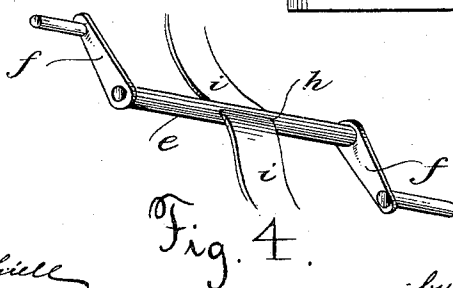
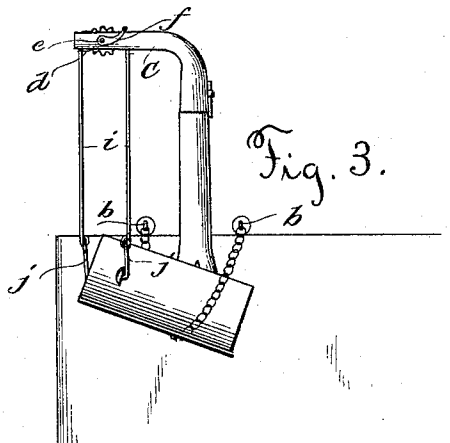
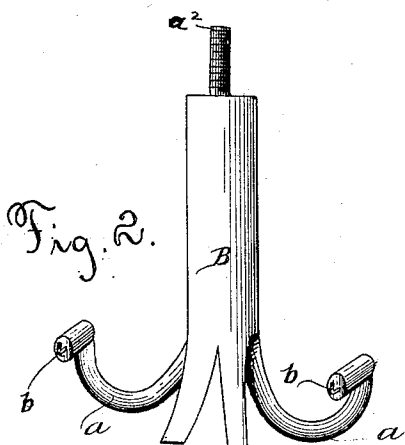
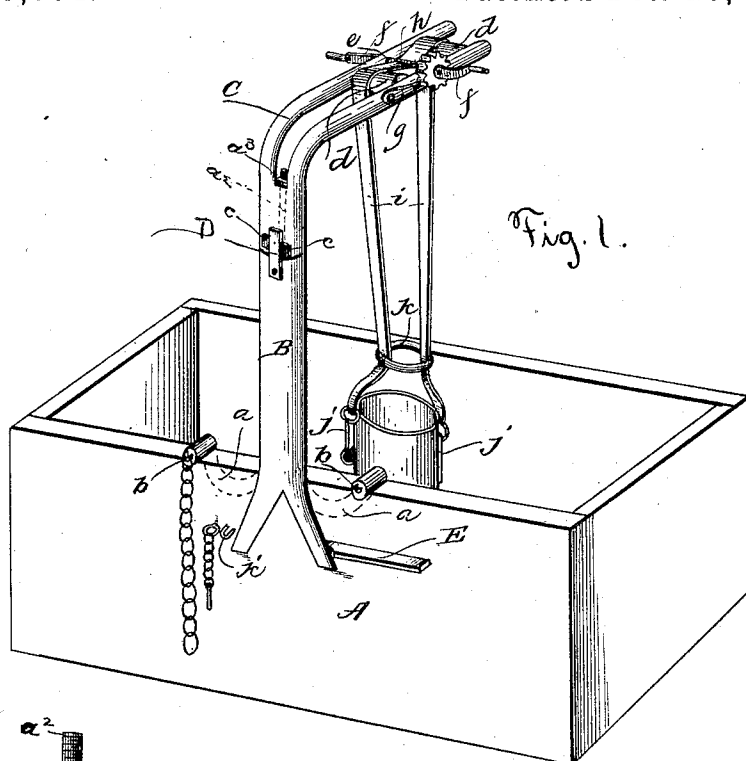


(No Model.)

M. COUPLIN.
MILK CAN ELEVATOR.

No. 309,604.

Patented Dec. 23, 1884.



WITNESSES

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MARY COUPLIN, OF THORNBURG, IOWA.

MILK-CAN ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 309,604, dated December 23, 1884.

Application filed October 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, MARY COUPLIN, a citizen of the United States, residing at Thornburg, in the county of Keokuk and State of Iowa, have invented a new and useful Improvement in Milk-Can Elevators, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to can-elevators; and it has for its object to provide a device of this character which shall combine simplicity and cheapness of construction with effectiveness and durability in use.

With these and other ends in view the invention consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a can-elevator constructed in accordance with my invention. Fig. 2 is a detail view of the supporting-standard. Fig. 3 is a side elevation showing the can raised and tilted, and Fig. 4 is a detail view of the winding-shaft.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A represents the tank to which my improved elevator is shown attached.

