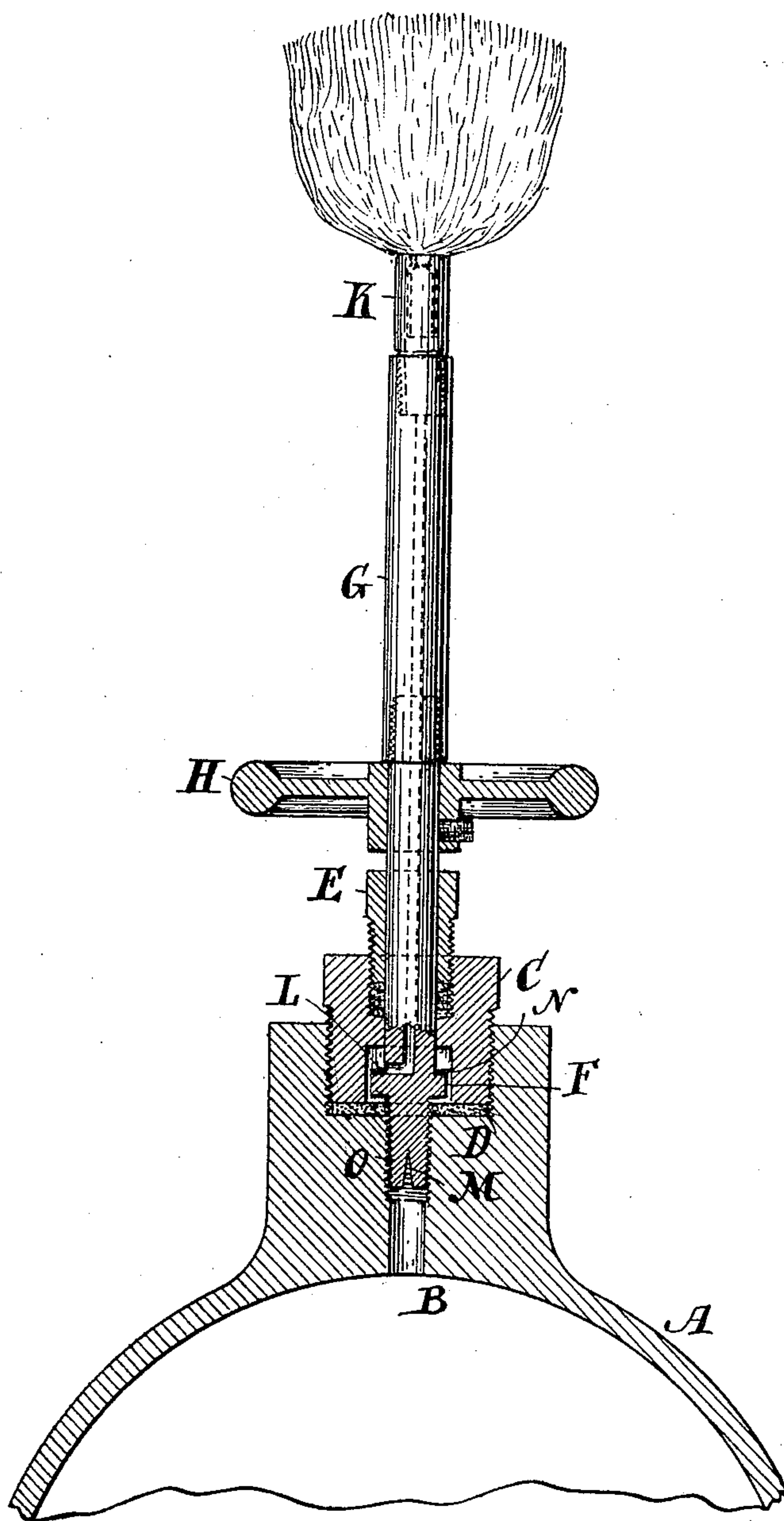


(No Model)

E. N. DICKERSON.
GAS VALVE.

No. 583,300.

Patented May 25, 1897.



Witnesses
Geo. Wadman
H. Constant.

Inventor
E. N. Dickerson

UNITED STATES PATENT OFFICE.

EDWARD N. DICKERSON, OF NEW YORK, N. Y.

GAS-VALVE.

SPECIFICATION forming part of Letters Patent No. 583,300, dated May 25, 1897.

Application filed August 3, 1896. Serial No. 601,550. (No model.)

To all whom it may concern:

Be it known that I, EDWARD N. DICKERSON, of No. 253 Broadway, in the city, county, and State of New York, have invented a new and useful Improvement in Gas-Valves, of which the following is a full, true, and exact description, reference being had to the accompanying drawing.

This invention relates to an improvement in gas-valves, and is especially adapted to reducing the very high pressure of liquefied acetylene gas to the burning pressure of two or three inches of water desirable in a burner in a single operation. This has been exceedingly difficult to accomplish in practice, owing to the great difference between such pressures, but it can be successfully accomplished by the device here shown.

The drawing of this application represents an elevation, generally in cross-section, of my valve.

A represents the receiver containing high-pressure gas. This communicates with the valve by the tubular opening B, threaded at its upper end to receive a similarly-threaded valve-stem O. The valve-chamber is packed in the ordinary way by a collar C bearing against a solid packing D, preferably of lead. The valve-stem may be packed by the stuffing-box E in the usual way. The valve itself has a double face above and below on the collar F, and the valve-stem G, having hand-wheel H, as shown, is hollow, carrying the gas to the burner K; but this is not essential to the operation of my device. When the valve-stem G is screwed down, the lower face of the collar F bears against the valve-seat and thereby closes entirely the gas-escape. As the valve is opened the collar F moves upward, and the gas begins to escape by following the screw-thread from the lower cham-

ber B to the upper chamber L around the collar. The valve-stem may be slotted, as at M, to carry up the gas part of the way toward the collar F. The valve may be unscrewed until the upper surface of the collar F bears against the upper surface of the valve-chamber, at which point the slot M may be near the lower surface of the packing D. The gas which has leaked around the screw-thread passes into the chamber L, and so through the opening within the valve-stem G. The advantage of this upper seating within the valve-chamber is that it prevents leaking around the stuffing-box E. A lead or other washer N may rest upon the collar F to make a tight joint. It is obvious that the gas may escape through any opening through the valve-chamber C, as well as through the valve-stem G.

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

1. A gas-valve consisting of the threaded stem O, engaging with the threaded opening B, and provided with a collar F with packing above and below to form a joint when in its upper and lower position, substantially as described.

2. The threaded gas-stem O engaging in threaded tube B, and provided with slot M, substantially as described.

3. The threaded valve O, provided with collar F, operating in valve-chamber L, and operated by the hollow gas-conveying valve-stem G, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

E. N. DICKERSON.

Witnesses:

W. LAIRD GOLDSBOROUGH,
H. COUTANT.