

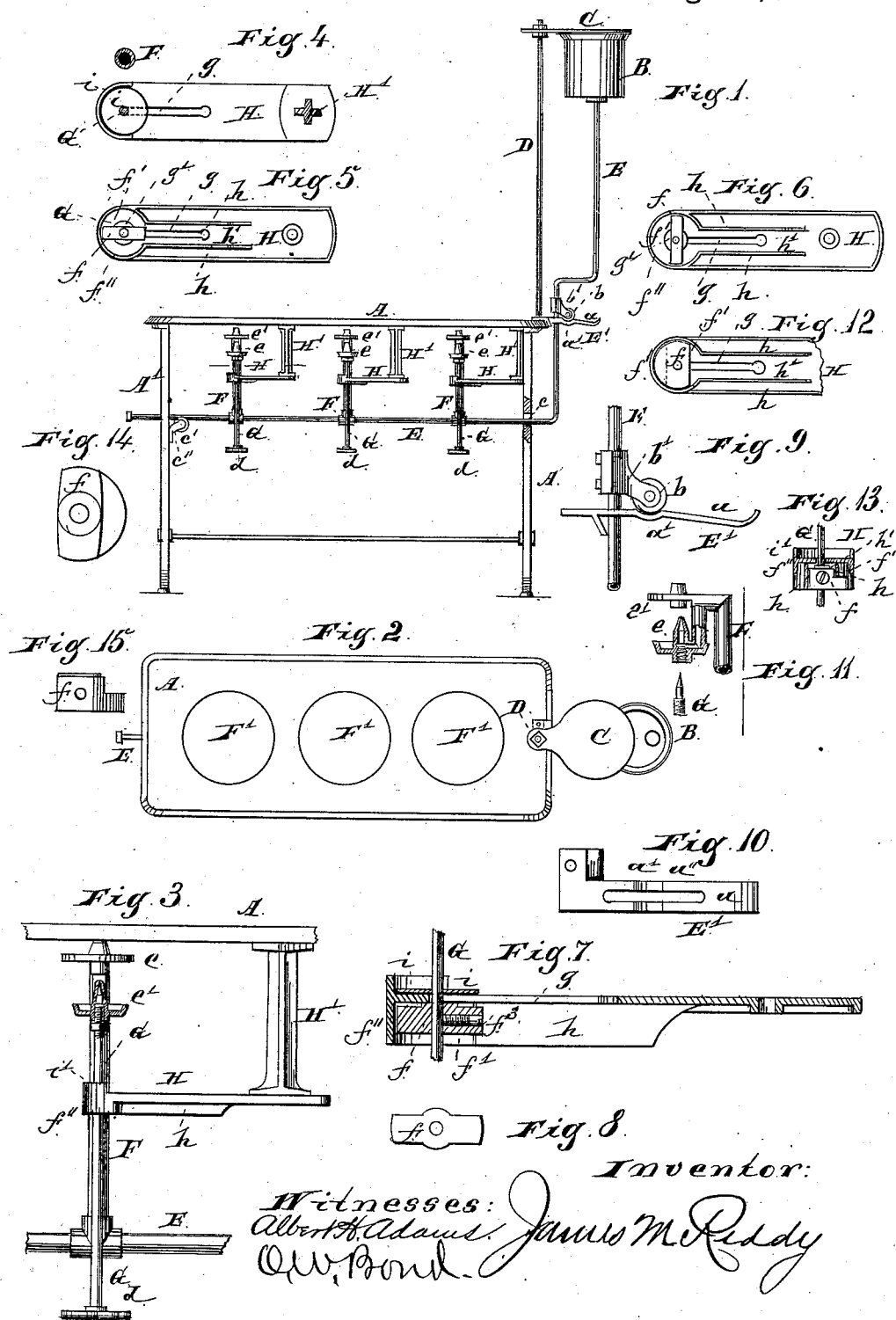
(No Model.)

J. M. REDDY.

GASOLINE STOVE.

No. 347,379.

Patented Aug. 17, 1886.



Inventor:

Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## GASOLINE-STOVE.

SPECIFICATION forming part of Letters Patent No. 347,379, dated August 17, 1886.

