

1,049,331.

Fig. 1.

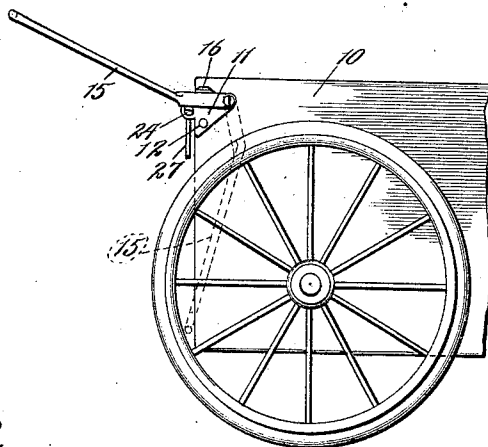


Fig. 2.

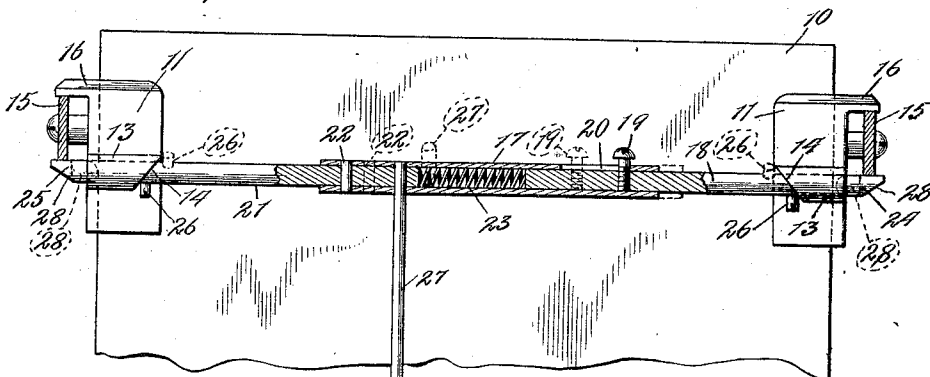


Fig. 3.

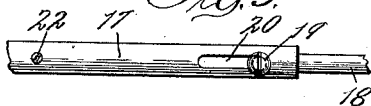


Fig. 5.

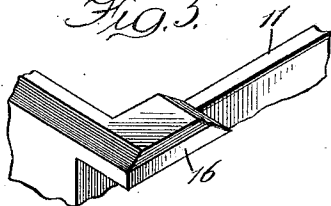
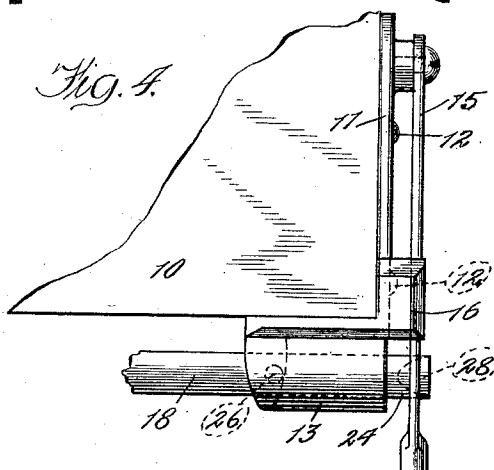


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALLEN A. BOWSER, OF FORT WAYNE, INDIANA, ASSIGNOR TO S. F. BOWSER & COMPANY, INCORPORATED, OF FORT WAYNE, INDIANA, A CORPORATION OF INDIANA.

FOLDING HANDLE FOR PORTABLE TANKS AND THE LIKE.

1,049,331.

Specification of Letters Patent.

Patented Jan. 7, 1913.

Application filed April 11, 1907. Serial No. 367,557.

To all whom it may concern:

Be it known that I, ALLEN A. BOWSER, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Folding Handles for Portable Tanks and the Like, of which the following is a specification.

This invention relates to improvements in folding handles particularly adapted for use with portable gasoline tanks or the like and the primary object of the invention is to provide improved means for locking the handle in an operative position and to permit the same to be folded against the tank and out of the way when not in use.

A further object is to provide an improved construction of lock for the handle which will automatically yield when the handle is raised from a folded position to lock the latter in an operative position but which must be adjusted to unlock or permit the handle to be folded.

A further object is to provide an improved device of this character which will be simple, cheap and durable in construction, and efficient and effective in operation.

To the attainment of these ends and the accomplishment of other new and useful objects, as will appear, the invention consists in the features of novelty in the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawing illustrating an exemplification of the invention and in which—

Figure 1 is a side elevation of a portion of a portable tank having a folding handle applied thereto constructed in accordance with the principles of this invention. Fig. 2 is a detail rear elevation of Fig. 1, partly in section, showing the improved lock and with the handle in its adjusted position. Fig. 3 is a detail elevation of a portion of the lock. Fig. 4 is a detail top plan view of one corner of the tank showing the bracket for supporting the handle. Fig. 5 is a detail, perspective view of the upper portion of one of the brackets showing the stop for limiting the upward movement of the handle.

