(No Model.)

J. M. STUKES.

CHURN.

No. 568,005. Patented Sept. 22, 1896.

Fig. 1.

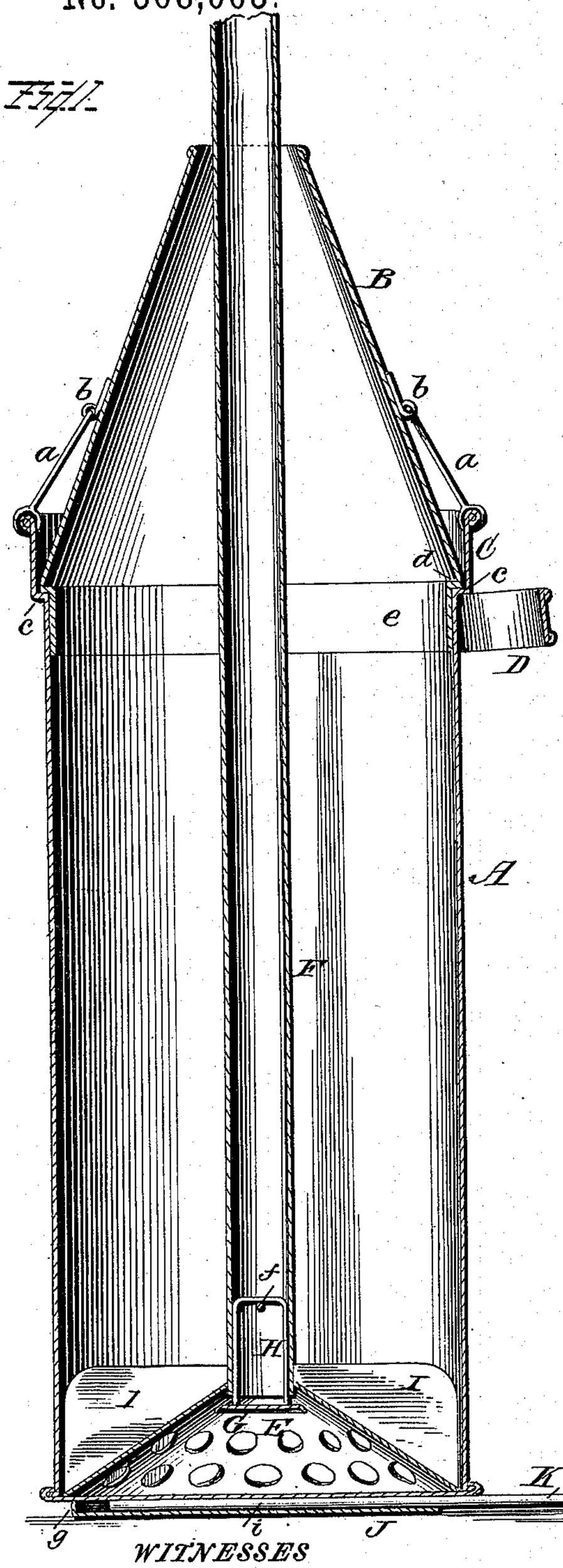


Fig. 2.

