(No Model.)

J. CHARLTON & H. C. LYNCH.

FUNNEL ATTACHMENT.

No. 346,265. Patented July 27, 1886.

Fig. 1.

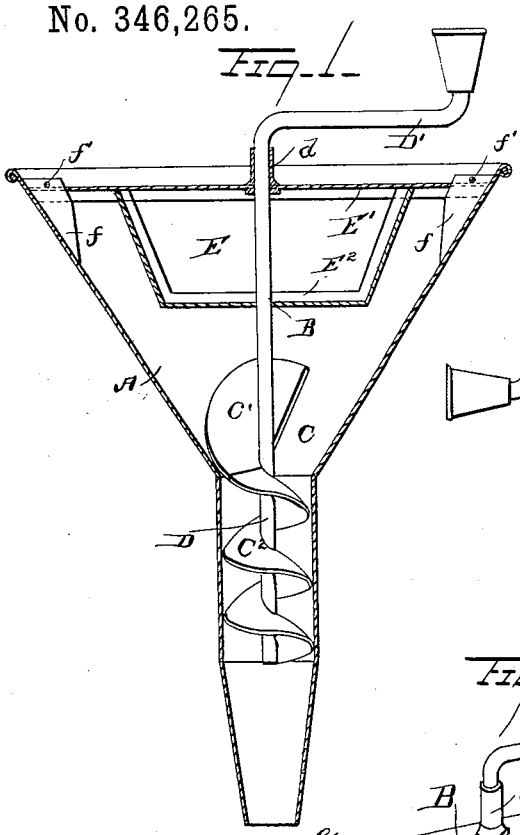


Fig. 3.

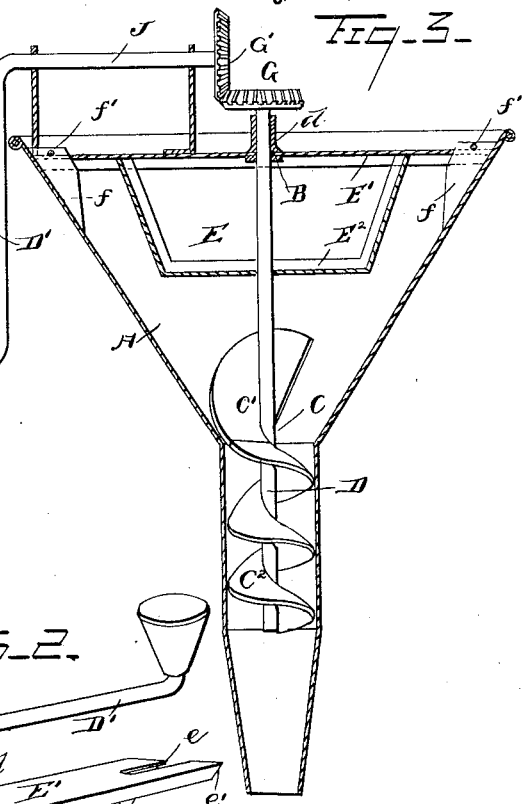
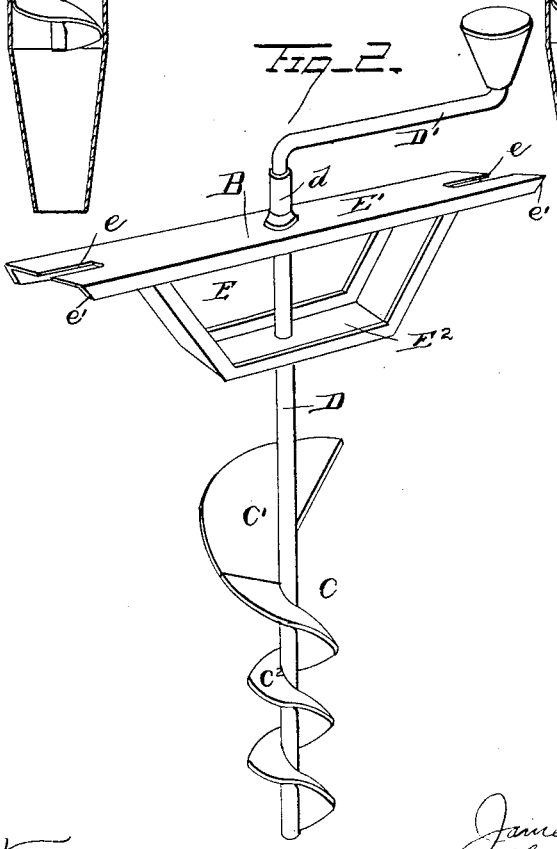


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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FUNNEL ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 346,265, dated July 27, 1886.

Application filed May 7, 1886. Serial No. 201,476. (No model.)

To all whom it may concern:

Be it known that we, JAMES CHARLTON and HUBBARD CALHOON LYNCH, citizens of the United States, residing at Houston, in the county of Harris and State of Texas, have invented a new and useful Improvement in Funnel Attachments, of which the following is a specification.

Our invention relates to improvements in funnel attachments; and it consists of the peculiar combination and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

The primary object of our invention is to provide an attachment to funnels that are used by grocers and others for delivering molasses from the cask into a jar or other receptacle, which shall facilitate the delivery of the molasses from the funnel into the vessel during the cold weather, when, as is well known, the molasses is very thick and runs very slowly.

