W. T. CAMERON.

HIGH PRESSURE CONNECTION FOR FIRE SYSTEMS.

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Fig. 1.

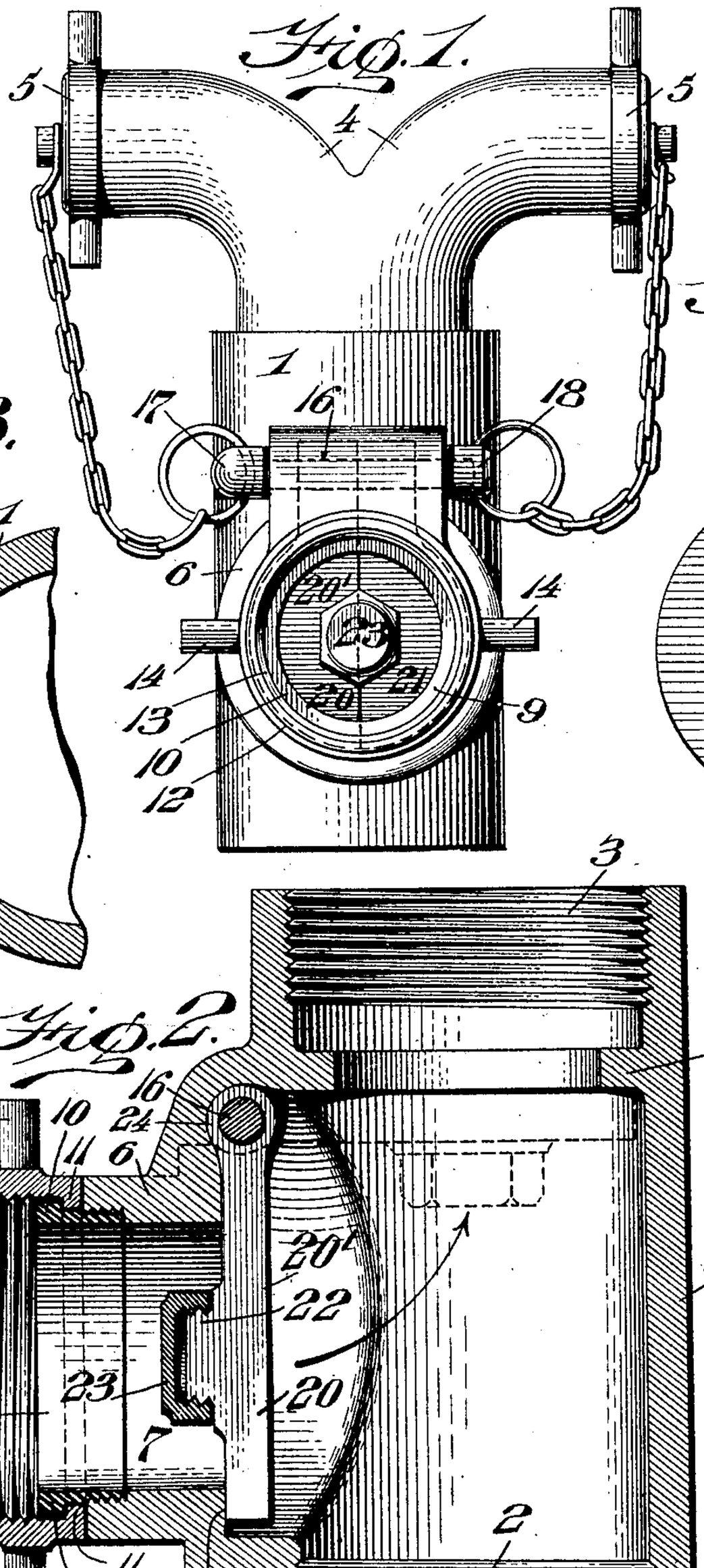

Fig. 4.

