

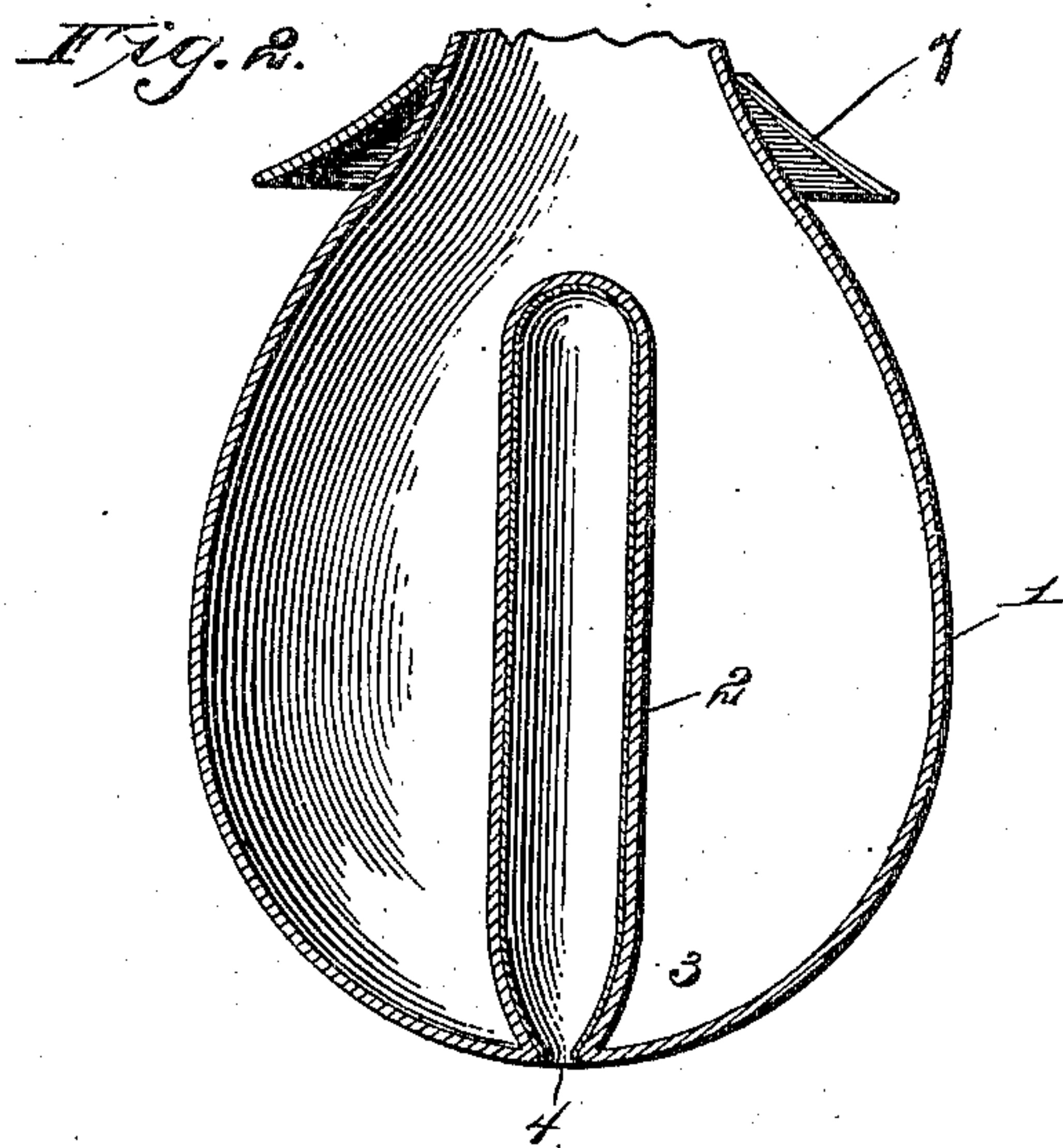
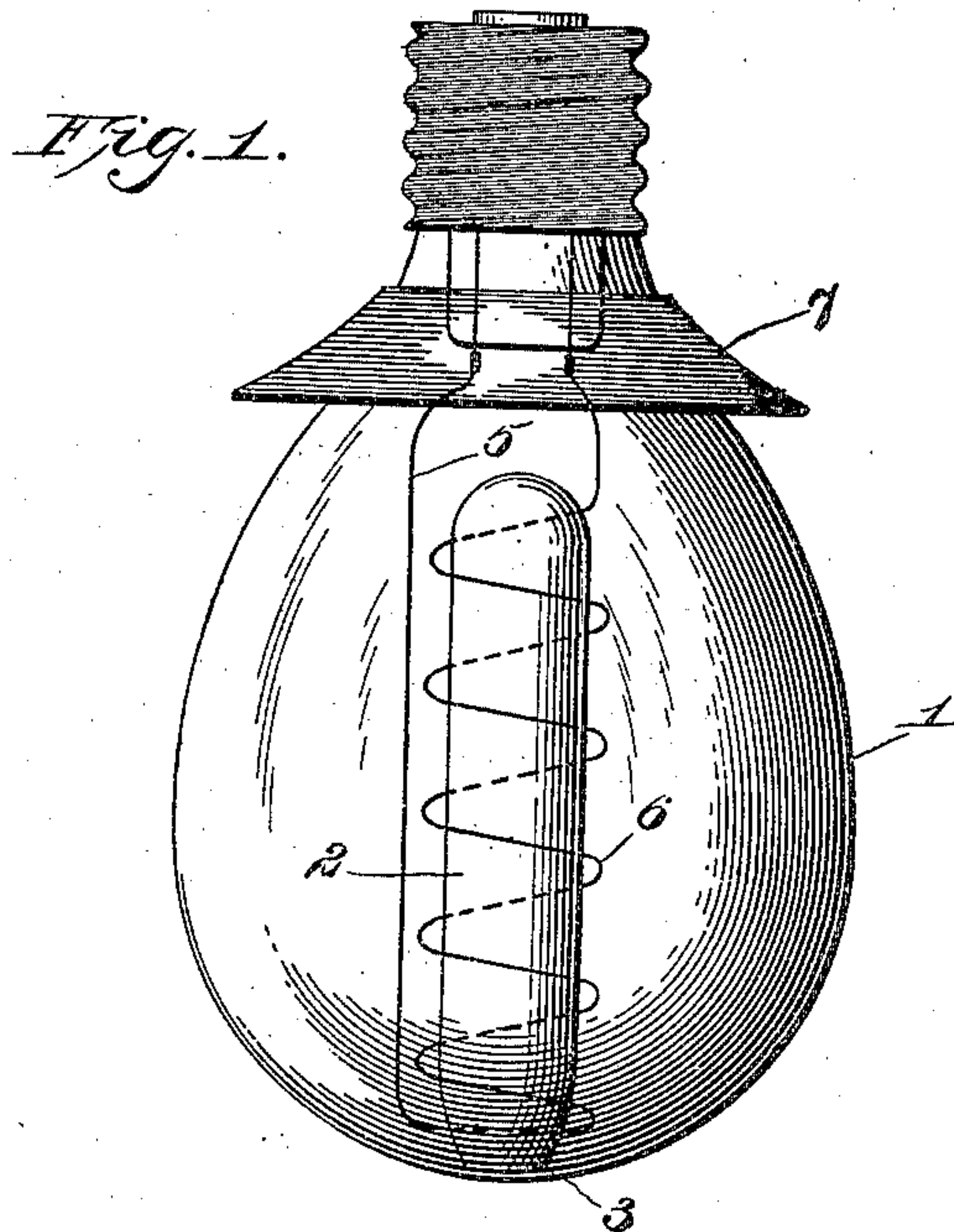
No. 687,943.