Application filed January 14, 1884. Serial No. 117,553. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. REDDY, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented new and useful Improvements in Gasoline-Stoves, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation showing a three-burner stove; Fig. 2, a top or plan view of the same, showing the reservoir for the gasoline in position for filling, Fig. 1 showing it filled and in position for use; Fig. 3, an enlarged detail showing one of the burners and the bracket-plate in which the lock operates; Fig. 4, a detail, being a top or plan view of the stop-plate; Fig. 5, a bottom view of the stop-plate with the stop or button turned to allow the gasoline-reservoir to be moved; Fig. 6, a detail, being an under side view of the stop-plate with the stop or button turned to lock the parts together; Fig. 7, a detail, being a longitudinal section through the stop-plate and the button or lock; Fig. 8, a detail of the button or lock; Fig. 9, a detail showing the way or support for the pipe leading from the gasoline-reservoir; Fig. 10, a top or plan view of the way or support for the gasoline-pipe; Fig. 11, a detail in section of the burner; Figs. 12, 13, 14, and 15, details showing another form of stop-plate and stop.

The most serious objection to the use of gasoline-stoves arises from the liability of explosion, and this danger really arises from the fact that parties using such stoves become careless and fail to shut off the burners before replenishing the reservoir.

The object of this invention is to overcome the objection and danger attending the use of gasoline-stoves by preventing the filling of the reservoir until the burners are entirely shut off; and it consists in providing a cap or cover located over the top of the gasoline-reservoir, beneath which cover such reservoir is located while the stove is in use, and from beneath which cover the reservoir cannot be unlocked and removed until the burner or burners are entirely shut off, all as hereinafter more specifically described, and pointed out in the claims.

In the drawings, A represents the table or plate for receiving the furniture used for cooking and other purposes, which plate is supported upon a suitable standard or legs, A'.

B represents the reservoir for the gasoline, having a tight cover with a filling-opening, and of the usual construction.

C represents a plate or disk of a size or diameter to extend entirely over the top of the reservoir B.

D represents a rod secured at its lower end, in any suitable manner, to the plate or table A. The cover C is firmly secured, in any suitable manner, to the upper end of this rod D, and in such relation to the top of the reservoir B as to fit over the top of the reservoir, and effectually prevent any filling of the reservoir when beneath the plate or cover C.

E represents the tube or pipe leading from the reservoir B for supplying the burners. The lower vertical portion of this pipe E passes up through a slot, *a''*, in the plate E', which plate is screwed or otherwise securely fastened to the edge of A, so as to project out therefrom in a horizontal position. The upper face of this plate E' is provided with an incline, *a*, and a recess, *a'*, and, as shown, the extreme end of the plate E' has an upward curve. The pipe or tube E has secured thereto an anti-friction roller, *b*, by an arm or bracket, *b'*, and this roller is located and arranged to travel on the inclined face *a*, as the reservoir is withdrawn from beneath the plate or cover C, and to drop into the recess *a'* when the reservoir is beneath the plate or cover, and by having the roller *b* travel on the downwardly-inclined face *a* it will be seen that the reservoir cannot be left in any position except entirely beneath the cover or plate, or withdrawn therefrom, by which arrangement the party using the stove must move the reservoir so as to be covered by the plate C before the wheel *b* will enter the depression *a'* and prevent the reservoir from passing out readily from beneath the cover or plate.

F represents the supply-tubes leading from the main supply-pipe E to the burners *e e'*, which burners may be of any of the usual constructions for burning gasoline. As shown, the main pipe E is supported at one end in an opening, *c*, in one of the standards A', and its

opposite end is supported by a roller or anti-friction wheel, *c'*, carried by a bracket or fork, *c''*, attached to the other leg *A'*, the object being to facilitate the moving of the reservoir *B* out or in.

*G* represents the stem for operating the needle-point, which controls the supply of vapor to the burner *e*, the upper end of the stem having the needle-point thereon and being screw-threaded to enter a screw-threaded opening in the burner, as usual, and, as shown, a stop-nut is provided on the upper end of the stem, to limit the advance of the needle-point, as usual. As many stems are to be provided as there are burners.

*H* represents a plate supported, as shown, in a horizontal position by a standard, *H'*, attached at its upper end in any suitable manner to the table or plate *A*, and each plate *H* and its standard *H'* may be formed of a single piece or of separate pieces suitably connected together, and as many plates *H* are to be provided as there are burners. Each plate is provided with a longitudinal slot, *g*, for a portion of its length, as shown in Figs. 4, 5, 6, and 7, and on each side of this slot, on the under face of the plate, is formed a flange, *h*, leaving an open space, *h'*, between them, and from the inner end of each flange, and around the end of the plate *H* is formed a circular flange, *f''*, leaving a circular space or opening within it, which opens into the groove *h'*, formed by the side flanges, *h*, as shown in Figs. 5 and 6, and this opening *f''* receives a button, *f*, which is of sufficient length to turn readily within the opening. This button *f* is firmly secured to the rod or stem *G* in any suitable manner. As shown, the attachment is by means of a set-screw, *f<sup>3</sup>*, and in attaching this button to the rod or stem *G*, the stem is turned by its button or hand-wheel *d* to the point where the needle closes the burner. Then the button is turned so as to lie lengthwise with the slot *h'*, so that it can enter such slot, and when in this position it is locked firmly to the stem by the set-screw *f<sup>3</sup>* or otherwise. This button *f* turns with the stem *G*, and its ends, when in the opening *f'*, engage with the face of the flange *f''*, and prevent movement sidewise of the stem, except when the button end is in line with the opening *h'*, at which time the stem is free to pass into the slot *g*. The stem, when the burner is in use, passes through an opening, *g'*, in the plate *H* at the center of the opening *f'*, which opening *g'* is of a sufficient diameter to allow the stem to turn freely without binding, and in order to prevent observation of the button *f* a cap, *i*, is placed around the stem *G* to lie on the top of *H* and close the opening *g'*, and, as shown, the end of the plate *H* has a semicircular flange, *i'*, to receive the cap *i* and form a stop and guide therefor.

