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ADJUSTABLE ANGLE WASTE FITTING
WITH FRANGIBLE JUNCTURES
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Fig. 1

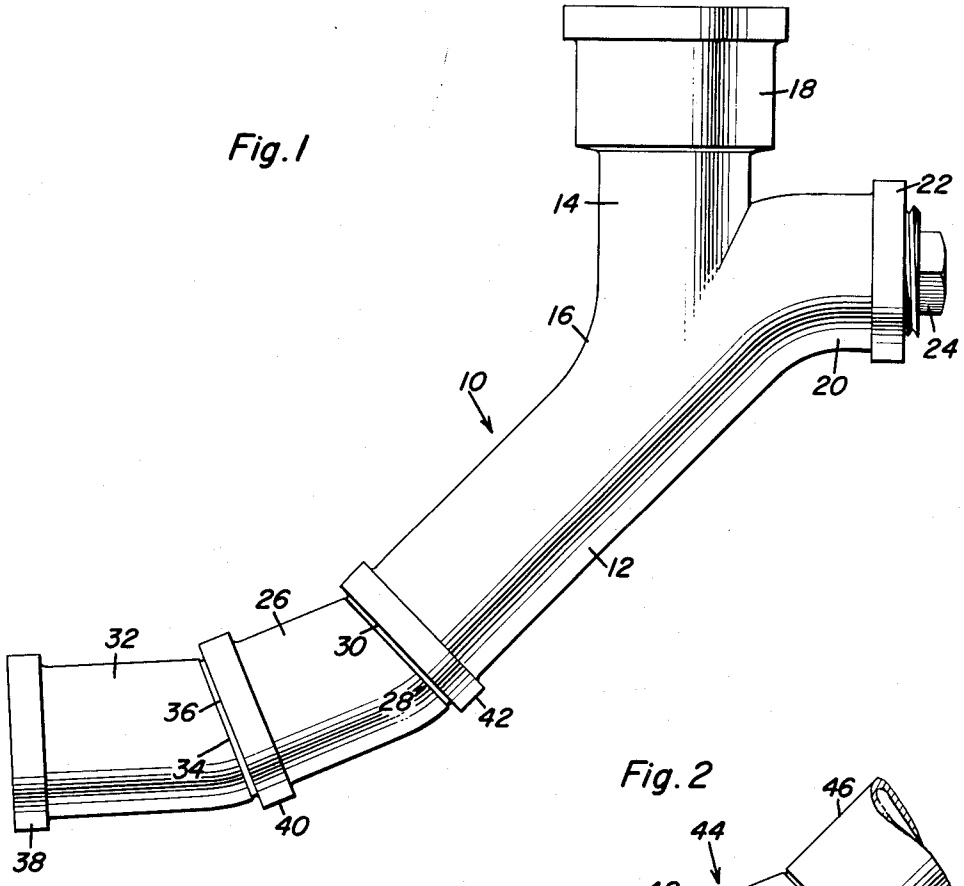


Fig. 2

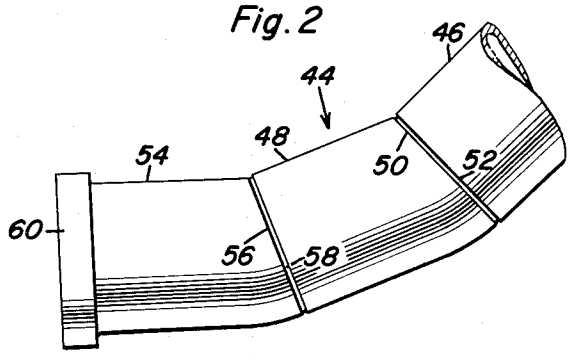
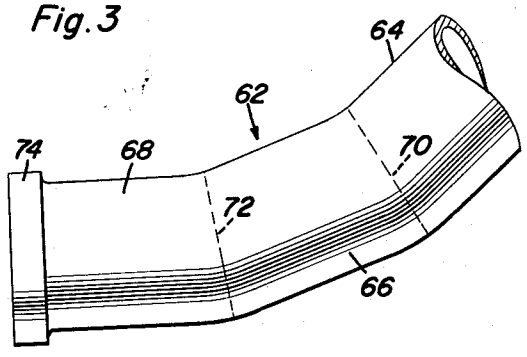


Fig. 3



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ADJUSTABLE ANGLE WASTE FITTING WITH FRANGIBLE JUNCTURES

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7 Claims. (Cl. 285—4)

The present invention relates to new and useful improvements in waste fittings for connecting wash basins, sink drains and the like to sewer lines.

This application is a continuation-in-part application of my copending application Serial No. 322,214, now abandoned.

