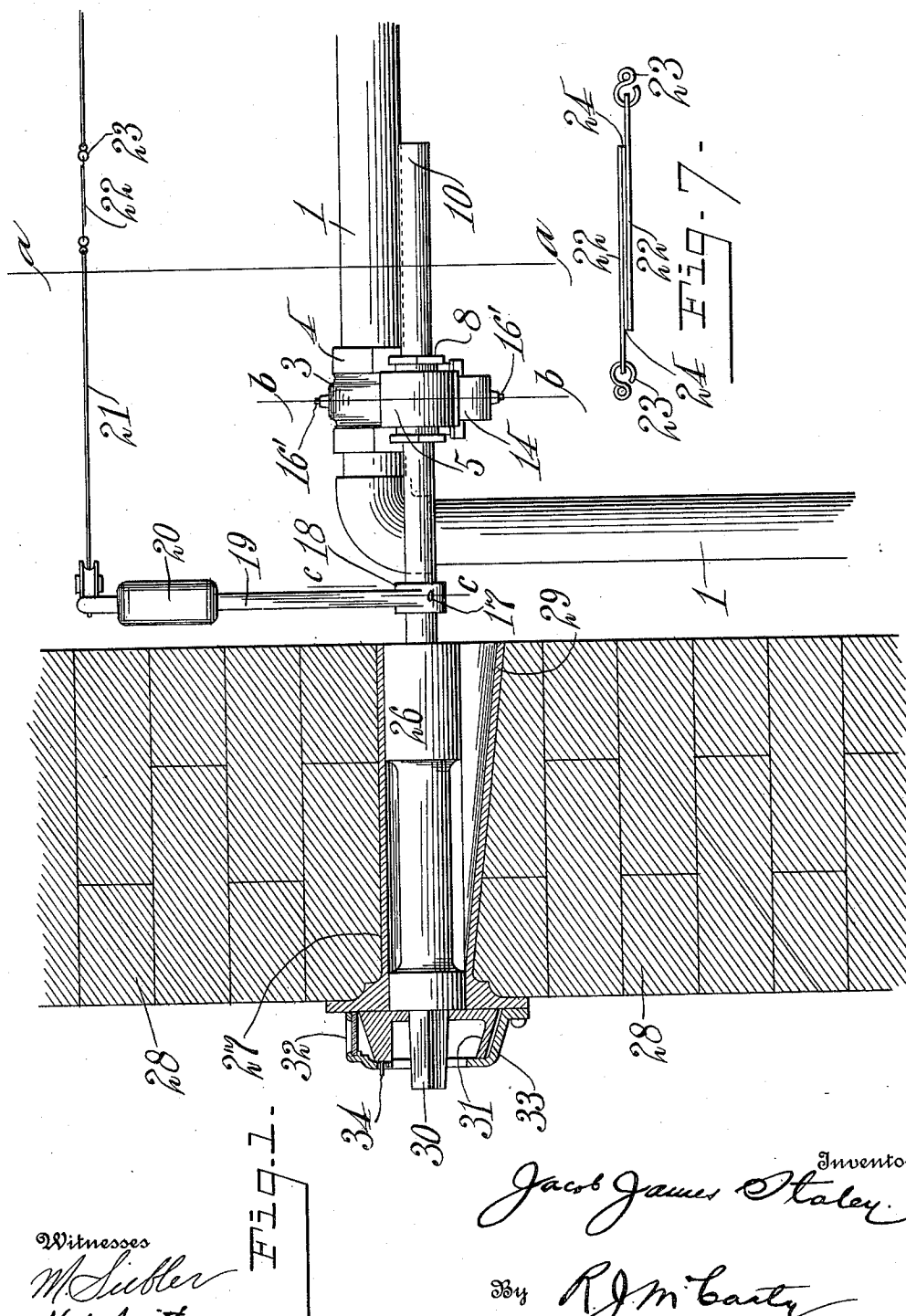


J. J. STALEY.
 OUT-OFF FOR GAS PIPES.
 APPLICATION FILED JULY 1, 1911.

Patented June 25, 1912.

2 SHEETS-SHEET 1.

1,030,341.



