

No. 822,287.

PATENTED JUNE 5, 1906.

H. O. MASCALL.
MEANS FOR RENDERING BOTTLES NON-REFILLABLE.
APPLICATION FILED JAN. 5, 1906.

Fig: 1.

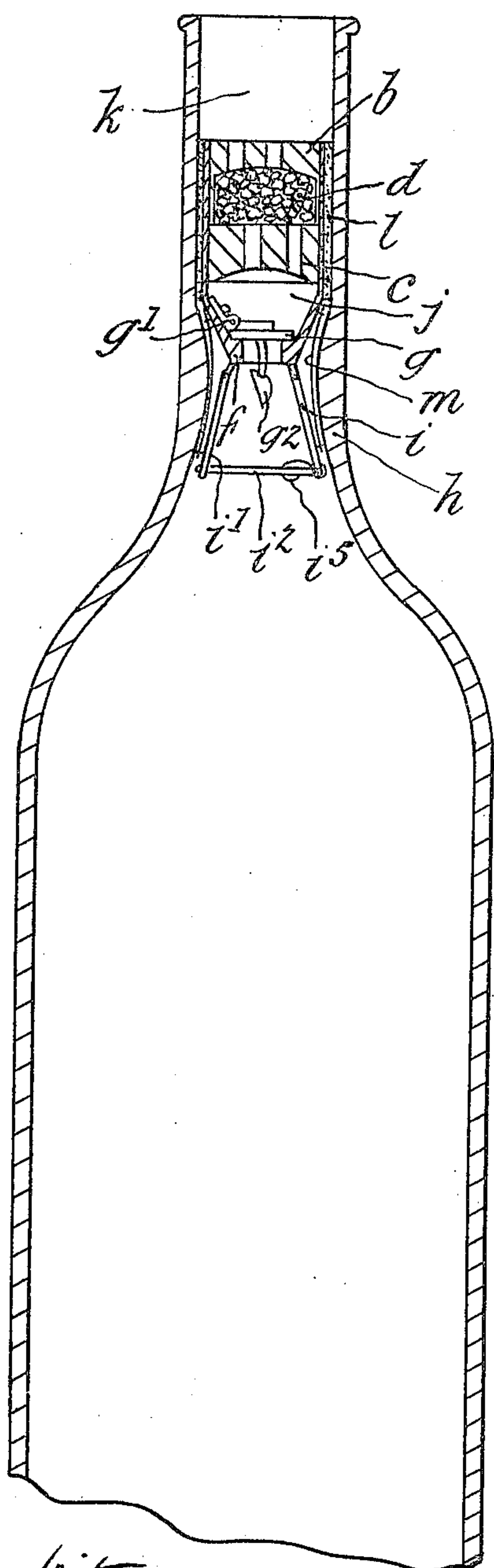


Fig: 2.

