

April 6, 1943.

J. L. BRACK

2,315,928

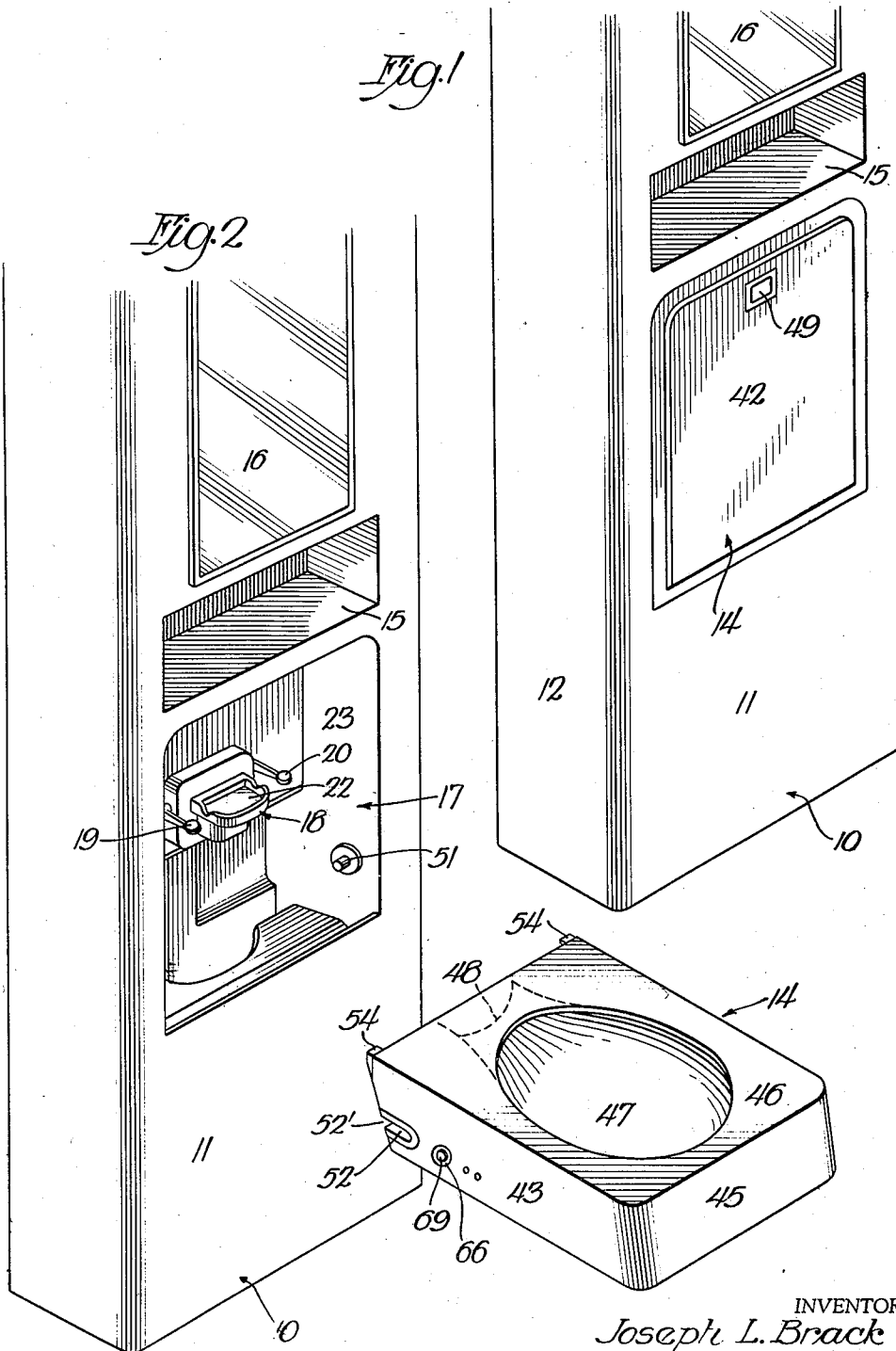
WASHBASIN

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3 Sheets-Sheet 1

Fig. 1

Fig. 2



INVENTOR.
Joseph L. Brack
BY *Mann, Brown & Co.*
ATTYS.