An important object of the present invention is to provide a waste fitting having integrally formed sections disposed at successive angles to each other, the sections being so joined whereby they may be selectively cut off or broken off to attain the required bend or change in direction of flow to meet various construction requirements.

Another object of this invention is to provide an improved waste fitting which includes a plurality of substantially straight sections disposed in successive angular relation to each other, the sections being so connected to each other whereby certain successive sections may be removed as desired so that a single fitting may be converted into different fittings having end sections disposed at selected angles to a first section.

Another object of this invention is to provide an improved waste fitting which is of a simple and practical construction, and which is efficient in performance, relatively inexpensive to manufacture and otherwise well adapted for the purpose for which it is intended.

A further object of this invention is to provide an improved waste fitting which includes a plurality of sections joined together in successive angular relation, each of the sections terminating in collars whereby when said sections are removed one from the other, the endmost section of the shortened fitting will present a collar to facilitate the joining thereof to another waste fitting or pipe.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout the various views, and wherein:

Figure 1 is an elevational view of one form of waste-fitting and shows the general details thereof;

Figure 2 is a fragmentary elevational view of the lower end of a slightly modified form of waste fitting, the waste fitting of Figure 2 having the collars at the ends of the sections thereof omitted; and

Figure 3 is a fragmentary elevational view of the lower end of still another modified form of fitting and shows a slightly different arrangement of frangible juncture.

Referring now to the drawings in detail, it will be seen that there is illustrated a waste fitting conforming to the spirit of the present invention, the waste fitting being referred to in general by the reference numeral **10**. The waste fitting **10** includes a first elongated straight section **12** which terminates at its upper end in a relatively short straight section **14**, the sections **12** and **14** being joined together by an intermediate curved portion **16**.

The upper straight section **14** terminates at its upper end in a bell **18**.

Extending generally normal to the upper section **14** at what may be considered the elbow of the joint between the sections **12** and **14** is a generally horizontal straight section **20**. The section **20** terminates in an internally threaded collar **22** having a removable plug **24** so as to provide a clean-out for the fitting **10**.

Formed integral with the lower end of the first section **12** is a generally straight section **26**. The section **26** is joined to the section **12** by a frangible joint **28** which includes a score line **30** which facilitates the cutting or breaking of the section **26** from the section **12**. It is to be noted that the score line **30** is disposed normal to the axis of the preceding section **12**.

Formed integral with the section **26** at the end thereof remote from the section **12** is another elongated generally straight section **32**. The section **32** is connected to the section **26** by a frangible juncture **34** which includes a score line **36** to facilitate the breaking of the section **32** from the section **26**. Like the score line **30**, the score line **36** is disposed normal to the axis of the next preceding section, which in this case is the section **26**.

It is to be understood for purposes of identification, the sections **26** and **32** may be considered other sections. Also, although only two such sections **26** and **32** have been illustrated, it is to be understood that there may be many additional such sections as desired. Each of the sections **26** and **32** is disposed at a preselected angle with respect to the axis of the preceding section, and all of such angles are disposed in the same general direction so as to provide a generally curved type fitting.

In order that the pipe fitting **10**, when utilized as a whole, may be secured to other pipe fittings or pipes in a sealed joint, the end of the section **32** remote from the section **26** terminates in an outwardly directed collar **38**. Also, in order that the section **26** may form a seal with other fittings or pipes when the section **32** has been removed, the end of the section **26** remote from the section **12** is provided with a collar **40**. A similar collar **42** is formed on the end of the section **12** immediately adjacent the frangible joint **28**.

By providing a waste fitting, such as the waste fitting **10**, a single waste fitting may be carried out to a job, and then, as the plumber finds it necessary, the waste fitting may be cut so that the desired change of angle between pipes may be provided, and it is not necessary for the plumber to return to his shop to pick up another fitting. This permits a plumber to take a minimum number of fittings on a job and at the same time, permits him to obtain the proper slope on the various pipes of a plumbing system.

Referring now to Figure 2 in particular, it will be seen that there is illustrated the lower end of a waste fitting which is referred to in general by the reference numeral **44**. Inasmuch as the waste fitting **44** is identical with the waste fitting **10** with the exception of only slight changes in the lower portion thereof, only that portion of the waste fitting **44** has been illustrated. The waste fitting **44** includes a first section **46** which is identical with the section **12** with the exception of the collar **42**. The section **46** has formed integral with the lower end thereof a section **48** which corresponds to the section **26**. The sections **48** and **46** are connected together by a frangible juncture **50** which includes a score line **52** to facilitate breaking or cutting of the section **48** from the section **46**. Like the score line **30**, the score line **52** is disposed normal to the axis of the first section **46**.