Referring more particularly to the drawing and in this exemplification of the invention, the numeral 10 designates a suitable wheel supported tank preferably rectangu-

lar in construction, and secured to the opposite sides of the tank, preferably adjacent the rear face thereof, are suitable brackets 11, which latter may be of any desired size and configuration, and are held in position preferably by means of bolts or rivets 12. One of the extremities of the brackets 11 is preferably arranged at a right angle to the body portion thereof and said extremities are provided with tubular bearings 13 which stand adjacent the rear face of the tank and preferably in such a position as to project only for a short distance beyond the sides thereof, as shown more clearly in Figs. 2 and 4 of the drawing. These bearings 13 are provided with cam-shaped faces 14 which are disposed adjacent to each other for a purpose to be set forth.

Pivotaly supported in any suitable manner to the brackets 11 and by the extremities thereof is a substantially U-shaped handle or bail 15, which is adapted to be moved about its points of pivotal support so that the body portion thereof will rest against the rear face of the tank 10 when the handle is in a folded or lowered position, as shown more clearly in dotted lines in Fig. 1 of the drawing. The brackets 11 are also provided with projecting ears or lugs 16 which preferably extend a short distance beyond the sides of the tank and are located in the path of the upward movement of the handle 15 to be engaged by the handle when the latter is raised to limit its upward movement.

A suitable latch or lock is provided for securing or holding the handle 15 in its elevated or raised position and preferably comprises a tubular body portion 17, telescoping with one end of which is one extremity of a bar or rod 18, said bar or rod being secured for adjustment to the tubular body portion 17 in any suitable manner, preferably by means of a screw or bolt 19 which passes through a suitable slot or aperture in the adjacent extremity of the tubular body portion 17 and into said bar or rod. The other extremity of the tubular body portion 17 is provided with a similarly projecting rod or bar 21, one end of which is rigidly secured to the tubular body portion 17 preferably by means of bolts or rivets 22 and the free extremity of the bar or rod 21 preferably projects for some distance beyond the tubular body portion 17.

The inner extremity of each of the bars or rods 18, 21 are spaced from each other and disposed between said extremities and within the body portion 17 is a yielding member 23, such as a coil spring or the like, and said member tends to hold the bars 18, 21 separated. This improved lock or latch is arranged adjacent the rear face of the tank 10 and in such a position that the free ends of the bars or rods 21 and 18 will enter the bearings 13 in the brackets 11 and said bars or rods 18, 21 are of such a length that when acted upon by the yielding member 23, the extremities 24, 25 thereof will project through the bearings 13 and for a short distance beyond the sides of the tank 10 so as to pass beneath the handle 15 when the latter is raised, as shown more clearly in Figs. 2 and 4 of the drawing to hold said handle in its operative position.

Suitable lateral projections 26, preferably in the form of screws or bolts, are secured to the rods or bars 18, 21 and in such a position with relation to the free extremities thereof that when the yielding member 23 exerts its tension on said bars to cause the said free extremities to be projected beyond the sides of the tanks they will engage and rest against the cam surfaces of the bearings 13 and when in the position shown in full lines in Fig. 2, the extremities will be projected a sufficient distance to lock the handle 15 in an operative position.

Any suitable means may be provided for withdrawing the free extremities of the rods or bars 18, 21, so as to permit the handle 15 to be dropped or folded. A suitable and efficient means for accomplishing this purpose comprises a handle 27 which is preferably in the shape of a bar or rod and is secured to the tubular portion 17 in such a position that when the free extremities of the bars or rods 18 and 21 are projected, as shown in full lines in Fig. 2, the said handle will stand adjacent the rear face of the tank 10.

Assuming the parts to be in the position shown in full lines in the drawing and it is desired to lower the handle 15, the operator simply grasps the handle 27 and draws it upwardly, thereby axially rotating the tubular member 17. As this tubular member 17 is rotated the bars or rods 18, 21 will also be rotated, which will cause the lugs or projections 26 to ride from the lowest portion of the cam surfaces 14 on the brackets 11 to the highest point thereof or to the position shown in dotted lines in Fig. 2. This movement of the lugs or projections 26 will draw the free extremities of the rods or bars 18, 21 inwardly or toward each other against the tension of the yielding member 23, and to the position shown in dotted lines in Fig. 2, which will unlock the handle 15 and permit the same to be

moved about its point of pivotal support to the position shown in dotted lines in Fig. 1. After the handle 15 has been thus lowered, the handle 27 may be released and the member 23 will exert its tension upon the rods or bars 18, 21 to separate the same and cause them to assume the position shown in full lines in Fig. 2. The action of the yielding member 23 separating the bars or rods 18, 21 will cause the lugs or projections 26 to move in the opposite direction against the cam surfaces 14 of the brackets 13 and assume the position shown in full lines in Fig. 2. The free extremities of the bars or rods 18, 21 are preferably beveled or inclined as at 28 and when said bars or rods are in a locking position, these beveled extremities 28 will be located on the lower faces thereof. When the handle 15 is raised from the dotted position shown in Fig. 1, said handle will engage the beveled or inclined portions 28 and cause the bars or rods 18, 21 to yield or be pressed toward each other to permit the handle 15 to be raised without necessitating the rotation of the tubular member 17 by means of the handle 27, the upward movement of the handle 15 being limited by the stops or projections 16 on the brackets 11. When the handle is locked in its raised position the extremities of the rods 18 and 21, cooperate with the projections 16 for holding the handle against movement in either direction.

