

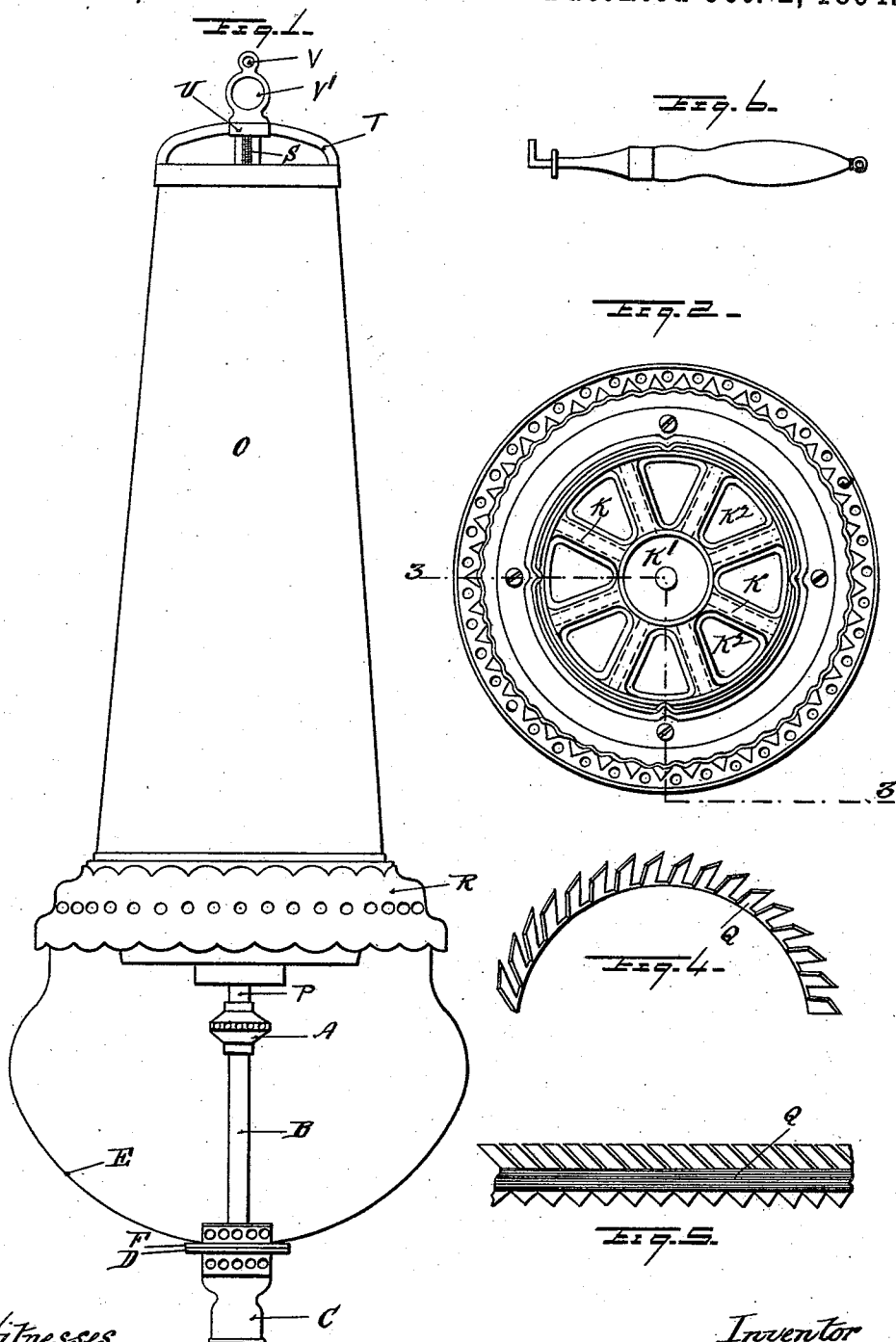
(No Model.)

2 Sheets—Sheet 1.

W. WHITE.
REGENERATIVE GAS LAMP.

No. 526,955.

Patented Oct. 2, 1894.