April 6, 1943.

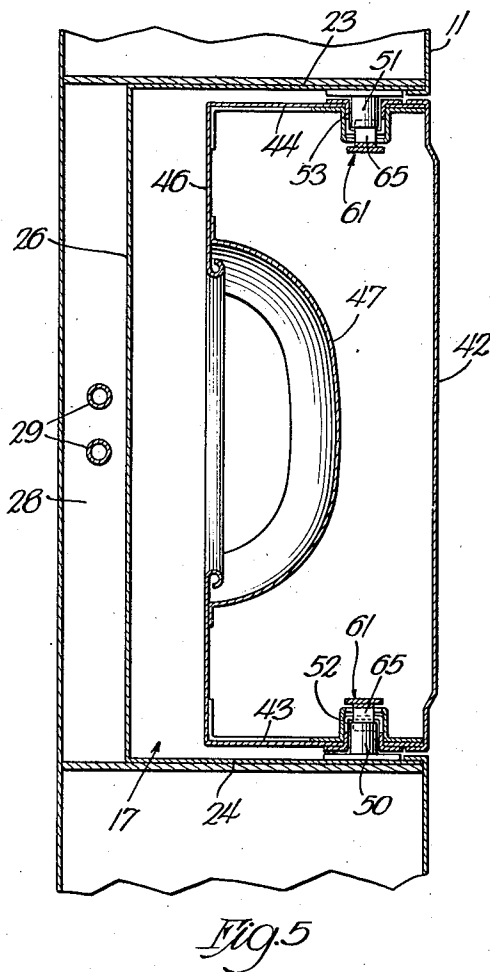
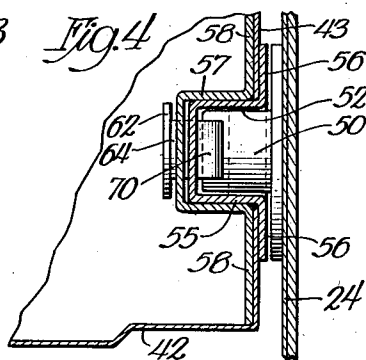
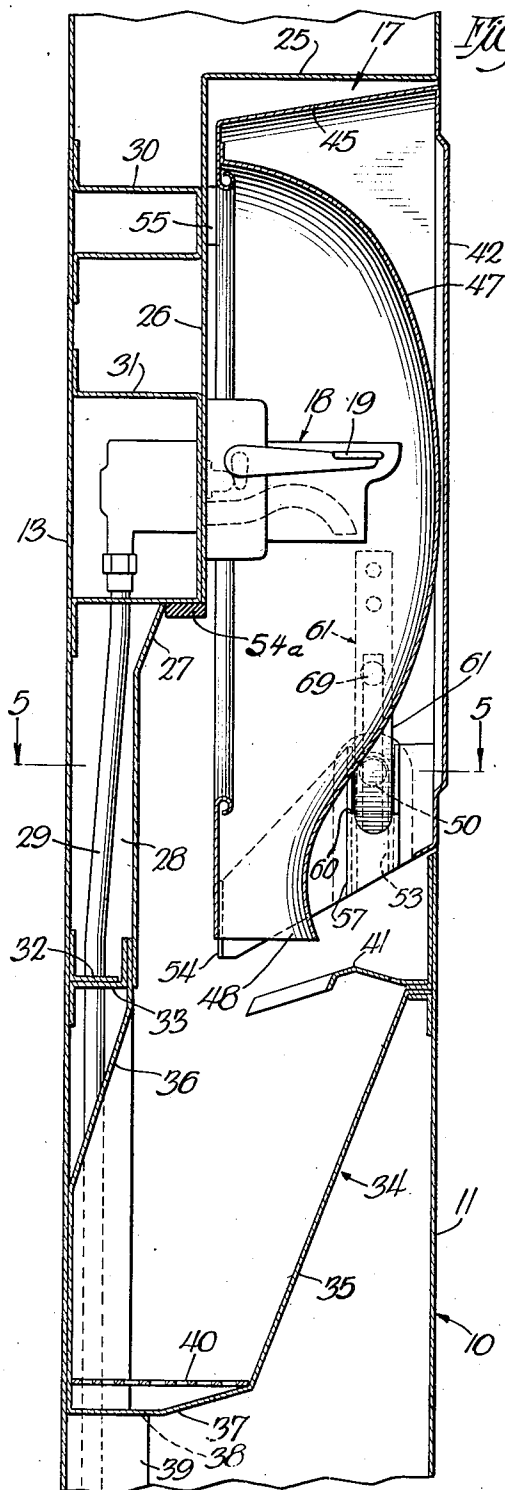
J. L. BRACK

