed on one of the tubes *l l'*, so as to release the other, and to allow them to be separated, and thus the two screw-burrs *e* and the nut *m* serve to hold the fire-chamber under the vat or release it from the same, as may be desired. The reservoir *F*, besides being detachable from the fire-chamber through the hollow globe-nut *m* on the tubes *l l'*, is also made detachable from the outer end of water-chamber *D* by having rods *n* formed or secured on its rear wall, which rest in open loops *o* on the end wall of the chamber *D*, and which can be removed from the same after the detachment of the reservoir from the fire-chamber by being merely lifted out from these loops.

The detachability of the fire-chamber and the reservoir *F* greatly facilitates the transportation of my improved cheese-vat, as they can be packed for transportation or removal

into the water-chamber D, and thus occupy space which would otherwise be waste, and the simplicity of the means of attaching them to the vat, renders this operation easy and readily understood. The plates *f* serve to distribute the hot water beneath the board E, and to keep the curd from being melted when the water becomes too hot. The globe-nut *m* is used to cut off the water and to prevent the heat from entering the supply-tank F while making curd; but it is opened when the valves *k* are shut to allow water to pass into the heater to prevent its melting down, while the fire may be kept up.

Having described my invention, I claim—

1. The water-heating jacket B and fire-chamber A attached to the vat, and the auxiliary water supply-tank F by means of the tubular screw-necks C, the packing-burrs *e*, and the hollow screw-nut *m* of the connecting-pipes *l* *l'*, as and for the purposes set forth.

2. The depressions *d* in the bottom of the vat to receive the clamping-burrs *e* and form, with the flanges *e'* thereof and the shoulders *c* on the tubular necks, water-tight joints for the latter, as described.

3. The plates *f* on the bottom of the distributing-board E, arranged directly above the tubular necks C to protect the board against the action of the continuous jets of steam and hot water, and prevent the too great heating of the curd, as described.

4. The locking-bars *j* for holding the distributing-board E down against the lifting action of the steam and water from the heater below, as described.

WILLIAM H. OBITTS.

Witnesses:

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