Witnesses
A. J. Hadden
A. E. Melhuish

Inventor
William White
by his Attorney *A. J. Hadden*

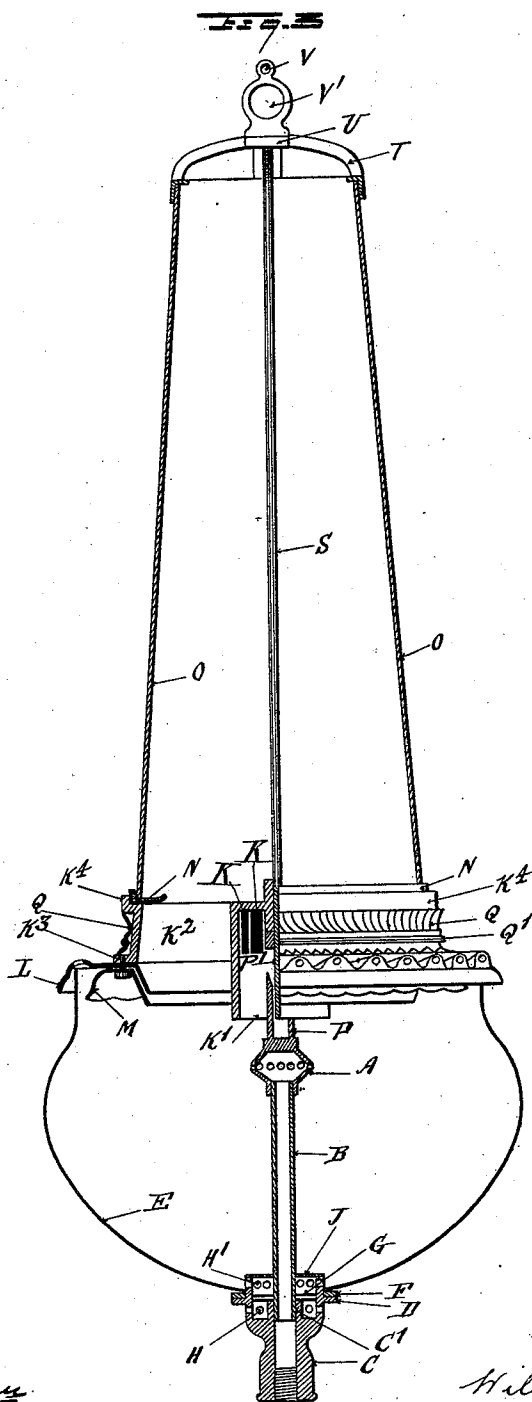
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2 Sheets—Sheet 2.

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A. J. Shedd

A. E. Melhuish

Inventor

William White

by his Attorney *R. H. Hadden*

UNITED STATES PATENT OFFICE.

WILLIAM WHITE, OF BIRMINGHAM, ENGLAND, ASSIGNOR OF ONE-HALF TO
THOMAS EDWARD BLADON, OF SAME PLACE.

REGENERATIVE GAS-LAMP.

SPECIFICATION forming part of Letters Patent No. 526,955, dated October 2, 1894.

Application filed September 25, 1893. Serial No. 486,472. (No model.) Patented in England November 29, 1892, No. 21,775,
and in France September 21, 1893, No. 232,953.

To all whom it may concern:

Be it known that I, WILLIAM WHITE, a subject of the Queen of Great Britain, residing at Birmingham, county of Warwick, England, have invented certain new and useful Improvements in Regenerative Gas-Lamps, (for which I have obtained Letters Patent in Great Britain, No. 21,775, dated November 29, 1892, and in France, No. 232,953, dated September 21, 1893,) of which the following is a specification.

This invention relates to regenerative gas lamps and more especially to those intended to be used upon brackets or standards or otherwise supported upon bases below them in place of being suspended from above.

This invention contemplates principally an improved method of and means for controlling the air admitted into the regenerator, also a method of supplying air within the rim of the globe from above and a method of securely attaching the glass or other funnel to the regenerator.

In the annexed drawings, Figure 1 is an elevation of the lamp. Fig. 2 is a plan view of the regenerator as seen from below; Fig. 3, a vertical section of the lamp on the line 3-3, Fig. 2, the left half being a central section. Fig. 4 is a partial plan view of the metal ring or plate surrounding the regenerator, and Fig. 5 is a side elevation of a piece or strip of such ring or plate. Fig. 6 shows a suitable tool for removing the regenerator and chimney when lighting the lamp.

