Nov. 23, 1937. G. LUNDQUIST 2,099,984

PIPE CONNECTER

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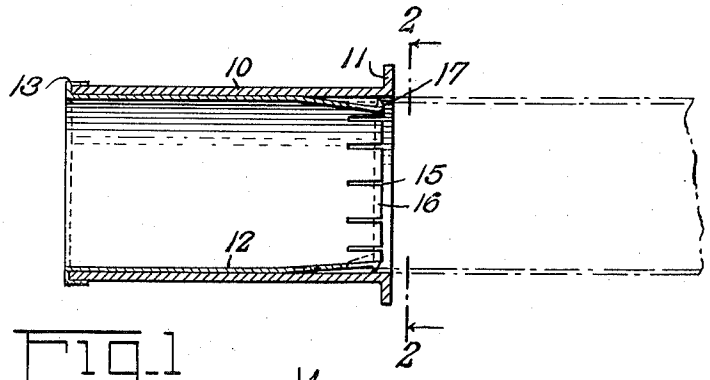


Fig. 1

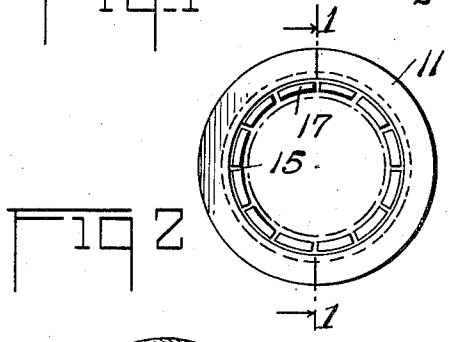


Fig. 2

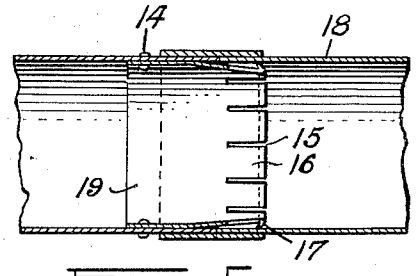


Fig. 5

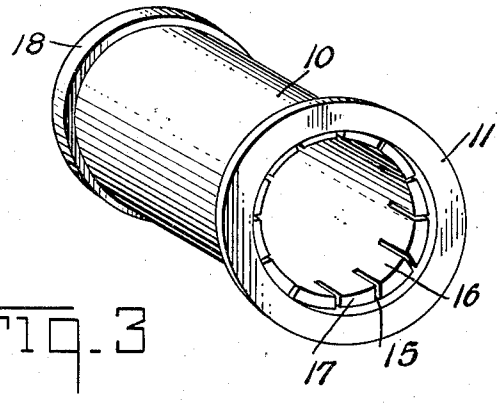


Fig. 3

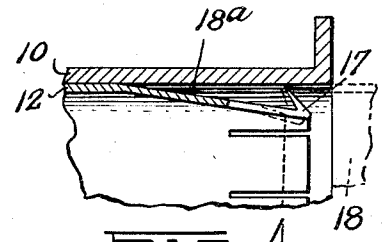


Fig. 4

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PIPE CONNECTER

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3 Claims. (Cl. 285—185)

This invention relates to pipe connecters, and more particularly to connecters for joining lengths of stove pipe and for holding such pipe where it enters the chimney. It has for its objects the production of a connecter of simple construction, cheap to manufacture and one that will prevent the escape of gas, smoke and dust. Other objects and advantages will be apparent from the following specification.

Where the ordinary stove pipe enters a chimney wall, it has been customary to insert it into a tile or other pipe of non-combustible material, or merely to put it into a hole cut through the chimney wall and opening into the flue therein. The pipe is then provided with a "collar" usually of tin or sheet iron, fitting the pipe more or less snugly and lying flat against the outer wall to form an air-seal between the wall and the pipe.

The objections to the foregoing method are many and so well known as to be common knowledge. The collar seldom fits the pipe, nor does it lie flat against the wall; the pipe is not held in position in the chimney wall; often the pipe extends too far into the flue and is choked. Gas, smoke and soot escape around the collar and soil the wall. This arrangement if properly carried out requires the pipe to be secured within the flue opening and the collar secured to the wall. This requires tools and skill not ordinarily available.

A further difficulty is met with when joining lengths of stove pipe together. The standard practice is to crimp one end of each length of pipe and shove it into the large end of another length thereof. This does not securely lock the joints or lengths together as they are only held by friction. Often a nail is driven through the joined sections to secure them together which of course causes a hole through which gas, smoke and dust find their way into the room.

