

No. 672,008.

Patented Apr. 16, 1901.

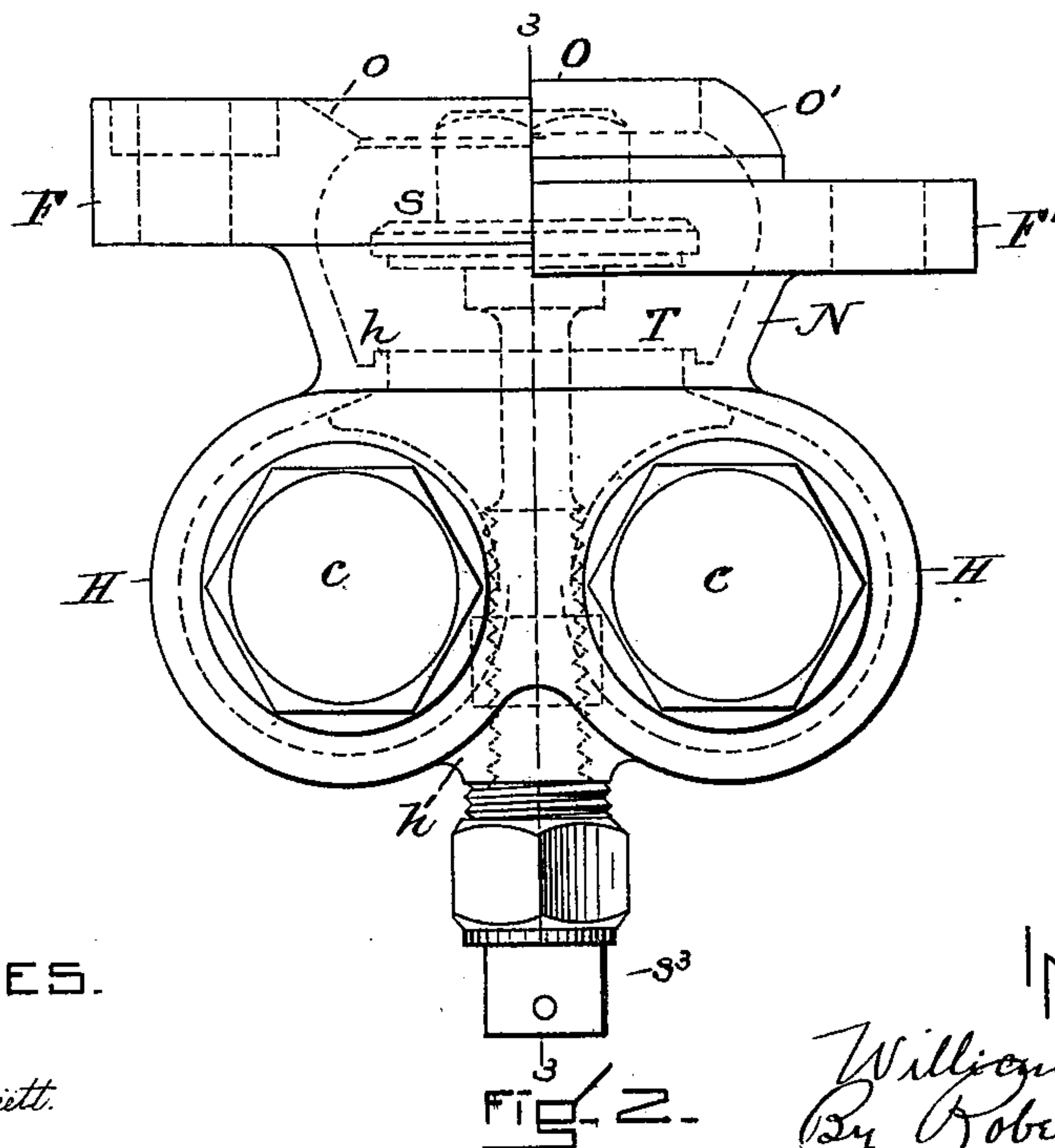
