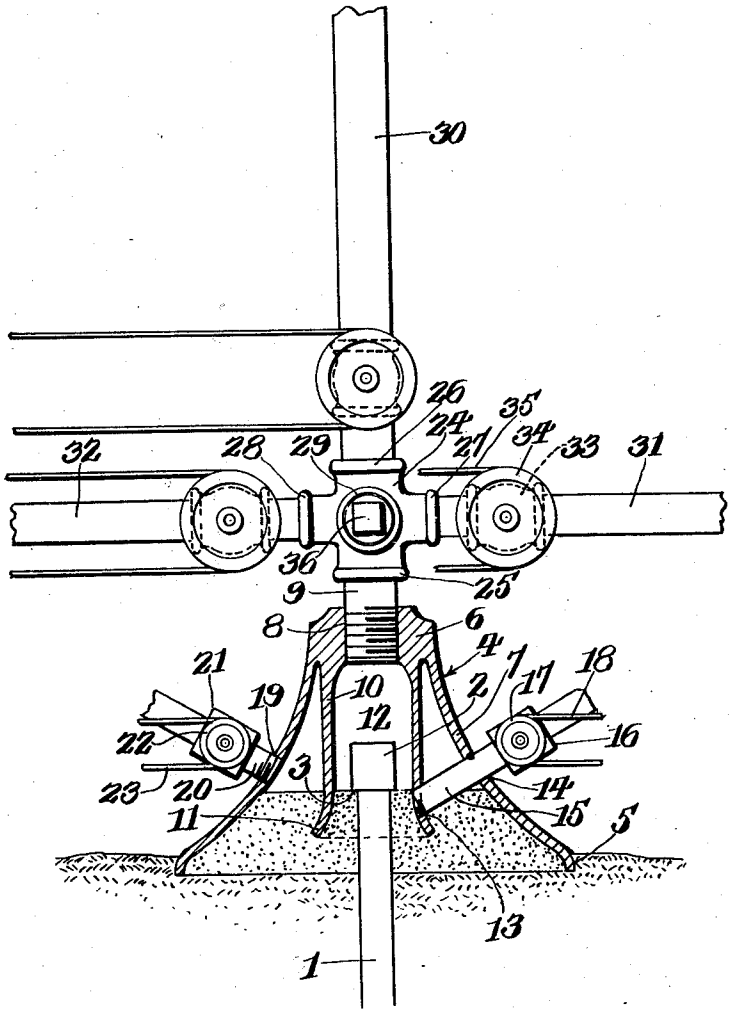
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WELL CAPPING DEVICE

Filed Feb. 12, 1929



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WELL CAPPING DEVICE

Application filed February 12, 1929. Serial No. 339,395.

This invention relates to a well capping device particularly adapted for use in capping gushing oil or gas wells, and has for its primary object to provide, in a manner as hereinafter set forth, a device of such class whereby a gushing well may be expeditiously capped, regardless of whether or not the product gushing from the well is on fire.

A further object of the invention is to provide a device for the purpose above set forth which is simple in construction, strong and durable, inexpensive to manufacture, and which may be readily set up with respect to a well casing.

With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts as hereinafter more particularly described, and as illustrated in the accompanying drawing, but it is to be understood that such drawing and description are to be taken as illustrative and that the invention is intended to be limited only by the scope of the claim hereunto appended.

The accompanying drawing is a sectional elevation of a device constructed in accordance with this invention, showing the same in operative position with respect to a well casing.

Referring to the drawing in detail, the numeral 1 designates a well casing formed at its upper end with a circumferentially projecting boss 2, the bottom edge of which, in connection with the outer face of the casing 1 provides a shoulder 3 externally of the casing. Adapted to be concentrically disposed with respect to the casing is a substantially bell-shaped cap designated generally by the numeral 4, and formed at its lower end with a vertically disposed lip 5 for insertion into the ground circumferentially of the casing 1. The upper wall 6 of the cap 4 is of materially greater thickness than the side wall 7 and is formed with a vertically extending threaded bore 8 for connection with the externally threaded lower end of a discharge pipe 9 leading from the cap.