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WASHBASIN

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3 Sheets-Sheet 2



INVENTOR.
Joseph L. Brack
BY *Mary Brack* of
ATTYS.

April 6, 1943.

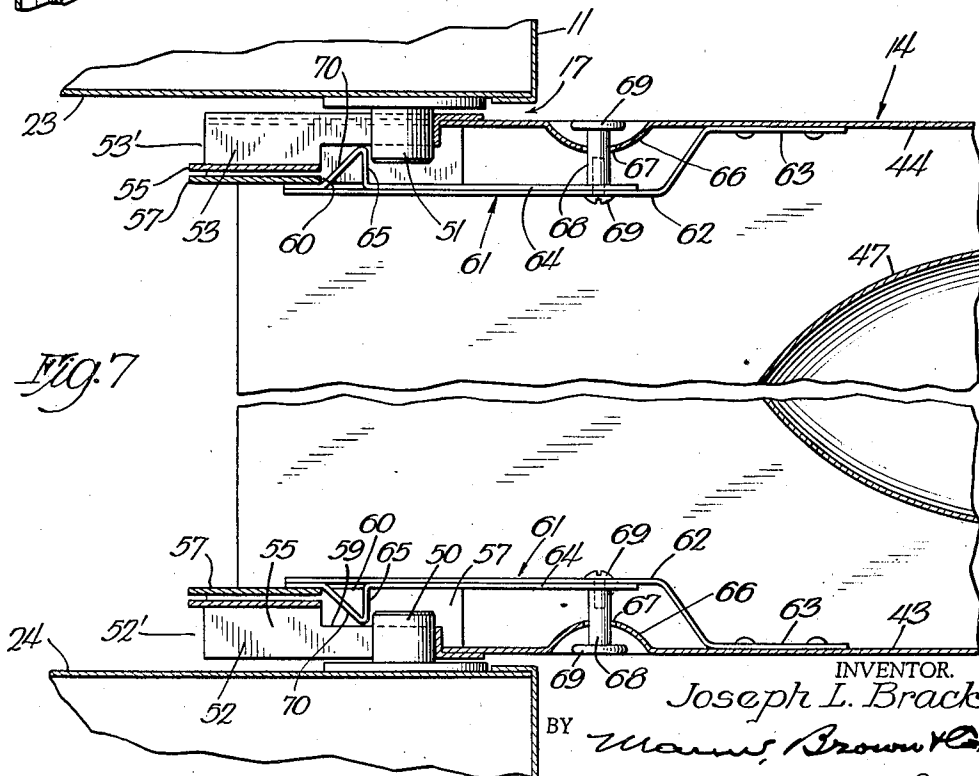
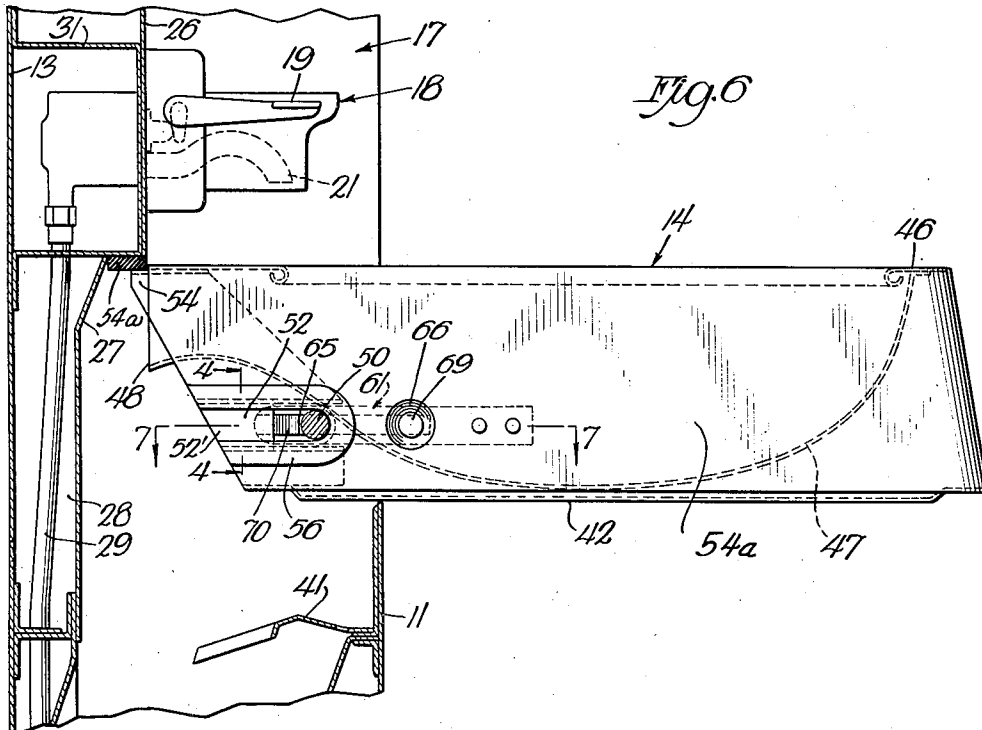
J. L. BRACK

