

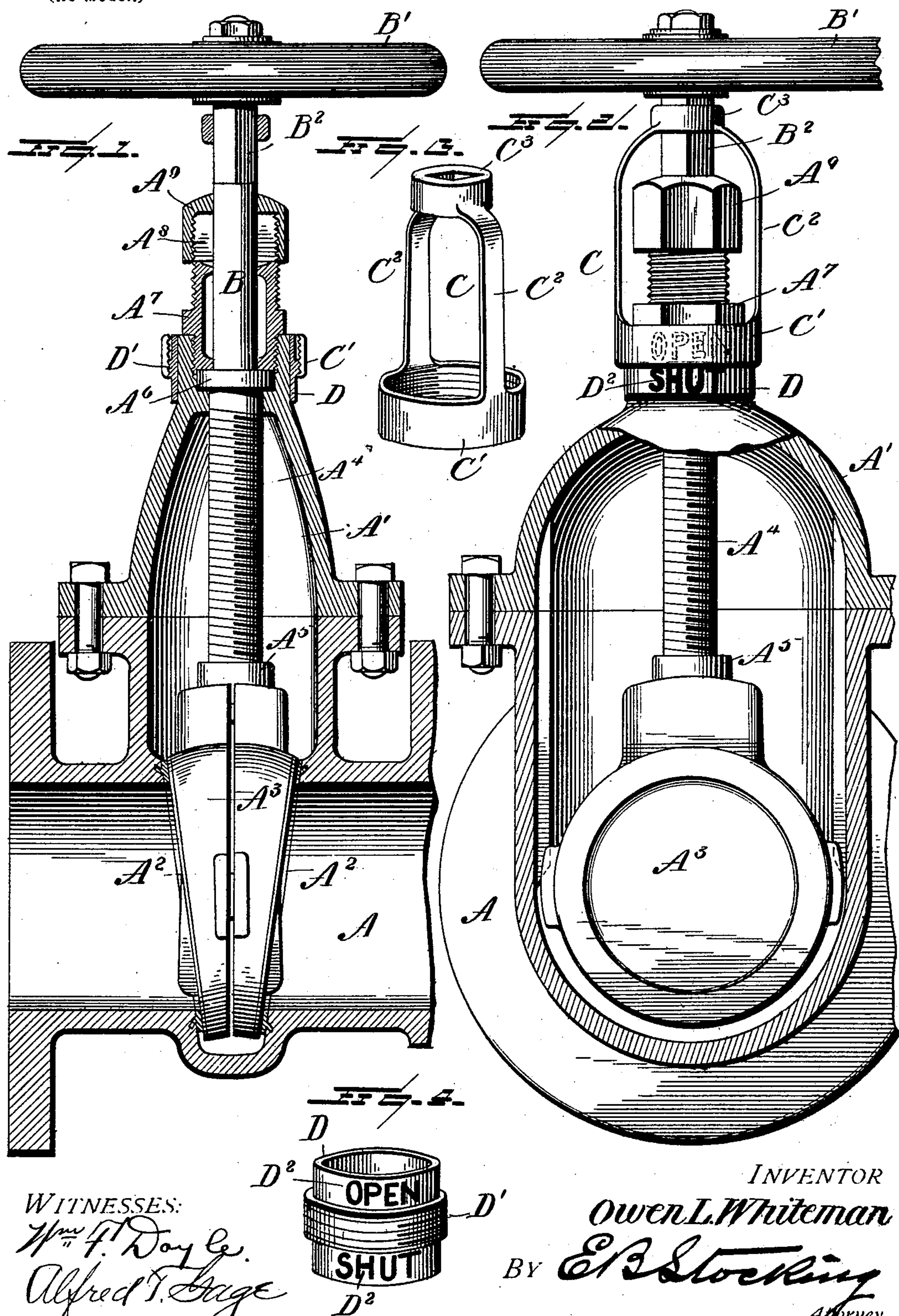
No. 681,899.

Patented Sept. 3, 1901.

O. L. WHITEMAN.
VALVE INDICATOR.

(Application filed May 21, 1901.)

(No Model.)



WITNESSES:

Wm^{rs} F. Day Co.
Alfred T. Sage

INVENTOR

Owen L. Whitman

By

E. B. Stocking
Attorney

Abornej

UNITED STATES PATENT OFFICE.

OWEN L. WHITEMAN, OF COXSACKIE, NEW YORK.

VALVE-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 681,899, dated September 3, 1901.

Application filed May 21, 1901. Serial No. 61,284. (No model.)

To all whom it may concern:

Be it known that I, OWEN L. WHITEMAN, a citizen of the United States, residing at Coxsackie, in the county of Greene, State of New York, have invented certain new and useful Improvements in Valve-Indicators, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to valve-indicators, and particularly to a construction operated by the rotation of the valve-stem in the movement of the valve to indicate the position of the valve relative to its seat.

