

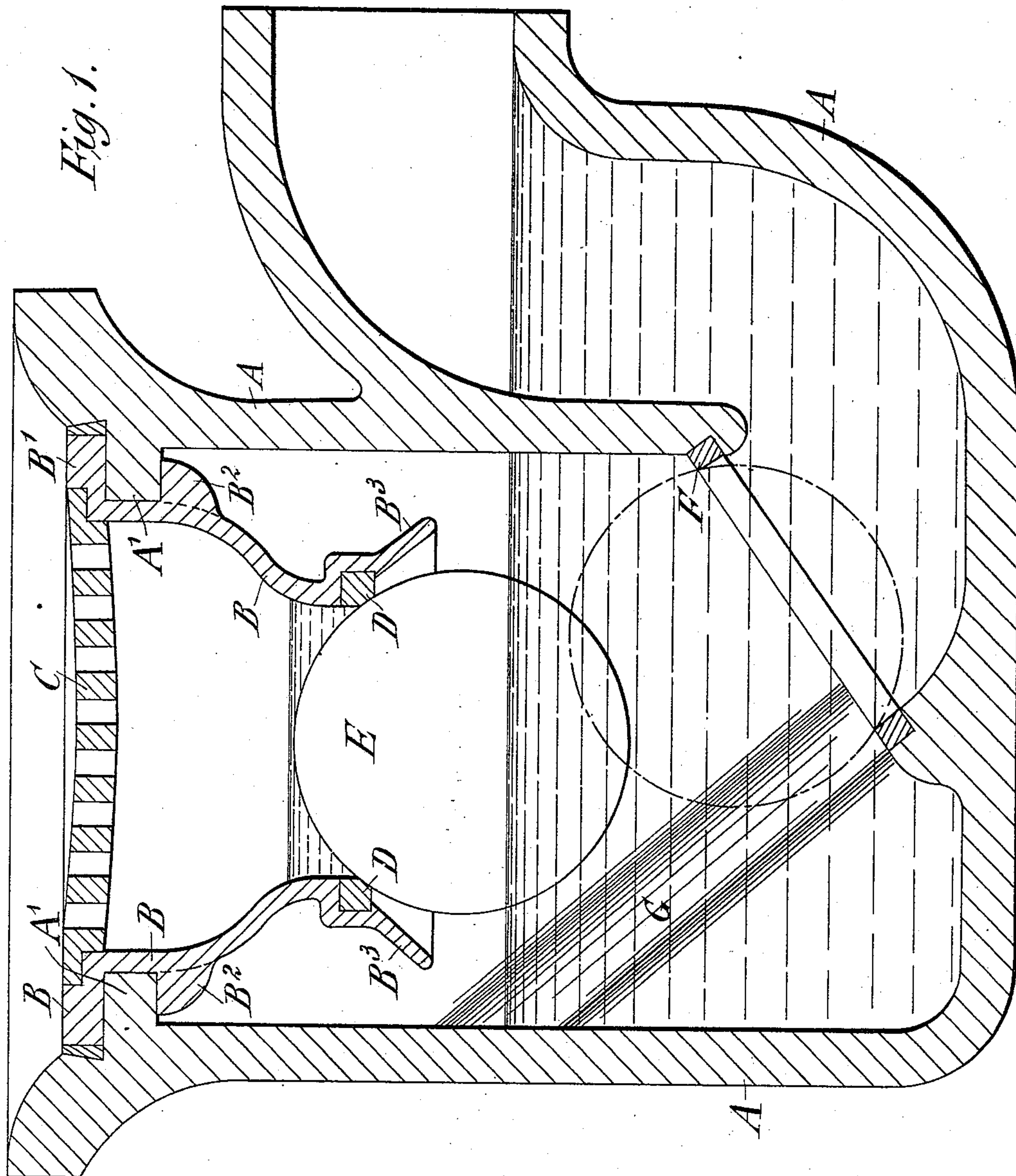
(No Model.)

