No. 832,320. PATENTED OCT. 2, 1906.

C. A. JAMES.

WASHBASIN, &c.

APPLICATION FILED SEPT. 13, 1905.

9 SHEETS—SHEET 1.

Fig. 1.

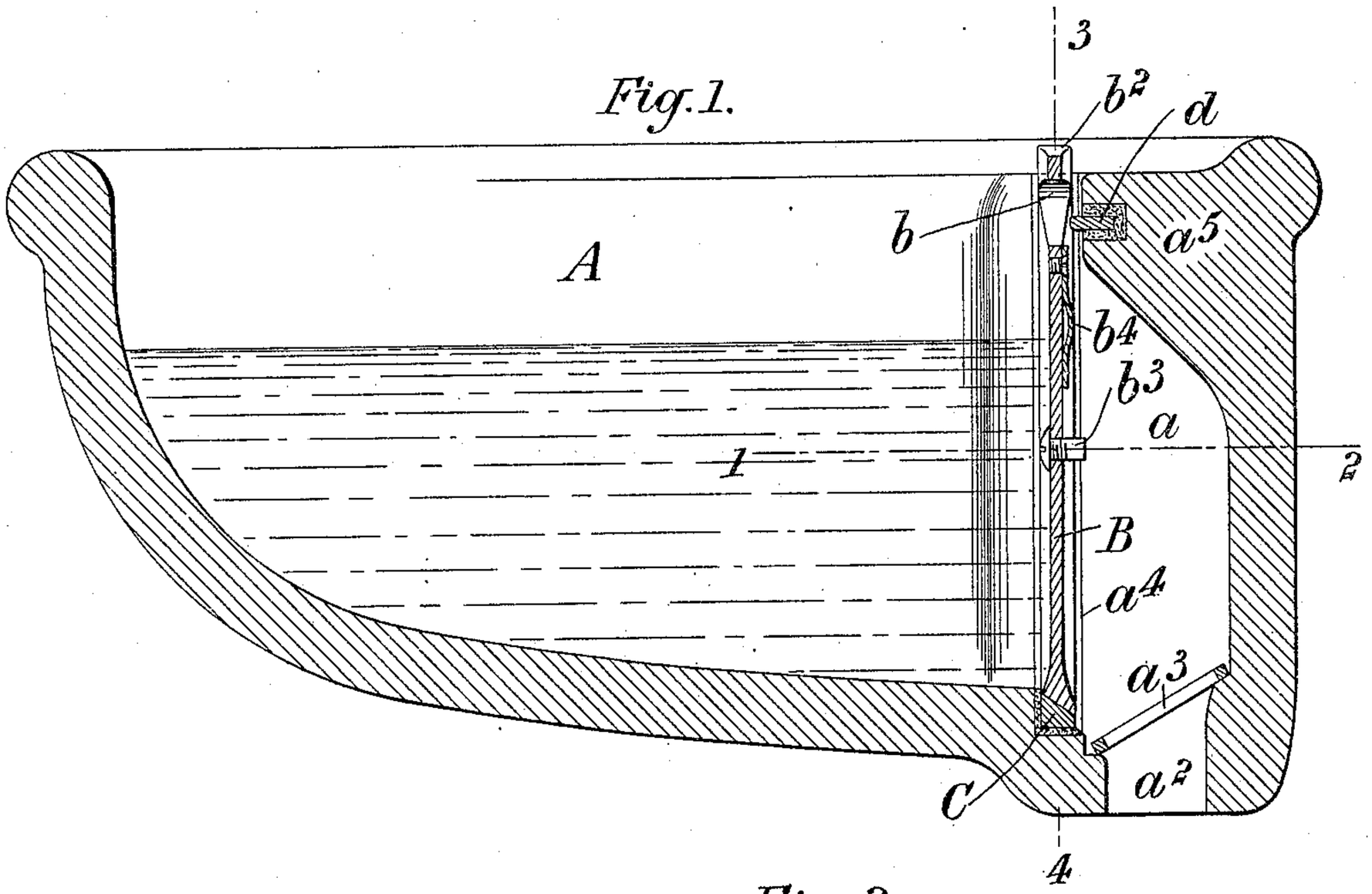

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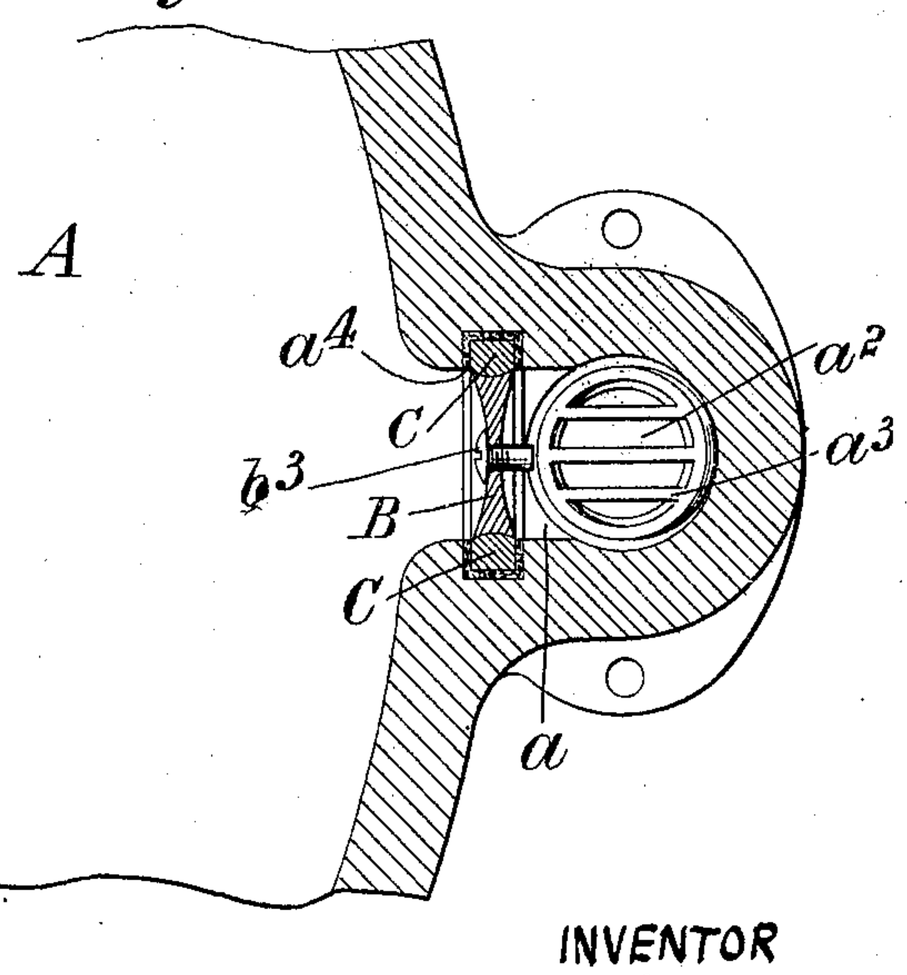
Fig. 2.