15 The invention has for its object to provide a simple construction of indicator which can be applied to any of the usual forms of valves now in use and by means of which the operating-thread for moving the indicating-sleeve is protected against injury, while the indicating characters are alternately exposed and covered by said sleeve in its movement.

25 Other objects advantageous of the invention will hereinafter appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

30 In the drawings, Figure 1 is a vertical section showing the application of the invention to a gate-valve. Fig. 2 is an elevation of the same with the lower portion of the casing in section. Fig. 3 is a detail perspective of the indicating-sleeve, and Fig. 4 is a similar view of the collar secured in a fixed position upon the casing.

35 Like letters of reference indicate like parts throughout the several figures of the drawings.

40 It may be stated that this indicator is adapted for application to any construction of valve or similar device; but for the purpose of illustrating its use the same is shown in connection with a gate-valve in which the members thereof are vertically reciprocated.

45 The letter A designates the casing of such a valve, having the upward extension A'. Opposite the valve-seats A² the moving gate-valves A³ are disposed and are reciprocated in a vertical line by means of the screw A⁴ passing through a suitable nut A⁵, by which the valves are carried. This screw is held

against vertical movement by means of a flange A⁶, held in position by means of a threaded packing-sleeve A⁷, split at its upper portion, as at A⁸, to which a clamping-nut A⁹ 55 may be applied, as usual in the construction of this class of devices.

From the upper portion of the threaded valve-stem A⁴ the stem B extends and forms a rotating member by which the valve may be 60 operated through the medium of the hand-wheel B' at the upper end of said stem. This stem is provided at its upper portion with a squared or angular section B², and fitted thereon is an indicating-sleeve having at its 65 lower end the interiorly-threaded band C', connected by means of yokes C² with the guide C³, provided with an angular aperture adapted to fit the angular shaft portion B² (with the guide C³, provided with an angular 70 aperture adapted to fit the angular shaft portion B²) of the stem.

Upon any desired fixed portion of the valve-casing—for instance, the upper part of the extension A'—a collar D is secured against 75 rotation and is provided at its central portion with an exteriorly-threaded periphery D' and at opposite sides of this with the indicating characters D². In view of the short travel of the sleeve C in the movement of the valve 80 it is necessary to form a fine thread upon this collar, so that a dent or any injury to this thread would prevent the operation of the valve-indicator and inasmuch as the indicator is upon the valve-stem would hold the 85 valve against movement to be shifted when desired. It will therefore be seen that it is of great importance that these threads should be protected at all times against injury of any sort in order to insure the accurate move- 90 ment of the valve as well as the indicating device.

The operation of the invention will be apparent, as it will be seen from Fig. 1 that by removing the hand-wheel B' the sleeve may 95 be readily slipped into position and engaged upon the threads D' on the collar D, which is secured against rotation. When the valve-stem B is rotated in either direction, the angular portion B' causes a rotation of the indicating-sleeve C, which by engagement with the threads D' feeds the band C' of the sleeve 100

upward or downward to disclose either indication, depending upon the relative position of the valve to its seat.

It will be obvious that changes may be made in the details of construction and configuration without departing from the spirit of the invention as defined by the appended claims and that the indicator may be applied to any preferred form of valve or similar device capable of receiving the same.

Having described my invention, what I claim is—

1. A valve-indicator comprising a collar having characters upon opposite end portions and an intermediate threaded periphery, an interiorly-threaded sleeve or band engaging the threads on said collar, and means for rotating said sleeve; substantially as specified.

2. A valve-indicator comprising a collar having characters upon opposite end portions and an intermediate threaded periphery, an interiorly-threaded sleeve or band engaging the threads on said collar, and means slidably mounted upon a valve-stem for rotating said sleeve; substantially as specified.

3. A valve-indicator comprising a collar having characters upon opposite end portions

and an intermediate threaded periphery, an interiorly-threaded sleeve or band engaging the threads on said collar, an angular collar adapted to engage a similar face upon a valve-stem, and a yoke extending from said collar to said sleeve; substantially as specified.

4. In a valve-indicator, the combination with a rotating valve-stem, a sleeve or collar carried thereby and capable of reciprocatory motion thereon, and a feeding-thread entirely within and protected by said sleeve; substantially as specified.

5. In a valve-indicator, the combination with a rotating valve-stem, a sleeve or collar carried thereby and capable of reciprocatory motion thereon, and a collar having indications thereon and a peripheral thread extending entirely within said sleeve; substantially as specified.

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

OWEN L. WHITEMAN.

Witnesses:

E. F. TIEL,
CHAS. W. WELLER.