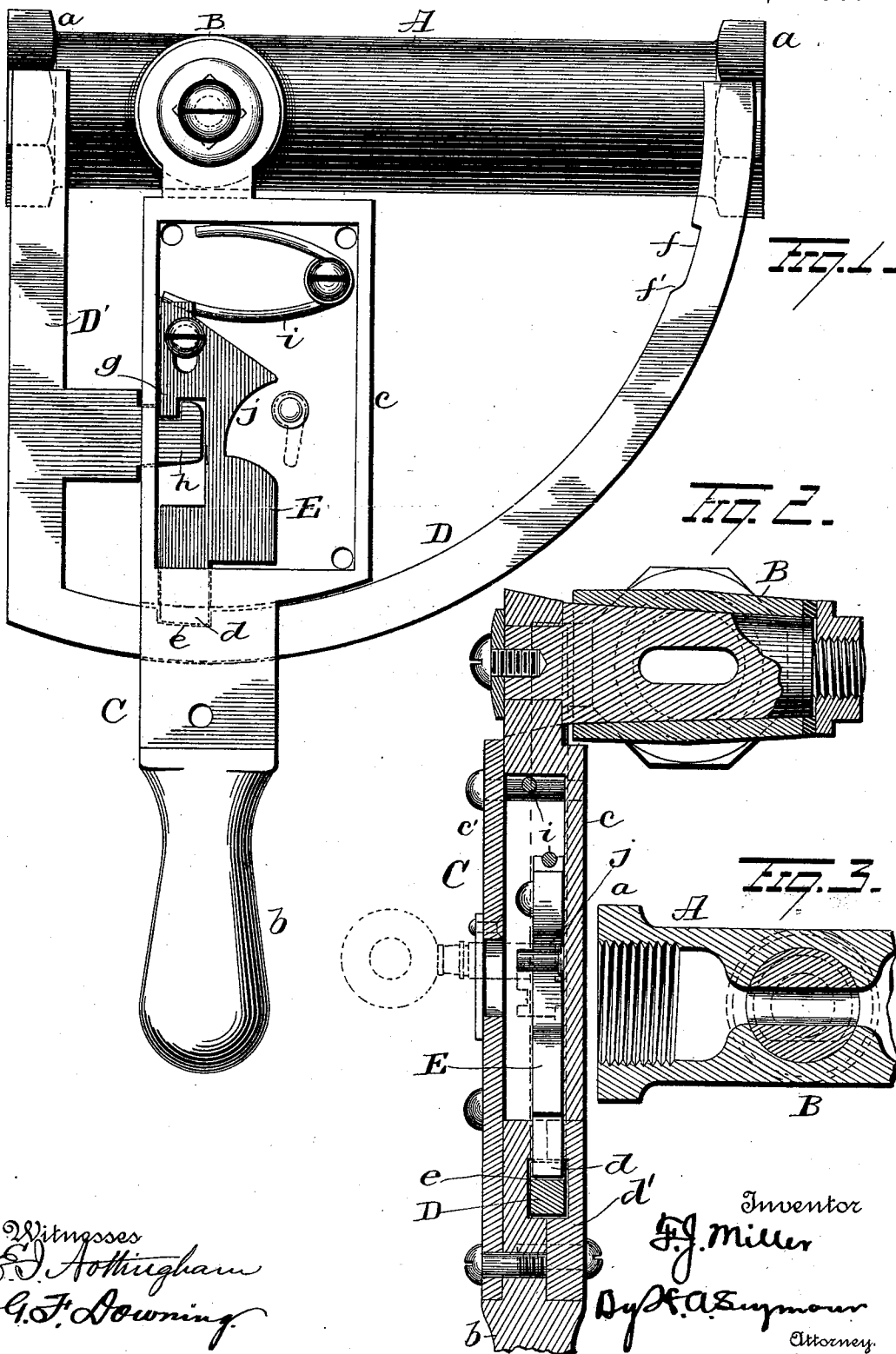


(No Model.)

F. J. MILLER.
VALVE.

No. 540,677.