WITNESSES

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Charles Alfred James

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9 SHEETS—SHEET 2.

Fig. 3.

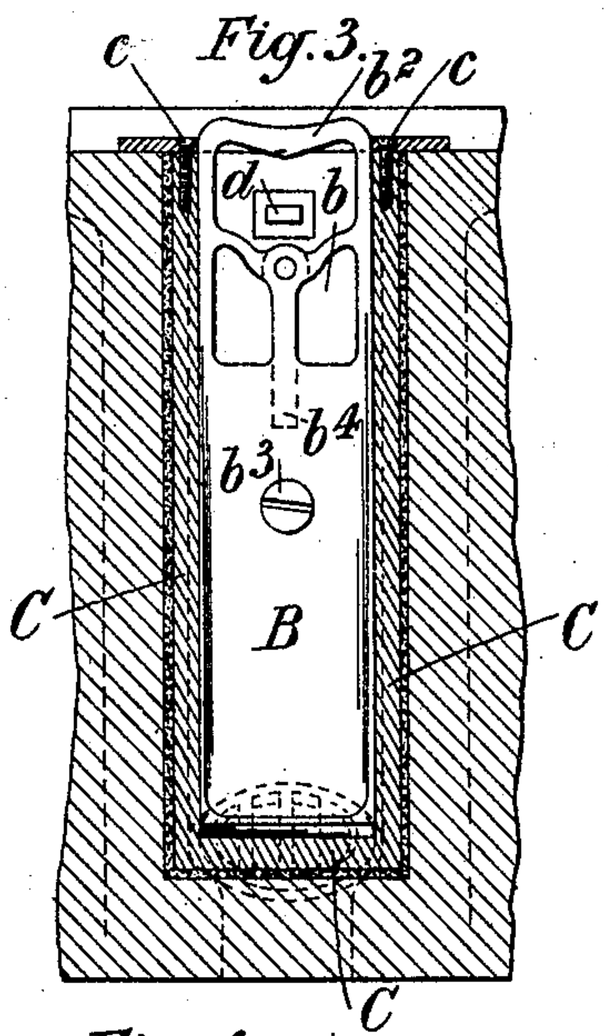
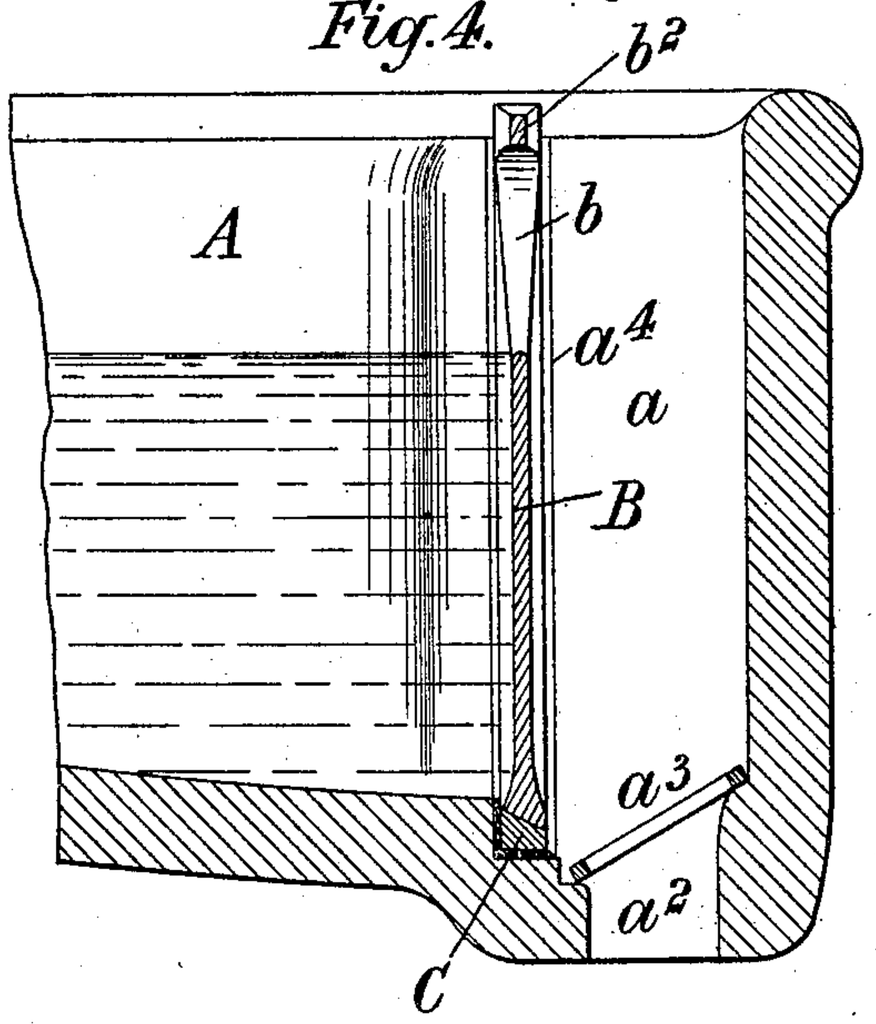


Fig. 4.



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9 SHEETS—SHEET 3.

Fig. 5.