Formed integral with the section **48** is a section **54**. The section **54** is connected to the section **48** by a frangible juncture **56** which includes a score line **58**. The score line **58** is disposed normal to the axis of the section **48**. The

section **54** differs from the sections **46** and **48** in that it terminates in a collar **60** to facilitate the joining of the entire fitting **44** to other fittings or a pipe.

Referring now to Figure 3 in particular, it will be seen that there is illustrated another modified form of fitting which is referred to in general by the reference numeral **62**. The fitting **62** includes a first elongated section **64** which is identical with the section **12** with the exception that the collar **42** has been omitted. Integrally joined to the lower end of the section **64** is the section **66**. Another section **68** is integrally joined to the section **66** remote from the section **64**. The sections **64**, **66** and **68** are disposed in successive angular relation. The sections **64** and **66** are joined together by a frangible juncture **70** whereas the sections **66** and **68** are joined together by a frangible juncture **72**. It is to be noted that the frangible junctures **70** and **72** are illustrated as being disposed at acute angles to the axes of the adjacent sections. These frangible junctures may be formed during the casting operation or may be imaginary lines of juncture, as desired, in the production of the fitting **62**. Further, the junctures **70** and **72**, while being illustrated at acute angles to the adjacent sections, may be disposed at right angles to their next preceding sections, as in the case of the fittings **10** and **44**. When disposed at right angles to the next preceding section, the frangible junctures **70** and **72** may also be either formed in the casting operation or may be imaginary lines of frangible juncture.

It is to be noted that the section **68** terminates in a collar **74** which facilitates the sealing of the fitting **62** to other fittings or a pipe.

Although the fittings **44** and **62**, when they have sections thereof removed, do not terminate in collars, such as the collars **40** and **42**, it is to be understood that because of the particular nature of a connection between a bell end of a fitting and a spigot end, and the use of packing and sealing compound, the collar is not absolutely necessary and a proper seal can be provided. Also, by eliminating the collar, a slight change in angle may better be made.

Although the drawings illustrate a slight curve at the outer part of each joint, if desired, the fittings may be cast with entirely straight sections and the curves have been illustrated only in that sharp corners are normally avoided in casting, if possible.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A generally curved pipe fitting comprising a first elongated section, a plurality of elongated other sections integrally connected to said first section and extending therefrom in successive angular relation, each of said other sections having a frangible juncture with an adjacent one of said sections, all of said sections being straight immediately preceding a respective frangible juncture, whereby a fully packed and sealed connection with a bell of a next pipe fitting may be formed.

2. A generally curved pipe fitting comprising a first elongated section, a plurality of elongated other sections integrally connected to said first section and extending therefrom in successive angular relation, each of said other sections having a frangible juncture with an adjacent one of said section, each frangible juncture being disposed substantially normal to a respective one of said preceding sections.

3. A generally curved pipe fitting comprising a first elongated section, a plurality of elongated other sections integrally connected to said first section and extending therefrom in successive angular relation, each of said other sections having a frangible juncture with an adjacent one of said sections, each frangible juncture being disposed substantially normal to a respective one of said preceding sections, all of said sections being straight immediately preceding a respective frangible juncture.

4. A generally curved pipe fitting comprising a first elongated section, a plurality of elongated other sections integrally connected to said first section and extending therefrom in successive angular relation, each of said other sections having a frangible juncture with an adjacent one of said sections, each frangible juncture being disposed substantially normal to a respective one of said preceding sections, all of said sections being straight immediately preceding a respective frangible juncture, each of said sections being provided with a collar immediately adjacent its respective frangible juncture.

5. A generally curved pipe fitting comprising a first elongated section, a plurality of elongated other sections integrally connected to said first section and extending therefrom in successive angular relation, each of said other sections having a frangible juncture with an adjacent one of said sections, each of said frangible junctures being disposed at an acute angle to adjacent sections, all of said sections being straight immediately preceding a respective frangible juncture, whereby a fully packed and sealed connection with a bell of a next pipe fitting may be formed.

6. A generally curved pipe fitting comprising a first elongated section, a plurality of elongated other sections integrally connected to said first section and extending therefrom in successive angular relation, each of said other sections having a frangible juncture with an adjacent one of said sections, a curved portion including an elbow connected to said first section remote from said other sections, a short straight section connected to said first section by said curved portion, a second short straight section connected to said curved portion at said elbow.

7. A generally curved pipe fitting comprising a first elongated section, a plurality of elongated other sections integrally connected to said first section and extending therefrom in successive angular relation, each of said other sections having a frangible juncture with an adjacent one of said sections, a curved portion including an elbow connected to said first section remote from said other sections, a short straight section connected to said first section by said curved portion, a second short straight section connected to said curved portion at said elbow, said second short straight section being disposed generally at right angles to the first mentioned short straight section, both of said short straight sections having free ends in the form of bells.

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