Jan. 6, 1959 A. H. McMINN 2,866,981

PLUMBING UNIT

Original Filed May 12, 1954

Fig. 1.

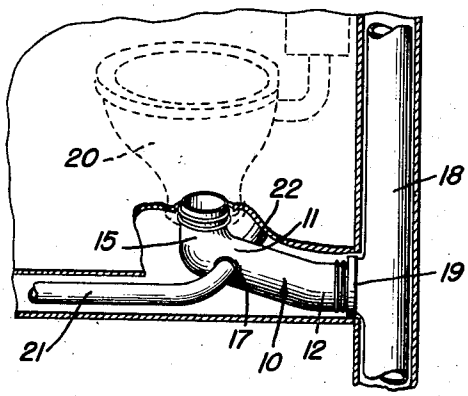


Fig. 2.

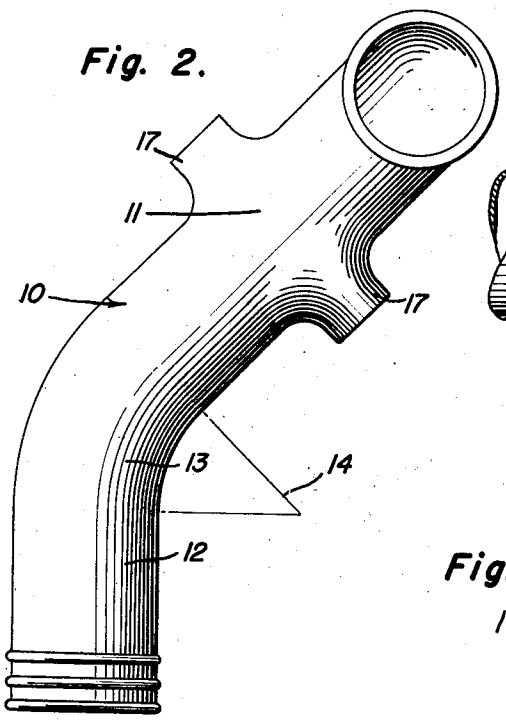


Fig. 3.

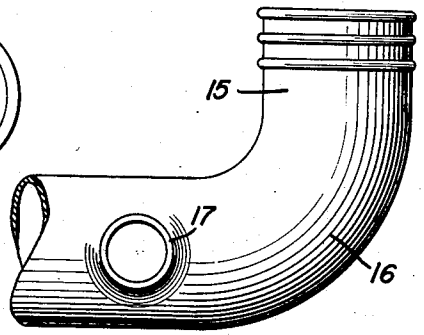


Fig. 5.

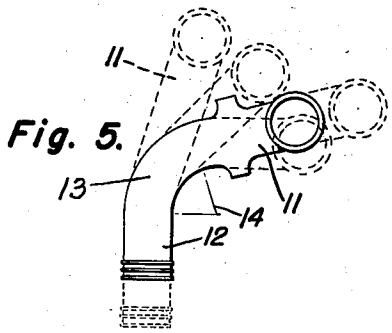
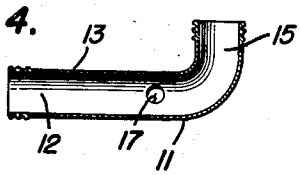


Fig. 4.



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PLUMBING UNIT

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Continuation of application Serial No. 429,269, May 12, 1954. This application October 14, 1957, Serial No. 689,919

2 Claims. (Cl. 4—211)

My invention relates to a method of connecting a toilet bowl with a vertical stack, when the bowl is off center with respect to the stack, and to the plumbing unit produced by the method.

It is customary in the plumbing business, when a toilet bowl is on center with the vertical stack, to connect the bottom of the bowl with the stack by an integral pipe or coupling, which is straight except for an upturned end which enters the bottom of the bowl. The toilet bowl is on center with the stack when a line at right angles to the wall arranged in front of the stack passes through the center of the bottom of the bowl and the center of the vertical stack. When a line arranged at right angles to the wall passes through the bottom of the toilet bowl but is offset laterally from the center of the stack, then the toilet bowl is said to be offset with respect to the stack. It is sometimes required in a given locality that the bowl have its distance from the vertical wall which covers the stack fixed to a selected distance, such as twelve inches, although this may vary. It is the settled practice to arrange the toilet bowl near the vertical wall which covers the stack, to economize in space, as bathrooms are ordinarily relatively small. The coupling which is provided upon the vertical stack is horizontal and at right angles to the coupling, and when the toilet bowl is on center with respect to the stack, the bottom of the toilet bowl may be connected with the coupling of the stack by a unitary pipe having a straight horizontal portion. When the toilet bowl is off center with respect to the stack, the pipe with the straight horizontal portion cannot be used, and an individual coupling element is made for each job, and as far as I know, prior to my invention, the individual coupling element has been made in several separate connected tubular elements, including elbows or the like. Due to the short space available, such a coupling element is difficult to make and expensive.

In accordance with my invention, I make and keep in stock a large number of pipes or tubular elements, of different horizontal angular shapes and which may also differ in length. When it is desired to connect a closet bowl with the stack, when the closet bowl is off center with respect to the stack, I take from the stock of tubular elements or pipes the tubular element or pipe having the desired horizontal angular arrangement and length. The straight horizontal end of the tubular element or pipe is inserted into the straight horizontal coupling of the vertical stack and the upstanding or vertical end of the tubular element or pipe is inserted in the vertical end of the bowl, at its bottom. This method saves a great deal of time and expense.