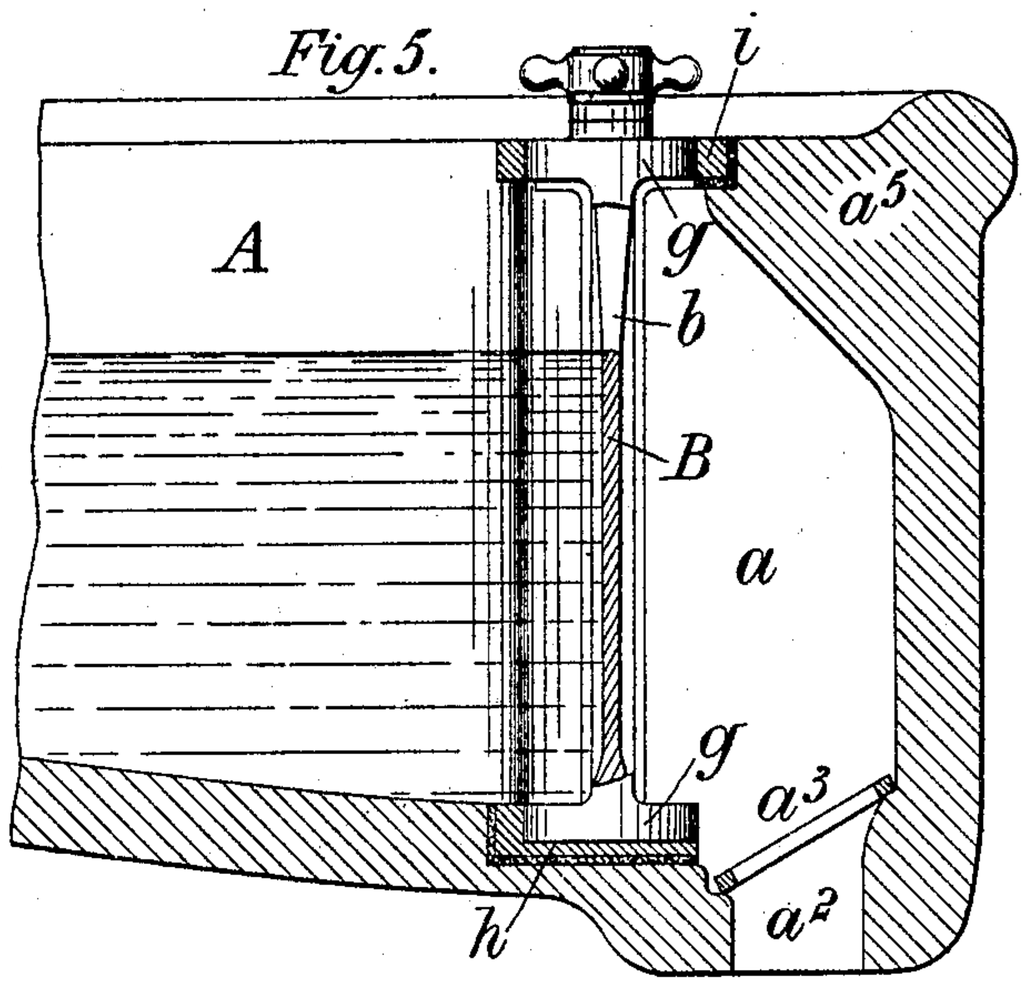
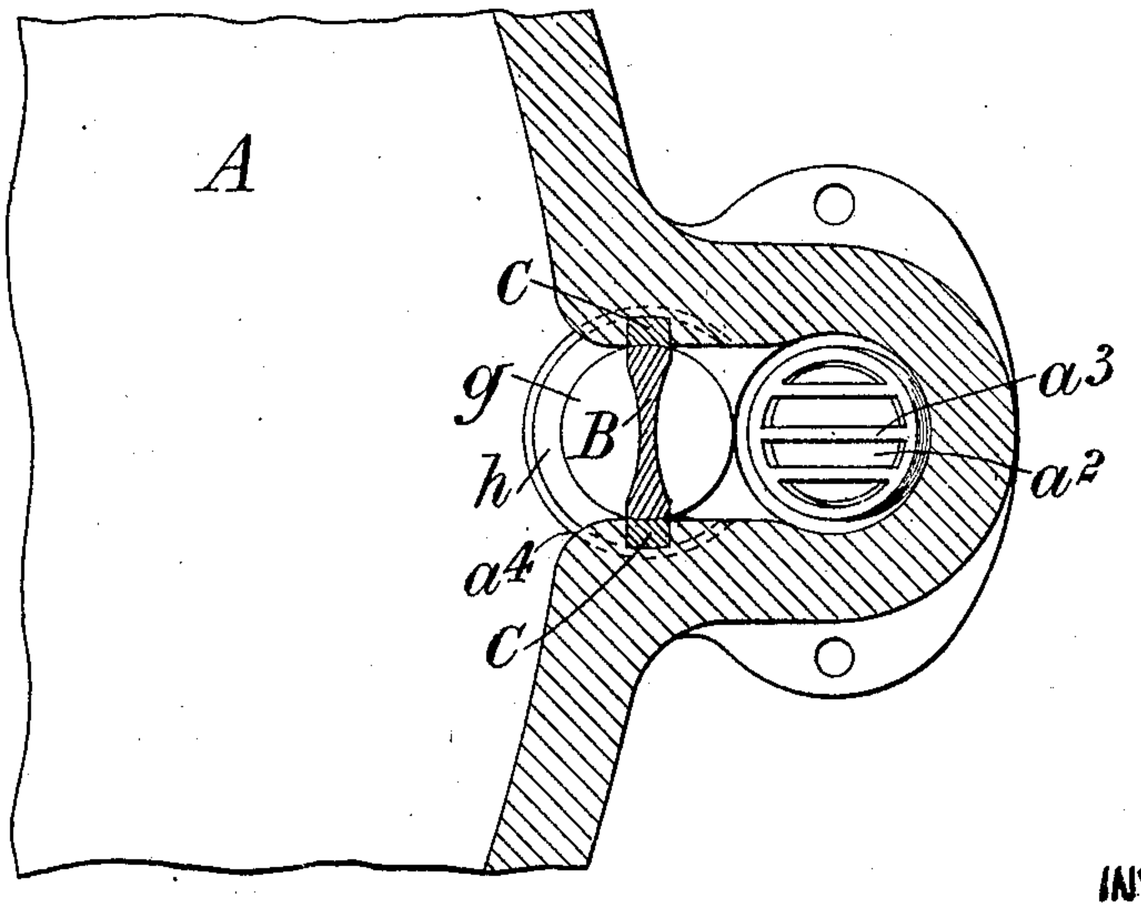


Fig. 6.



