WALL SUPPORT FOR PLUMBING FIXTURES

John A. Healy, LaGrondon, and James H. Healy, Mahtomedi, Minn.

Application August 23, 1929. Serial No. 387,963

7 Claims. (Cl. 72—105)

This invention relates to means for facilitating the mounting of plumbing fixtures, such as basins, sinks and the like, upon walls.

It is our object to meet the special requirements for hanging such fixtures and to make it unnecessary to accurately locate the device upon the wall during the construction of a building by providing a support adapted to be secured at the approximate location of the fixture and formed to permit a wide range of adjustment both horizontally and vertically after the wall has been constructed and after it is desired to install the fixture. The device is further adapted to support fixtures of widely different construction and size, and requires a minimum of work in the hanging of such fixtures.

The invention will be best understood by reference to the accompanying drawing in which Figure 1 is a plan view of our device mounted on a wall, the wall being shown in horizontal section; Figure 2 is a side elevation of the same with the wall omitted, and certain parts shown in vertical section, taken on the line 2—2 of Figure 1; Figure 3 is a front elevation of the device; Figure 4 is a detail front view of an alternate form of detent and Figure 5 is a section taken on the line 5—5 of Figure 4.

Our device has a back plate 6 of rectangular form. Along the normally upper and lower edges of the plate 6 are outwardly projecting guides 7, each formed with a flange 8 adapted to support and confine between them a detent 9. The ends of the plate 6 are provided with outwardly projecting flanges 10 to exclude plastic material of the wall 11 from between the guides 7. The detents 9 are preferably of channel shape having at each vertical side edge, a flange 9a (Figure 2) which extends toward or perpendicular to the back plate 6. Thus the flanges 9a form a channel-shaped recess to receive a nut 12 on the extremity of a bolt 13 which projects through a vertical slot 14 in the detent 9. The bolt 13 is employed to secure the fixtures to be supported on the detents 9, and preferably has a kerf on its projecting end to facilitate attachment of the fixture. A washer 15 is placed on the bolt 13 to engage the outer surface of the detent 9 along the sides of the slot 14 and a lock-nut 16 is provided to secure the bolt in selected positions in the slot 14.

Projecting from the back of the plate 6 is a rigid stud 17 provided with a clamp 18 for securing the device to a pipe 19. Angular anchor plates 20, preferably constructed from heavy gauge sheet iron, are secured to the back surface of the plate 6. These anchor plates may be imbedded in the joints of a brick wall, or where a concrete wall is provided, they are imbedded in the form. Where a tile or finishing plaster surface is desired, as in bathrooms, lavatories and the like, the main body of the wall may be brought out to the surface indicated by the dotted line 11a and the tile, finishing plaster or other surfacing may subsequently be applied to form the surface 11a.

To hang certain types of fixtures on the bolt 13, we provide a substantially triangular plate 21 having a series of perforations 22 to receive the bolt 13, said perforations extending along the vertical center line of the plate. Near its outer, lower corners the plate 21 is formed with openings 23 through which pipes, such as hot and cold water pipes, may be extended to supply the fixture.

An alternate form of detent 24 is shown in Figures 4 and 5. This detent is like that of the preferred construction in that it has a channel shape with parallel flanges 24a and a vertical slot 25 to receive the bolt 13. Extending along the side edges of the slot 25 are parallel series of teeth 26 to interlock with similar teeth formed on a washer 27. The nut 12 on the inner end of the bolt 13 engages the detent 24 between the flanges 24a and the lock nut 16 is arranged to press the teeth on the washer 27 into engagement with the teeth 26 for retaining the bolt in a selected position in the slot 25.