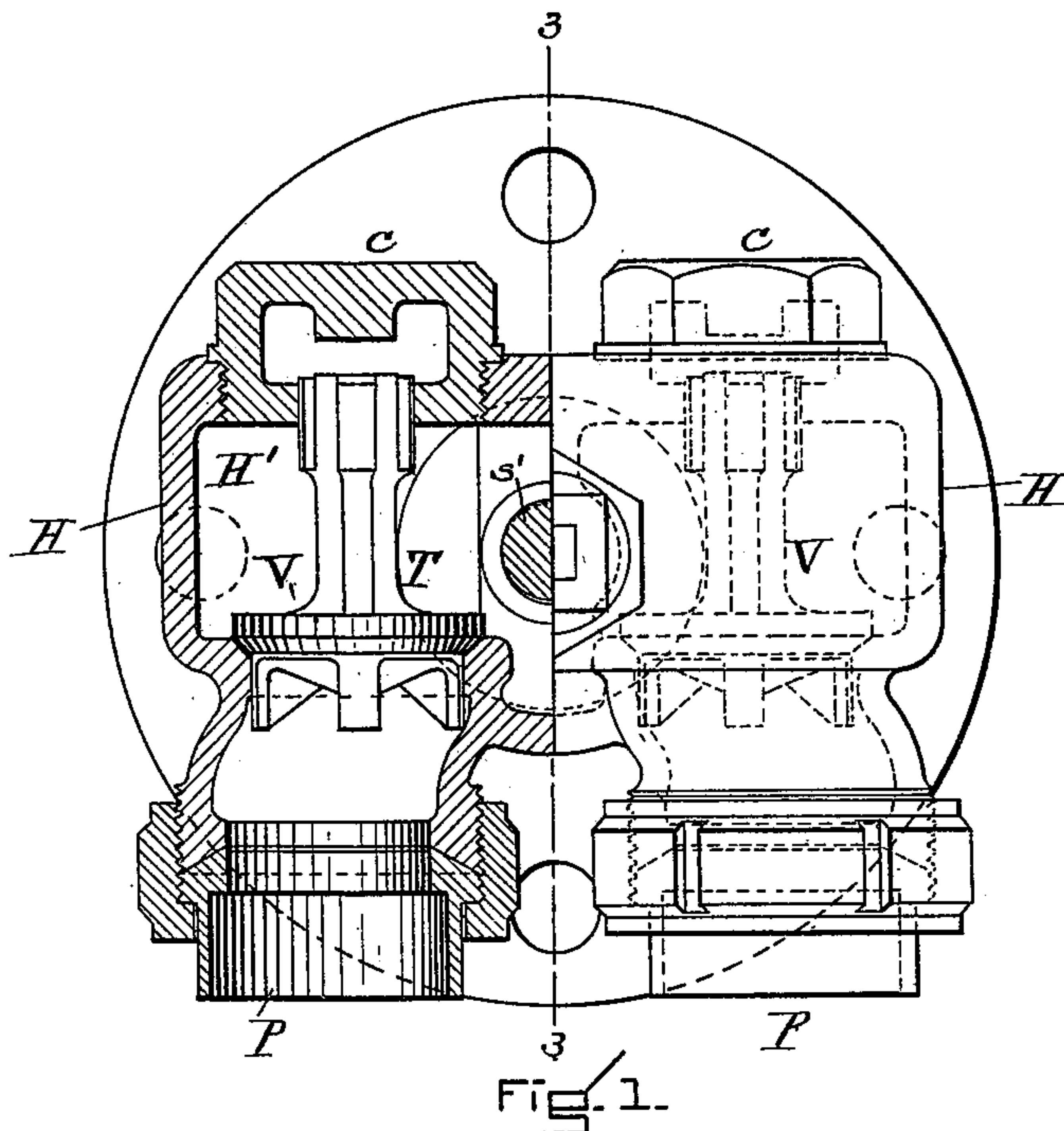
W. R. PARK.

