(No Model.)

# V. AGNÈS.

## GAGE GLASS FITTING.

No. 304,057. Patented Aug. 26, 1884.

Fig. 1.

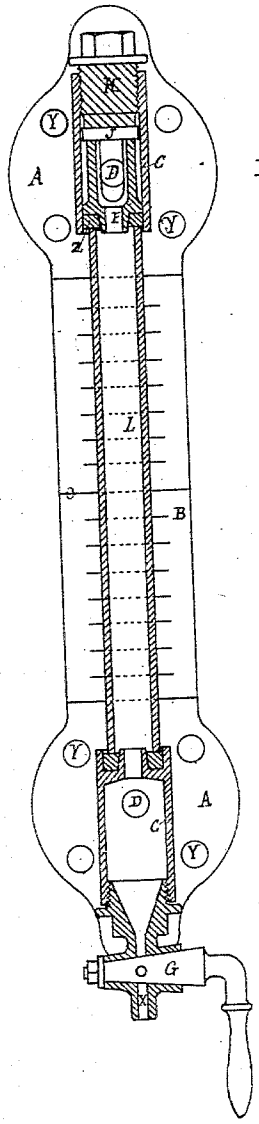



Fig. 3.

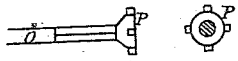



Fig. 6

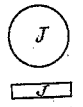



Fig 5

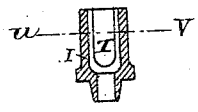






Fig 4

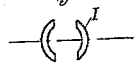
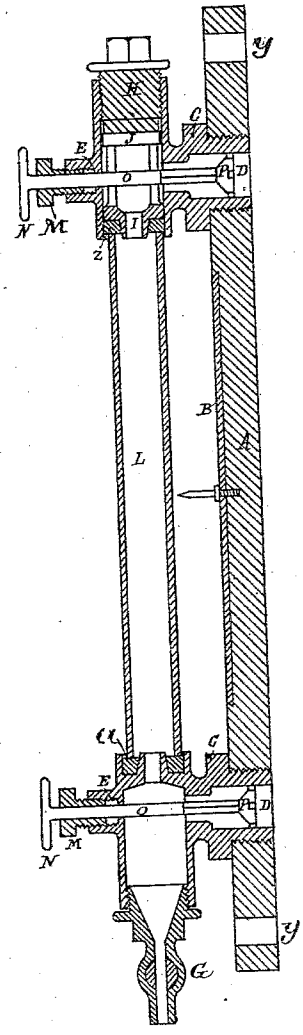



Fig. 2.




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# UNITED STATES PATENT OFFICE.

VICTOR AGNÈS, OF LONGUYON, FRANCE.

## GAGE-GLASS FITTING.

SPECIFICATION forming part of Letters Patent No. 304,057, dated August 26, 1884.

Application filed December 15, 1883. (No model.) Patented in France March 17, 1883, No. 154,289.

*To all whom it may concern:*

Be it known that I, VICTOR AGNÈS, a citizen of the Republic of France, residing at Longuyon, in France, have invented new and useful Improvements in Gage-Glass Fittings, of which the following is a specification.

This invention is illustrated in the accompanying drawings, in which Figure 1 is a sectional front elevation of my fittings supporting a gage-glass; Fig. 2, sectional side elevation thereof; Fig. 3, valve and valve-stem in side view and valve in end view. Fig. 4 shows a thimble or sleeve plan and section on line U V, Fig. 5. Fig. 5 is a sectional elevation of a part of my device; Fig. 6, plan and elevation of a washer employed in my device.

This invention has for its object to provide a simple, efficient, and handy means for fixing gage-glasses upon steam-boilers or the like.

In carrying this invention into practice a scale, B, made, say, of enameled metal, may be fixed behind the gage-glass upon the carrying-plate A, and an indicator, B′, on the scale may serve to show the normal water-level. The gage-glass L itself is of the ordinary kind; but the sockets or fittings, which support it at top and bottom, are of the following construction: The said sockets may be adapted to be screwed into the boiler-front, to be bolted upon the same, or otherwise connected with the interior of the boiler, but are shown as fixed on a plate or carrier, A. The bottom socket, C, has a recess at the top, into which a ring or washer of india-rubber, *a*, is placed, and the end of the glass L bears upon the said washer. In the horizontal part of the socket a valve, P, is fitted, the stem O whereof passes out at the front through a stuffing-box, M, while the valve P, which may have four recesses in its periphery, controls the admission-aperture D for the water. (See Figs. 2 and 3.) In the bottom of this socket there is a waste-cock, G. (See Figs. 1 and 2.) The top socket is straight in the bore. In it moves a thimble, I, Figs. 1, 2, 4, and 5, which, having a projecting edge, forms the seat for the india-rubber ring or washer *z*, which bears on the top of the glass L. Over the thimble fits a washer, J, of metal, and upon this presses a screw, H, Figs. 1 and 2, which may be tightened or loosened by a spanner, thus increasing or diminishing the space between the rubber rings at top and bottom, adapting this gage-glass carrier to tubes of somewhat varying lengths, and allowing a tight joint to be readily made. In the thimble I there are apertures which allow the stem O′ of a valve, P′, to pass, and also serve as a connection between the glass tube and the boiler-space. The construction of this valve may be the same as that of the valve in the bottom socket.

The parts of my gage may be put together as follows: The socket-pieces being screwed into the plate A or into the boiler, the tube L is passed through the upper one, and its lower end made to rest upon the annular ring *a*. The ring *z* is then placed upon the top of L, and over this the thimble I, washer J, and screw-head H. The valve-stem O′ is passed through the stuffing-box M and the slots in I, and the valve is then screwed or otherwise attached to its outer end; or, if the valve and stem are integral, the stem may be passed through the slots in I in an opposite direction, and the valve-handle screwed or otherwise fixed upon the end of the stem.

The thimble arrangement may be applied to ordinary gage-glass sockets, if desired.

N are small wheels or handles for operating the valves.

*y y* are holes for screws by which the device is attached to the boiler-front.

Having now described my invention, I claim—

1. As a support for a gage-glass, the carrier or plate A, with scale B and index B′, in combination with the top and bottom sockets fitted with valves P P′, operated by stems O O′, passing through stuffing-boxes M M, and with the rubber seatings *a* and *z*, and with the thimble I and screw-cap H, pressing upon washer J, all substantially as described and illustrated.

2. In a gage-glass fitting, the combination of the lower socket-piece provided with an annular groove and seating, the upper socket-piece provided with a flanged thimble and seating, the intermediate tube, and means for pressing the thimble upon the upper seating, substantially as described.

In witness whereof I, the said VICTOR AGNÈS, have hereunto set my hand, this 24th day of November, in the year 1883, in the presence of two subscribing witnesses.

VICTOR AGNÈS.

Witnesses:
EMILE KAPP,
ROBT. M. HOOPER.