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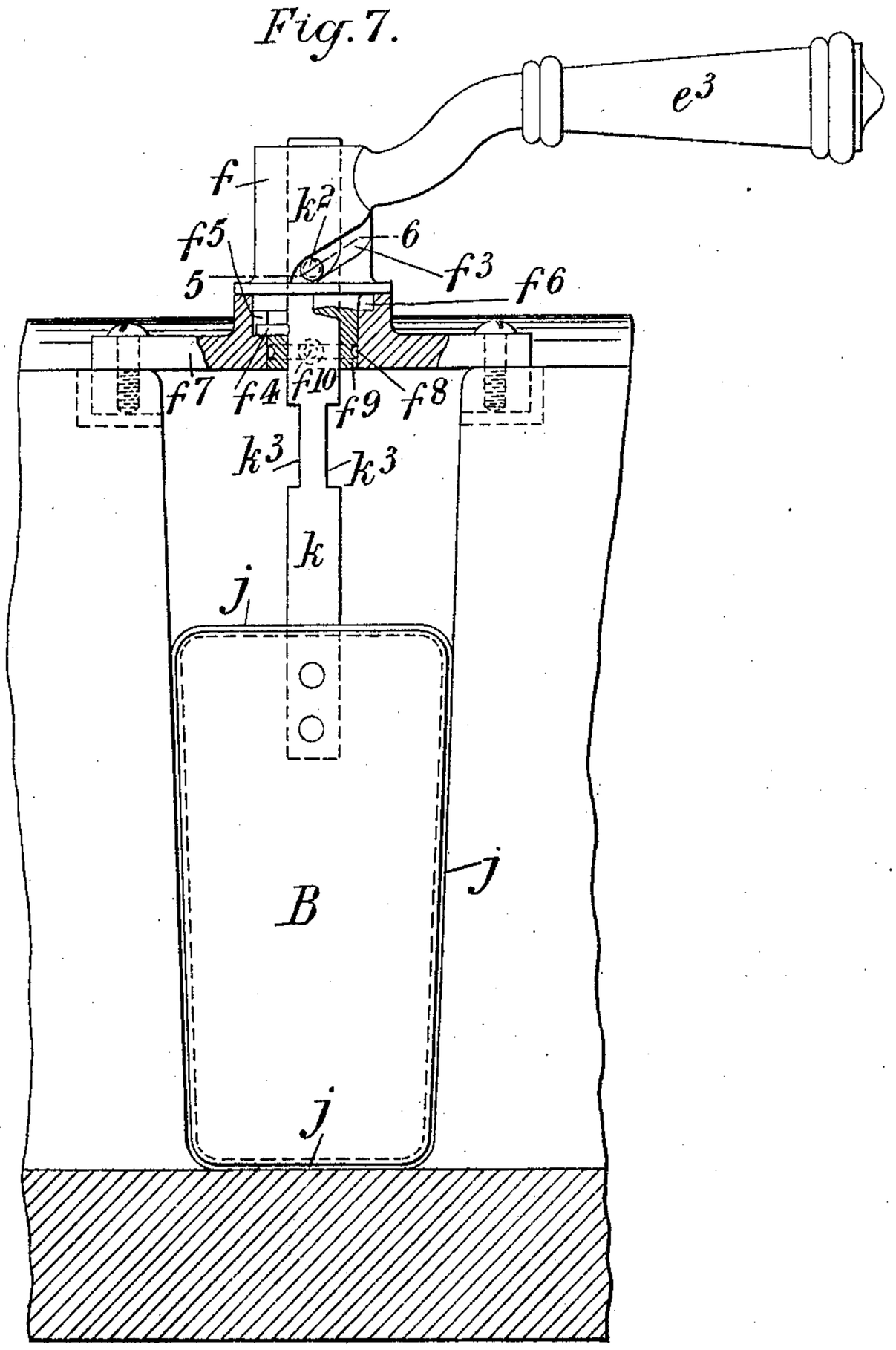
9 SHEETS—SHEET 4.

Fig. 7.



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9 SHEETS—SHEET 5.

Fig. 8.

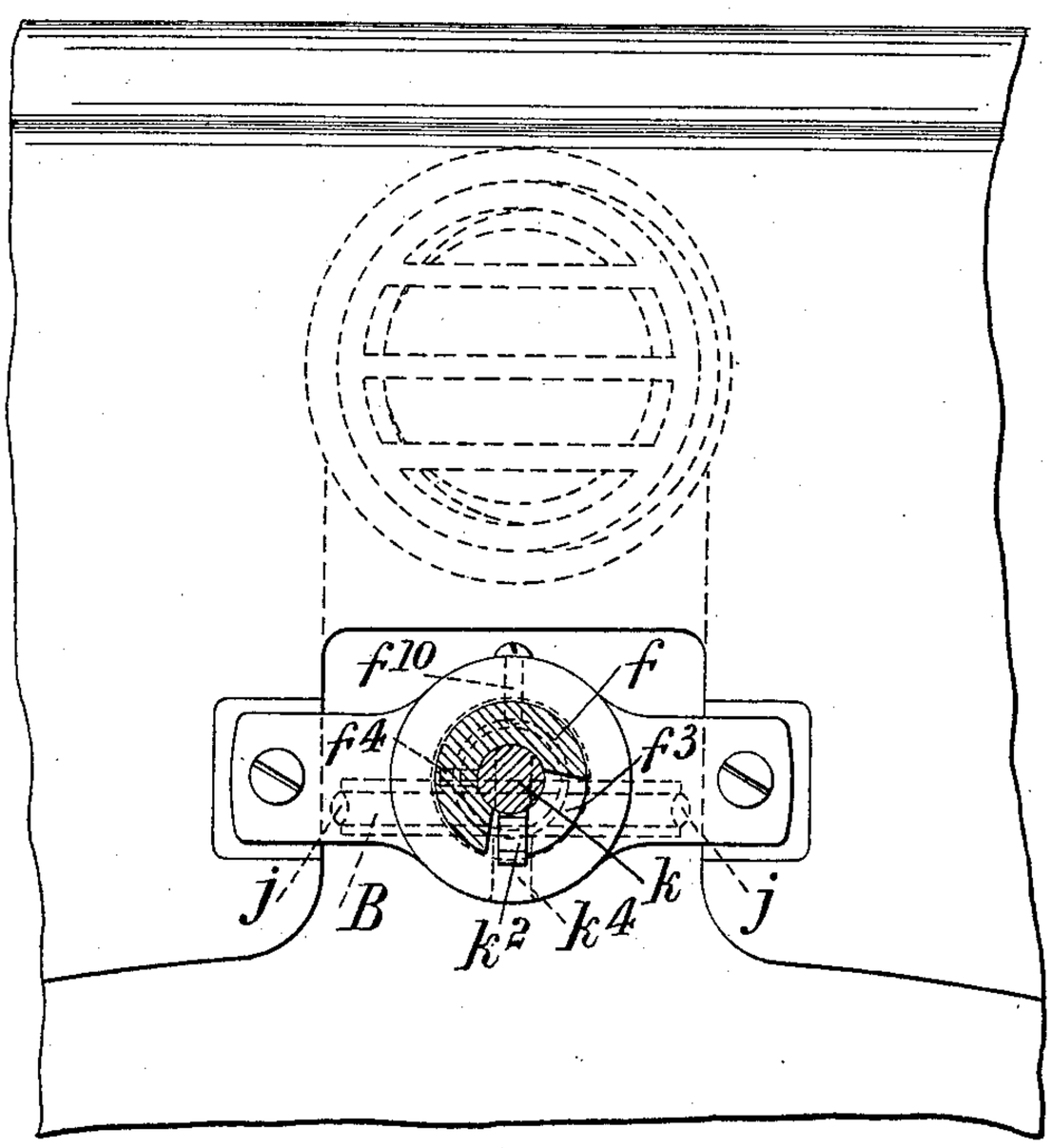

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Fig. 9.

