Jan. 24, 1928. 1,657,020

T. MASON

LAVATORY SUPPORT

Filed Jan. 7, 1927 2 Sheets-Sheet 1

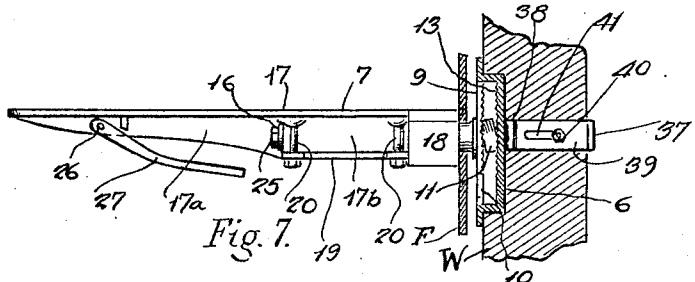


Fig. 7.

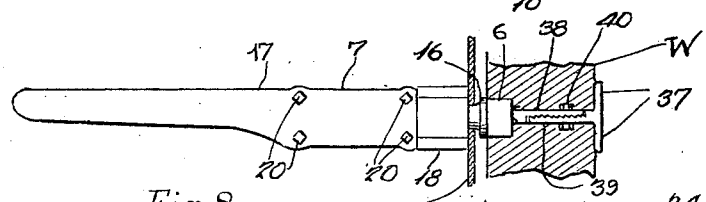


Fig. 8

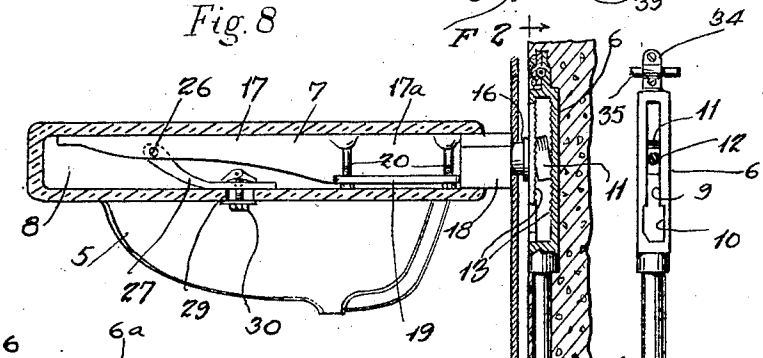


Fig. 11.

Fig. 1.

Fig. 2.

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Jan. 24, 1928.

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2 Sheets-Sheet 2

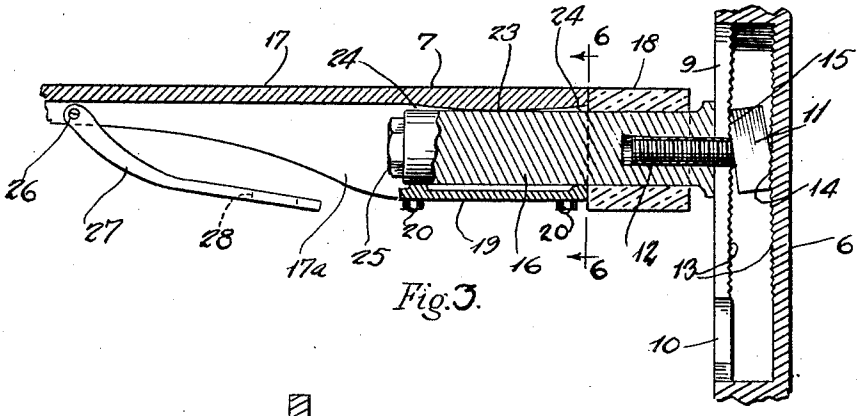


Fig.3.

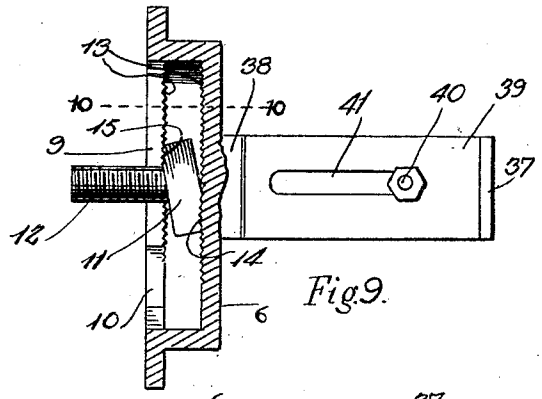


Fig.9.