In the construction of most buildings a vent pipe 19 is located back of the wall 11 where a sink, bowl or basin is to be mounted. We utilize such vent pipe to temporarily retain our support in the selected position until the wall 11 is formed. Thus the clamp 18 is secured to the pipe 19 and the stud 17, which is threaded at its ends, is adjusted so that the outer surfaces of the flanges 18 are in the plane of the finished surface 11a of the wall 11 to be formed. When the wall 11 is constructed, the anchor plates 20 are imbedded therein and the surface 11a is brought out flush with the outer surfaces of the flanges 8, leaving a recess between the flanges 10 and guides 7 in which one or more of the detents 9 may be mounted. Subsequently, when the plumbing fixtures are to be installed one or more of the detents 9 are placed between the guides 7. As indicated in Figure 3, and opening 10 in one of the flanges 8 permits the ready insertion of the detents. The bolts 13 may be loosely secured to the detents when the latter are placed between the guides 7 and when the final position of the fixture has been determined, the detents 9 are moved to register with the openings in the fix-
ture and the bolt 13 is moved longitudinally in the slot 14 (or 25) to adjust the height of the fixture. Finally, the bolt is secured in the selected position by tightening the lock-nut 16. It will now be understood that the slotted detents 8 and 24 are spaced from the back plate 6 by the flanges 92 and 54a respectively so that the bolts 13 may be adjusted toward and away from the wall. The bolts are movable to correspond with the proper positions of the perforated members of the fixtures in both horizontal and vertical directions and in the plane parallel to the wall. After the wall 11 has been constructed, the weight of the fixture is transmitted by our device to such wall and the pipe 19 merely sustains the weight of the support prior to the formation of the wall and prior to hanging a fixture on the support. Economy in the cost of construction is effected by constructing the guides 7 and 10 integral with the back plate 6, heavy gauge sheet iron being used.

Having described our invention, what we claim as new and desire to protect by Letters Patent is:

1. A wall support for plumbing fixtures comprising, a thin and relatively long frame substantially equal in thickness to the thickness of the wall finishing material, said frame having a plane, vertical back surface to abut against a rough wall, vertical back surface to abut against a rough wall, a guide extending longitudinally on said frame to support a plurality of widely spaced detent bars, long and relatively narrow, vertically disposed detent bars slidably engaging said guide and extending transversely of the same, outwardly projecting bolts engaging said detent bars and means for permitting movement of the connection between said bolt and detent bars vertically and for securing said bolts against downward movement relative to said bars.

2. A wall support for plumbing fixtures comprising, a thin and relatively long frame substantially equal in thickness to the thickness of the wall finishing material, said frame having a plane, vertical back surface to abut against a rough wall, a guide extending longitudinally on said frame to support a plurality of detent bars, detent bars slidably engaging said guide and extending transversely of the same, outwardly projecting bolts engaging said detent bars, a clamp offset inward from said frame to support the same on a pipe located behind said wall and means for permitting movement of the connection between said bolt and detent bars in a direction transverse said guide.

3. In a wall support, a frame having a plane, vertical back surface adapted to abut against a rough wall surface, top and bottom flanges on said frame adapted to project outward from said surface a distance substantially equal to the thickness of the wall finishing material, anchor members projecting from the back of said frame to be imbedded in the wall, widely spaced detent bars extending transverse said flanges and slidable along said flanges in engagement therewith, outwardly projecting bolts having connections with said detent bars and means for permitting movement of the connections between said bolts and detents vertically and for securing said bolts against downward movement relative to said bars.

4. In a wall support, a frame having a plane back surface adapted to abut against a rough wall surface, top and bottom flanges on said frame adapted to project outward from said surface a distance substantially equal to the thickness of the wall finishing material, anchor members projecting from the back of said frame to be imbedded in the wall, detent bars extending transverse said flanges and slidable horizontally along said flanges in engagement therewith independently of each other, outwardly projecting bolts, said detent bars having elongated slots permitting vertical movement of the connection between said bolts and detents in a direction transverse said flanges and means on said bolts engaging said bars for preventing downward movement of said bolts in said slots.

5. A wall support for lavatories, sinks and the like comprising, a vertical frame adapted to be secured on a wall, a vertical member moveable horizontally on said frame to support a bolt, a horizontal bolt having a vertically moveable connection with said member and a pipe support formed with spaced perforations to receive pipes, said support being adapted to be suspended from said bolt and to hang in parallel relation to the wall.

6. A wall support for lavatories, sinks and the like comprising, a vertical frame adapted to be secured on a wall, a vertical member slideable horizontally on said frame to support a bolt, a horizontal bolt having a vertically moveable connection with said member and a vertical plate for supporting pipes, said plate being formed with horizontally spaced perforations to receive pipes and vertically spaced perforations to receive said bolt.

7. A wall support for lavatories, sinks and the like having vent pipes, comprising, a vertical frame adapted to be secured on a wall, means projecting from said frame for anchoring the same to a wall, a vertical member moveable horizontally on said frame to support a bolt, a horizontal bolt having a vertically moveable connection with said member and a clamp offset inward from said frame to support the same on a vent pipe located behind the wall, said clamp having a vertically adjustable connection with said vent pipe.

JOHN A. HEALY.
JAMES H. HEALY.