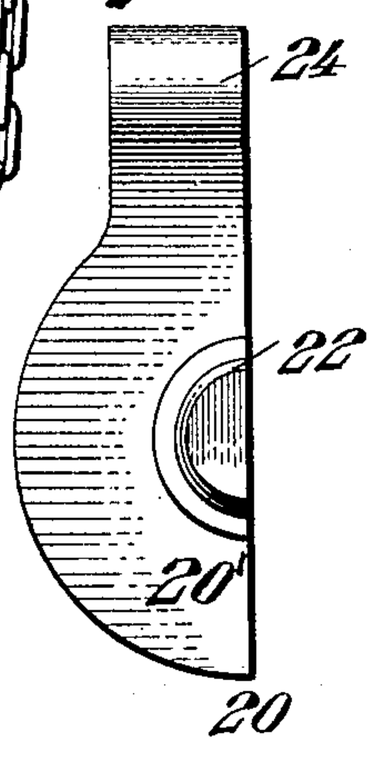

Fig. 3.

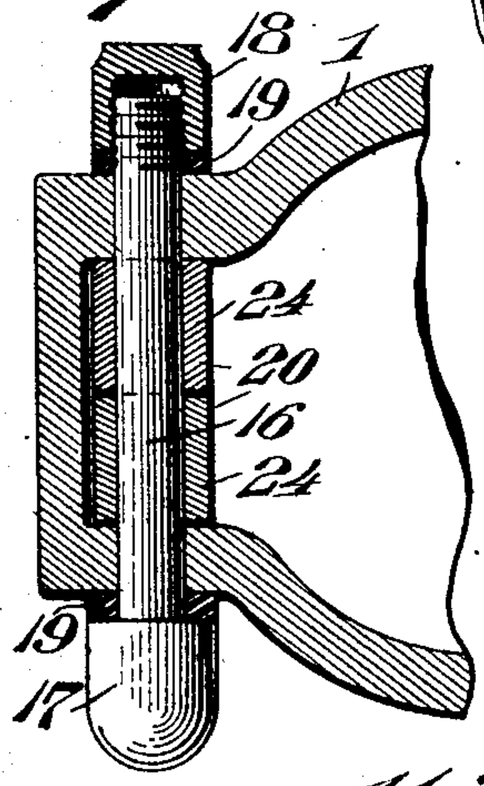

Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

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HIGH-PRESSURE CONNECTION FOR FIRE SYSTEMS.

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To all whom it may concern:

Be it known that I, WILLIAM T. CAMERON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful High-Pressure Connection for Fire Systems, of which the following is a specification.

My invention relates to a new and useful high pressure connection for fire systems and consists of means for closing the horizontal or vertical openings therein by the action of the water pressure in the connection.

It further consists of a horizontal and vertical check valve which is adapted to be actuated in the proper direction by the pressure to close the desired opening.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

Figure 1 represents a front elevation of a high pressure connection embodying my invention, with the stop plug removed. Fig. 2 represents a vertical sectional view of the connection with the plug removed. Fig. 3 represents a sectional view of a portion of the device showing the supporting pin for the valve. Fig. 4 represents a front elevation of one-half the valve.

In the high pressure systems now in use where the fire system or stand pipe of a building is to be connected with the high pressure main it is necessary to provide means for this purpose, which also combines a steamer connection and with means for closing off the steamer connection or the opening to the high pressure main depending upon which it is desired to use.

My invention is designed for this purpose and in the drawings, I have shown a construction which I have found in practice operates successfully but it will be evident that changes may be made in the construction, the arrangement of the parts may be varied and other instrumentalities may be employed which will come within the scope of my invention and I do not therefore desire to be limited in every instance to the exact construction as herein shown and described but desire to make such changes as may be necessary.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates the body of the high pressure connection which is preferably cylindrical and which has a threaded end 2 adapted for connection with the pipe constituting the fire system or stand pipe of a building, the other end of said body 1 being provided with a threaded portion 3 adapted for engagement with a suitable coupling 4 forming a steamer connection which is preferably formed as shown in Fig. 1 with the two extending arms with the closures 5 thereon, although it will be understood that one or more of these arms may be employed as desired.

6 designates an extension or boss on the body 1 having a suitable bore 7 communicating with the interior of the body, said extension providing the shoulder 8 around the said bore 7 which serves as a seat for the valve, as will be hereinafter described.

9 designates a sleeve which is in threaded engagement with the extension 6 and which has a flange 10 thereon which is in suitable engagement with the flange 11 on the collar 12, whereby it will be seen that said collar can rotate but cannot be displaced from its position with respect to the body 1. The collar 12 is threaded at 13 and is provided with the projecting pins 14 for ease of turning, it being understood that said collar is adapted for engagement with a suitable closing plug, not shown, and is further adapted for engagement with the hose or pipe which is likewise connected with the high pressure main, it being further understood that the pipe can be quickly and easily connected with the collar by reason of the fact that the said collar can freely rotate.