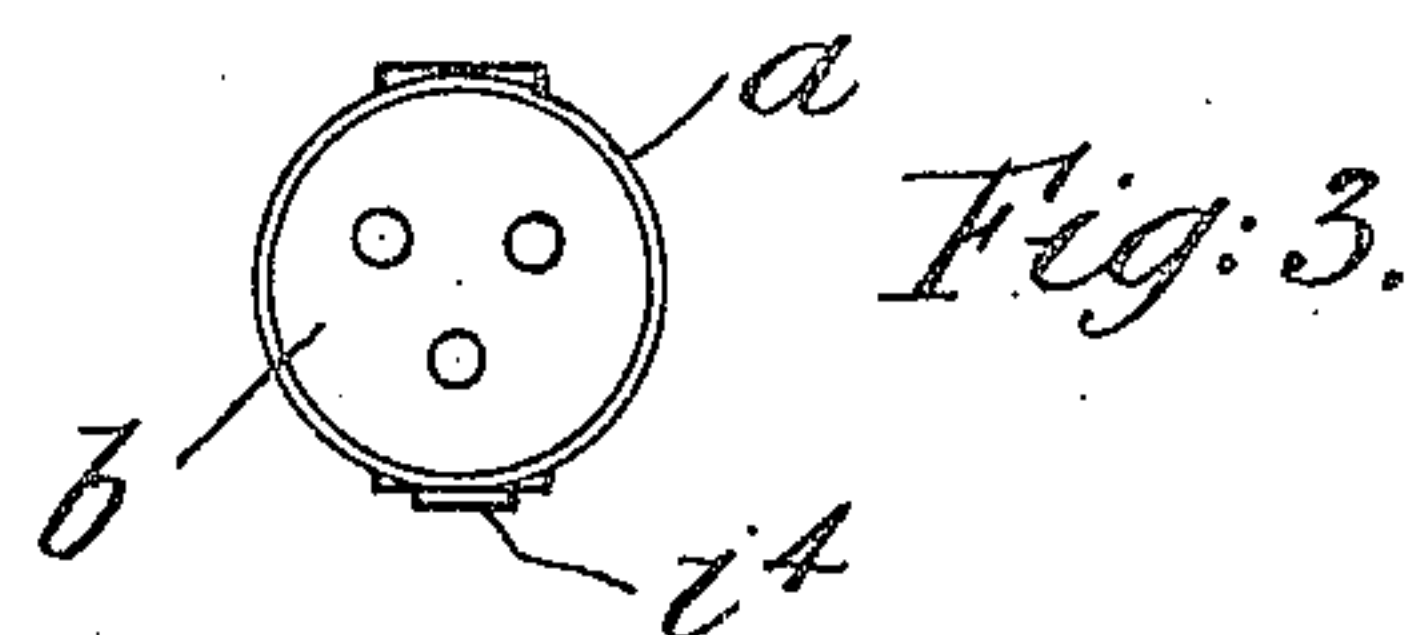
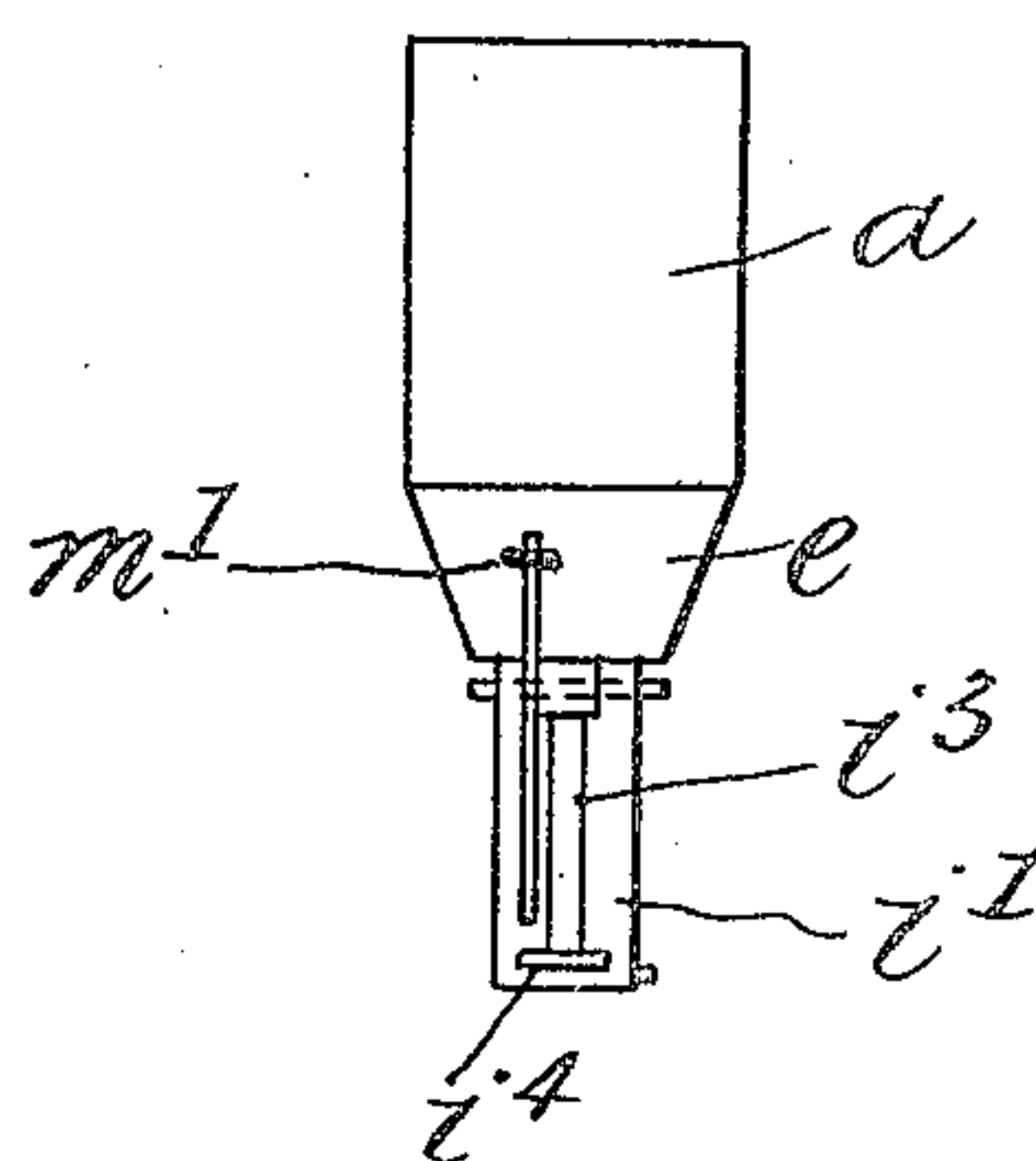