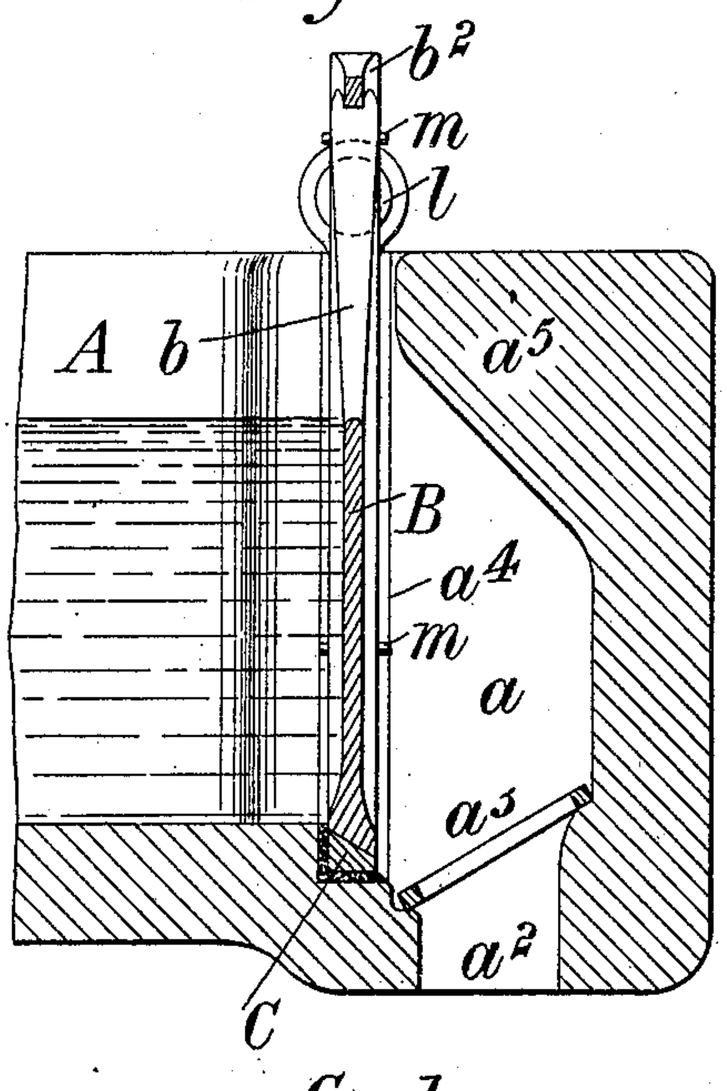
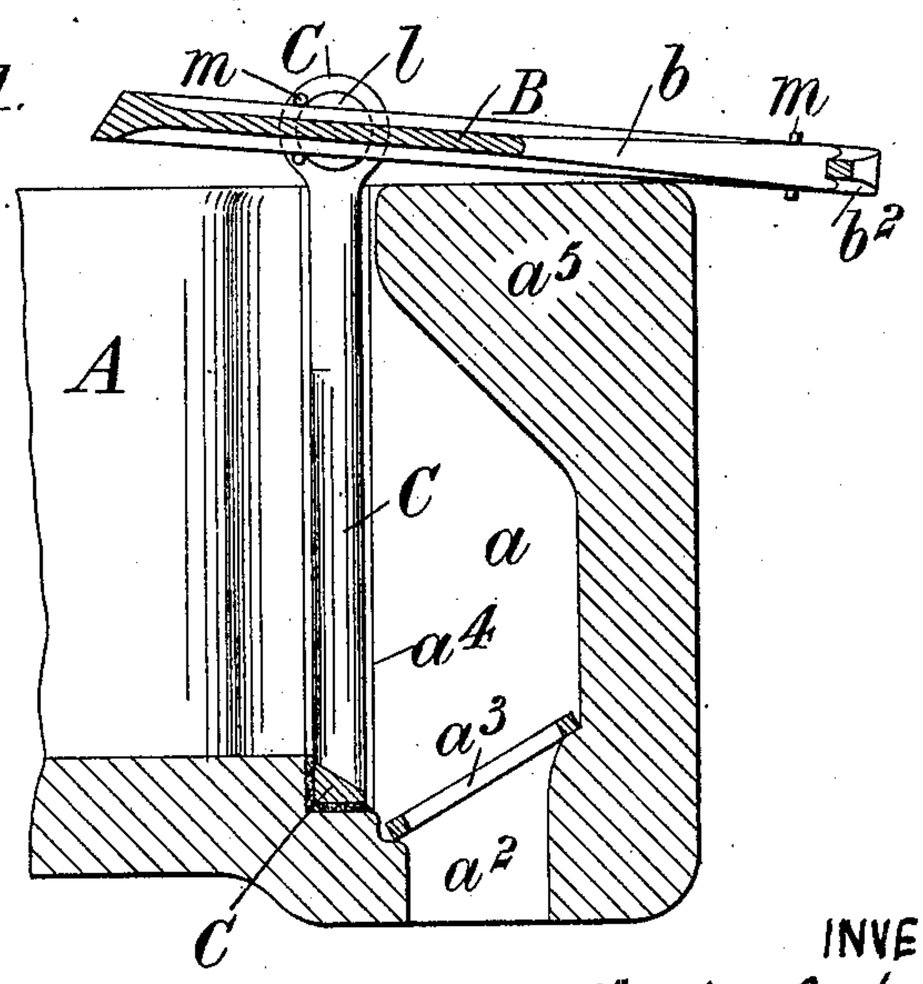


Fig. 11.