An important object of the invention is to provide a tubular element or pipe which is simple and unitary, and made in the required horizontal angular shape.

A further object of the invention is to provide a tubular element or pipe of the above-mentioned character which will dispense with the necessity of using several connected fittings.

Other objects and advantages of the invention will be apparent during the course of the following description.

The present application is a continuation of my application for Closet Bends, filed May 12, 1954, Serial Number 429,269, since abandoned.

In the accompanying drawings forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a perspective view of a closet bowl, vertical stack and connecting tubular element or pipe, the closet bowl being off center with respect to the stack.

Figure 2 is a plan view of the tubular connecting element or pipe.

Figure 3 is a side elevation of the same, parts broken away.

Figure 4 is a central vertical longitudinal section throughout the complete tubular element or pipe.

Figure 5 is a plan view of the tubular element or pipe, illustrating various horizontal angular positions and lengths of parts.

In the drawings, where for the purpose of illustration is shown a preferred embodiment of the invention, the numeral **10** designates a tubular element, body portion, or pipe, including a section **11** and a section **12** which is ordinarily shorter than the section **11**. The sections **11** and **12** are connected by a curve or bend **13**, and the sections **11** and **12** and curve or bend **13** are arranged in the same plane, which would ordinarily be horizontal. The curve or bend **13** arranges section **11** at a horizontal inclined angle with the section **12**, as indicated at **14**. The section **11** is provided at its free end with an upstanding or vertical section **15**, connected with the section **11** by a curve or bend **16**. The section **15** is ordinarily vertically arranged and is at right angles to the horizontally arranged section **11**.

Section **11** is provided upon its opposite sides with tubular tappings or lugs **17**, as shown. The angle of the tappings **17** with respect to the section **11** may be varied.

It is thus seen that I have provided a tubular element, body portion, or pipe which is unitary or integral, and having the desired horizontal angular relation between the sections of the same.

As shown in Figure 1, the numeral **18** designates a vertical stack, having a horizontal coupling **19** and **20** is the toilet bowl. The location of the bowl **20**, off center with respect to the stack **18**, necessitates the use of a tubular element or pipe having the proper horizontal angular arrangement. In Figure 1, the end of the section **12** is connected with the coupling **19** and the vertical section **15** leads into the bottom of the bowl **20**. A pipe **21** which may be connected with the drain of the bath tub is connected with one tapping **17**, while a pipe **22** which leads to the drain of the basin or sink leads into the other tapping **17**.

It is thus seen that a tubular element, or pipe, having the selected horizontal angle **14** will be used, as required. It is intended to make these tubular elements or pipes in various horizontal angular shapes, and the horizontal angle **14** may be varied, and the section **11** assumes different angular positions with respect to the section **12**, as shown in the dotted lines in Figure 5. Further, the length of the sections **11** and **12** may be varied. The tubular element or pipe **10** may thus be formed as an integral casting, or it may be formed of a copper tubular element which may be bent into the desired shape. It is contemplated to manufacture these tubular elements or pipes **10** in a large number of sizes and horizontal angular shapes, which may be kept in stock, so that a selected tubular element or pipe is provided and may be taken and will be suitable for connecting the closet bowl with the vertical stack, depending upon the location of the bowl with respect to the stack, when off center with

the stack. The section 11 may be at right angles to the section 12.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred embodiment of the same, and that changes may be made in the shape, size and arrangement of parts and in the order of the steps of the method, without departing from the spirit of my invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. A plumbing unit comprising, a vertical stack having a horizontal coupling, a toilet bowl arranged near and spaced from the vertical stack and off center with respect thereto and having a tubular bottom, and a unitary tubular element for connecting the vertical stack and toilet bowl, said unitary tubular element being generally horizontal in use and including horizontal end sections and an intermediate bend integrally connecting the end sections, one end section being arranged at a predetermined horizontal angle with relation to the other end section so that one end section extends laterally beyond the other end section for an amount equal to that required due to the off-center arrangement of the bowl with respect to the stack, a vertical section arranged at the outer end of one horizontal end section, a bend integrally connecting the vertical section and said outer end, the companion horizontal end section having a straight outer end, the straight outer end engaging within the horizontal coupling of the stack and the vertical section engaging within the tubular bottom of the toilet bowl.

2. A plumbing unit comprising, a vertical stack having a horizontal coupling, a toilet bowl arranged near and spaced from the vertical stack and off center with respect thereto and having a tubular bottom, and a unitary tubular element for connecting the vertical stack and toilet bowl, said unitary tubular element being generally horizontal in use and including horizontal end sections and an intermediate bend integrally connecting the end sections, one end section being arranged at a predetermined horizontal angle with relation to the other end section so that one end section extends laterally beyond the other end section for an amount euqal to that required due to the off center arrangement of the bowl with respect to the stack, a vertical section arranged at the outer end of one horizontal end section, a bend integrally connecting the vertical section and said outer end, the companion horizontal end section having a straight outer end, the straight outer end engaging within the horizontal coupling of the stack and the vertical section engaging within the tubular bottom of the toilet bowl, and tappings connected with one of said horizontal end sections.

References Cited in the file of this patent

UNITED STATES PATENTS

Re. 12,688	Oakes	Aug. 27, 1907
683,906	Brown	Oct. 8, 1901
2,482,359	Molloy	Sept. 20, 1949