Witnesses
M. L. L. L.
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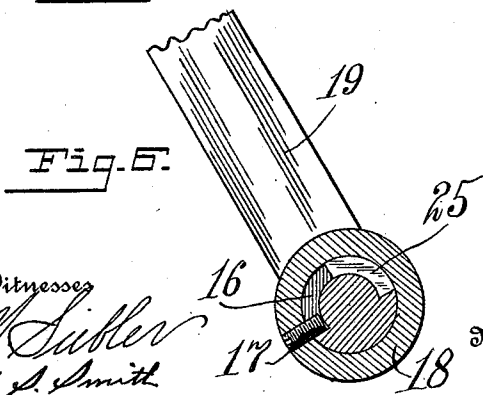
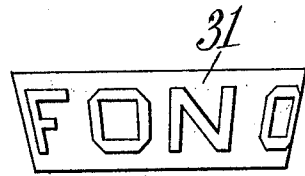
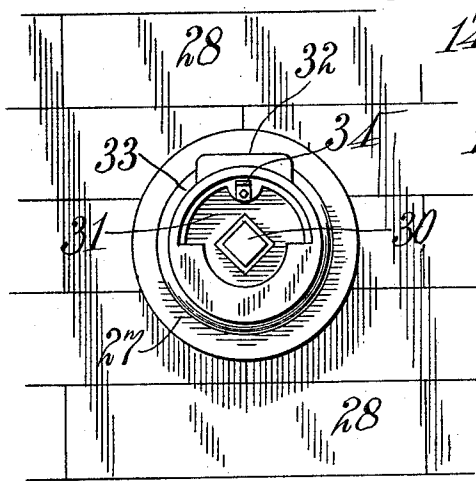
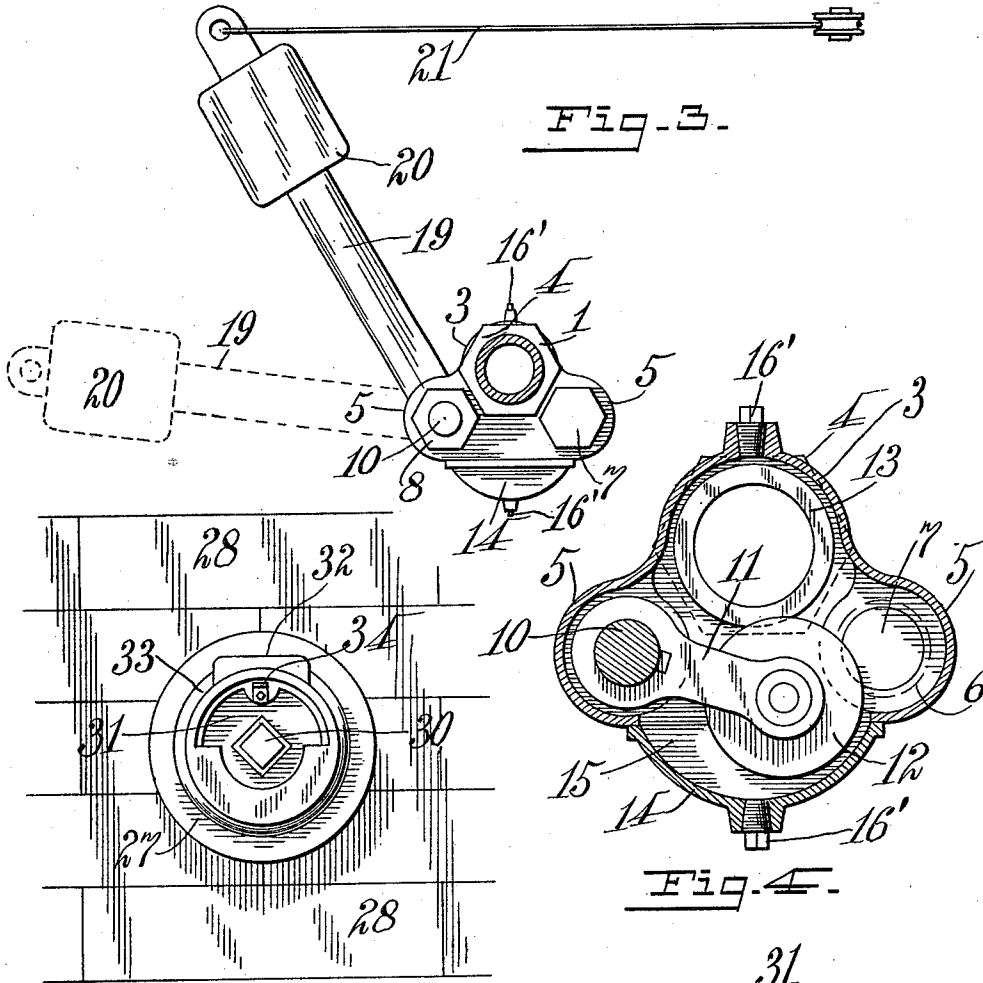
R. J. M. Carter
 his Attorney

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UNITED STATES PATENT OFFICE.

JACOB JAMES STALEY, OF DAYTON, OHIO.

CUT-OFF FOR GAS-PIPES.

1,030,341.

Specification of Letters Patent.

Patented June 25, 1912.

Application filed July 1, 1911. Serial No. 636,476.

To all whom it may concern:

Be it known that I, JACOB JAMES STALEY, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Cut-Offs for Gas-Pipes; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in cut-offs for gas pipes, which may be released either manually or automatically in case of fire.

The object of the invention is to provide a novel construction and arrangement of devices as will be particularly described in the specification and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a side elevation of the devices in position within a wall of a building and attached to the service gas pipe on the interior thereof; Fig. 2 is a front elevation of the devices; Fig. 3 is a section on the line *a-a* of Fig. 1; Fig. 4 is a section on the line *b-b* of Fig. 1; Fig. 5 is a top plan view of the indicating drum; Fig. 6 is a section on the line *c-c* of Fig. 1; and Fig. 7 is a detail view of one of the fusible connections.

Throughout the specification and drawings, similar reference characters indicate corresponding parts.