The foregoing objections and difficulties are eliminated by the present invention, some of the additional advantages of which will be apparent from the following description of a preferred embodiment thereof. It will be understood, however, that the construction is by no means limited to the precise form herein described but may be varied in various ways without departing from the appended claims.

Figure 1 is a longitudinal sectional view on the line 1—1 of Figure 2 of a form of connecter suitable for use when connecting a stovepipe to a chimney wall.

Figure 2 is a view on the line 2—2 of Figure 1.

Figure 3 is a perspective view of the connecter shown in Figure 1.

Figure 4 is a fragmentary view, partly in section, of the connecter Figure 1.

Figure 5 is a longitudinal sectional view of a stovepipe connecter embodying features disclosed in preceding figures.

A form of connecter suitable for use when connecting stove pipe to a chimney will first be described.

Referring to Figure 1, the numeral 10 denotes an outer tubular member having an outwardly extending flange 11. This member may be of any suitable material such as metal, earthenware, porcelain, moulded asbestos material or the like, and is of the proper dimensions to fit tightly within the chimney opening and it may be connected therein so that no leak can occur around the exterior thereof.

If the tube 10 is of non-metallic material, the inner metallic tubular member 12 therein extends rearwardly as shown in Figure 1 and has its end 13 turned over the inner end of tube 10, whereby it is held firmly in place and forms a lining for the tube.

If the tube 10 is of metal then the tube 12 need not extend rearwardly as shown, but can be shortened, and riveted or welded to 10 as shown at 14, Figure 5.

The outer end of tube 12 is provided with a plurality of longitudinal slots 15 which extend inwardly a short distance and provide a plurality of resilient tongues 16 having their outer ends turned over to form the gripping claws 17 the points of which are directed outwardly as shown in the figures.

The points of the claws 17 normally rest upon the inner wall of the tube 10 but the shape of the lateral ends of these claws is such that when the end of the stove pipe 18 is thrust inwardly against them, they yield and spring inwardly, permitting the pipe 18 to be thrust into the tube 10 until the inner end of the pipe extends beyond the inner ends of the slots 15 to the point 18*a*.

The inner end 18*a* of the pipe 18 is therefore in close engagement with the inner wall of tube 10 and the outer wall of tube 12 and is effectually sealed. The claws 17 grip the inner surface of the pipe 18 and securely hold same in position. Because of the rake or angle given these claws the points of same bite into the pipe 18 and any tendency of the pipe to turn or slip is eliminated.

If necessary, the pipe 18 may be (and usually is as commonly made) provided with a bead,

over which the claws ride which further serves to hold the pipe in position.

By the foregoing invention just described, the pipe 18 is securely held in position and the escape of gas, smoke and dust from around the pipe 18 where it enters the tube 10, or from around the tube 10 where it enters the wall is prevented.

It will be understood that, by turning the pipe 18 in the tube 10 and pulling quickly on 18 with a jerking motion, the pipe can be removed from the claws. However, this operation must be deliberately performed as ordinarily the pipe 18 will withstand the usual handling and shocks to which such pipes are ordinarily subjected, without parting from the tube 10.

To use this invention to join lengths of ordinary stove pipe, one end of each length of pipe is provided with the tubular member 19, Figure 5, welded or otherwise secured within the tube as shown at 14. The pipe 18 is held in place by this member, in the same manner as the pipe 18 is held as previously described.

What is claimed is:

1. A pipe coupling comprising a non-metallic tubular member, an inner metallic tubular member extending throughout the length of said outer member secured therein and having a flanged inner end engaging the inner peripheral edge thereof, said inner member having a plurality of longitudinal outwardly extending resilient tongues lying within said outer member and adapted to interiorly engage a pipe thrust between said inner and outer members.

2. A pipe coupling comprising a tubular non-metallic tube of vitreous material having a metallic lining therein, said lining being longitudinally slotted for a portion of its length inwards from one end of the tube to form resilient fingers to permit the end of a pipe to be pushed between said tube and lining and held therein by said resilient fingers.

3. A pipe coupling comprising an outer tubular member, an inner tubular member secured within said first member, said inner member having a portion forming a continuous imperforate wall overlying the inner wall of said first member, and said inner member having a plurality of longitudinally outwardly extending resilient tongues lying within said outer member and adapted to interiorly engage a pipe thrust between said inner and outer members.

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