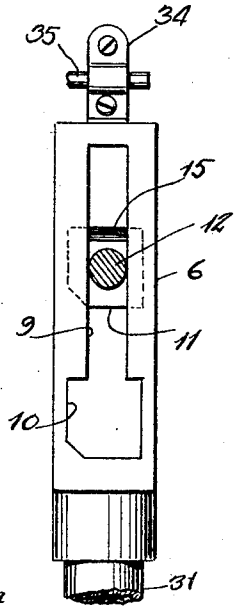


Fig. 4

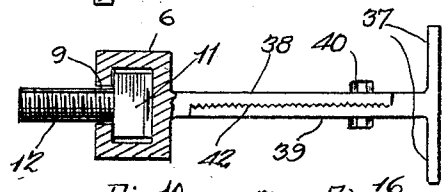


Fig.10.

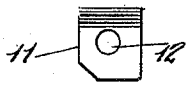


Fig.5.

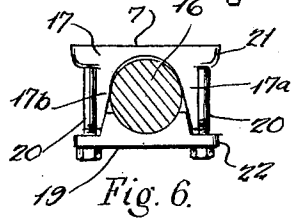


Fig. 6.

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Patented Jan. 24, 1928. 1,657,020

UNITED STATES PATENT OFFICE.

THOMAS MASON, OF EAST ORANGE, NEW JERSEY.

LAVATORY SUPPORT.

Application filed January 7, 1927. Serial No. 159,720.

This invention relates to supports for sanitary wash basins and the like, and has more particular reference to supports of this kind wherein the parts of the same are concealed within the wall and the basin, the support embodying a pair of complemental supporting structures having adjustable bracket arms to which the basin is secured, the bracket arms being received and secured within pockets provided at the sides of the basin so as to be concealed from view.

The primary object of the present invention is to provide a basin support of the above kind which is extremely simple and durable in construction as well as efficient in use.

A more specific object of the invention is to provide improved means for detachable and vertical adjustable connection of the bracket arm of each supporting structure with its supporting member.

Another specific object of the invention is to provide each supporting structure with an improved form of bracket arm embodying an inner member adapted for attachment to the associated supporting member and an outer bracket arm member engageable with the basin and capable of vertical tilting adjustment relative to the inner bracket arm member, whereby the basin may be tiltably adjusted or adjusted as to pitch to meet requirements, such as securing of proper drainage of water from the basin.

Still another specific object of the invention is to provide simple and effective means for securing the basin to the outer bracket arm member whereby mounting of the basin upon the bracket arm may be effected with facility and ease.

A still further object is to so secure the basin to the outer bracket arm members as to permit ready adjustment of the basin toward and from the wall for readily effecting the required spacing of the basin from the wall that is desirable for well known sanitary reasons.

A still further object is to provide simple and effective means for anchoring the supporting member for each bracket arm in the wall.

Still another object is to provide anchoring means of the above kind which is readily adjustable to walls of different thicknesses.

Other objects will become apparent as the nature of the invention is better understood, and the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings and claimed.

In the drawings, wherein like reference characters indicate corresponding parts throughout the several views,

Figure 1 is a view, partly in side elevation, and partly vertical section, showing a supporting structure constructed in accordance with the present invention and operatively supporting one side of a wash basin, the other side of which is adapted to be supported by a complemental supporting structure;

Figure 2 is a vertical section taken substantially upon line 2—2 of Figure 1;

Figure 3 is an enlarged fragmentary detail view of the device shown in Figure 1 with the basin removed, the bracket arm and supporting member of the supporting structure being in substantially central vertical longitudinal section;

Figure 4 is an enlarged detail view of the upper end portion of the device shown in Figure 2;

Figure 5 is an end elevational view of the bolt forming part of the adjustable connection between the supporting member and the bracket arm;

Figure 6 is a vertical transverse section taken substantially upon line 6—6 of Figure 3;

Figure 7 is a view somewhat similar to Figure 1 with the basin omitted, and showing a modified form of means for mounting or anchoring the supporting member of the bracket arm in the wall;

Figure 8 is a top plan view of the device shown in Figure 7;

Figure 9 is an enlarged detail view of the device shown in Figure 7, with the bracket arm omitted;

Figure 10 is a view of the device shown in Figure 9, partly in top plan and partly in horizontal section on line 10—10 of Figure 9; and

Figure 11 is a side elevational view of a modified form of the supporting and anchoring means shown in Figures 7 to 10 inclusive, and wherein a pair of supporting members are adjustably connected for being anchored in opposed surfaces of a partition wall between adjoining rooms, to thereby facilitate mounting of a basin in each of said adjoining rooms.