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WASHBASIN

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UNITED STATES PATENT OFFICE

2,315,928

WASHBASIN

Joseph L. Brack, Chicago, Ill., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware

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14 Claims. (Cl. 4-169)

Folding washbasins are widely used today in railway passenger cars as part of the equipment in the various room accommodations. Each of these basins generally is hinged about a horizontal axis and moves from a horizontal open position to a vertical closed position. When in its closed vertical position, the basin generally is disposed inside a housing. Water is placed in the basin only when the basin is in its horizontal open position. To empty the water, the basin is tilted vertically to its closed position, and the waste water is thereby poured into a waste sump and discharged from the car.

Users of folding basins invariably deposit articles of jewelry and the like on the top surfaces of open basins, and there are repeated instances where these articles have been lost or at least rendered inaccessible because the basins are tilted for discharging the waste water before the articles of jewelry are removed.

The present invention is intended to alleviate to a great extent the difficulties encountered in retrieving articles which are dropped into the basin sumps. It makes it possible to remove simply each basin from its mounting so as to make the sump readily accessible for removal of the lost article. The user himself can perform this operation without requiring the services of a mechanic or without needing any wrenches or other tools. The appearance of the basin in no way is marred by the removal of the present device, and the installation is relatively simple and inexpensive.

The above constitutes one of the principal objects and advantages of the present invention, others of which will become apparent from the following description and drawings, in which:

Fig. 1 is a fragmentary perspective view of a basin housing showing the basin in its closed, inoperative position;

Fig. 2 is a fragmentary perspective view corresponding to Fig. 1 but showing the basin in its removed position;

Fig. 3 is an enlarged fragmentary, vertical sectional view taken through the housing showing the basin in its closed position;

Fig. 4 is an enlarged detail view of one side of the basin showing its mounting and releasing mechanism, the view being taken on the line 4-4 of Fig. 6;

Fig. 5 is a fragmentary horizontal sectional view taken on the line 5-5 of Fig. 3;

Fig. 6 is a fragmentary vertical sectional view corresponding to Fig. 3 but showing the basin in its open position; and

Fig. 7 is an enlarged fragmentary horizontal sectional view through the basin taken on the line 7-7 of Fig. 6.