2 Sheets—Sheet 1.

G. COUZENS.
GULLY TRAP.

No. 486,177.

Patented Nov. 15, 1892.



Witnesses
James Miller
Albert Edward Allen

Inventor
George Couzens
per George Henry Rayner
Attorney

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Fig. 2.

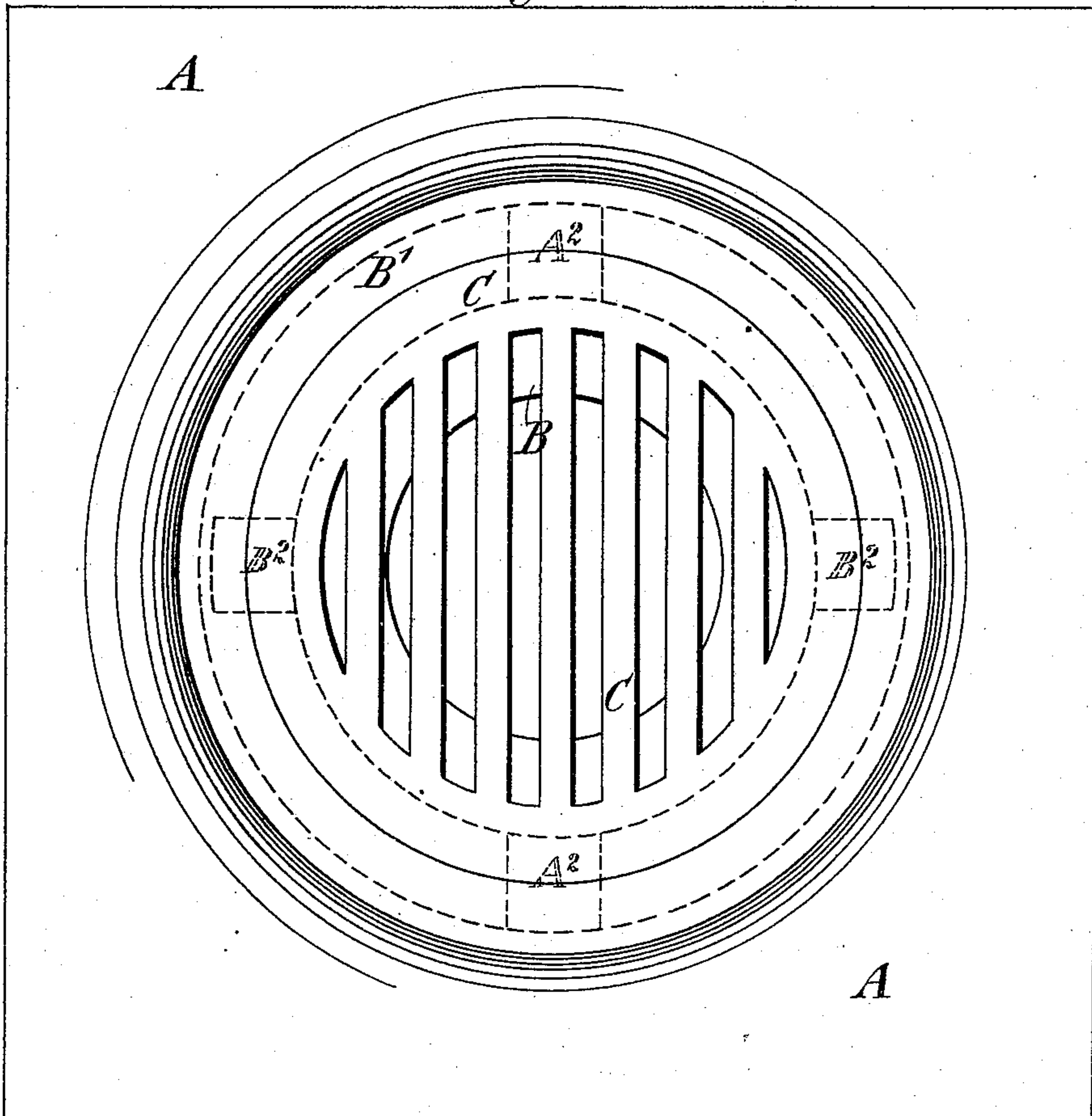
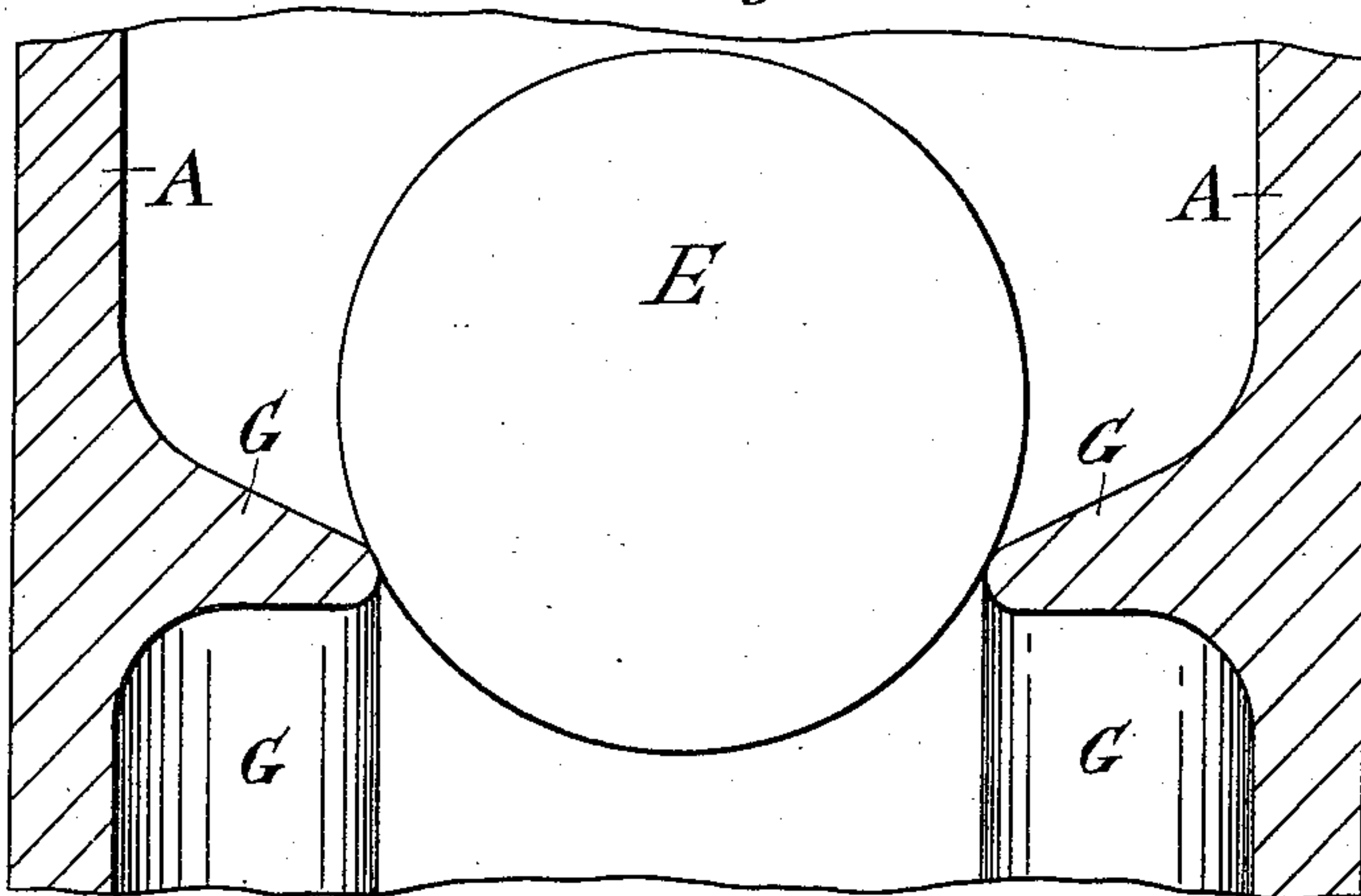


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE COUZENS, OF CARDIFF, ENGLAND.