Referring more in detail to the drawings,

it will be understood that the present invention relates to lavatory or basin supports embodying a pair of similar supporting structures adapted to be erected in spaced side by side relation and to cooperate for supporting a basin 5 or the like at the required elevation without the use of exposed floor engaging supports, the basin 5 being supported at each side by one supporting structure. However, as this general plan of mounting a basin is old and well known in the art, and as the supporting structures of the present invention forming the present support are of similar or identical construction, the drawings and description will be confined to one of the same.

In accordance with the present invention, each supporting structure comprises a supporting member 6 adapted to be embedded and anchored in one face of a wall W which is usually constructed of concrete or the like and provided with an inner facing F, and a bracket arm 7 connected at one end to the supporting member 6 so as to be detachable from and vertically adjustable relative to said member 6 in a manner which will presently become apparent, the bracket arm 7 being adapted to be received and secured within an elongated horizontal pocket 8 provided in the adjacent side of the basin 5 so as to be concealed therein except at its inner end portion when the basin is mounted in slight spaced relation to the wall facing F as indicated in Figure 1.

As shown more clearly in Figures 3, 4, 9 and 10, the supporting member 6 consists of an elongated vertical hollow member having flat parallel front and rear walls, and provided centrally in the front wall is a vertical elongated slot 9 which is laterally enlarged at opposite sides of its lower end portion as at 10 to provide an entrance opening for the head 11 of a mounting bolt having a threaded stem 12. The bolt head 11 that is rectangular in plan view, has one corner thereof cut away, while one corner of the enlarged opening 10 is filled in. This arrangement necessitates the correct positioning of the bolt head 11 with respect to the opening 10 to effect entrance thereof. As only one corner of the head 11 is cut away and the opening 10 similarly formed by having one corner thereof filled in, the head can be passed through the opening when in one position only and insures the correct positioning of the bolt head with respect to the cooperating faces of the supporting member 6. As shown clearly in several of the views, the front and rear walls of the supporting member 6 are provided with internal horizontal serrations or teeth 13 that extend in vertical series at points at opposite sides of the slot 9. As shown more clearly in Figures 1 and 9, the head 11 of the mounting bolt is canted at a downward and rearward inclination or angle relative to the stem 12 of said bolt when said stem thereof is operatively horizontally disposed as in Figure 3, and provided upon the rear or outer lower face portion of the head 11 are transverse teeth or serrations 14 adapted to cooperate with the teeth 13 upon the rear wall of the supporting member 6, while similar transverse or horizontal serrations or teeth 15 are provided upon the upper inner or front face portion of the bolt head 11 for cooperation with the teeth 13 upon the front wall of the supporting member 6. It will thus be apparent that by tilting the stem 12 of the bolt upwardly from the horizontal, the head 11 may be vertically disposed so as to freely slide vertically between the front and rear walls of the supporting member 6 with the teeth 14 and 15 of the bolt head 11 disengaged from the teeth 13. It will also be seen that when the bolt has been adjusted to the desired elevation relative to the supporting member 6, its stem 12 may be tilted downwardly to a horizontal position so as to cause engagement of the teeth 14 and 15 of the bolt head 11 with the teeth 13 of the supporting member 6 so that the mounting bolt is thus effectively maintained in its vertically adjusted position upon subsequent securing of the mounting bolt against being vertically tilted. As the bracket arm 7 is carried by the stem 12 of this mounting bolt, it is apparent that said bracket arm will partake of the above mentioned vertical adjustment of said mounting bolt. The bolt head 11 is of the same configuration as the entrance opening 10 and slightly smaller than the latter so that the bolt head may be entered into the supporting member 6 through this entrance opening 10 to occupy a position in a vertical plane between the front and rear walls of the member 6 for subsequent upward adjustment to the desired position between the ends of the slots 9, as above described. On the other hand, it will be apparent that by lowering the mounting bolt until its head 11 registers with the opening 10, said mounting bolt may be disengaged from the supporting member 6 should removal be required.