Referring now to Figs. 1 and 2, a cabinet or housing is generally indicated at 10 and includes a front wall 11, a pair of side walls, one of which is shown at 12, and a rear wall 13 (Fig. 3). A washbasin 14 is shown in Fig. 1 in its closed position. Directly above the basin is a utility shelf 15, and above the shelf is a mirror 16.

The basin 14 fits into a recess generally indicated at 17 in Fig. 2. In the recess and disposed directly above the basin when the latter is in its open position shown in Fig. 6 is a faucet assembly, generally indicated at 18, having hot and cold water faucet levers 19 and 20, respectively, and a discharge spout 21. A soap dish 22, as shown, forms part of the faucet assembly.

The recess 17 in the housing 10 is shaped to correspond to the shape of the basin 14, and, as shown in the drawings, is substantially rectangular. The sides of the recess are formed by vertical walls 23 and 24 (Fig. 5). The top comprises a horizontal top wall 25. The recess is closed at the back by a rear vertical wall 26, which is substantially straight throughout the distance from the top wall 25 to a position below the faucet assembly 18 (Fig. 3), and then is offset rearwardly at 27 toward the back wall 13 of the housing 10 so as to provide sufficient clearance for the basin when the latter is moved from its inoperative to its operative position. The offset portion 27 of the rear wall 26 for at least a part of its area is spaced from the back wall 13 of the housing a distance sufficient to provide a passage 28 (Fig. 3) for pipes 29, which connect the faucet assembly 18 to a source of water.

Between the rear wall 26 of the recess 17 and the back 13 of the housing 10 are suitable framing members 30, 31, 32, and 33 to give the necessary support and rigidity to the structure. These members are secured in place by any suitable means. The front of the recess 17, as best shown in Fig. 2, is open, and the basin 14 itself serves as the closure member.

Extending below the recess and enclosed within the housing 10 is a sump, generally indicated at 34 in Fig. 3. This sump includes a front wall 35 extending downwardly and rearwardly from the front face 11 of the housing and a rear wall 36 commencing at the lower edge of the offset portion 27 of the rear recess wall 26 and inclining rearwardly to the back wall 13 of the housing 10. Suitable side walls joining the front and rear sump walls 35 and 36, respectively, extend

from the top to the bottom of the sump. The bottom of the sump is closed by bottom wall 37, which has a discharge opening 38 through which waste water empties into a discharge pipe 39. A perforated plate 40 strains out and retains any solid articles to prevent loss through the discharge pipe 39 of articles of value.

A shield 41 projects part of the way across the top of the sump directly below the basin.

Referring to Figs. 1-4, inclusive, the basin 14 includes a front face 42, sides 43 and 44, a forward wall 45, a top 46, and a bowl 47, the latter of which is open at the rear of the basin and is provided with a lip 48, through which waste water is discharged into the sump. A hand grasp member 49 (Fig. 1) is provided on the front face 42 of the basin for manipulation of the basin from open to closed position.

The basin 14 is pivoted about a horizontal axis, so that it may be rotated from a closed, vertical position (shown in Fig. 1) to an open, horizontal position shown in Fig. 6. Rubber or other resilient bumpers 54a (Fig. 6) engage projections 54 (Figs. 2 and 6) on the basin to limit the degree of opening of the basin and to cooperate in supporting the basin in its open position, and rubber or other resilient stops 55 (Fig. 3) engage the top surface 46 of the basin when the latter is closed.

Referring to Figs. 2, 5, and 7, a pair of lugs or trunnions 50 and 51 project into the recess 17 from the recess side walls 24 and 23, respectively. Elongated slots 52 and 53 (Fig. 5), respectively, in the basin sides 43 and 44 receive the corresponding trunnions 50 and 51. Fig. 6 shows the basin 14 mounted on the trunnions 50 and 51 (only trunnion 51 being shown in this figure), whereas Fig. 2 shows the basin entirely removed from its mounting. This removal is accomplished by moving the basin, and consequently the slots 52 and 53 laterally with respect to the trunnions 51 and 52. The trunnions thus pass lengthwise through the slots and out through the open ends of the slots shown at 52' and 53'.