A represents the burner, at the summit of the gas feed pipe B which passes through the center of the cylindrical fitting C, the flange D of which supports the glass globe E which rests upon the washer F on the flange. The lower end of the fitting C is made to screw onto or in the usual nozzle of a gas bracket, chandelier or the like, and above the screw threaded portion the fitting is cylindrically hollowed out but to retain the flange C' in its center or an equivalent flange to carry the wire gauze or equivalent diaphragms G. Below the diaphragms and below the flange D are holes H in the wall of the fitting, and above the diaphragms and above the flange D are the holes H' which can be made if de-

sired by recessing the upper edge of the cylindrical wall. The space within the cylindrical fitting C is closed above by the cover disk J through which the gas tube B passes.

The regenerator may be of any suitable kind. That illustrated is of that form in which the air is supplied through radial passages K to a central chamber K' while the products pass upward in the intervals K² between the walls of the said passages, and the incoming air is kept separated from the products by a downwardly directed cylindrical flange surrounding the central air chamber which is open below. This regenerator with its flanges has heretofore been generally made in one piece of cast metal. For the sake of lightness, the plate L which rests upon the upper edge of the glass globe E and carries the regenerator and chimney (the weight of which parts is therefore borne by the glass) is preferably made of stamped thin metal, such as copper, and with the interior air deflecting flange M of similar material is secured to the flange K³ on the regenerator. The flange K⁴ is also formed on the regenerator to receive and center the annular channeled ring N which is lined with asbestos and serves to receive the lower edge of the tapered chimney O preferably made of opal glass.

The plate L is made with a number of pyramidal recesses or depressions on its under side and consequently reappearing as raised pyramids on its upper side. In the outwardly directed face of each of these recesses is a perforation for admission of air which passes by way of the said recesses over the edge of the glass globe and into the lamp. This incoming air is deflected downward and equalized by the corrugated flange M under the plate L which lies just within the edge of the glass globe. P is a cylindrical flange on the upper face of the burner and P' a pin on the regenerator which engages in the socket formed by the flange and centers the regenerator on the lamp. This pin lies in the center of the regenerator and serves to prevent the regenerator being accidentally shifted off the globe, but the said pin does not bear the weight of the regenerator.

Q is a strip of metal used for surrounding the regenerator for the purpose of equalizing and controlling the ingoing air passing in through the passages of the regenerator.

5 This strip of metal is corrugated in the direction of its length and its upper and lower edges are serrated. By bending out or back the serrated points more or less either along the whole length or at any point, the regulation of air inlet may be controlled so as to give any desired form to the flame. This strip is wrapped round to form a ring and is secured by a wire Q'.

15 R is an outer annular perforated cover plate of any desired ornamental form and preferably of enameled metal.

S is the central rod rising from the regenerator and carrying the frame or spider T which holds the upper edge of the chimney and is secured thereon by the nut U screwing on the rod S as is usual in lamps of this class. However, according to the present invention the nut U is formed with an eye or eyes forming two passage ways V V' the one for the chain by which the upper removable part of this lamp may be attached to the gas bracket, or otherwise for its suspension when not resting on the glass globe, the other for receiving

ing a tool such as illustrated in Fig. 6 for effecting such removal or reinstatement. This enables the regenerator to be removed even when hot and remain suspended from the gas bracket, &c., without touching any furniture, &c.

I claim as my invention—

1. The combination with a regenerator having exterior air entrances, of a strip of sheet metal wound about said regenerator, the said strip having corrugations in the direction of its circumferential length and adjustable serrated edges substantially as and for the purpose described.

2. The combination with a cast metal regenerator body having a flange K³, of sheet metal flanges L and M secured thereto, the flange L having pyramidal perforated depressions on its under side, and the flange M being corrugated all substantially as herein described.

In witness whereof I have signed this specification in presence of two witnesses.

WILLIAM WHITE.

Witnesses:

ERNEST HARKER,
J. J. WOODGATE.