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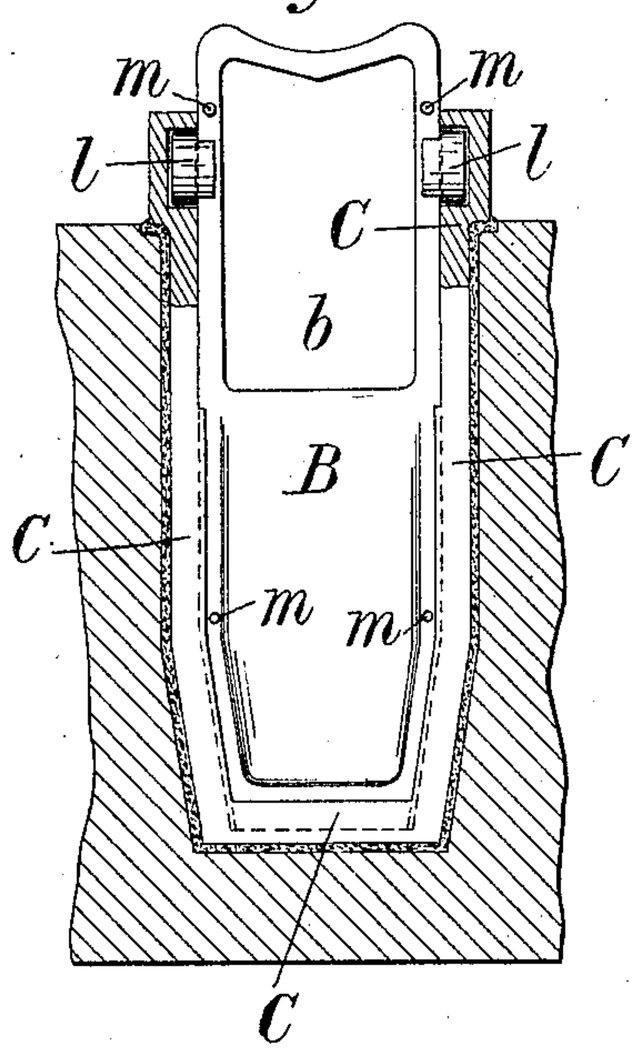
9 SHEETS—SHEET 7.

Fig. 10.



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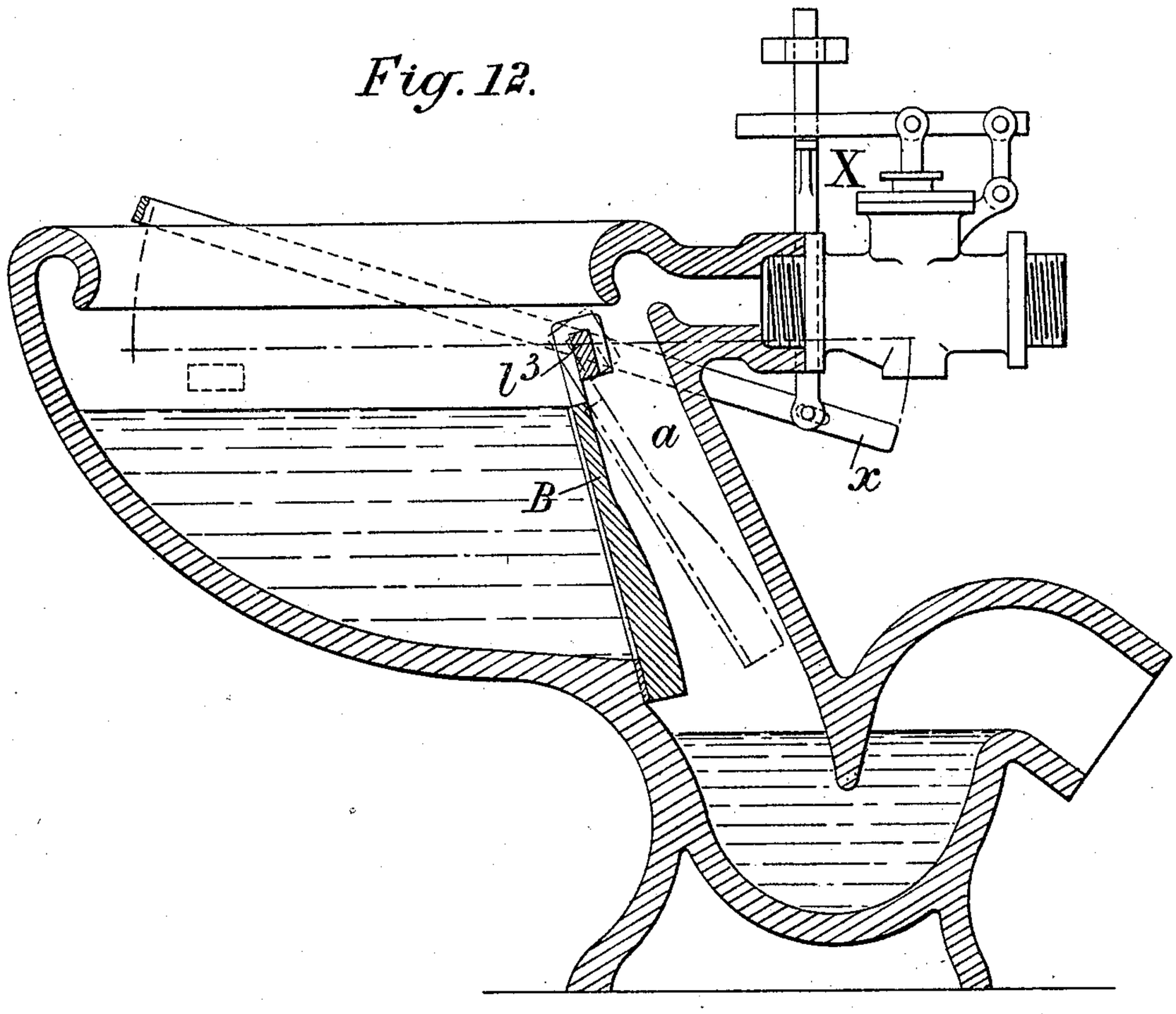
9 SHEETS—SHEET 8.

Fig. 12.



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9 SHEETS—SHEET 9.

Fig. 13.