The slots 52 and 53 on the opposite sides of the basin are identical. For this reason, one only will be described in detail.

Referring to Fig. 4, slot 52 is shown in detail, and comprises an outer channel member 55 having flanges 56 for attachment to the basin side wall 43. The channel member fits into the opening in the basin side wall 43. An inner channel member 57 straddles the outer channel member 55, and has flanges 58 for attachment to the inner face of the basin side wall 43. As best shown in Fig. 7, the channel members 55 and 57 are cut away at 59 and 60, respectively, to form an opening into the inner channel member 55 through the walls of the channel members.

Referring now to Fig. 7, a basin latch member, generally indicated at 61, provides a latch to hold the basin on its mounting, and is releasable so as to unlatch the basin to permit removal of the latter from its mounting. This latch member 61 includes a backing member 62 having an offset portion 63 for attachment to the inner side of the basin side wall 43.

Fastened to this backing member 62 is a plate 64 having an offset stop 65 adjacent to its free end. The latch member 61 assumes the position shown in Fig. 7, and is made of a material having sufficient resiliency to permit flexing of the member to a limited degree without causing permanent distortion. Normally, this latch member 61, as shown in the figures, is parallel to a side

wall 43 of the basin, and the stop 65 projects out through openings 59 and 60 in the channel members 55 and 57, respectively, and partially obstructs the slot 52 so as to latch the trunnion 50 in relationship to the slot 52.

Again referring to Fig. 7, the basin side 43 is provided with an indentation 66, which has an opening 67 passing through the wall 43. An actuating button or key 68 extends through the opening 67 and is secured to the latch member 61 by means of a machine screw 69 or some other suitable means. As shown, the key 68 has an enlarged head 69, the outer surface of which is normally substantially in the plane of the basin side wall 43.

As shown in Fig. 7, the latch member 61 is in its normal position with the stop 65 obstructing the movement of the trunnion 50 through the passage or slot 52. When it is desired to remove the basin from its mounting, the key 68 on each side of the basin is depressed, which moves the stop on each latch member 61 out of the slot or passage 52 (or 53 as the case may be), thereby removing the obstruction in the passage to permit the basin to be withdrawn from its mounting. As shown, the stops 65 have an inclined rear face 70, so that when the basin is replaced the trunnion strikes this face and serves to move the stop 65 from the passage to permit the basin to be moved into place on its mounting.

The operation of this basin in removing it from its mounting is extremely simple: The operator merely grasps the basin on the two sides, and with his fingers applies the necessary pressure on the releasing button 68 on each side of the basin, and then pulls the basin from its mounting. No particular angle of the basin is required, as this operation can be performed whether the basin is in its fully open position or is disposed diagonally.

I claim:

1. The combination of a cabinet having a recess in its front face provided with vertical sides, a removable washbasin supported in the recess, a trunnion on each of the vertical sides of the cabinet recess and projecting horizontally into the recess, means providing a cooperating slot on each side of the basin opening adjacent to the rear edge of the basin, each trunnion being adapted to project into its corresponding basin slot and to be admitted through the opening therein at the rear of the basin, a releasable latch on at least one side of the basin adjacent to one of the slots and adapted to engage the corresponding trunnion to hold the basin in the cabinet recess, and means accessible from said side of the basin for disengaging the latch from the trunnion, thereby allowing the basin to be removed from the recess.

2. A basin, a housing for the basin, means for pivotally supporting the basin in the housing including a pair of trunnions on the housing spaced in horizontal alignment, a bearing on each side of the basin for receiving the corresponding trunnion, the basin being adapted to pivot on the trunnions from a vertical inoperative position in the housing to a horizontal operative position projecting from the housing, means providing a track associated with each bearing through which the corresponding trunnion is adapted to pass so as to allow the basin to be removed from the housing, latching means on the basin cooperating with at least one of the trunnions for latching the basin on the trunnions including means cooperating with the latching means and manipulated

from the side of the basin adjacent to said one trunnion for unlatching the basin so that it may be removed from the housing.