Patented Dec. 3, 1901.

T. A. SMITH.
ELECTRIC LAMP.

(Application filed Jan. 18, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS A. SMITH, OF AZUSA, CALIFORNIA.

ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 687,943, dated December 3, 1901.

Application filed January 18, 1900. Serial No. 1,887. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. SMITH, a citizen of the United States, residing at Azusa, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Electric Lamps, of which the following is a specification.

My invention relates to the general class of incandescent electric lamps, but more particularly to those which are provided with reflectors in connection with the globes of the lamps.

My invention consists in the peculiar features of construction hereinafter described and claimed.

In the drawings, Figure 1 represents a side elevation of a lamp constructed in accordance with my invention; and Fig. 2 is a vertical longitudinal section of the same, the securing-head and component parts, which are old, being broken away.

Referring now to the drawings by reference-numerals, 1 indicates the vacuum-globe, from the lower free end of which projects a substantially tubular inwardly-extending centrally-located reflector-body 2, contracted slightly at its juncture with the globe 1, as at 3, so as to protect the chamber within the body, but having an opening 4 sufficiently large to permit the insertion of a suitable tool to apply silver or some equivalent material on the interior walls of said tube, whereby a reflector is formed.

By constructing the mouth of the tube of a smaller diameter than that of the tube proper any deterioration of the reflecting agent will be retarded, owing to the fact that the accumulation of dust and foreign agents will be prevented, but at the same time any suitable instrument may be inserted should it be found desirable to reline the tube, as the lining may in time become affected by the heat of the filament 5, which in this case extends from the top of the globe around the tube in a series of convolutes 6 to near the contracted portion of the tube and thence back to a predetermined point after running parallel with the outside wall of said tube. By this arrangement a maximum amount of filament is exposed within the vacuum-chamber and only a minimum amount of space is required.

It is of course understood that the filament 5 is arranged at a sufficient distance from the reflector to prevent the same from contacting therewith.

7 is a shallow exterior downwardly-flaring reflector located between the upper end of the tubular reflector and the thimble for dispersing the rays of light from the upper end of the tubular reflector.

I am aware that tubular reflectors have been provided heretofore in this class of lamps, but in actual practice they have been found to be undesirable, owing to the fact that the reflecting agent could not be replenished without destroying the vacuum in the globe, which would have a tendency to also render the filament unfit for use.

A lamp constructed in accordance with the foregoing description will be found to be cheap and durable and the reflector can be provided with practically no extra cost and without materially altering the general arrangement of the lamp.

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

An incandescent electric lamp comprising a vacuum-globe formed with an inwardly-extending central tubular projection having a reflecting-lining and contracted to a small opening at its junction with the body for protecting the interior of the tubular projection, an exterior shallow downwardly-flaring reflector located between the upper end of the tubular reflector and the thimble of the lamp, and a filament extending from the top of the body at one side downwardly in close spiral form around the tubular projection so as to present a series of horizontally-arranged convolutions extending to near the bottom of the tubular projection and thence returning in a straight strip parallel with the opposite side of the tubular projection to the top of the body.

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

THOMAS A. SMITH.

Witnesses:

J. C. PRESTON,
W. R. MCCANDLESS.