Depending from the lower surface of the upper wall 6 is a vertically disposed tubular member 10, the lower end of which flares outwardly as indicated at 11. The interior of the member 10 provides a chamber 12 for the reception of the product of the well from the casing 1. Formed in the wall of the tubular member 10 is an opening 13 which is in alignment with a similar opening 14 formed in the side wall 7 of the cap 4. The openings 14 and 13 are adapted to receive therethrough a feed line 15 for the passage of an adhesive substance, such as cement, to the interior of the member 10. The opening 13 is provided with a threaded wall for engagement with external threads formed on the inner end of the feed line 15, by means of which the line 15 may be secured in position. Disposed in the line 15 is a valve shown conventionally at 16, and provided with a substantially disc-shaped actuating member 17, for engagement with a belt 18, by means of which the valve may be controlled at any suitable distance therefrom. Formed in the side wall 7 of the cap 4 is an opening 19 which is diametrically disposed with respect to the opening 14, and which is provided with a threaded wall for engagement with the exteriorly threaded inner end of a feed line 20. The feed line 20 is adapted for the passage of cement or the like to the interior of the cap 4, exteriorly of the tubular member 10. The feed line 20 is provided with a valve 21, having an actuating member 22 controlled by a belt 23, all of which are of the same construction as the valve 16, member 17, and belt 18 described in connection with the feed line 15.

Adapted for connection with the discharge pipe 9 is a coupling 24, which is formed with a pair of oppositely and radially extending nipples 25 and 26, a second pair of oppositely and radially extending nipples 27 and 28 which extend at right angles to the nipples 25 and 26, and a radially extending nipple 29 which is disposed at a right angle to the nipples 25, 26, 27 and 28.

A similar nipple may be provided on the coupling 24 on the side thereof obscured from view in the drawing, which nipple should preferably extend in alignment with the nipple 29. The coupling 24 is secured to the discharge pipe 9 by means of the nipple 25, and extending in alignment with the dis-

charge pipe 9 is a pipe 30 which will be termed a fire pipe, the lower end of which is connected with the nipple 26. Connected with the nipples 27 and 28 respectively is a pair of lead-off pipes 31 and 32, which will be termed oil pipes. Each of the pipes 30, 31 and 32 is provided with a valve 33, actuating member 34, and belt 35, all of which are of the same construction as the valve 16, actuating member 17, and belt 18 heretofore described. A plug 36 is threaded into the nipple 29, said plug being removable for the provision of another lead-off pipe if desired.

In the operation of my capping device, the valves for the pipes 30, 31 and 32 are opened and the cap 4 is positioned over the casing 1 with the latter projecting into the chamber 12. With the cap thus positioned, cement or other suitable adhesive substance is forced through the feed pipes 15 and 20 respectively to the interiors of the tubular member 10 and cap 4. When the level of the cement within the chamber 12 reaches the shoulder 3, the cement is permitted to set and by its engagement with the shoulder 3 prevents the cap from being thrown away from the casing when the valves to the lead-off pipes 30, 31 and 32 are closed.

If the product from the well is on fire, the valves for the lead-off pipes 31 and 32 are closed and the fire thereby directed upwardly through the pipe 30. If the product from the well is not on fire, the valve for the lead-off pipe 30 is closed and the oil or other product from the well is conducted to suitable containers through the lead-off pipes 31 and 32.

As will be apparent, the belts 18, 23 and 35 may be of any length desired, by means of which the valves may be controlled from any suitable distance consistent with safety.

It is thought that the many advantages of a capping device in accordance with this invention will be readily apparent, and although the preferred embodiment is as illustrated and described, yet it is to be understood that changes in the details of construction may be made, which fall within the scope of the invention as defined in the appended claim.

What I claim is:

A capping device comprising, a cap adapted to be circumferentially disposed with respect to a well casing and having an outlet at the top thereof, a feed line extending through the wall of the cap for the discharge of an adhesive substance into the interior thereof, a tubular member depending from the upper wall of said cap in overlapping relation to said casing, and a feed line extending through the walls of said cap and tubular member for the discharge of an adhesive substance into the interior of said tubular member.

In testimony whereof, I affix my signature hereto.

LUE A. TEED.