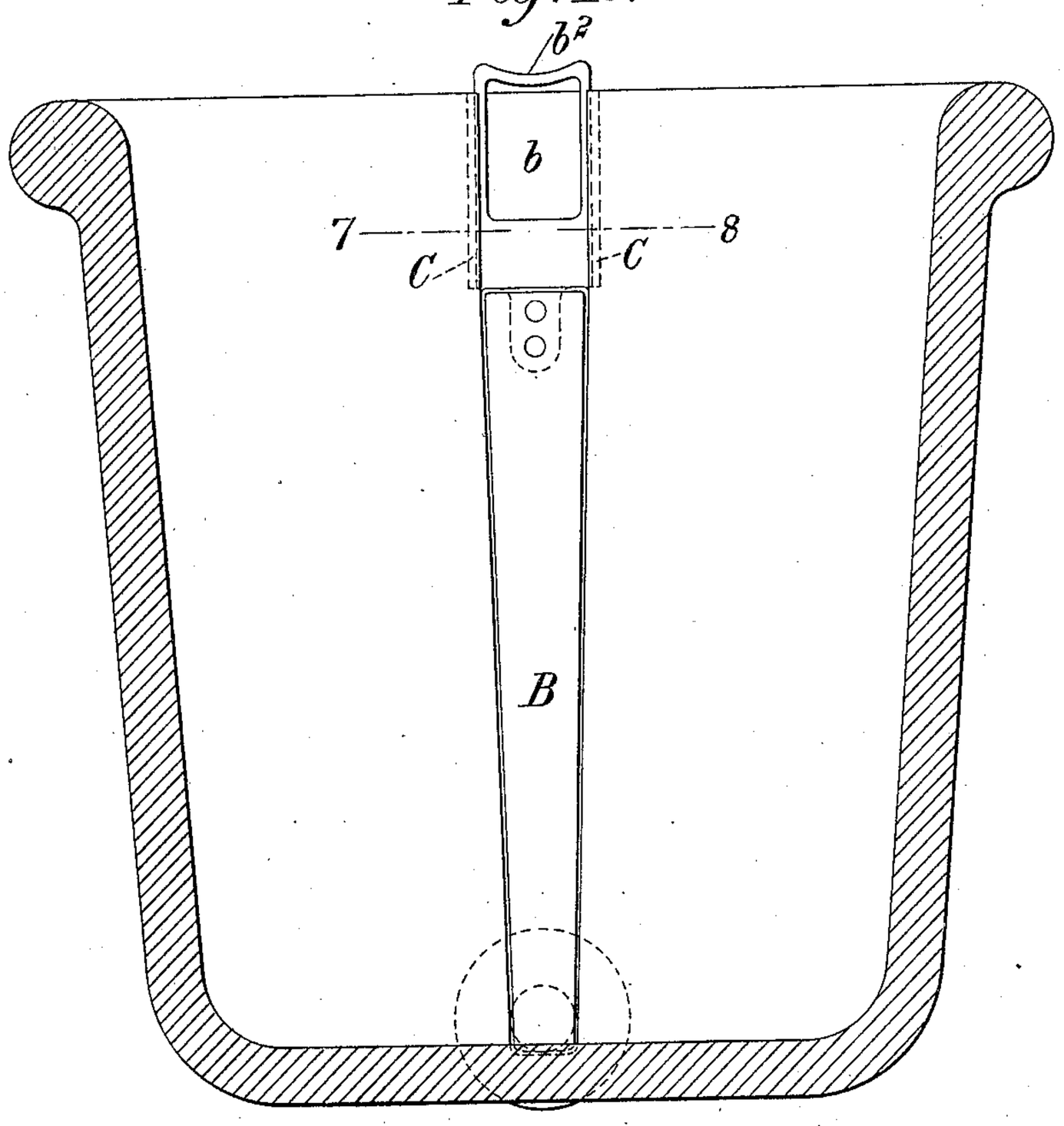
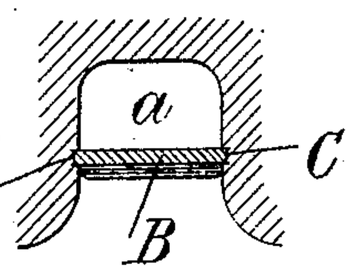


Fig. 14.



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UNITED STATES PATENT OFFICE.

CHARLES ALFRED JAMES, OF STAMFORD HILL, LONDON, ENGLAND.

WASHBASIN, &c.

No. 832,320. Specification of Letters Patent. Patented Oct. 2, 1906.

Application filed September 13, 1905. Serial No. 278,300.

To all whom it may concern:

Be it known that I, CHARLES ALFRED JAMES, sanitarian, a subject of the King of Great Britain and Ireland, residing at Ebor House, Stamford Hill, in the county of London, England, have invented certain new and useful Improvements in Washbasins, &c., of which the following is a specification.

My invention relates to washbasins, baths, urinals, water-closet pans, and like articles—such as slop-sinks, laundry-troughs, and laboratory-sinks, for example—wherein liquid has to be contained and wherein provision is made for the overflow of the liquid (which I will presume to be water) therefrom as well as for emptying when required, the object of my invention being to provide a simple and readily and economically made device which can be operated with great facility and which can be easily cleaned and also allow of the overflow passage being very readily cleaned and in which there need be no parts liable to be mislaid or objectionably interfering with the interior of the basin, bath, pan, or the like. Moreover, the construction according to my invention is free from the objectionable noise incidental to ordinary flushing-basins, baths, urinals, water-closets, and the like.

In the accompanying drawings, Figure 1 represents a vertical longitudinal section of a vessel in the form of a lavatory-basin in which my fitting is applied. Fig. 2 is a horizontal section of a portion of the same on the line 1 2, Fig. 1. Fig. 3 is a cross-section of portion of the same on the line 3 4, Fig. 1. Fig. 4 shows a modified form of my fitting in a vertical longitudinal cross-section of portion of a lavatory-basin. Figs. 5 and 6 show another modification of my fitting in longitudinal vertical section and plan, respectively, of portion of a basin or like vessel. Figs. 7 and 8 are an elevation and plan, partly in section, respectively, of another modification. Figs. 9 and 10 are vertical sections at right angles to each other of another modification. Fig. 11 is the same as Fig. 9 except that my fitting is there shown removed. Fig. 12 shows my fitting applied to a water-closet pan, drawn in longitudinal vertical cross-section. Fig. 13 shows my fitting applied to a bath-tub, drawn in vertical cross-section. Fig. 14 is a plan view of overflow-channel in such a tub.

