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ATTACHMENT FOR PIERCING TINS AND DECANTING LIQUIDS.

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1,164,645. Patented Dec. 21, 1915.

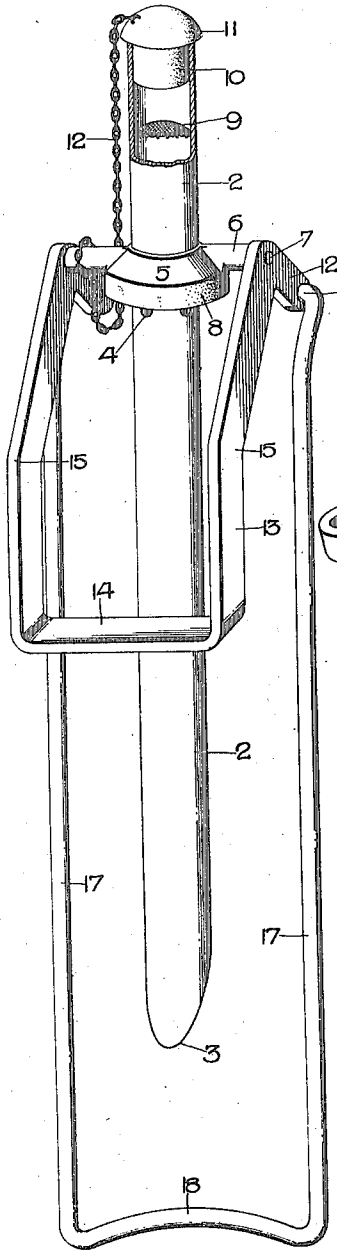


FIG. 1.

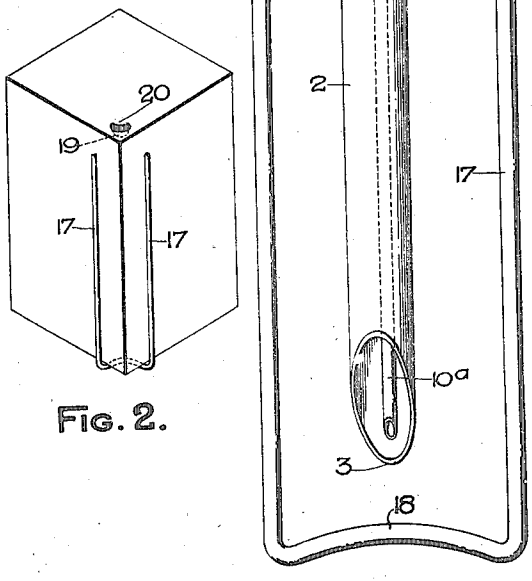


FIG. 3.

FIG. 2.

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ATTACHMENT FOR PIERCING TINS AND DECANTING LIQUIDS.

1,164,645. Specification of Letters Patent. Patented Dec. 21, 1915.

Application filed June 22, 1915. Serial No. 35,718.

To all whom it may concern:

Be it known that I, THEODORE MARFLEET HARRISON, a subject of the King of Great Britain and Ireland, and a resident of the post town of Castlemaine, in the county of Talbot, State of Victoria, Commonwealth of Australia, have invented a new and useful Improved Attachment for Piercing Tins and Decanting Liquids, of which the following is a specification.

This invention relates to the drawing off of petrol, benzin, kerosene or other liquids from rectangular or other shaped tins, it being necessary to penetrate the top of a tin in order to decant the contents thereof.

In the past various devices have been used for drawing off liquids from containers of the kind above referred to. Often it has been necessary to employ a pump, a portion of the tin top being entirely removed to admit the pump barrel causing disfigurement to the tin beyond economical repair. Further, after piercing the tin top foreign matter has frequently entered into the tin through the hole formed and the contents have often not been strained when decanted. When a pump or the like has not been used it has been usual to pierce the tin in two places to provide a pouring out hole and a vent hole. Generally a quantity of the contents of a tin is wasted by this method. A certain amount of care and skill has also usually been necessary whether a pump or the like has been employed or not.

The object of this invention is to provide an attachment or device by the use of which all waste is avoided as the top of a tin may be readily pierced and a liquid tight joint be formed between the tin and the attachment by a simple movement of the hands. The attachment may also be furnished with a simple but effective strainer, which requires no special effort to attach or operate it, and may be folded into a comparatively small compass. Furthermore, it calls for no skill in its application or operation and does not detach any portion of the tin top. A tin may, therefore, be repaired for re-filling at a minimum of expense.

Referring to the drawings which form a part of this specification:—Figure 1 is a part sectional perspective view of this invention, the attachment being shown in its folded state. Fig. 2 is a perspective view showing a tin pierced by this invention. The tongue formed is clearly seen as also a portion of a duplex fastening link. Fig. 3 is a perspective view of this invention the parts being in the position occupied when applied to a tin.

The invention includes a tubular spout 2 the length and diameter of which may vary. The inner end of the spout is cut diagonally, the angle of the cut depending upon circumstances. The leading edges of the diagonally cut inner end are sharpened forming a cutting edge 3. Formed through the wall of the spout is a series of drain holes indicated at 4. Outstanding from the spout 2, adjacent the drain holes 4, is a collar 5 protruding from which are oppositely situated bosses 6. Formed through the bosses and the collar is a hole accommodating a first pivot pin 7 the outer ends of which outstand beyond the outer ends of the bosses 6. Resting against the inner surface of the collar 5 is the inner surface of a resilient jointing ring or washer 8. This may be formed of rubber or the like and more than one ring may be employed, the thickness depending upon circumstances. The outer end of the spout 2 extends some distance beyond the collar 5 and may be straight as shown, or bent, or kinked, or of other conformation. Preferably within the outer end of the spout 2 is disposed a strainer 9 of any suitable character. Accommodated in the outer end of the spout 2 is the shank 10 of a depressor and stopper having a head 11. Secured to the head 11 is the outer end of a chain 12 the inner end of which may be secured to any suitable part of the attachment. Within the spout 2 may be disposed a vent pipe 10^a. This is of comparatively small diameter. Its inner end extends to and is secured near the inner end of the spout 2. Its outer end communicates with a hole, indicated at 11^a, formed through the wall of the spout 2 near the outer end thereof.