15 designates a seat for the valve on the interior of the body 1 between the extension 6 and the end of the said body leading to the steamer connection. The valve or check is pivotally mounted on the body in any suitable manner, in order at the proper time to properly rest either upon or against the seat 8 or the seat 15 as may be necessary and in the drawings, I have shown a pin 16 which passes through a suitable portion of the frame of the body 1 of the connection, said pin being provided with a suitable head 17 and a nut 18 in threaded engagement with said pin for holding the same in its proper position. If desirable and necessary packing 19 is placed between the head 17 and the body 1 and between the nut 18 and the body 1, to prevent leakage.

The valve or check 20 is, for the purpose of readily placing in position, formed of two

parts 20′ and 21 each of which is provided with a threaded boss 22 upon which is mounted a nut 23, when the valve is in position in the connection, so that the two parts are firmly held together and act as one, each of said parts having a sleeve 24 thereon which fits upon the pin 16 so that said valve can freely rotate on said pin.

The operation of the parts just described will be readily apparent. When it is desired to connect the fire system of a building with the high pressure main the plug is unscrewed from the collar 12 and the suitable pipe which is in connection with the high pressure main is connected with said collar. Immediately the pressure therefrom will raise the valve 20 in the direction indicated by the arrow in Fig. 2 seating the same upon the seat 15 so that the water cannot pass to the steam connection but will pass through the threaded end 2 of the body 1 to the stand pipe of the fire system. Should this fail for any reason or if it be more desirable to employ the steamer, the plug 5 is removed from the steamer connection 4 and a pipe is connected therewith and as the pressure from the engine will be greater than from the high pressure main the water from the steamer will force the valve 20 back into the position seen in Fig. 2 against the seat 8 preventing escape of the water through the connection to the high pressure main and will direct it through the end 2 of the connection to the stand pipe of the fire system of the building. From this it will be seen that I provide a horizontal and vertical check which is properly controlled by the pressure directed into the connection and which acts immediately and effectively in every instance.

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

1. In a device of the character described, a body portion having a vertical and a horizontal opening, and a check adapted to be actuated to close either the horizontal or the vertical opening, said check being formed of like parts each having a sleeve for the reception of its pivot.

2. In a device of the character described, a body portion having a vertical and a horizontal opening, and a check adapted to be actuated to close either the horizontal or the vertical opening, said check being formed of like parts each having a sleeve for the reception of its pivot, and means engaging central abutting portions of said parts to unite them.

3. In a device of the character described, a body portion having a vertical and a horizontal opening, a seat formed on said body adjacent each of said openings and a pivotally supported valve in sections, each having a sleeved portion to receive its pivot, and a pivot for said portions out of the plane of the valve seats.

4. In a device of the character described, a body portion having a horizontal and vertical opening, and a valve pivotally supported for controlling said openings, said valve being formed of two diametrically abutted parts, each having a sleeved portion to receive its pivot.

5. In a device of the character described, a body portion having a horizontal and vertical opening, a valve controlling said openings formed of two diametrically abutted parts, each having a sleeved portion to receive its pivot, and means for securing said parts together.

6. In a device of the character described, a body portion having a vertical and horizontal opening, seats formed adjacent said openings, a valve controlling said openings adapted to seat on said seats, said valve being formed of two parts, each having a sleeved portion to receive its pivot, a boss on each part and a nut engaging said bosses for holding said parts together.

7. In a device of the character described, a body portion having a vertical and horizontal opening, a pin passing through said body portion, a valve formed of two parts each having a sleeved portion pivotally mounted on said pin, means for securing said parts together and seats on said body portion adjacent said openings for said valve.

8. In a device of the character described, a body portion having a vertical and horizontal opening, an extension on said body portion having a bore forming a horizontal opening, a seat formed on said body portion for said vertical opening, a seat formed on said extension for said horizontal opening, a pin passing through said body portion, and a valve in sections diametrically abutted and pivotally mounted on said pin and adapted to seat either of the seats for controlling either the vertical or the horizontal opening each section of said valve being formed with a sleeve.

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Witnesses:
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