Referring to the drawings, and particularly to Figs. 1 to 3, A is the main body of the basin, having formed in it a recess a, constituting an overflow passage or channel, with which the outlet-opening a^2 communicates, the said outlet-opening being shown covered by a grid a^3. In the slot a^4, Fig. 2, which is between the said recess a and the main body A of the basin, is a piece B, constituting a shutter or sliding valve, having at top an opening b for the overflow and a handle (at b^2) for raising the said shutter or valve B. The side edges of the said shutter or valve B are received and guided in the metal fitting-frame or guide C, which is fixed—by fused sulfur or cement, for example—in a groove in the sides and bottom of the slot a^4, the lower end of the said shutter or valve B when lowered preferably descending somewhat below the upper edge of the bottom member of the said fitting or guide C and being preferably inclined and resting on a similarly-inclined surface on the said bottom member of the fitting or guide C. The pieces of metal screwed on at c serve to conceal the upper ends of the fitting or guide C and can also, if desired, be recessed to constitute continuations of the guides.

When the shutter or valve B is closed, any overflow of water passes through the opening at b and by the recess or overflow passage or channel a to the outlet a^2. When the said shutter or valve B is raised, the contents of the basin pass freely and with great rapidity and without objectionable noise to the outlet a^2. By removing the shutter or valve B by drawing it entirely out of the metal fitting or guides C all the parts and recess or passage a can be very readily and efficiently cleaned.

b^3 is a stop which can be removed when the shutter or valve B is to be entirely withdrawn for cleaning, but which normally prevents such entire withdrawal. To prevent this stop from coming into contact with the earthenware of the basin, a metal piece d may be provided for it to come against.

b^4 is a spring which will bear against the stop d to hold up the shutter or valve when desired.

Fig. 4 represents in section corresponding to Fig. 1 the shutter or valve B without the spring b^4 and stop b^3 and with the recess a open at top instead of closed, as at a^5 in Fig. 1.

Figs. 5 and 6 represent in longitudinal vertical section and plan an arrangement wherein the shutter or valve B is turned sidewise virtually upon a vertical axis to open and close it, the frame C and the side edges of the shutter or valve B being curved to the radius of the circle described by the edges of the said shutter or valve as it turns. The shutter or valve B is formed with enlarged circular ends *g*, the lower end turning on a partly-circular guide and bearing on a circular seating *h* and the upper end being received in a ring *i*, formed with or affixed to the side frames or uprights C, so that the shutter or valve B can be opened and closed by a partial rotation and readily withdrawn.

Fig. 7 represents in elevation, (as seen from the interior of the basin,) and Fig. 8 in plan, (partly in section on the line 5 6, Fig. 7,) an arrangement which may be employed especially when the shutter or valve B is desired to be made of earthenware, glass, or the like, a packing being preferably applied to its edges, which packing may be a rubber ring *j*, received in a groove around the edges of the said shutter or valve B. This renders it advisable to withdraw the said packing on the shutter or valve from contact with the sides of the slot in the basin before the said shutter or valve commences to be turned, and this is shown as being effected by making the said valve and shutter and the said slot tapered and providing the stem *k* of the said valve or shutter with a projection k^2, which runs on an inclined surface f^3 in the boss *f* of the lever-handle e^3, so that when the handle e^3 is operated through a quarter-rotation the shutter or valve B rises. A pin f^4 on the stem *k* fits in a slot f^5, formed in a countersunk part f^6 of the top piece or bearing f^7 and prevents the turning of the valve B until the said valve has risen sufficiently for the pin f^4 to be out of engagement with its slot, when upon the further rotation of the handle e^3 the valve B is caused to turn by the boss *f* engaging the projection k^2. The pin f^4, now running on the horizontal bottom of the countersunk part f^6, keeps the valve in its raised position when the handle e^3 is released. The shutter or valve B can be removed for cleaning by turning the handle e^3 through a still further quarter-rotation, bringing a cut-away portion of an annular recess f^8 forward in an extension f^9 of the boss *f* opposite a projection f^{10} on the top piece or bearing f^7, enabling the stem *k* and all attached thereto to be lifted until the slots k^3 in the said stem coincide with an opening k^4 on the top piece or bearing f^7, and the whole can then be withdrawn forward.

Figs. 9 and 10 show, in vertical section at right angles to each other, an arrangement wherein the frame or guides C of the shutter or valve B is provided with recesses for trunnions *l*, which are slotted so that the shutter or valve B can be slid up in them and then turned back on these trunnions, as shown in Fig. 11. The pins *m* normally prevent the shutter or valve B from being removed from the trunnions.

Fig. 12 is a sectional elevation showing an arrangement of the device applied to a water-closet pan. The part of the bar l^3 on which the shutter or valve B is carried is squared or of equivalent shape, so that an equivalently-formed hooked part at the top of the shutter or valve B can be passed onto it, so that the said shutter or valve can be opened and shut by turning the said bar, while the said shutter or valve can be readily removed for cleaning purposes. The ends of the bar where they pass into or through the material of the pan are rounded, so that they can be turned in their bearings for operating the shutter or valve. This turning can be effected by means of a lever *x*, fixed to the projecting end of the bar l^3, and this lever may be the same lever that actuates the valve X of the flushing apparatus, as shown. The part of the shutter or valve B which bears against its seating when the said shutter or valve is closed can be provided with flexible material, and the lower part of the shutter or valve can be made thicker, as shown in dotted lines, to give a better closure, or the lever *x* can be weighted for the purpose.

Fig. 13 shows in elevation, and Fig. 14 in section, (on the line 7 8, Fig. 13,) a modification as applied to a bath, for example, wherein the valve or shutter B is made wedge-shaped, with the smaller end downward to fit in a correspondingly-shaped overflow-passage leading to the outlet, the upper part of the sides of the said shutter or valve being parallel to each other and the corresponding part of the overflow-passage being also parallel and only this upper part of the shutter or valve sliding in guides C, so that by only raising the valve or shutter to the extent of the length of these guides it can be removed. The valve or shutter is provided with a handle b^2 at top for manipulating it, the opening *b* beneath this handle forming the exit for superfluous water to the overflow-passage.

The aforesaid recess, channel, or space *a* constituting the overflow-passage is preferably, as shown, made in the main body of the washbasin, bath, urinal, water-closet pan, or like article, so that the whole can be glazed or enameled.

I claim as my invention—

1. A vessel of the character described, having an outlet and an overflow channel communicating throughout the length of one of its sides with the interior of the said vessel, and a shutter or valve closing such communication to the height of the overflow, but operable to permit the unimpeded passage of the contents of the vessel to the outlet.

2. A vessel of the character described, hav-

ing an outlet and an overflow channel communicating throughout the length of one of its sides with the interior of the vessel, and a shutter or valve closing such communication to the height of the overflow, but readily removable to permit the cleansing of such overflow-channel and its outlet.

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

CHARLES ALFRED JAMES.

Witnesses:

GUSTAVUS GIDLEY,

HAROLD WOLFERSTAN.