The operation is as follows: The plate *C* is mounted on its rod *D* to cover the top of the reservoir when the reservoir is filled and in

position for use, at which time the burners will be centered with the opening of the plate *A*, as usual, and the wheel *b* will drop and remain in the recess *a'*. The stems *G* of the respective burners are turned to withdraw the needle-point to allow the burners to be lighted, and such turning of the stems rotates the buttons *f* within the recess *f'*, and when the burners are fully opened the button *f* will lie crosswise of the plate *H* in the recess *f'*, as shown in Fig. 6, forming a lock against end movement of the supply-rod *E*, and preventing the withdrawal of the reservoir *B* from beneath the cover *C*. The cover *C* forms an effectual barrier against the filling of the reservoir until the reservoir is withdrawn therefrom, and to withdraw the reservoir the buttons *f* must be turned to come in line with the opening *h'* on the plates *H*, and to effect this the party using the stove must turn the stems until the needle-points close down and shut off the burners, at which time the buttons *f* lie lengthwise of the plate, so as to enter the openings *h'*, allowing the stems *G* to pass into the slots *g'*, when the supply-pipe can be moved endwise, withdrawing the reservoir from beneath the plate *C*, in which movement the roller *b* passes from the recess *a'* down the inclined face *a* to the end of the support or trackway *E'*. The plates *i* prevent any inspection of the button *f*, so that the party operating cannot set the buttons in line with the slots *h'* at any point except when the burners are shut off. The reservoir, when filled, is again brought beneath the plate *C*, where it is held temporarily by the engagement of the roller *b* with the recess *a'*, but in this position the burners cannot be lighted, as the needle-points are all down; and to light the burners the stems must be turned, turning the buttons *f*, and locking the reservoir and burners against end movement.

As shown in Figs. 14 and 15, the button or stop *f* has on one side a flange with a circular periphery to fit the interior of the recess *f'*, and with this form of stop one of the way-plates *h* is cut down, as shown in Figs. 12 and 13. This button or stop *f* is locked to the stem to have the flange come on the cut-away side of the way when the burner is shut off, allowing the body of the button to pass into the way, and it will be noticed that with a button of this construction the susceptibility of having the stop in line, before the burner is closed, is largely decreased, as the flange engages the sides of the recess at all points except at the cut-away side of the way, and to unlock the device this flange must be directly in line with the cut-away side, which will occur only when the burner is closed, as a general rule.

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

1. A plate or cover, *C*, located above and independent of the reservoir, in combination with the reservoir *B*, supply-pipe *E*, burner-

supply tubes F F, slotted plates H H, vertically-movable stems G G, and locking-buttons *f f*, substantially as described.

2. A plate or cover, C, located immediately  
5 above and independently of the reservoir, in combination with the reservoir B, sliding supply-pipe E, burner-supply tubes F F, provided with locking devices, the support or track E', having inclined face *a* and depression *a'*,  
10 and the roller *b*, mounted on the pipe E, for insuring the location of the reservoir beneath the plate or cover, substantially as described.

3. A plate or cover, C, located above and independent of the reservoir, in combination  
15 with the reservoir B, supply-pipe E, burner-supply pipe F, and a burner, stem G, plate H, having a slot, *g*, and longitudinal passage

*h'*, and buttons *f*, for locking and unlocking the reservoir as the burner is opened and closed, substantially as and for the purpose 20 specified.

4. The plate H, having a slot, *g*, and longitudinal passage *h'*, in combination with the stem G and button *f*, substantially as and for the purpose specified.

5. The plate H, having a slot, *g*, and passage  
25 *h'*, in combination with the stem G, button *f*, and plate *i*, substantially as and for the purpose specified.

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