Referring more particularly to the accompanying drawings, 1 represents a service gas-pipe which leads to the various points of consumption about a building. Mounted in the said service pipe, at a point near its entrance to the building, is a cut-off valve. This valve is of the quick-closing type and may be constructed as follows. 3 represents the shell of said valve provided with bosses 4 which receive the ends of pipe portions 1. The shell 3 is also provided with right and left side pockets 5 either one of which is adapted to receive the stem of the valve. The said side pockets 5 are provided with threaded openings 6 adapted to receive plugs 7, or stuffing glands 8. Adapted to pass through each of the glands 8 is a valve stem 10, and mounted thereon, in the inte-

rior of the pocket, is an arm 11 which supports valve gates 12. Only one of these gates is shown in the drawings, but they are identical and are of a well known form of construction and operation. The said gates 12 are adapted to engage valve seats 13 on the interior of the shell 3 and in alignment with the pipe portions 1. The stem 10 is adapted to pass through either of the pockets 5, but it will be understood that, when one of the said pockets is not in use, the opening therein will be closed by a plug 7. The object in thus constructing the valve is to allow the stem 10 to be placed on either side of the service pipe 1, thereby adapting the cut-off to varying conditions due to the different positions of the previously installed service pipe 1. Attached to the bottom of the shell 3 is a cap 14 which forms a pocket 15 in which the gates 2 rest when the valve is opened. The pocket 15 may be filled with oil to prevent the said gates corroding. The oil may be placed within the valve and drawn therefrom through top and bottom openings normally closed by plugs 16'. The stem 10 of the valve is extended as is shown in Fig. 1, thereby allowing it to be attached to other valves when more than one kind of gas is used in a building such as natural and artificial.

The valve as above constructed is automatically closed in case of fire, as follows. The stem 10 is provided with a slot 16 which receives a pin 17 on the hub 18 of a lever 19. The lever 19 is provided with a weight 20, which, when the lever 19 is released, will close the valve by gravity. The lever 19 is held in an upper position, with the valve opened, by a cord, chain, or cable 21, which extends throughout the building and in proximity to locations most liable to take fire. Connected into the cable 21 is one or any number of fusible connectors which may be constructed as follows. 22—22 represent metallic strips which are attached to the cable 21 by means of hooks 23. The strips 22 are attached to each other by solder 24 which has a low melting point. When the heat from the fire strikes the connection, the solder thereof will melt, thereby severing the connection and allowing the weight 20 to fall. When the weight 20 falls, the valve will close, and thus the gas will be prevented from escaping and adding fuel to the fire. It will be noted that the valve may be closed without disturbing the lever 19 and

the cable 21, as the pin 17 will ride in the slot 16 when the stem 10 is rocked. The length of the slot 16 is reduced by a curved member 25 which may be placed on the other side of the pin 17 when the stem 10 is placed in the opposite pocket 5.

The present invention is especially designed for large factories and other places where extensive pipe systems have already been installed without the provision of any means for automatically cutting off the flow of gas in case of fire. In such a system of piping repairs are more frequently needed than in cases where the plumbing system is more modern and up to date. With the present device the valve or valves may be manually operated to cut off the gas, without disturbing the automatic connections.

The valve may be manually closed by the following device. The stem 10 is attached to a rock shaft 26 journaled in a bearing 27. The bearing 27 is mounted in any suitable portion of the wall 28 of the building, and is provided with a pan or inclined groove which insures accumulated moisture to be drained therefrom, thereby preventing the rock shaft 26 corroding, and becoming fast to its bearing. The end of the shaft 26, opposite the stem 10, is provided with a projection 30 adapted to receive the standard size of fire wrench in use in city fire departments. When the shaft 26 is rocked by the wrench, the valve will be closed, thereby shutting off the gas from the service pipe. To ascertain from the outside of the building whether the valve is opened or closed, there is mounted on the end of the shaft 26 adjacent to the projection 30, a drum 31 provided with indications On and Off. These

indications may be read through a sight opening 32 in a casing 33 attached to the outer end of the bearing 27. The drum 31 is provided with a projection 34 which extends through the face of the casing 33, and by means of which the condition of the valve may be ascertained by feeling. When the projection 34 is at the top, the valve is opened, and when said projection is on either side, the valve is closed.

Having described my invention, I claim:

1. In a device of the type specified, a cable having a fusible portion, a member constituting a weighted lever to which said cable is attached, a valve, a member constituting a stem for said valve, one of said members being provided with a recess and the other with a pin received by said recess, whereby said valve is adapted to be manually operated without disturbing the automatically valve closing connections, substantially as described.

2. In a device of the type specified, a cable having a fusible portion, a weighted lever to which said cable is attached, a pin projected from said lever, a member constituting an extended valve stem having a recess therein; a shiftable curved member in said recess of less length than the recess forming a stop for said pin, and a valve casing having right and left pockets either of which is adapted to receive said stem, substantially as shown and described.

In testimony whereof I affix my signature, in presence of two witnesses.

JACOB JAMES STALEY.

Witnesses:

HOWARD S. SMITH,
MATTHEW SIEBLER.