The bracket arm 7 comprises an inner section in the form of a cylindrical stud 16 adapted for rigid detachable connection at one end with the bolt stem 12 so as to be coaxial with the latter, and an outer bracket arm section 17 connected to the outer end portion of the bracket arm section 16 for vertical tilting and axial rotary adjustment relative to the latter as well as adapted to be rigidly secured in the pocket 8 of the basin 5 whereby the latter may be correspondingly tiltably adjusted or adjusted as to pitch as found necessary or desirable. The connection of the inner bracket arm section 16 to the stem 12 simply consists in providing

the inner end of the section or stud 16 with an axial threaded socket for detachable threaded reception of the stem 12 as clearly shown in Figure 3, the socket being sufficiently deep to permit threading of the inner end of the section or stud 16 into firm engagement with the front wall of the supporting member 6 at opposite sides of the slot 9 whereby the mounting bolt is secured against vertical tilting movement to maintain its vertical adjustment as above mentioned. It will be observed in Figure 10 that the head 11 of the mounting bolt is of sufficient width to have its sides engage the side walls of the supporting member 6 so that the mounting bolt is held against turning, thus enabling the bracket arm section or stud 16 to be tightly threaded onto the stem 12 into engagement with the front wall of the member 6 as mentioned. It will also be apparent that this permits threading of the stud or section 16 off of the stem 12 sufficiently to permit tilting of the mounting bolt so as to effect vertical adjustment thereof if found necessary. The section or stud 16 projects through the wall facing F, and a bushing 18 of pottery ware or the like is placed upon the portion of this stud or bracket arm section 16 between the wall facing and the rear edge of the basin 5 so as to conceal this portion of the bracket arm when the basin 5 is mounted in spaced relation to the wall facing to facilitate cleaning of the basin and wall from time to time. It will be noted in Figure 1 that the bushing 18 is of a size to slidably fit within the open rear end of the pocket 8 to provide a neat joint irrespective of the adjustment of the basin relative to the wall, and as shown in Figure 3, the bushing abuts the inner end of the outer bracket arm section 17 so as to be held in engagement with the wall facing to provide a finished appearance at this point.

The outer bracket arm section 17 preferably consists of a flat bar-like body portion having a depending flange 17^a throughout its length at one side and a further depending flange 17^b at the other side of its inner end portion, thus providing the inner end portion of the bracket arm section 17 with an open bottom longitudinal groove or recess adapted for reception of the outer end portion of the bracket arm section or stud 16, whereby the bracket arm sections are maintained against relative horizontal play and in coaxial relation when the section 16 is clamped within said groove or recess in a manner to be presently described. A clamping plate 19 is applied to the inner portion of the outer bracket arm section 17 to close the bottom of the above mentioned longitudinal groove or recess and firmly clamp the section or stud 16 therein, the plate 19 being adjustably connected to the section 17 at each end by means of a pair of clamping bolts 20, respectively disposed at opposite sides of the stud 16 as shown in Figure 6. These bolts 20 extend through lateral ears 21 provided on the body of the arm section 17, and through similar aligned ears 22 provided upon the sides of the clamping plate 19, the heads of the bolts 20 being counter-sunk in the ears 21 flush with the upper surface of the body portion of arm section 17 so that the body portion of the latter may flatly engage the upper wall of the pocket 8 of the basin when the section 17 is properly rotarily adjusted on stud 16 as shown clearly in Figure 1. The vertical depth of the pocket 8 is slightly greater than that of the inner end portion of the arm section 17 and the clamping plate 19 so as to provide sufficient clearance for the projecting lower ends of the bolts 20 and the nuts applied thereon against the under surface of the ears 22 as clearly shown in Figures 1 and 6. As shown clearly in Figure 3, the body portion of the outer bracket arm section 17 is thickened as at 23 at a point intermediate the ends of the groove or recess receiving the outer end portion of stud 16, and tapers thinner in opposite directions from this midpoint so as to provide clearance space as at 24 between the same and the portions of the stud 16 at the opposite ends of the recess or groove. It is thus apparent that the outer bracket arm section 17 is capable of limited vertical tilting adjustment relative to the inner bracket arm section or stud 16, and that such tilting adjustment may be readily effected by tightening one pair of clamping bolts 20 and simultaneously loosening the other pair thereof or vice versa. As the basin 5 is supported by the outer bracket arm section 17 of both supporting structures, it is clearly evident that this vertical tilting adjustment of the outer bracket arm sections will effect corresponding tilting adjustment of the basin so as to regulate the pitch thereof as found necessary or desirable. The stud or bracket arm section 16 may be formed with a reduced polygonal outer end portion 25 so as to facilitate turning thereof by the use of a wrench or the like when applying the same to or threading the same off of the stem 12 of the supporting bolt.