A further object of our invention is to provide improved means that can be readily and easily applied to a funnel of any class and quickly removed therefrom when it is desired, and to provide an attachment that shall be simple and strong in construction, effective in operation, and cheap of manufacture.

In the accompanying drawings, Figure 1 is a vertical sectional view of a funnel having our improved attachment applied thereto. Fig. 2 is a detached perspective view of our attachment. Fig. 3 is a modified form of our invention.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates a funnel of any preferred form or class at present in use, in which our improved attachment B is adjusted or applied for use.

Our invention consists, essentially, of a screw-conveyer, C, that is carried by a shaft, D, a transverse bar or carrying-frame, E, in which the shaft D is journaled, and a handle or lever, D′, for rotating the shaft and the screw carried thereby, the peculiar construction of the several parts of which we will now proceed to describe more fully and in detail. The carrying-frame E is provided with a transverse bar or rod, E′, which is preferably straight, and the ends of this bar are slotted longitudinally, as at *e*, and beveled inwardly, as at *e′*, and the said frame is further provided with a vertically-disposed hanger, E^2, which is secured on and depends from the transverse bar E′. When the frame is adjusted for use in a funnel, the inclined ends of the transverse bar E′ thereof bear or rest against the sides of the open upper end of the funnel, and through the slots *e* in the ends of the said bar pass perforated lugs *f*, that are secured to the funnel in any suitable manner, pins *f″* being passed through the lugs and bearing on the upper surface of the bar to prevent any movement thereof, and thus hold the device very rigidly and firmly in its proper position in the funnel, as will be readily understood. The shaft D, that carries the screw C, extends through and is journaled in suitable openings or bearings in the hanger and the transverse bar of the supporting or carrying frame, and the upper end of the shaft has a shoulder or ledge, *d*, thereon, that bears on the transverse bar E′ of the carrying or supporting frame, and prevents longitudinal movement of the shaft when the device is in use. To the upper free end of the shaft D is connected or secured the crank or handle D′, that is arranged at right angles to the shaft, and provided at its free end with the knob or finger-piece *d′*. The screw C comprises one or more spiral blades, C′ and C^2, which are rigidly secured on the shaft in any suitable manner, and when the device is adjusted for use in a funnel the blade C′ of the funnel scrapes or bears against the lower end of the body of the funnel, where it joins the conducting-tube thereof and forces the molasses or other liquid that adheres to the funnel into the tube, while at the same time it serves to convey the molasses through the conducting-tube of the funnel. The blades of the conveyer-screw are made of such size that they are in contact with the sides of the conducting-tube in which they are fitted, and these blades serve efficiently to convey the molasses or other fluid through the funnel very rapidly, and thus save the time of the attendant or storekeeper, who by the old method of allowing the molasses to run from the cask into the funnel in very cold weather is compelled to wait for a considerable time before the desired quantity of the liquid has accumulated.

In the modification shown in Fig. 3 of the drawings, the upper end of the shaft D is provided with a gear-wheel, G, that is rigidly secured on the shaft in any suitable manner, and this gear-wheel meshes with and is rotated by a larger gear-wheel, G′, that is rigidly secured on the shaft J, which is journaled in bearings *j* on the frame, and carries the crank-handle D′, thus providing gearing for rotating the shaft and conveyer-screw at a higher rate of speed than that at which the crank-handle is rotated or driven by hand.

To apply our invention or attachment to the funnel it is only necessary to provide the latter with the perforated lugs *f*, which can be secured rigidly thereto in any preferable manner and in a short space of time, and the supporting-frame is then adjusted in the funnel so that the blades C^2 of the conveyer-screw fit in the conducting-tube of the funnel, and the blade C′ bears against the lower end of the enlarged open end of the funnel.

The operation of our invention will be readily understood. The funnel is adjusted to a vessel in which it is desired that the molasses or other liquid shall be delivered, and the molasses or other liquid is then admitted to the funnel. The crank-handle is now rotated by the hand of the attendant, so that the conveyer-screw is rotated in the conducting-tube of the funnel, and thereby facilitates the discharge of the contents therefrom.

It will be observed that the attachment can be readily removed from the funnel for the purpose of cleaning the funnel or the attachment, and that the device can be readily applied to a funnel of any class or construction.

Our device is simple, effective, and cheap, and various changes therein in the form and proportion of parts may be made without departing from the principle or sacrificing the advantages thereof.

Our invention can be applied to funnels during the process of manufacturing the latter and sold with the same as an integral part of them, and the device can be detachably secured to the funnel in any other manner, as may be desired or necessary.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the supporting-frame, a shaft journaled in the frame, a crank for rotating the shaft and carried by the frame, and a screw-conveyer carried by the shaft and having the smaller blades, C^2, and the larger blade, C′, arranged above the blades C^2, and bearing against the funnel above the conducting-tube thereof when the device is adjusted in the funnel, substantially as described.

2. The combination of a funnel having the perforated lugs, the supporting-frame having the slotted transverse bar through which the lugs are passed, the transverse pins for detachably securing the frame to the lugs of the funnel, the shaft journaled in the frame and having the screw-conveyer, and a crank carried by the frame for rotating the shaft, substantially as described.

3. The combination, with a funnel, of a conveying-screw working in the conducting-tube of the funnel, and having the scraping-blade *c*′ at its upper end bearing against the inside of the funnel, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

JAMES CHARLTON.
HUBBARD CALHOON LYNCH.

Witnesses:
M. M. FEENY,
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