In order that the invention might be fully understood by those skilled in the art, the details of the foregoing embodiment thereof have been thus specifically described, but

What I claim as new and desire to secure by Letters Patent is:—

1. In combination a pivotally supported handle, a locking member, a bearing for said member, one extremity of the locking member being adapted to be projected into the path of movement of the handle to lock the latter against movement, means for axially rotating the locking member, and means whereby the rotation of said member will automatically withdraw the extremity of the locking member to unlock the handle.

2. In combination a pivotally supported handle, a locking member, a bearing for the member, said bearing being provided with a cam face, means for normally projecting the locking member into the path of movement of the handle to lock the latter against movement in one direction, means for rotating the locking member and means operatively related to said member adapted to cooperate with the said cam face to unlock the handle when the said member is rotated.

3. In combination a pivotally supported handle provided with spaced side arms, a yielding locking member, bearings for said member, the extremities of said member be-

ing adapted to be projected into the path of movement of the said side arms to lock the handle against movement in one direction, means for rotating said member, and means whereby the extremities of the member will be automatically withdrawn to unlock the handle by the rotation of said member.

4. In combination a pivotally supported handle provided with spaced side arms, a locking member comprising separate sections, bearings for said sections, means for separating said sections to cause one extremity of each to stand within the path of movement of one of the side arms to lock the handle against movement in one direction, means for rotating said member and means for simultaneously drawing the sections thereof together as the member is rotated to unlock the handle.

5. In combination a pivotally supported handle provided with spaced side arms, a locking member comprising separable sections, bearings for said sections, means for separating the sections to cause one extremity of each to stand within the path of movement of one of the side arms to lock the handle against movement in one direction, said bearings being provided with cam faces, means for rotating the member, and projections on the sections adapted to cooperate with the respective cam face to withdraw the extremities of the section as the member is rotated to unlock the handle.

6. In combination a pivotally supported handle provided with spaced side arms, a locking member comprising separable sections, bearings for said sections, yielding means for separating the sections to cause one extremity of each to stand within the path of movement of one of the side arms to lock the handle against movement in one direction, said bearings being provided with cam faces, means for rotating the member, and projections on the sections adapted to cooperate with the respective cam face to withdraw the extremities of the section against the tension of the said yielding means as the member is rotated to unlock the handle.

7. In combination a pivotally supported handle provided with spaced side arms, a locking member comprising telescoping sections, bearings for the sections, a yielding member disposed between the sections, and tending normally to hold the extremities of the sections in the path of movement of the handle to lock the latter against movement in one direction, a handle secured to one of the sections for axially rotating the locking member, and means operatively related to each of the sections and the respective bearings for telescoping the sections to withdraw the extremities thereof against the

tension of the yielding member when the locking member is rotated to unlock the handle.

8. In combination a pivotally supported handle provided with spaced side arms, a locking member comprising separable sections, bearings for the free ends of said sections, a yielding member disposed between the sections and adapted to project the free ends of the sections normally into the path of movement of the side arms, said ends being adapted to be moved by the arms to permit the latter to be adjusted in one direction, means for limiting said adjustment, said extremities being adapted to lock the handle in its adjusted position, means for rotating the member and means for withdrawing the extremities as the member is rotated to unlock the handle.

9. In combination a pivotally supported handle provided with spaced side arms, a locking member comprising separable sections, bearings for the free ends of said sections, a yielding member disposed between the sections and adapted to project the free ends of the sections normally into the path of movement of the side arms, said ends being adapted to be moved by the arms to permit the latter to be adjusted in one direction, means for limiting said adjustment, said extremities being adapted to lock the handle in its adjusted position, means for rotating the members and cooperating projections and cams on the sections and the bearings for withdrawing the extremities as the member is rotated to unlock the handle.

10. In combination a pivotally supported handle provided with spaced side arms, a locking member comprising separable sections, bearings for said sections, yielding means for holding the extremities of the sections normally projected beyond the bearings to lock the handle against movement in one direction, a handle operatively related to the locking member for rotating the latter, and cooperating means on the bearings and the sections for withdrawing the extremities of the sections against the tension of the yielding means to unlock the handle, the said yielding means and the cooperating means on the sections and bearings also tending to return the sections and the operating handle thereof to their normal position when said handle is released.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 27th day of March A. D. 1907.

ALLEN A. BOWSER.

Witnesses:

S. B. BECHTEL,
H. M. BOWSER.