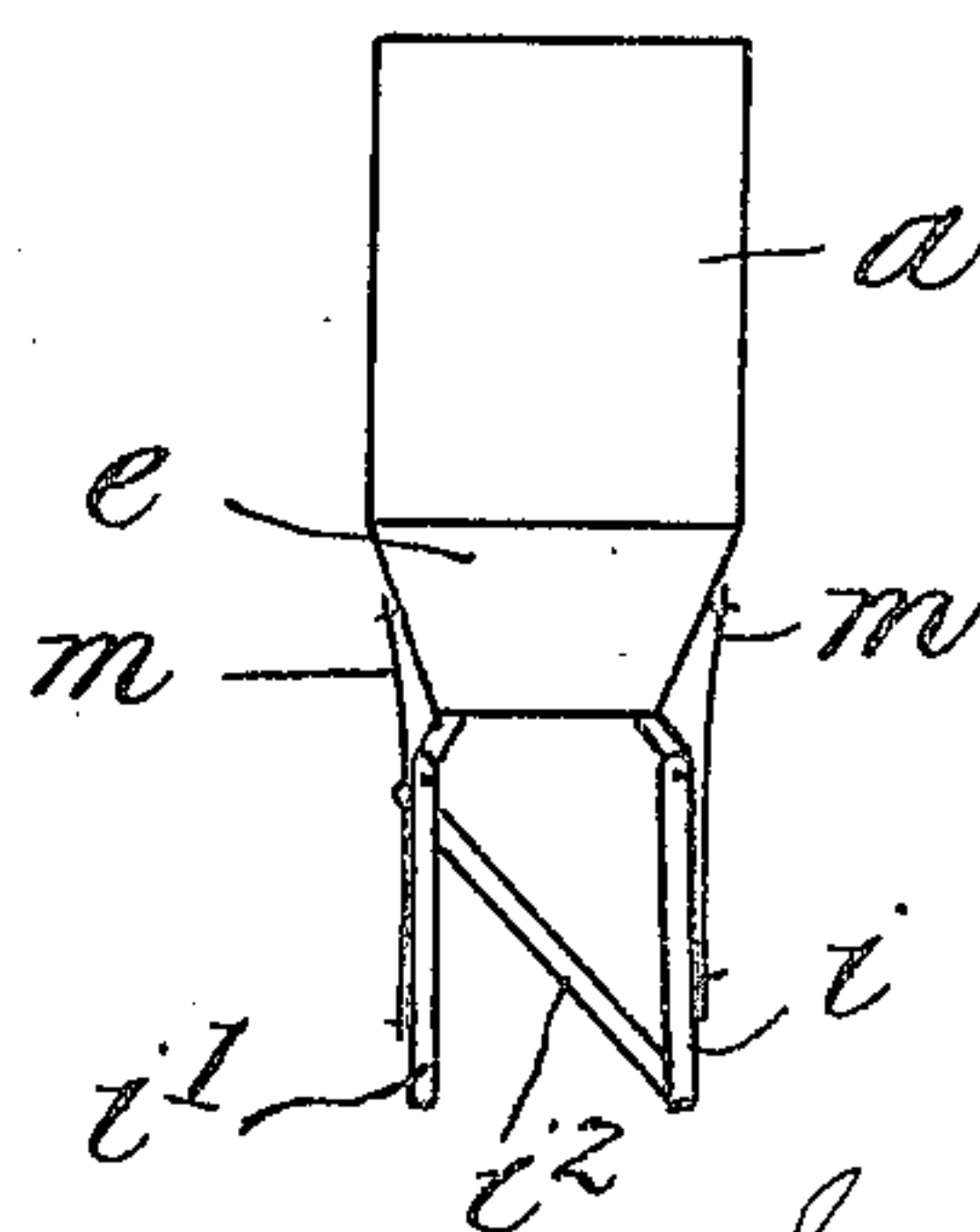


