E. J. MASTERSON.

VALVE.

APPLICATION FILED NOV. 26, 1913.

1,100,317.

Patented June 16, 1914.

Fig. 1.

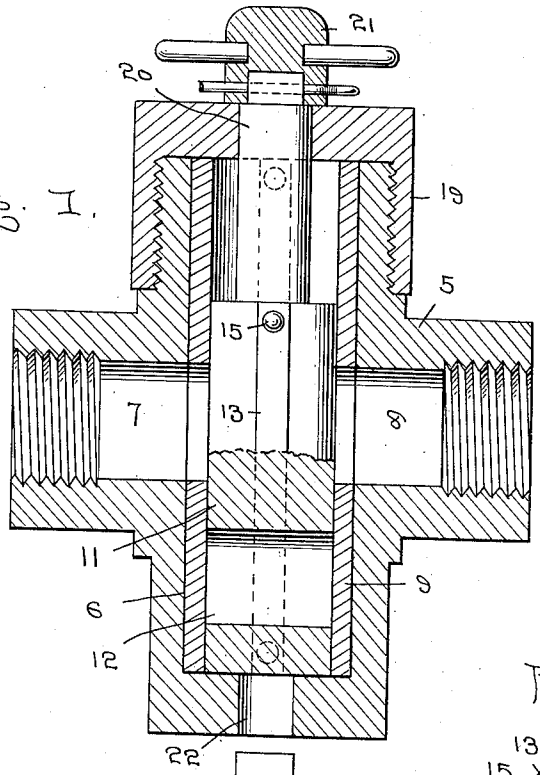


Fig. 3.

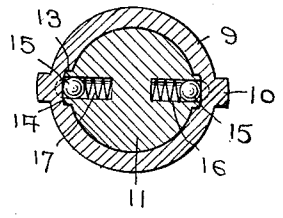
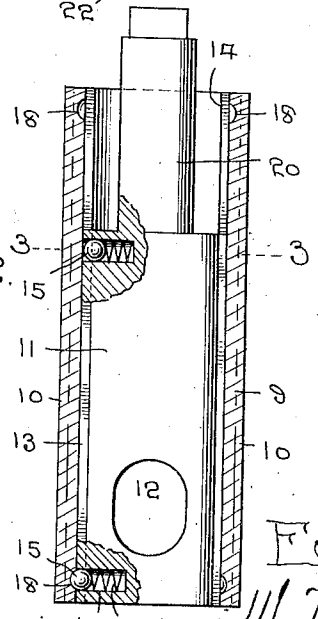


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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VALVE.

1,100,317. Specification of Letters Patent. Patented June 16, 1914.

Application filed November 26, 1913. Serial No. 803,292.

To all whom it may concern:

Be it known that I, EDWARD J. MASTERSON, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented 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.

This invention has relation to valves, and has for its object to provide a valve particularly adapted for use in conjunction with safety railway appliance described and claimed in my application Serial #787,636, although it is not necessarily limited to such use.

Another object of the invention is to provide improved devices adapted to retard the movement of the piston.

In the accompanying drawing wherein is shown a practical and approved embodiment of the invention Figure 1 represents a vertical sectional view through the valve, partly broken away. Fig. 2 represents a sectional view partly broken away of the shell and plunger taken at right angles to Fig. 1. Fig. 3 represents a sectional view on the line 3—3 of Fig. 2.

Referring to the drawing in detail wherein similar reference numerals designate corresponding parts throughout the several views 5 indicates a body of the valve having a central chamber 6, and transverse passages 7 and 8 intersecting the chamber 6. A shell 9 is snugly fitted within the chamber 6 and is formed with longitudinal ribs 10 adapted to fit within similarly shaped channels in the wall of the chamber 6 providing a non-rotatable mounting for said shell. The shell 9 is formed with diametrically opposed openings registering with the passages 7—8. A plunger 11 is mounted for longitudinal movement within the shell 9 and is provided adjacent its lower end with an opening 12 adapted to be moved into registration with the passages 7 and 8 and establish communication between them as will be understood. The plunger 11 is prevented from rotating within the shell 9 by a pair of diametrically opposed and longitudinally extending ribs 13 working in similarly arranged and shaped channels 14 in the shell 9. A suitable number of balls 15 are movably mounted in recesses 16 formed in the ribs 13 and are resiliently pressed against the walls of the channels 14 by springs 17. Notches 18 are formed in the outer walls of the channels 14 adjacent the opposite ends thereof and are adapted to receive portions of the balls 15 as the plunger 11 is moved to either limit of its movement thereby preventing plunger from being casually moved from open or closed position.

One end of the chamber 6 is open and screw threaded and provided with a cap 19 having a suitable bore to receive the stem 20 of the plunger 11 adapted to be manually operated by a handle 21 attached to the exposed end of the stem. An opening 22 is formed through the opposite end wall of the chamber 6 and is adapted to receive a suitable plunger or fluid pressure to automatically actuate the valve.

What I claim is:

A valve comprising a body having passages therein, a chamber in said body, a shell secured in said chamber having longitudinal channels in its inner face and notches in the outer walls of the channel adjacent the opposite ends thereof, an apertured plunger slidable in said shell, ribs formed longitudinally of said plunger seated in said channels and having recesses adjacent the opposite ends thereof, and spring actuated balls seated in said recess contacting the outer walls of said channels and adapted to be partially seated within said notches to retard the movement of said plunger.

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

EDWARD J. MASTERSON.

Witnesses:

FRANK J. MASTERSON,

J. P. KELLY.