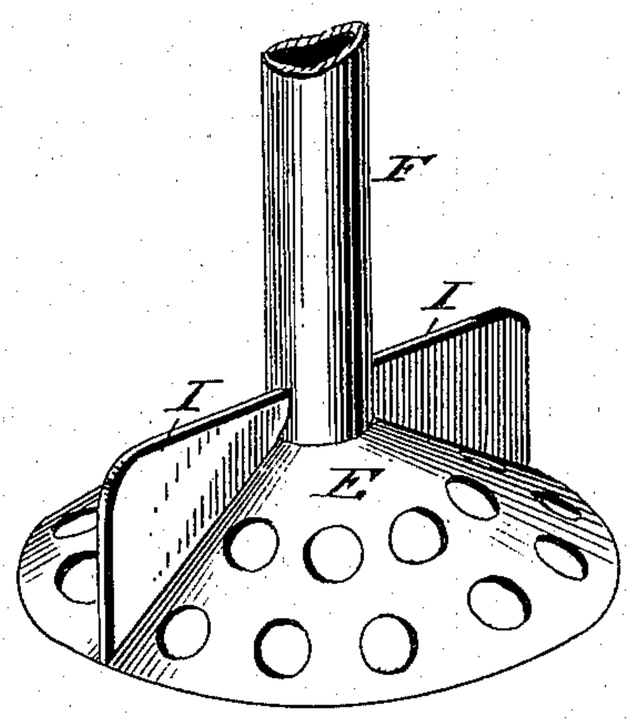
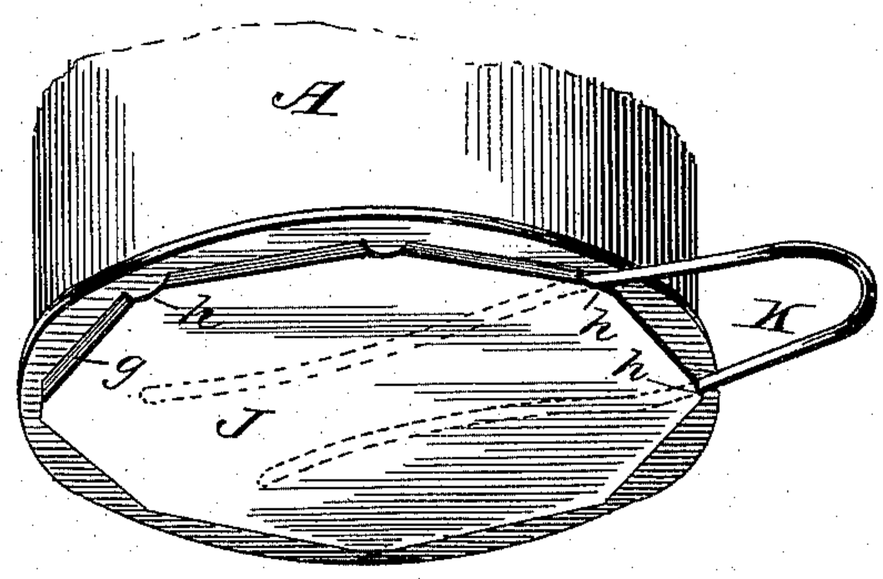


Fig. 3.



WITNESSES

C. J. Williamson.

Jno. M. Goodman.

INVENTOR

John M. Stukes.

per Chas. A. Fowler.

Attorney

UNITED STATES PATENT OFFICE.

JOHN MARION STUKES, OF FIELD CREEK, TEXAS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 568,005, dated September 22, 1896.

Application filed March 23, 1896. Serial No. 584,387. (No model.)

To all whom it may concern:

Be it known that I, JOHN MARION STUKES, a citizen of the United States, residing at Field Creek, in the county of Llano and State of Texas, have invented certain new and useful Improvements in Atmospheric Churns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has reference to that class of atmospheric churns in which are employed a perforated dasher and a hollow or tubular dasher-shaft, through which the air passes into the churn-cylinder during the process of churning.

It is the purpose of the invention to improve in the several details of construction this class of churns, whereby a more simple and easily operating churn is provided that can be placed upon the market at a comparatively small cost; and the invention consists in a churn-body provided with a foot-rest and false bottom constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings represents a sectional elevation of a churn embodying my invention; Fig. 2, a detailed perspective view of the dasher and dasher-shaft; Fig. 3, a detail perspective view of the under side or bottom of the churn-cylinder.

