A washing machine water supply and drain fixture for effecting the ready installation of hot and cold water supply lines and the drain connections of a washing machine. The fixture comprises a valve body mounted in a housing. The valve includes two inlets for connection to hot and cold water supplies and two outlets for connection to washing machine water supply hoses, flow control means for controlling fluid flow between the inlets and outlets, and a horizontally movable operating handle attached to the flow control means. The housing is adapted to accommodate a drain outlet in its bottom wall. The fixture also includes a cover plate secured to the housing having a horizontal slot adapted to permit operation of the horizontally movable handle, and an aperture adapted to accommodate the ends of the water supply hoses and drain hose of a washing machine.

8 Claims, 5 Drawing Figures
This invention relates to fixtures for water supply outlets and drains, and more particularly to an improved fixture for connecting water supply and drain lines to an automatic washing machine.

In equipping a building for installation of an automatic clothes washing machine, it is a common practice to extend the hot and cold water supply pipes and a drain pipe out through a wall or partition so as to facilitate connection with the water supply and drain hose lines of the washing machine. Furthermore, it is common practice to equip the hot and cold water supply pipes with shut-off valves so that the water supply pipes may be shut off when the washing machine is idle. Shutting off the water supplies releases pressure from the water supply hose lines leading to the washing machine and thereby eliminates danger of flooding from hose failure or failure of the washer solenoid valve when the machine is idle. However, such an arrangement necessitates positioning the washing machine a distance outwardly from the wall with a corresponding loss of floor space. To avoid this loss of space, holes may be cut in the wall and the hot and cold water supply pipes and the drain pipe terminate in such holes within the boundaries of the wall, i.e., between the studs. However, this is objectionable from a standpoint of appearance; also, the holes in the walls may be traps for dust and dirt, and may permit water to be discharged to the wall interior in the event one of the hoses connecting the washing machine to the water supply pipes develops a leak, or from drain oversplash.

It is, thus, an object of the present invention to provide a water supply and drain fixture for washing machines adapted for permanent installation in a wall, which is neat in appearance, and which is relatively easy to install and to clean. Other objects are to provide such a fixture which substantially completely closes off the opening in the wall leading to the water supply pipes and drain pipe, and which may be used in new installations, or as a replacement for existing washing machine water supply outlets and drains.

The foregoing and other objects are attained by a fixture which comprises a valve body with two inlets and two outlets, and having means to control fluid flow between said inlets and outlets. The valve body is mounted in a housing having openings for connection of water supply pipes to the valve inlets and another opening adapted to accommodate a drain outlet in the bottom wall of the housing. The housing is fitted with a cover plate which has a slot adapted to permit operation of a horizontally movable handle attached to the means for controlling fluid flow, and an aperture adapted to accommodate the ends of the water supply hoses and drain hose of a washing machine.

Other features and advantages are set forth in the following detailed specification which is to be considered together with the accompanying drawings wherein:

FIG. 1 is a perspective view of a water supply valve and drain fixture constituting a preferred embodiment of the invention, mounted in a wall;

FIG. 2 is a perspective view of the same fixture with certain parts exploded and showing the housing mounted in an unfinished wall;

FIG. 3 is a longitudinal sectional view of one of the fittings of the valve unit;
Suitable means, such as angle members or straps 70, are provided to secure the receptacle to studs 72 in wall 44. Straps 70 may be welded to the housing. Preferably, however, they are adjustably attached to the sides of the receptacle by suitable means such as screws (not shown) which are inserted through holes 73 in the sides 60 and 62 of the receptacle and also through elongated holes (not shown) in the angle members. The straps and housing are arranged with relation to one another so that the front edge of the receptacle will be disposed substantially flush with the outer surface of the wall 44. Angle members 70 are secured to the building studs by nails or screws 74, with the housing preferably located about equidistant from both studs.

Cold and hot water supply pipes 76 and 78 are connected to the inlets 14 of fittings 10A and B respectively. For this purpose, the opposite side walls of the housing are provided with holes 79 which are oversized with respect to pipes 76 and 78.

Referring to FIG. 5, the bottom of the receptacle preferably includes a removable overflow tray or pan 80. Bottom wall 46 and pan 80 are provided with circular coaxially aligned openings 82 and 84 respectively, which are large enough to permit insertion of a drain pipe 86. The latter is attached to the bottom wall 46 by suitable means such as by rings 88 and 90 that are screwed onto the threaded upper end of the drain pipe. Ring 88 engages the underside of bottom wall 46 while ring 90 engages the upper side of pan 80. A packing or washer 92 is slipped over the drain pipe and clamped to the pan by ring 90 to assure a water-tight connection.