3. A basin, a housing for the basin opening horizontally and including a pair of horizontally spaced vertical walls, means for supporting the basin in the housing and between the vertical walls including a pair of trunnions, one on each vertical wall and projecting toward the basin, a bearing on each side of the basin for receiving the corresponding trunnion, the bearings each having a correspondingly positioned opening disposed laterally with respect to the trunnions through which openings the trunnions may pass to allow removal of the basin from the housing, means on the basin cooperating with at least one of the trunnions for latching the basin onto the trunnions, and manually operated means manipulated from the side of the basin adjacent to said one trunnion for unlatching the basin from the trunnions to allow the basin to be removed from the housing.

4. A basin, a housing for the basin opening horizontally and including a pair of horizontally spaced vertical walls, means for supporting the basin in the housing and between the vertical walls including complementary pivot members comprising trunnions and bearings at each side of the basin, one of the complementary pivot members being mounted on the side of the basin and the other on the corresponding vertical wall of the housing, the trunnions normally being pivotally supported in the bearings and being removable therefrom, means cooperating with at least one of the trunnions for latching the trunnion in its bearing, and manually operated means associated with the latching means and manipulated from the side of the basin adjacent to said one trunnion for unlatching the trunnion from the bearing to permit removal of the basin from the housing.

5. The combination of a vertical cabinet having a front and a pair of side walls and provided with a recess bounded on its sides by horizontally spaced, substantially vertically disposed side walls, a basin adapted to fit in the recess and having a bottom, front, and side walls, the side walls of the basin being disposed closely adjacent to the side walls of the recess, a trunnion on each recess side wall, means providing a slot in each side wall of the basin, each slot extending longitudinally of the basin side wall and at one end forming a bearing for the trunnion and at the other end being open to permit passage therethrough of the trunnion, a movable stop on at least one of the basin side walls normally disposed against the adjacent trunnion on the side toward the slot opening, and means accessible from said side of the basin for moving the stop away from the trunnion so that the trunnion is free to move relative to and linearly in the slot and through the opening therein.

6. A basin, a support for the basin including horizontally disposed, spaced pivot means, means on the sides of the basin for mounting the basin on said pivot means, the basin being adapted to pivot about said pivot means from a vertical inoperative position to a horizontal operative position, means for latching together the mounting and pivot means on at least one side of the basin, and means manipulated at said side of the basin for releasing the mounting means from the pivot means.

7. The combination of a cabinet provided with a recess in its front face having vertical sides, a

removable washbasin supported in the recess, a trunnion on each of the vertical sides of the recess projecting substantially horizontally into the recess, means providing a slot on each side of the basin opening to the rear edge of the basin and closed at its forward end to provide a bearing portion, each trunnion being normally seated in one of said bearing portions for pivotally mounting the basin in the recess, a releasable latch normally closing the slot behind one of the trunnions, and means operable from a side of the basin for releasing the latch to permit the basin to be removed from the recess by withdrawing the slot from the trunnion.

8. The combination of a cabinet provided with a recess in its front face having vertical sides, a removable washbasin supported in the recess, a trunnion on each of the vertical sides of the recess projecting substantially horizontally into the recess, means providing a slot on each side of the basin opening to the rear edge of the basin and closed at its forward end to provide a bearing portion, each trunnion being normally seated in one of said bearing portions for pivotally mounting the basin in the recess, a releasable latch normally closing the slot behind one of the trunnions, and a button projecting through a side of the basin, bearing against the latch, and adapted to be pressed inwardly to release the latch and permit the basin to be removed from the recess by withdrawing the slot from the trunnion.

9. The combination of a cabinet provided with a recess in its front face having vertical sides, a removable washbasin supported in the recess, a trunnion on each of the vertical sides of the recess projecting substantially horizontally into the recess, means providing a slot on each side of the basin opening to the rear edge of the basin and closed at its forward end to provide a bearing portion, each trunnion being normally seated in one of said bearing portions for pivotally mounting the basin in the recess, and a resilient latch normally closing the slot behind one of the trunnions and provided with means accessible from a side of the basin for temporarily releasing the latch to permit the basin to be removed from the recess by withdrawing the slot from the trunnion.

