

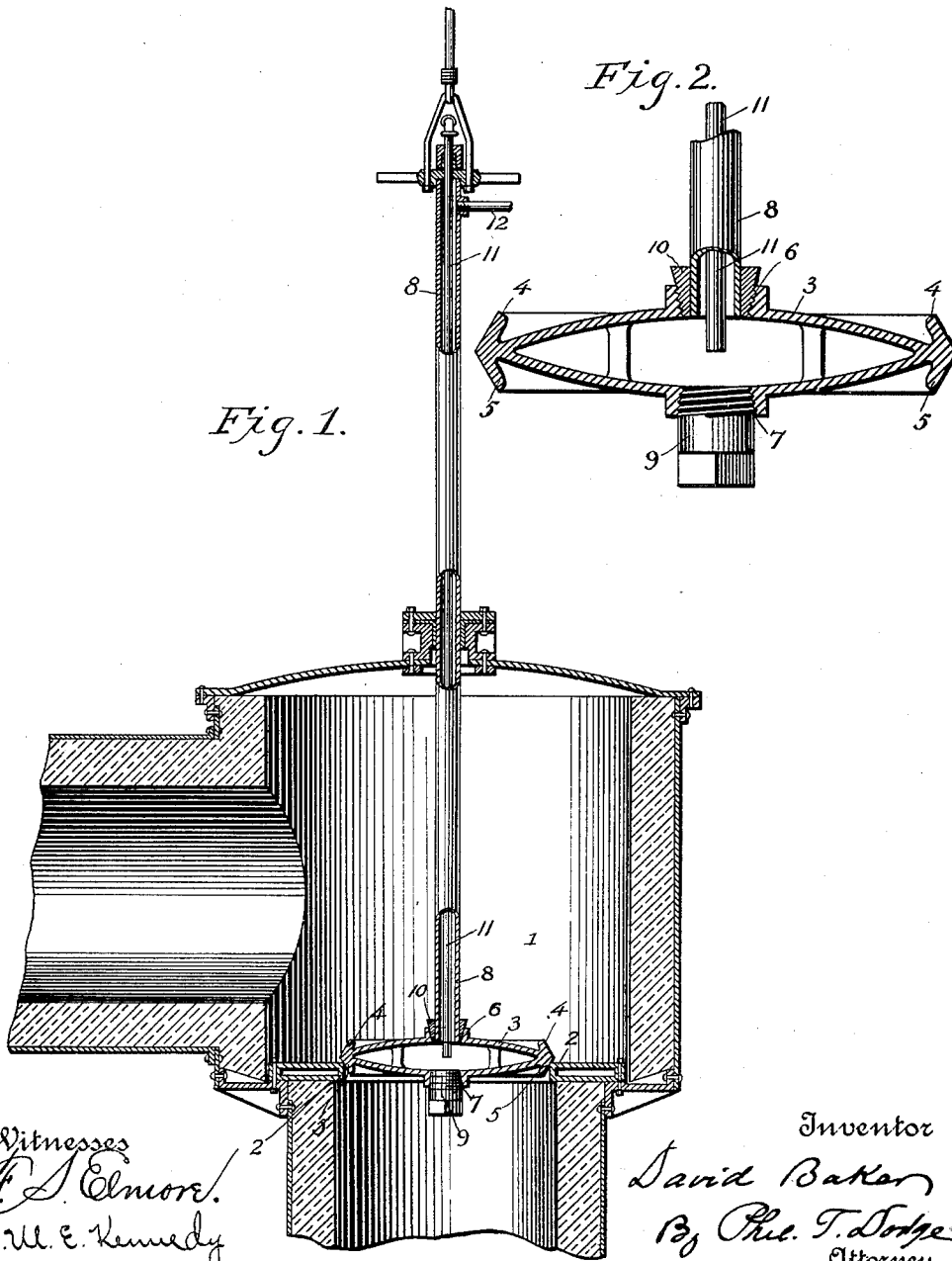
No. 659,805.

Patented Oct. 16, 1900.

D. BAKER.
HOT BLAST VALVE.

(Application filed Mar. 1, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

DAVID BAKER, OF CHICAGO, ILLINOIS.

HOT-BLAST VALVE.

SPECIFICATION forming part of Letters Patent No. 659,805, dated October 16, 1900.

Application filed March 1, 1900. Serial No. 6,933. (No model.)

To all whom it may concern:

Be it known that I, DAVID BAKER, of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Hot-Blast Valves, of which the following is a specification.

This invention has reference to valves designed more particularly for use in connection with blast-furnaces to control the hot blast; and the invention consists of an improved construction of the valve, having in view its reversibility on the valve-seat.

The invention consists also in an improved mode of attachment of the valve-stem to the valve, designed to admit of its ready removal without injury and its attachment to the opposite side of the valve.

The invention consists also in the details of construction and combination of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a vertical sectional elevation of the valve, its stem, and casing. Fig. 2 is a sectional elevation, on an enlarged scale, through the valve-body and the stem, showing how the latter is detachably connected with the body.

Referring to the drawings, 1 represents a valve-casing formed with a circular valve-seat 2, on which is seated a valve 3, consisting of a hollow body having on its peripheral edge two opposing valve-surfaces 4 and 5, identical in form and either adapted to rest on the valve-seat in the reverse positions of the valve-body. The valve-body is hollow to admit of the circulation of a cooling medium therethrough and is formed in opposite sides at the centers with threaded openings 6 and 7, either adapted to receive a hollow tubular stem 8 and a plug or stopper 9, the latter being threaded exteriorly to fit the openings and adapted to close one when the valve-stem is fitted in the other, so that the valve-body may be reversed when desired. The end of the tubular stem is expanded tightly in a sleeve or bushing 10, which is threaded exteriorly to fit the openings in the valve-body, which peculiar form of attachment will permit the stem to be quickly and easily removed without injury to it, so that it may be readily changed from one side of the valve-body to the opposite side when the valve is to be re-

versed and so that the stem when several valves are employed may be changed from one to the other, as is often desired in practice. The tubular stem is extended upward through the top of the casing and surrounds a tubular core 11, into which a cooling medium from any suitable source may be introduced into the valve-body, whence it passes between the stem and core and out through an opening 12 in the stem, whereby the circulation of the cooling medium is maintained.

By the construction described in the event of wearing or the ill-fitting of one of the valve-surfaces the valve-body may be reversed to bring into operative position the opposite surface, which is accomplished by unscrewing the stem and removing the plug, after which the body may be reversed, the stem again screwed in place, and the plug inserted to close the opposite opening. The life of the valve is thus doubled and a close tight fit insured at all times.

Having thus described my invention, what I claim is—

1. In combination with a valve-seat, a valve-body movable to and from the seat at right angles to the plane of the valve-seat and provided on opposite sides with valve-surfaces either adapted to rest on the seat, an operating-stem extending at right angles to the plane of the valve-seat, and means for connecting the stem detachably with either side of the valve-body as desired.

2. In combination with a valve-seat, a hollow valve-body provided on opposite sides with valve-surfaces, either adapted to rest on the valve-seat, and formed in opposite sides with openings, a hollow detachable stem adapted to fit in either opening, means for closing one of said openings when the valve-stem is fitted to the other, and means for circulating a cooling medium through the valve-body.

In testimony whereof I hereunto set my hand, this 17th day of February, 1900, in the presence of two attesting witnesses.

DAVID BAKER.

Witnesses:

W. J. MELVIN,
J. L. KAHN.