With the tubular spout 2 is used a duplex bell crank lever. This includes two minor arms 12^a each being integral at its inner end with the inner end of a major arm 13. Formed at the junction of each minor and major arm is a first pivot pin hole. Passing into the first pivot pin holes are the outer ends of the first pivot pin 7. The outer ends are spread or overset to retain the pivot pin 7 in position. The outer ends of the major arms 13 are united by a bridge 14. The said major arms may also be bent, as at 15. Formed in the outer ends of the minor arms

12[a] are second pivot pin holes. Passing into the second pivot pin holes are inturned opposite second pivot pins 16 each being disposed at the upper end of the leg 17 of a duplex fastening link or yoke. The lower ends of the legs 17 of the fastening link are united by a bridge which is centrally elevated as at 18.

This invention is operated as follows:— When a tin is to be perforated and its contents poured off the depressor or stopper is placed within the outer end of the tubular spout 2 and the inner end of the spout placed in that corner of the tin from which it is proposed to decant the liquid. The depressor is then forced downward and the cutting edge 3 enters the tin. A part circular incision is made and a part circular tongue forced down inwardly into the tin as indicated at 19 in Fig. 2. The tongue is suspended by a hinging portion, indicated at 20 in the said Fig. 2. The tubular spout 2 enters the tin and the jointing ring 8 rests upon the tin top. The legs 17 of the fastening link are now pressed against the tin one each side of the corner thereof, the bridge 18 at the lower ends of the said legs being passed underneath the bottom of the tin. The outer end of the duplex bell crank lever is now lifted and turned or lowered until it rests upon the top of the tin. The bridge 18 is thereby strained and the jointing ring 8 pressed upon the tin top. The spout is now locked to the tin and the liquid can be decanted without any waste whatever the last of the said liquid passing through the drain holes 4. The vent pipe 10[a] provides for the admission of air into the tin avoiding disfigurement of the same by a vent hole, but it is to be distinctly understood that the said pipe may be dispensed with, if desired, and a small hole be formed in the tin to provide for the admission of air.

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

1. A decanting attachment, comprising in combination, a decanting tube adapted to be projected through the top of a tin, means for sealing the opening through which said tube is projected, a crank lever carried by said tube, and a yoke suspended from said crank lever for drawing said sealing means into position, said yoke being adapted to surround the sides and the bottom of the tin.

2. A decanting attachment, comprising in combination, a decanting tube adapted to be projected through the top of a tin, a collar on said tube for limiting its projection into the tin, a jointing ring carried by said collar for sealing the opening occupied by said tube, a bell crank lever pivoted on said collar, and a securing yoke suspended from said bell crank lever and adapted to surround the sides and the bottom of the tin whereby to draw said jointing ring into sealing relation when said bell crank lever is actuated.

3. A decanting attachment, comprising in combination, a decanting tube adapted to be projected through the top of a tin, a cutting edge on the lower end of said decanting tube, a collar projected on said tube, a sealing ring located below said collar and adapted to secure the opening projected by said tube, trunnions extending from opposite sides of said collar, a two-armed bell crank lever supported by said trunnions, and a yoke suspended from the free ends of corresponding arms of said bell crank lever, said yoke comprising parallel legs adapted to overlie the sides of the tin, and a bridge piece adapted to extend across the bottom of the tin, whereby when said bell crank lever is actuated, said yoke will draw said sealing ring into position.

4. A decanting attachment, comprising in combination, a decanting tube adapted to be projected through the top of a tin, a vent tube in said decanting tube, a cutting edge on the lower end of said decanting tube, a collar provided on said tube, a sealing ring located below said collar and adapted to secure the opening provided by said tube, trunnions extending from opposite sides of said collar, a two-armed bell crank lever supported by said trunnions, and a yoke suspended from the free ends of corresponding arms of said bell crank lever, said yoke comprising parallel legs adapted to overlie the sides of the tin, and a bridge piece adapted to extend across the bottom of the tin, whereby when said bell crank lever is actuated, said yoke will draw said sealing ring into position.

5. An improved attachment for piercing tins and decanting liquids, consisting of a tubular spout having drain holes formed therein and having a diagonal cutting edge at its inner end, an outstanding collar carried by the spout, a sealing ring carried by said collar, oppositely extending trunnions also carried by said collar, a crank lever pivoted to the trunnions, said lever consisting of two minor arms united to two major arms, a duplex fastening link having legs pivoted to the arms of the crank lever, and a bridge uniting the legs of the fastening link said bridge being elevated at its center.

6. An improved attachment for piercing tins and decanting liquids, consisting of a tubular spout having drain holes formed therein and having a cutting edge at its inner end, a collar carried by said spout, opposite bosses carried by the collar, a resilient jointing ring bearing against the collar, a strainer disposed within the spout, a vent pipe disposed within the spout, a depressor

and stopper engaging the spout, a duplex crank lever pivoted to the bosses of the collar, said crank lever comprising two minor arms and two major arms united by a bridge and a duplex fastening link pivoted to the minor arms of the crank lever, said link consisting of two legs united by a bridge, said bridge being elevated at its center.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

THEODORE MARFLEET HARRISON.

Witnesses:
CECIL F. SLASTREER,
GEORGE A. WREN.