VALVE FITTING FOR STEAM BOILERS.

(Application filed Nov. 14, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES.
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Frank S. Hartnett.

INVENTOR.
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Attorneys.

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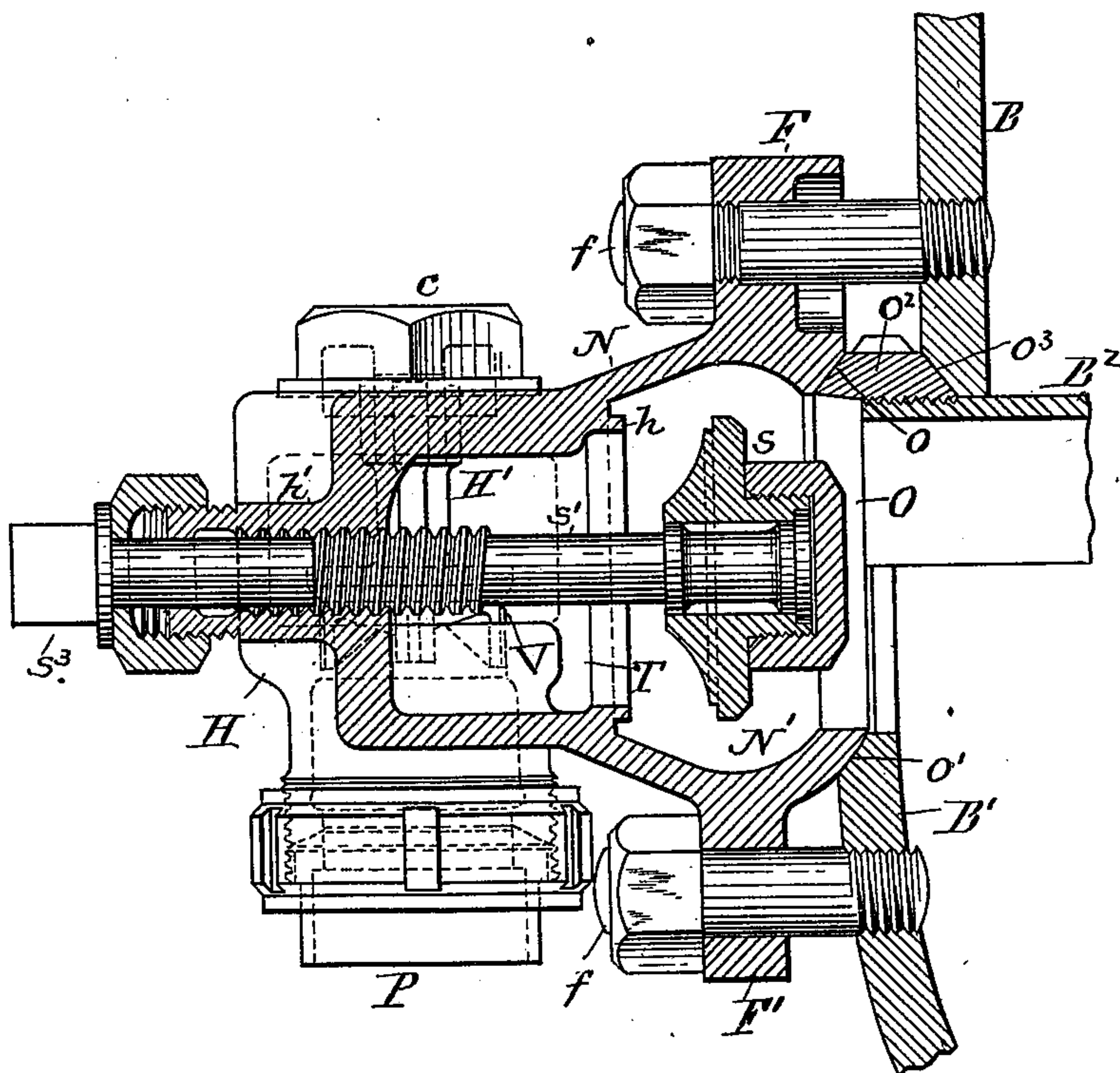
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2 Sheets—Sheet 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM R. PARK, OF TAUNTON, MASSACHUSETTS, ASSIGNOR TO THE
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VALVE-FITTING FOR STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 672,008, dated April 16, 1901.

Application filed November 14, 1900. Serial No. 36,495. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. PARK, a citizen of the United States, residing at Taunton, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Valve-Fittings for Steam-Boilers, of which the following is a specification.

My invention relates to valve-fittings for attachment to steam-boilers and will be found adaptable to situations where it is desirable to combine check and stop valves closing outwardly from the boiler or analogous source of pressure. Check-valves which constitute part of my improved valve-fitting perform their normal function, while the stop-valve is provided to enable positive closure of the opening into the boiler when desired—as, for instance, when it is necessary to remove obstructions or regrind the check-valves.

In the drawings annexed to this specification, Figure 1 is a front elevation, in part section, of my improved valve-fitting. Fig. 2 is a plan view of the same, and Fig. 3 is a vertical cross-section along the dotted line 3 3 in Figs. 1 and 2.