As shown in several of the figures, the body portion and the flange 17^a of the outer bracket arm section 17 preferably taper narrower toward the outer end of said bracket arm section so as to facilitate its entry into the pocket 8 of the wash basin, and pivoted as at 26 upon a transverse horizontal pivot or axis to the flange 17^a near the outer end portion of the outer bracket arm section 17, is a securing arm 27 that is adapted to extend downwardly and rearwardly to have its rear end portion flatly seat upon the bot-

tom wall of the basin pocket 8 for attachment to said bottom wall. This rear end portion of the securing arm 27 is provided with a longitudinal elongated slot 28 adapted to register with a similar slot 29 provided in the bottom wall of the pocket 8, and a stay bolt 30 is passed through these registered slots and tightened so as to rigidly fasten the basin upon the bracket arms of the supporting structures. Naturally, by loosening the stay bolts, the basin may be slid horizontally relative to the bracket arms for adjusting the basin the required distance from the wall, and the basin may be maintained in this adjusted position upon tightening of the stay bolts. By using a stay bolt of the toggle type, it may be readily entered upwardly through the slots 29 and 28 and then expanded to engage the upper surface of the securing arm 27 for being retained in place while being tightened.

In the form of the invention shown in Figures 1 to 4 inclusive, the supporting member is anchored by being carried upon the upper end of a vertical standard 31 embedded in the wall W and rigid with and rising from a foot plate 32 embedded in a forwardly projecting horizontal position in the floor 33, thus relieving the upright or standard 31 against forward tilting strains. In order that the supporting members 6 and foot plates 32 of the adjacent pair of supporting structures may be rigidly connected in the required spaced relation to form what may be termed a chair, and thus provide a support of maximum efficiency, the upper end of the member 6 is formed with a split rod clamp 34, and the foot plate 32 is provided at spaced points with a pair of similar rod clamps 35. Thus, a plurality of connecting rods 35 and 36 may be extended from one supporting structure to the other in horizontal positions, with the ends of such rods respectively clamped firmly in the clamps 34 and 35. These rods will naturally be embedded in the concrete so as to aid in preventing tilting strains tearing the supporting structures out of the wall and thereby further aiding in rendering external floor engaging supports for the basin unnecessary.

In the form of the invention shown in Figures 7 to 10 inclusive, the construction is the same as described above except that a different and simplified form of anchoring means is provided for the supporting member 6. As shown, this modified form of anchoring means consists of an anchoring rod carried by and projecting rearwardly from the member 6 so as to extend through the wall W, the rear end of the anchoring rod being provided with lateral flanges or wings 37 adapted to flatly engage the opposite face of the wall so as to maintain the supporting member 6 within the socket or recess of the other or remaining face of the wall. This anchoring rod preferably consists of an element adjustable in length to pass through walls of different thicknesses, and as shown, embodies a rod section 38 rigid with the member 6 and a rod member 39 adjustably connected to the rod member 38, preferably by overlapping adjacent ends of the rod members and bolting them together as at 40 through mating longitudinal elongated slots 41 provided in the overlapped ends of the rod members as shown in Figures 7 and 9. The contiguous faces of the overlapping ends of these members 38 and 39 of the anchoring rod are preferably provided with transverse serrations forming inter-fitting teeth whereby the maintenance of the anchoring rod in any adjusted length may be more positively insured upon tightening of the clamping bolt 40. These interfitting teeth or serrations are noted generally at 42.

As shown in Figure 11, the anchor rod section 39 may be provided at its outer end with another supporting member 6^a similar to the member 6, in lieu of the flanges or wings 37, thus enabling the erection of basins in a simple and expeditious manner, at opposite sides of a wall separating adjoining rooms. In this instance, the supporting members 6 and 6^a for the basins in adjoining rooms will be adjustably connected in pairs so as to be readily embedded in the opposite faces of walls of varying thicknesses, and whereby each supporting member of each pair will aid in anchoring the other member of such pair in place. With the construction of Figure 11, therefore, it will be apparent that the member 39 will be rigid with the supporting member 6^a and the member 38 will be rigid with the supporting member 6, said members 38 and 39 projecting toward each other and having adjacent ends overlapped and connected for relative longitudinal adjustment as described above in connection with the single supporting member and anchor of Figures 7 to 10 inclusive.