Fig: 4.



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UNITED STATES PATENT OFFICE.

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MEANS FOR RENDERING BOTTLES NON-REFILLABLE.

No. 822,287.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed January 5, 1906. Serial No. 295,054.

To all whom it may concern:

Be it known that I, HARRY ORME MASCALL, a subject of the King of Great Britain, residing at Johannesburg, in the Colony of the Transvaal, have invented new and useful Means for Rendering a Bottle Non-Refillable, of which the following is a specification.

The invention has for its object the application to bottles of means whereby they are rendered non-refillable. For this purpose a device constructed as hereinafter described is inserted in the neck of a bottle, wherein it will become locked automatically.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section of a bottle with the non-refilling device in position. Figs. 2 and 3 are respectively a side elevation and plan of the non-refilling device shown separately, and Fig. 4 is a side elevation of the non-refilling device ready for insertion in a bottle-neck.

The device consists of a hollow cylinder *a*, having fixed top *b* and false bottom *c*, both perforated, the space *d* inclosed thereby being filled with pumice-stone or other inert material. The lower part *e* of the apparatus may be conical, as shown, and the bottom *f* is a certain distance below the false bottom *c* and is provided with a weighted valve *g*, so arranged as to be closed in any position except when the bottle is reversed in the act of pouring out its contents.

In the drawings the valve *g* is a flap-valve hinged at *g'*; but a valve of any suitable form may be employed. The conical portion *e* may rest on a shoulder or thickening *h* in the bottle-neck, and to it are fixed spring-legs *i i'*, the free ends of which are so shaped as to be capable of locking underneath the bottom internal portion of the thickening *h* of the bottle-neck, which latter is preferably made of form to receive such free ends. One of such legs *i* has connected or hinged thereto a spring stop-bar *i²*, while the other leg *i'* has a slot or recess *i³* to receive the free end of said stop-bar *i²*. The stop-bar *i²* may have a cross-bar *i⁴* at its end, as shown, to keep its end in contact with the other leg *i'* and to lock the parts in their open position.

To insert the device into the neck of a bottle, the free end of the spring stop-bar *i²* is pressed upward between the legs *i i'*, and the latter are pressed together, as shown in Fig. 4. They are then pushed down the neck of the bottle until the free ends of the legs *i i'* by

springing outward into the position shown at Fig. 1 pass under the internal portion of the thickening *h* at the bottom of the neck. The spring stop-bar *i²* then springs into its locking position, when the device is securely fixed to the bottle.

By reversing the bottle the contents can be readily poured out, as the valve *g* will open in such position, while in other positions the valve will close, and it cannot be interfered with, as no instrument can reach it, consequent on the cylinder being filled with pumice or with other inert material.

If desired, the perforated plates *b* and *c* may be fixed in an inner cylinder containing the inert material, which inner cylinder terminates at the perforated false bottom *c* above mentioned, in which case the inner cylinder will be fixed in an outer cylinder the bottom of which rests on a shoulder or thickening, such as *h*, in the bottle-neck and is fitted with the automatic valve *g* above mentioned. A space, such as *j*, is left between the perforated bottom *c* of the inner cylinder containing the inert material and the bottom of the external cylinder to permit of the action of the valve.

A cork can be inserted in the neck *k* of the bottle above the device above described.

In Fig. 1 of the drawings the cylinder *a* is shown surrounded with packing material *l*—such as india-rubber, cork, or cement—to insure a tight fit between it and the bottle-neck.

The legs *i i'* are each preferably provided with a light spring *m*, fixed to such legs and working through loops *m'* on the conical portion *e*, such springs *m* having a normal tendency to open the legs *i i'* away from each other.

The stop-bar *i²* has also a light spring, such as *i⁵*, which causes it to move into its locking position and retains it in such position.

The valve *g* is shown fitted with a weight *g²*.

What I claim as my invention is—

1. In a non-refillable device for insertion into the neck of a bottle or the like, the combination of a cylindrical portion having a perforated top, a perforated false bottom, inert material contained between said top and bottom, and a valve at the lower part thereof, substantially as set forth.

2. In a non-refillable device for insertion into the neck of a bottle or the like, the combination of a cylindrical portion having a perforated top, a perforated false bottom, inert material contained between said top and bot-

tom, a valve at the lower part thereof, a pair of spring-legs at the lower end of such device having a normal tendency to open away from each other, and a spring locking-bar to retain
5 such legs in their open position, substantially as set forth.

3. In a non-refillable device for insertion into the neck of a bottle or the like, the combination of a cylindrical portion having a perforated top, a perforated false bottom, inert
10 material contained between said top and bottom, a valve at the lower part thereof, a pair of spring-legs at the lower end of such device

having a normal tendency to open away from each other, and a spring locking-bar to retain
15 such legs in their open position, such locking-bar being hinged to one of the spring-legs and the other leg being formed with a recess to receive the free end of said locking-bar, substantially as set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

H. O. MASCALL.

Witnesses:

JOHN L. HARDY,
F. R. FARQUHAR.