In the accompanying drawings, A represents the churn-cylinder, which may be of any suitable diameter and height, said cylinder having connected to its upper or open end a conical cap B, detachably connected thereto by pivoted hooks *a* upon the rim C of the churn-cylinder, which hooks engage with loops or eyes *b* upon the cap, thereby holding the cap in place over the open end of the cylinder. The rim C at the upper end of the churn-cylinder is of increased diameter, to form a circumferential shoulder *c*, and the cap B at its base has a rim *e* of less diameter, to present a shoulder *d* around the same. The shoulder *c* forms a support for the shoulder *d* of the conical cap B, whereby said cap will be retained in position over the open end of the churn-cylinder, which cylinder is provided with a suitable handle D for convenience in lifting it or for other purposes. A conical perforated dasher E is employed, to which is connected the tubular dasher-shaft F, the lower and open end of the shaft communicating with the interior of the dasher and is provided with a valve G, which is adapted to close the opening in the lower end of the shaft to exclude the air from passing through the shaft into the cylinder, but at every upward stroke the downward pressure of the air in the tubular shaft opens the valve and allows the escape of the air, which passes through the perforations in the dasher and thence into the cylinder. When the valve is closed against the open end of the dasher-shaft, the air is prevented from passing back and escaping through the tubular dasher-shaft, but the air is caused to be forced through the milk. The upper side of the conical perforated dasher E has secured thereto radial wings I, which extend diametrically across the dasher and assist in producing the agitating effect on the milk when the dasher is in motion. These wings also form braces to strengthen the dasher, as the dasher, being perforated, would be greatly weakened without some means were employed for strengthening it. The wings of the dasher also serve to gather the butter and render the churning effective.

The valve G is provided upon its upper side with a loop H, which extends up into the shaft and is suspended therein by means of a cross-pin *f*, the interior of the dasher-shaft forming a guide to the loop when the valve is in motion, thereby providing a very simple and practically operating valve device for alternately opening and closing the opening in the tubular dasher-shaft for the proper supply of air to the milk. A very effective churn is thereby provided in which the milk or cream will be thoroughly agitated by the passage of the air through the same, which will effectively break up the butter-globules.

The conical shape of the cap B prevents the splashing out of the milk or cream while the dasher is in motion, the enlarged rim C, with shoulder *c*, and the rim *e*, with shoulder *d*, form together a very simple and practical means of supporting the cap over the open end of the churn-cylinder, and the hooks *a* and eyes *b*, as a means of fastening, prevent the cap from being accidentally detached

and admits of its convenient removal when required for cleaning or the removal of the dasher and shaft or access to the interior of the churn-cylinder for the removal of the butter or contents of the cylinder.

The cylinder A is provided with a false bottom J, which is formed with a flange *g* around its edges, with holes *h* therein, one at each of its angles. This false bottom protects the bottom of the churn-cylinder from wear and also provides means for detachably connecting thereto a spring-wire foot-rest K for the operator to place his foot upon to steady the churn-cylinder while the churning is taking place. A space is left between the bottom of the churn and the false bottom J for the spring-arms *i* of the foot-rest K to enter, said arms extending through the holes *h* in the flange of the false bottom and the spring action of the arms keeping the foot-rest in place and admitting of its removal in shipping the churn.

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

1. A churn-body combined with a false bottom J, secured to the under side of the bottom of the churn, and provided with a flange *g*, around its edges, and which flange is provided with openings *h*, combined with a wire foot-rest composed of a bent elastic wire K, which is adapted to have its ends passed through any two of the holes *h*, in the flange of the false bottom, substantially as shown.

2. In a churn, the cylinder or body A, and a dasher provided with a hollow handle and a valve, combined with a false bottom, secured to the bottom of the body, and provided with a flange around its edges so as to form a space between the two bottoms, and which flange has an opening at each of its angles; and a wire foot-rest composed of a bent elastic wire which is adapted to have its ends passed through any two of the holes in the flange of the false bottom, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN MARION STUKES.

Witnesses:
N. B. COLE,
C. M. SPELL.