10. The combination of a cabinet provided with a recess in its front face having vertical sides, a removable washbasin supported in the recess, a trunnion on each of the vertical sides of the recess projecting substantially horizontally into the recess, means providing a slot on each side of the basin opening to the rear edge of the basin and closed at its forward end to provide a bearing portion, each trunnion being normally seated in one of said bearing portions for pivotally mounting the basin in the recess, and a resilient latch having a shouldered stop normally closing the slot behind one of the trunnions and including means accessible from a side of the basin for temporarily releasing the latch to permit the basin to be removed from the recess by withdrawing the slot from the trunnion, said stop having an inclined rear face adapted to engage the trunnion to cam the stop to pass the trunnion into latched position when the basin is re-inserted in the recess and the slot is pushed along the trunnion.

11. The combination of a cabinet provided with a recess in its front face having vertical sides, a removable washbasin supported in the recess, a trunnion on each of the vertical sides of the recess projecting substantially horizon-

tally into the recess, means providing a slot on each side of the basin opening to the rear edge of the basin and closed at its forward end to provide a bearing portion, each trunnion being normally seated in one of said bearing portions for pivotally mounting the basin in the recess, and a resilient latch normally closing the slot behind one of the trunnions and having a releasing button projecting through the adjacent side of the basin and accessible from said side for temporarily releasing the latch to permit the basin to be removed from the recess by withdrawing the slot from the trunnion.

12. The combination of a cabinet provided with a recess in its front face having vertical sides, a removable washbasin supported in the recess, a trunnion on each of the vertical sides of the cabinet recess projecting horizontally into the recess, means providing a cooperating slot on each side of the basin opening adjacent to the rear edge of the basin, each trunnion being adapted to project into its corresponding basin slot and to pass through the opening therein at the rear of the basin, a releasable latching member on each side of the basin adjacent to one of the slots and adapted to engage the corresponding trunnion to hold the basin in the cabinet recess, an arm disposed parallel to and mounted on each side of the basin, one of said latching members being secured to each arm, each arm being movable laterally with respect to the side of the basin so as to move the latching member out of engagement with its trunnion, and means accessible at each side of the basin for moving the adjacent arm so as to disengage the trunnion to unlatch the basin for removal of same from the recess.

13. A basin, a housing for the basin, means for pivotally supporting the basin in the housing including a pair of trunnions on the housing spaced in horizontal alignment, a bearing on each side of the basin for receiving the corresponding trunnion, the basin being adapted to pivot on the trunnions from a vertical inoperative position in the housing to a horizontal operative

position projecting from the housing, means forming a track associated with each bearing through which the corresponding trunnion is adapted to pass so as to allow the basin to be removed from the housing, latching means on the basin cooperating with the trunnions for locking the basin on the trunnions including an arm on each side of the basin movable laterally with respect to the basin side, a latching member on each arm adapted to engage the adjacent trunnion to prevent linear movement of the track relative to the trunnion, and an actuating member accessible at each side of the basin and cooperating with the corresponding arm for moving the arm laterally to withdraw the latching member from the trunnion so as to permit removal of the basin.

14. A basin, a housing for the basin opening horizontally and including a pair of horizontally spaced vertical walls, means for supporting the basin in the housing and between the vertical walls including a pair of trunnions, one of said trunnions being positioned on each vertical wall and projecting toward the basin, a bearing on each side of the basin for receiving the corresponding trunnion, the bearings each having a horizontally positioned opening disposed laterally with respect to the trunnions through which openings the trunnions may pass to allow removal of the basin from the housing, means on the basin cooperating with the trunnions for locking the basin onto the trunnions including an arm disposed closely adjacent to and substantially parallel to each of the basin sides, means fastening one end of each arm to the basin, a latching member on the other end of each arm adapted to engage the corresponding trunnion substantially to prevent linear movement of the basin on the trunnions, and an actuating member accessible at each side of the basin and cooperating with the corresponding arm for moving the arm laterally to withdraw the latching member from the trunnion to permit removal of the basin.

JOSEPH L. BRACK.