GULLY-TRAP.

SPECIFICATION forming part of Letters Patent No. 486,177, dated November 15, 1892.

Application filed February 23, 1892. Serial No. 422,503. (No model.) Patented in England December 19, 1891, No. 22,256, and in France May 19, 1892, No. 219,475.

To all whom it may concern:

Be it known that I, GEORGE COUZENS, builder, a subject of the Queen of Great Britain and Ireland, residing at 14 Tudor Street, Cardiff, England, (Wales,) have invented Improvements in Gully-Traps, (for which I have obtained a patent in England, No. 22,256, of December 19, 1891, and in France, No. 219,475, of May 19, 1892,) of which the following is a specification.

This invention relates to the traps placed in the floors of kitchen-cellars, &c., and is designed to prevent any backflow of water or obnoxious gases, while at the same time allowing the easy passage of water to the drains. It is especially applicable to seaside towns, where at high tide the water sometimes rises above the level of the cellar-floors and floods them.

According to this invention I use an outer casing of earthenware, in which an iron frame supporting a movable grating can be readily inserted, the iron frame being circular and having at its base an india-rubber ring, against which a hollow copper ball abuts when supported by the water below, the ball completely closing the passage from the trap to the atmosphere when the water is at its ordinary height, forming the seal of the trap, excepting when water is poured through the grating, when the weight of the water depresses the ball and the water flows through the opening made.

In situations where the trap might get dry I employ another ring of india-rubber, placed at the bottom of the trap, and against which the ball rests, closing the passage when the trap is dry. A suitable guiding-piece on each side of the casing directs the ball onto its seat. The weight of the ball thus prevents any light back-draft of foul air passing through the grating, and immediately sufficient water enters the trap to form the water seal the ball is floated back to its original position.

Referring to the accompanying drawings, Figure 1 is a vertical section of the trap; Fig. 2, a plan, and Fig. 3 a detail view showing the guides for directing the ball onto the lower ring in section.

A is the casing forming the water-trap, to

which the frame B, supporting the grating C, is attached. A flange A' extends round the inside of the casing A, mutilated in two places A², opposite to each other. The upper part of B is flanged at B', and two projections B² are formed on the frame, which when it is to be inserted are passed through the openings A² and the frame turned in either direction, so that the flange A' holds the iron frame and prevents it from falling into the earthenware trap. At the lower part of the frame is fixed the india-rubber ring D, against which the hollow ball E is held by the water in the trap, the ball being guided thereto by the bell-mouth end B² of the frame. When the water is at the height shown, the ball is supported with sufficient force just to press against the ring D, so that a slight weight on top of the ball will force it downward and create a passage through the frame. The ball and ring will, however, support a small quantity of water, which will make an additional seal and still further secure the trap from any through draft of obnoxious air. Any rising in the water through a backflow or other cause will force the ball up and close the passage tightly, effectually preventing any water rising through the gratings. If the water evaporates, the ball will fall and rest upon the ring F, closing the passage at that point. Two guides G are provided, which direct the ball onto the ring F.

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

In a gully-trap, the combination of a copper ball E, rubber ring D, held in a frame B, with bell-mouth B², supported by the casing A and held therein by means of the flanges A' and B' and the projections B², the rubber ring F, fixed in an inclined position at the bottom of the trap, and guides G, all substantially as described, and for the purposes specified.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

GEORGE COUZENS.

Witnesses:

JNO. A. DAY,
Clerk, Freehold, Llandaff.

A. DAVIES,
Solicitor's Clerk, 24 Francis Street, Cardiff.