Completing the fixture is an access or cover plate 96. It is to be understood that the wall 44 has an opening through which the housing is exposed, and that cover plate 96 is dimensioned to completely cover the valve unit and also overlap the wall 44 along the top, sides and bottom of the housing. Cover plate 96 is provided with two openings 98 and 99. Opening 98 is a relatively large opening, typically rectangular in shape, which is provided to give access to cold and hot water outlets 28A and B, for the purpose of attaching the washing machine supply hoses 100A and B. Opening 94 also provides access for connecting the washing machine drain hose 102 to drain pipe 86. Opening 99 is a relatively small opening in the form of an elongate horizontal slot which is adapted to permit operation of the horizontally moveable valve lever 40 which is provided with a handle 41. Cover plate 96 is secured to the receptacle by suitable means such as screws 104 which are screwed into threaded holes 108 formed in bosses that are integral with the side walls of the housing.

As is seen from the foregoing, the fixture of the present invention has a number of advantages. It is neat in appearance and when installed in a wall, it covers an otherwise unsightly opening in the wall. Also, the cover plate conceals most, if not all, of the duplex valve (other than the handle) and the water supply hose connections, and thus contributes to the pleasing appearance of the unit. The receptacle allows connections to the water supply and drain lines to be made within the wall, thereby conserving space. Another advantage is that the fixture protects the interior of the wall from damage resulting from possible leakage occurring at the connections of the duplex valve with the washing machine hose lines or from drain oversplash. Also, the valve unit can be disassembled for inspection and repair without having to break into the wall or remove housing 8 from the wall.

What is claimed is:
1. An assembly for effecting connection of a washing machine to hot and cold water supply lines and a drain, said assembly comprising a housing dimensioned to be recessed in a building wall, said housing having top, bottom, rear and side walls and a hole in each of said side walls for admitting hot and cold water supply lines to said housing for connection to a duplex valve mounted in said housing, a pan in said housing overlying and supported by said bottom wall, said pan and said bottom wall having aligned openings for admitting a drain pipe to said pan through said bottom wall, means attached to said side walls for mounting said housing to structural parts of said building wall, and a cover plate removably secured to the front of said housing, said cover plate being dimensioned to project laterally beyond said top, bottom and side walls and overlap the building wall in which said housing is recessed, said cover plate having a relatively large opening for providing access to said pan and also to the outlet ports of said duplex valve and an elongate relatively small opening for permitting operation of said valve.
2. An assembly for effecting connection of a washing machine to hot and cold water supply lines and a drain, said assembly comprising:
   a duplex valve unit, a housing dimensioned to be recessed in a building wall and adapted to act as a receptacle for said valve unit, and a cover plate;
   said duplex valve unit having two inlets, two outlets, flow control means including an operating lever for controlling fluid flow between said inlets and outlets, and attachment means for attaching said valve unit to said housing;
   said duplex valve unit being disposed within said housing and said attachment means being attached to said housing;
   said housing being open at the front and having a bottom wall adapted for connection to a drain line and openings for admitting hot and cold water supply lines to said housing for connection to said two inlets,
   said cover plate being releasably attached to the front side of said housing, said cover plate extending laterally of said housing so as to overlap the building wall in which said housing is recessed, said cover plate having a relatively large opening to accommodate the drain and water supply lines of a washing machine for connection to a drain in said bottom wall and said valve outlet ports, and a slot in said cover plate;
   said operating lever extending through said slot and said slot being elongate so as to permit movement of said lever to operate said valve unit.
3. An assembly according to claim 2 further including an overflow tray mounted in the bottom of said housing.
4. An assembly according to claim 2 wherein said housing includes a pair of substantially flat side walls, a substantially flat bottom wall, a substantially flat top wall, and a back wall comprising two offset substantially flat sections and an inclined section joining said other two back wall sections.
5. A washing machine valve fixture according to claim 4 wherein said valve unit is secured to said back wall adjacent said top wall.
6. A washing machine valve fixture according to claim 4 wherein said side walls are provided with openings to accommodate hot and cold water supply pipes.

7. A washing machine valve fixture according to claim 2 further including means on said housing for securing said housing in a building wall structure.

8. A washing machine valve fixture according to claim 7 wherein said last-mentioned means are adjustably mounted to said housing.