For the sake of compactness in illustration Figs. 2 and 3 show alternative forms of that end of the valve-fitting which comes in contact with the boiler, the left-hand half in Fig. 2 and the upper half in Fig. 3, showing the form adapted to securement to a flat boiler-plate, such as the back head of a locomotive-boiler, and the right-hand half of Fig. 2 and the lower half of Fig. 3 showing the form adapted to securement to a convex boiler-shell. I have shown in the drawings a valve-fitting adapted to be connected with two pipes, such as the delivery-pipes of boiler-feeding injectors. The valve-fitting comprises a casing having a neck N and twin heads H, joined to the neck N, which has formed integral therewith the flange F F' to enable the fitting to be attached to the boiler-shell, as by bolts *f*, Fig. 3. Each head H is bored out to receive the threaded check-valve cap *c* and is provided with a coupling for the attachment of pipes P. In the interior of each head H there is mounted a check-valve V, which rises in the usual manner to admit a stream from the pipe P into the inner cham-

ber H' of the head H. These chambers H' communicate with the common passage or throat T, which leads to the conduit in the interior of the neck N, which terminates in the opening O, which leads to the interior of the boiler. In order that the casing may make a tight joint where it is in contact with the boiler-shell, it is provided with a ground surface *o o'*, Fig. 3, which either seats upon a corresponding surface in the boiler-shell or upon an intermediate ring, as *o''*, which in turn is ground to fit an aperture in the boiler-shell at *o'''*, Fig. 3. The first-named arrangement is adapted to the curved boiler-shell B' and the last-named arrangement is suited to a flat boiler-shell, such as the back head as at B, Fig. 3. An inner pipe B² may be provided to conduct a stream to any desired distance inside the boiler.

In order to provide means for positive closure of the conduit, of which the valve-fitting forms a part, I arrange a stop-valve S, mounted upon a stem *b'*, which enters the valve-fitting midway between the check-valves V and has a threaded portion which meshes with a corresponding thread in the projection *h'*, which protrudes from the casing between the heads H. This stem *s'* terminates in an external squared head *s''*, to which a wrench may be applied in order to turn the valve S to its seat *h*, which in the instance shown in the drawings lies between the enlarged chamber N' and the throat T.

When it is desired to locate the stop-valve S within the compass of the valve-fitting casing itself, the neck N is enlarged at N', so as to provide for free passage of a stream issuing from either or both the pipes P.

What I claim, and desire to secure by Letters Patent, is—

1. In a check and stop valve fitting for steam-boilers, the combination with a valve-casing having a neck, twin heads branching from the neck, of check-valves, one within each head, and a stop-valve located between the check-valves and the delivery end of the casing, mounted on a stem between the check-valve heads and adapted thereby positively to close the neck of the casing, substantially as described.

2. In a check and a stop valve fitting for

steam-boilers, the combination with a valve-casing having a neck, twin heads branching from the neck, check-valve chambers within the heads, delivering to a common throat in the neck, of check-valves, one within each head, a stop-valve located between the check-valves and the delivery end of the casing mounted on a stem which emerges from the neck between the two heads, and a flange surrounding the neck whereby the fitting may be secured to a boiler, substantially as described.

3. In a check and stop valve fitting for steam-boilers, the combination with a valve-casing having a neck, twin heads branching from the neck, of check-valves, and chambers therefor one in each head, a throat leading to the neck and in communication with both check-valve chambers, an enlarged stop-valve chamber in the neck, a stop-valve seat between said stop-valve chamber and the throat, and a stop-valve, mounted on a spindle between the check-valves and adapted thereby to close the neck of the casing from within, substantially as described.

4. In a check and stop valve fitting for steam-boilers, a valve-casing, check and stop valve seats therein, check and stop valves, the stop-valve located between the check-

valve and the delivery end of the casing and mounted on a stem passing through a suitable gland in the valve-casing.

5. In a check and stop valve fitting for steam-boilers a valve-casing, check and stop valve seats therein, check and stop valves, the stop-valve located on the boiler side of the check-valve and adapted to close the passage leading from the check-valve to the boiler, the stop-valve mounted on a stem passing through a gland in the valve-casing, the said stem provided with valve-controlling devices at its outer end.

6. In a check and stop valve fitting for steam-boilers, the combination of a valve-casing having a neck, twin heads branching from the neck, a check-valve in each head, and a stop-valve located on the boiler side of the check-valves and adapted to close the passage from the check-valves to the boiler, the said stop-valve being mounted on a stem between the check-valve heads, substantially as described.

Signed by me at Boston, Massachusetts, this 31st day of October, 1900.

WILLIAM R. PARK.

Witnesses:

E. FV. GROLL,

FRANK S. HARTNETT.