A closet bend stabilizer that receives the closet bend and is embedded into a cement slab surrounding the closet bend. The closet bend stabilizer serves to reduce the movement of the closet bend installed in the opening of the cement slab. Toward this end, the closet bend stabilizer comprises a horizontally disposed plate formed with a central opening of suitable dimension to receive the closet bend. In addition, the stabilizer includes a plurality of reduced diameter openings on each side of the central opening to improve its fixed relation within the cement slab. Below the horizontal plate and surrounding the central opening is a tapered flange to facilitate the stabilizer receiving the closet bend. The stabilizer is sealed or caused to adhere to the closet bend by a suitable adhesive.

4 Claims, 7 Drawing Figures
CLOSET BEND STABILIZER

BACKGROUND OF THE INVENTION

In the installation of a water closet for a toilet, a closet bend serves to interconnect the water closet bowl with a soil pipe. Heretofore, the closet bend was disposed in an opening formed in a cement slab when installed. There is a tendency for the closet bend to shift, rock, or move while disposed in the opening formed in the cement slab. As a consequence thereof, the installation is unsatisfactory and causes the closet bend to lose its seal. This results in leakage and an undesirable plumbing installation.

SUMMARY OF THE INVENTION

A stabilizer for a pipe bend comprising a horizontally disposed plate with a suitable opening for receiving the pipe bend, which stabilizer is disposed in the cement slab that is employed for the cement flowing and in which an opening is formed in the cement slab to receive the pipe bend. The pipe bend stabilizer serves to hold the pipe bend steady and relatively free of movement while the pipe bend is sealed in an opening formed in the cement slab.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is an isometric view of the closet bend of the present invention shown embedded in cement and receiving a closet bend that interconnects a fixture of the water closet bowl with a soil pipe.

FIG. 2 is a plan view of the closet bend stabilizer of the present invention.

FIG. 3 is an end view of the closet bend stabilizer of the present invention.

FIG. 4 is a vertical section view of the closet bend stabilizer of the present invention taken along line 4-4 of FIG. 2.

FIG. 5 is a plan view of a modification of the closet bend stabilizer shown in FIGS. 2-4.

FIG. 6 is an end view of the closet bend stabilizer shown in FIG. 5.

FIG. 7 is a vertical section of the closet bend stabilizer shown in FIGS. 5 and 6 and taken along line 7-7 of FIG. 5.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Illustrated in FIG. 1 is a water closet bend or a pipe bend 10, which includes an upright portion 10a, a curved portion 10b and a suitable end 10c for receiving a soil pipe. At the upright portion 10a is a suitable fitting 111 for establishing a connection with a water closet bowl.

It is customary for the closet bend 10 to be installed in an opening formed in a cement slab C. The thickness of the cement slab C is commonly 4 inches. The closet bend 10 when installed in the opening formed in a cement slab tends to move or rock which results in a poor plumbing installation by the breaking of the seal and permitting leakage and seepage.

According to the present invention, a closet bend stabilizer or a pipe bend stabilizer 20 made of suitable material, such as plastic, is provided with a plate 21 formed with an opening 21a of suitable dimension to receive the pipe bend 10. On each side of the opening 21a are formed pluralities of openings 21b of reduced diameter for causing improved adherence between the stabilizer 20 and the cement slab C or the like.

In practice, the closet bend stabilizer 20 is placed over the vertical portion 10a of the pipe bend 10 and lowered to a suitable height, which is immediately below the fitting 11 for embedding in the cement slab C or the like when the pipe bend 10 is installed in any opening formed in the cement slab C. During the placement of the closet bend stabilizer 20 over the vertical portion 10a of the pipe bend 10, the fitting 11 is removed. At this time, the pipe bend stabilizer 20 is fixed to the pipe bend 10 by a suitable adhesive 25 generally 3 inches below the upper surface of the pipe bend 10.

Now, the pipe bend 10 with the stabilizer 20 affixed thereon is installed in the cement slab C or the like. Generally, the cement C is 4 inches in height and is poured in the present invention after the pipe bend 10 is in its intended location. When installed, the portion 10a of the closet bend 10 is upright and the end 10c is generally horizontal. The closet bend stabilizer 20 is horizontally disposed and is embedded in the cement slab C. By virtue of the closet bend stabilizer 20, the closet bend 10 is retained in position with reduced rocking and moving while installed in the opening formed in the cement slab C. A removable spacer, not shown, is placed between the outer wall of the upright portion 10a of the pipe bend 10 and the cement to leave an appropriate space for the lower flange or depending wall of the fitting 11.

A modification of the closet bend stabilizer 20 is shown in FIGS. 5-7 and is designated as closet bend stabilizer 30. The closet bend stabilizer 30 comprises a plate 31 in which is found a suitable opening 31a for receiving a closet bend. On each side of the opening 31a are formed openings 31b of reduced diameters. On the underside of the plate 31 is fixed or integrally formed an annular tapered flange 32, which surrounds the opening 31a and serves to facilitate the placement of the stabilizer 30 on the closet bend.

1. A stabilizer for a pipe bend comprising a horizontally disposed plate with a suitable opening for receiving the pipe bend, which stabilizer is disposed in the cement slab that is employed for the cement flowing and in which an opening is formed in the cement slab to receive the pipe bend. The pipe bend stabilizer serves to hold the pipe bend steady and relatively free of movement while the pipe bend is sealed in an opening formed in the cement slab.

2. A stabilizer comprising:
   a. a closet bend adapted to be partially installed in an opening formed in cement;
   b. a stabilizer comprising a flat plate with an opening therethrough for receiving said closet bend and adapted to be installed in the cement for reducing movement of said bend while said closet bend is disposed in the opening formed in the cement; said closet bend being formed with an upright portion and said flat plate of said stabilizer being arranged to engage said upright portion while embedded horizontally in the cement; and
   c. an adhesive between and engaging said flat plate of said stabilizer and upright portion of said closet bend adhesively fixedly securing said flat plate of said stabilizer to said upright portion of said closet bend.

3. A stabilizer as claimed in claim 2 and comprising a tapered flange surrounding said first opening below said wall for facilitating the installation of the stabilizer on a closet bend.

4. The combination as claimed in claim 1 and comprising a tapered flange surrounding said opening for receiving said closet bend to facilitate the installation of said stabilizer on said closet bend.