Patented June 11, 1895.



Witnesses
E. J. Nottingham
G. F. Downing

Inventor
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UNITED STATES PATENT OFFICE.

FRANK J. MILLER, OF BROWNVILLE, NEW YORK.

VALVE.

SPECIFICATION forming part of Letters Patent No. 540,677, dated June 11, 1895.

Application filed October 1, 1894. Serial No. 524,636. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. MILLER, residing at Brownville, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Valves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in valves and more particularly to such as are used in the pipes of fluid pressure brakes for railroad cars.

The invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view illustrating my invention. Fig. 2 is a sectional view. Fig. 3 is a detail view.

A represents a short section of pipe having a plug valve B therein, the ends of said pipe having screw threaded bosses or enlargements *a, a*, for the coupling thereto of the pipe sections of an air brake. One end of the stem of the valve B is made angular and adapted to enter a similarly shaped perforation made in one end of a lever C. The opposite or free end of the lever C is made in the form of a handle *b* and between the ends of the lever it is formed to produce a lock casing *c*, said lock casing being provided with a suitable face plate *c'* secured thereto in any suitable manner. The lever C at a point in proximity to the handle *b* is recessed for the reception of a segment D, said segment being secured at one end to one end of the pipe section A and at the other end is made with a straight arm D', the free end of which is secured to the end of the pipe A adjacent to the valve B. A tumbler E is mounted to slide in the casing *c* and provided at its lower end with an arm or bolt *d* which projects through an opening in the casing *c* and is adapted, when the valve is open, to engage a notch *e* in the segment D. The bolt *d* is protected by a plate *d'* secured to the lever C and said plate is also recessed for the accommodation of the segment D, the lever C being adapted to move freely on said segment when released. When the lever is thrown to a position parallel with the

pipe A, with the valve closed, the bolt *d* will enter a recess *f* in the segment, where it will be retained from accidental displacement; but I prefer to make one wall of this recess inclined as at *f'*, so that the lever can be moved to open the valve without the necessity of operating the lock by a key. The tumbler E is recessed so as to form a hook *g* adapted, when the lever is at right angles to the pipe A and the valve open, to engage a hook or catch *h* projecting from the straight arm D', the valve being thus locked in open position, the engagement of the bolt *d* in the notch or recess *e* in the segment, also assisting in maintaining the valve locked when open. The tumbler is maintained normally in such locked relation to the segment D and arm D', by means of a spring *i*. The tumbler is made with a cam face *j* for the engagement of a suitable key whereby to move said tumbler to unlock the device.

From the construction and arrangement of parts above described it is apparent that when the valve is locked in its open position, it will be impossible for it to become accidentally closed and that it cannot be closed by any one without the use of the proper key.

My improvements are very simple in construction, cheap to manufacture, not liable to become broken or out of order and are effectual, in all respects, in the performance of their functions.

Slight changes might be made in the details of my invention without departing from the spirit thereof or limiting its scope and hence I do not wish to limit myself to the precise details of construction herein set forth; but,

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

1. The combination with a pipe, a valve therein and a segment and arm secured to said pipe, of a lever secured to said valve, and a lock between the ends of said segment, said lock being adapted to engage both the segment and arm whereby to lock the valve open, substantially as set forth.

2. The combination with a pipe, a valve therein a segment and arm secured to said pipe, said arm having a catch projecting therefrom of a lever secured to said valve and

adapted to ride on the segment, a casing between the ends of said lever, a tumbler in said casing, having a hook to engage the catch projecting from the arm, and a bolt projecting from said tumbler and adapted to engage the segment, substantially as set forth.

3. The combination with a pipe, a valve therein and a segment and arm secured to said pipe, of a lever secured to said valve, a casing between the ends of said lever, a tumbler in said casing adapted to engage the segment and arm, and a spring constructed

and adapted to maintain said tumbler in locked relation to the segment and arm, whereby to retain the valve locked open, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRANK J. MILLER.

Witnesses:

JOHN W. McCULLOCH,
EDWIN N. GILES.