B represents a suitable upright or standard, which is provided at its end with two oppositely-extending arms, *a*, having rollers at their outer ends, said rollers being mounted on outwardly-extending shafts, and having hooks *b* at their ends. The upright or standard B also has a V-shaped extension, which, when the upright is adjusted in position, bears against the outer side of the tank and supports the upright B against lateral movement. The upper end of the upright B is formed with a bolt-extension, *a*², which is threaded at its upper end.

C represents an arm, which has a vertical opening or passage to receive said bolt-extension *a*² of the upright B, said arm being held in place upon said upright by means of a nut, *a*³. A spring-plate, D, is secured to the upper end of the upright or standard B near its point of junction with the arm C, said spring-plate being adapted to fit between two out-

wardly-extending lugs, *c*, on the arm C, to prevent its turning, when so desired.

Near the outer end of the divided arm C are journaled two rollers, *d*, and between said rollers is mounted a shaft, *e*, the ends of which are extended beyond the sides of the divided arm, and are each provided with a crank, *f*. A ratchet is also arranged upon one end of said shaft outside the divided arm, and adapted to engage said ratchet is a pawl, *g*, pivoted, as shown, to the outer side of the arm C. There is a slot, *h*, formed in said shaft, and in said slot is secured midway between its ends a belt, *i*, the ends of said belt passing over the rollers *d*. The ends of said belt are each provided with a hook, *j*, and upon said belt is a sliding ring or collar, *k*.

At suitable points upon the tank are arranged pivoted arms E, which are adapted to inclose the end of the upright or standard, and to be secured to a staple, *k*. Thus it will be seen that the upright or standard is held against any sliding movement whatever upon the sides of the tank.

The operation is as follows: When it is desired to remove a can or cans from the cooling-tank, or to elevate the cans so that the milk may be removed therefrom, the arm B is adjusted upon the side of the tank, as shown, and made fast by means of one of the arms E. The arm C is then turned to the desired angle or point, so that its outer divided end will be directly over the can. The ends of the belt carrying the hooks are then lowered and engaged with the usual handles on the side of the can, and the sliding ring or collar pushed downwardly on the belts. The spring-catch on the upper end of the upright B is then engaged with the lugs on the arm C, so that said arm C will be held against movement. One of the cranks is then turned, which raises the can, and as soon as it has cleared the edge of the tank it may be swung around to clear the same, and then lowered. If, however, it is desired to remove the milk from the can, the arm is swung around outside of the tank, and the can inclosed by a chain, *n*, which engages the hooks *b* on the ends of the shafts of the rollers. The can may then be tilted to remove the milk therefrom. The arm may

then be swung around to engage the next adjacent can, and when it has been removed or the milk emptied the upright B may be moved along the tank so that it can remove the other cans.

It will be seen from the above description that by the use of the above-described improvements milk-cans may be readily removed from the cooling-tank, or that they may be elevated to remove the milk therefrom, thus overcoming the necessity of having to raise heavy and cumbersome cans by hand.

The above-described improvements are simple in their construction, effective in their operation, and are also strong and durable.

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

1. In a milk-can elevator, the combination, with an upright or standard, of a pivoted arm, flexible straps, and rollers, as set forth.

2. In a milk-can elevator, the combination, with a suitable upright having oppositely-extending arms carrying rollers, and also having a downwardly-extending arm, of a pivoted arm carrying rollers, and flexible straps or bands, as set forth.

3. In a milk-can elevator, the combination with a suitable upright, of a pivoted arm and a spring-catch, arranged and operating substantially as set forth.

4. In a milk-can elevator, the combination,

with a suitable upright or standard, of a pivoted arm carrying a shaft, a belt or band secured to said shaft, a pawl and ratchet, rollers arranged as shown, and hooks secured to the ends of the belt, as set forth.

5. In a milk-can elevator, the combination, with a suitable upright or standard, of a pivoted arm divided at its end, a shaft mounted in said divided end, a belt or band secured to said shaft, a pawl and ratchet, rollers arranged as shown, hooks secured to the ends of said belt, and a spring-catch for holding said pivoted arm stationary, as set forth.

6. In a milk-can elevator, the combination, with a suitable supporting-upright having oppositely-extending arms fitted with rollers, and having a downwardly-extending arm, of an arm pivoted to said upright, said arm being divided at its end, a shaft journaled in said divided end, a belt secured to said shaft, hooks secured to the ends of said belt, a pawl and ratchet, rollers, arranged as shown, and a spring-catch secured to the upright and adapted to engage lugs on the pivoted arm, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

MARY COUPLIN.

Witnesses:

ED JACKSON,
H. SHUBENDY.