While the support has been described in connection with the supporting of sanitary wash basins, it will be readily apparent that the same may be utilized for supporting other forms of fixtures without departing from the spirit and scope of the invention as claimed.

From the foregoing description it is believed that the construction and advantages of the present invention will be readily understood and appreciated by those skilled in the art, and that various minor changes may be made without departing from the spirit and scope of the invention as claimed.

What I claim as new is:—

1. In a lavatory support, the combination of a supporting member adapted to be embedded in a wall, a bracket arm composed of connected inner and outer sections, means

to rigidly connect the inner section to the supporting member, and means to adjustably tilt the outer section vertically relative to the inner section.

2. In a lavatory support, the combination of a wall-attached supporting member, and a bracket arm composed of an inner section rigidly connected to the supporting member and an outer section connected to and tiltably adjustable vertically relative to the inner section.

3. In a lavatory support, the combination of a wall-attached supporting member, and a bracket arm composed of an inner section rigidly connected to the supporting member and an outer section connected to and rotarily adjustable relative to the inner section.

4. In a lavatory support, the combination of a wall-attached supporting member, and a bracket arm composed of an inner section rigidly connected to the supporting member and an outer section connected to and tiltably and rotarily adjustable relative to the inner section.

5. In a lavatory support, the combination of a wall-attached supporting member, a bracket arm composed of an inner section and an outer section connected to and tiltably adjustable vertically relative to the inner section, and means connecting the inner section to the supporting member for vertical adjustment relative to the latter.

6. In a lavatory support, the combination of a wall-attached supporting member, a bracket arm composed of an inner section and an outer section connected to and rotarily and tiltably adjustable relative to the inner section, and means connecting the inner section to the supporting member for vertical adjustment relative to the latter.

7. In a lavatory support, the combination of a wall-attached supporting member embodying a vertically elongated hollow casing formed with a vertical elongated slot in the front wall thereof and provided with series of horizontal teeth upon the inner surfaces of its front and rear walls, a supporting bolt having a canted head formed with teeth upon its upper forward and lower rear face portions adapted to respectively engage certain of the teeth on the front and rear walls of the supporting member when the stem of said bolt projects forwardly through said slot in a horizontal position and to disengage from said latter teeth when the stem is tilted upwardly for permitting vertical adjustment of the bolt relative to said supporting member, and a bracket arm removably threaded onto said bolt stem and against the front wall of the supporting member to prevent tilting of said bolt stem from the horizontal for maintaining the interengagement of the teeth and securing the bolt and bracket arm in any desired position of vertical adjustment.

8. In a lavatory support, the combination of a vertically elongated hollow wall-attached supporting member having a vertical elongated slot in the front wall thereof, a bolt having a head retained and vertically slidable in said supporting member and a stem projecting forwardly through said slot, and a bracket arm formed with an axial socket in its inner end for being threaded onto the bolt stem and into firm engagement with the front wall of the supporting member to retain the bolt and bracket arm in any desired position of vertical adjustment relative to the supporting member.

9. In a sanitary fixture, the combination of a lavatory having a side pocket formed with an opening in the bottom wall thereof, a bracket arm adapted for connection at its inner end with a wall-attached supporting member and for reception in said pocket, a securing arm pivoted at its outer end upon a transverse horizontal axis to the outer end portion of said bracket arm, and a stay bolt passing through an opening in the rear end of the securing arm and the opening in the bottom wall of the pocket.

10. In a lavatory support, a bracket arm composed of an inner cylindrical stud section adapted to be connected to a wall-attached supporting member and an outer section clamped on said stud section for vertical tilting and axial rotary adjustment relative to the latter.

11. In a lavatory support, a wall attached supporting member comprising a hollow member provided with a vertical slot enlarged at one end, said enlargement being of rectangular form and having one corner filled in and a mounting bolt having a rectangular head with one corner cut away to mate with the slot enlargement whereby the bolt head can be passed through the slot enlargement when in one position only.

In testimony whereof I affix my signature.

THOMAS MASON.