A. L. McELVAIN.

ADJUSTABLE FLUE COLLAR AND PIPE SUPPORTER.

APPLICATION FILED DEC. 30, 1908.

931,213. Patented Aug. 17, 1909.

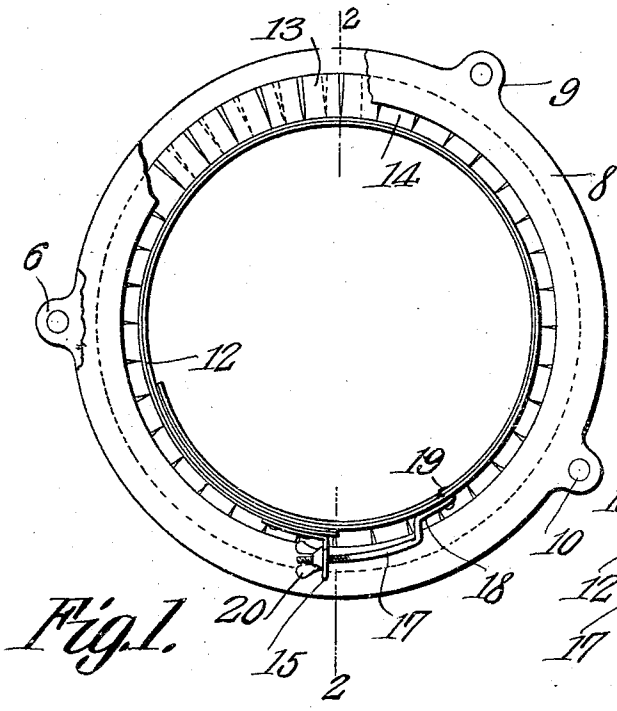

Fig. 1.

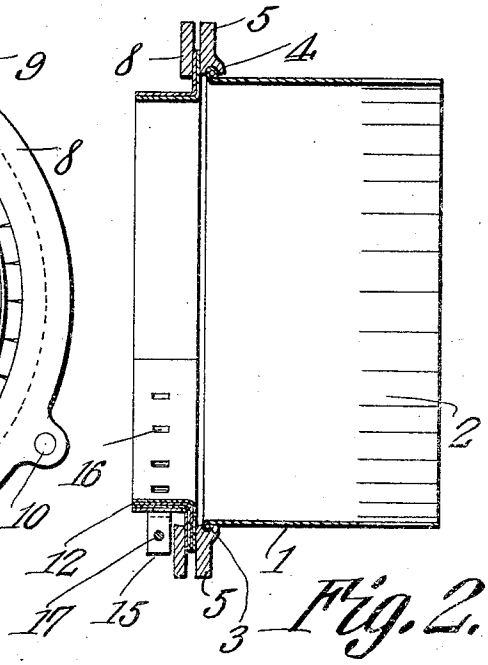

Fig. 2.

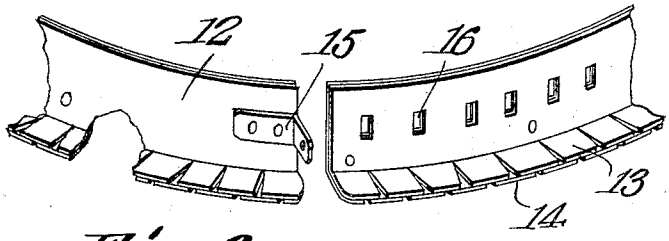

Fig. 3.

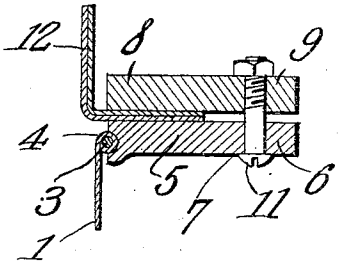

Fig. 4.

Witnesses

E. F. Stewart

John A. Donegan.

Inventor

Abraham L. McElvain.

By Cashow & Co.

Attorneys

ANDREW. B. GRAHAM CO., PHOTO-LITHOGRAPHERS. WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ABRAHAM LINCOLN McELVAIN, OF ELMO, MISSOURI.

ADJUSTABLE FLUE-COLLAR AND PIPE-SUPPORTER.

No. 931,213. Specification of Letters Patent. Patented Aug. 17, 1909.

Application filed December 30, 1908. Serial No. 469,964.

To all whom it may concern:

Be it known that I, ABRAHAM L. McELVAIN, a citizen of the United States, residing at Elmo, in the county of Nodaway and State of Missouri, have invented a new and useful Adjustable Flue-Collar and Pipe-Supporter, of which the following is a specification.

This invention relates to improvements in stove pipe thimbles, and more particularly to the expansible type.

It has for its object to provide a thimble which may be readily adjusted to the various sizes of stove pipes.

Another object is to provide an improved locking means for the adjustable member.

A further object is the provision of an improved construction for securing the outer flange to the flue member.

With these and other objects in view, as will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size and minor details of the device may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming a part of this specification: Figure 1 is a front view of the device. Fig. 2 is an axial section on the line 2—2, Fig. 1. Fig. 3 is a fragmentary view of the expansible sleeve showing the adjusting device. Fig. 4 is a detail vertical section of the annular flange and the manner of securing the flue member and expansible sleeve thereto.

Similar numerals of reference are employed to designate corresponding parts throughout.

In carrying out the invention I provide a flue member which is adapted to enter the opening for the pipe in the chimney, and which is adapted to support on its outer end what will subsequently be termed an annular flange, the function of which is to prevent the flue member from entering too far into the opening. The flange is adapted to support a ring, and interposed between the faces of the flanges and ring is what will subsequently be termed an expansible collar. The body portion of the latter receives one end of the stove pipe, and it is so constructed that its diameter may be readily increased or diminished according to the size of the stove pipe used.

The flue member 1 is preferably of metal and is designed to be fixed within the stove pipe opening of the chimney. The inner end of this member is provided with a number of incisions, whereby a plurality of sections 2 are formed. When the flue is applied to an old chimney opening, these sections may be turned outwardly, so as to bear against the chimney wall in order that the flue may be more firmly held against outward movement in the chimney opening. The outer or opposite end of the flue 1 is rolled outwardly and upon a wire 3 (Fig. 4), so as to provide a beaded edge 4. An annular flange 5 is provided on its inner circumference with a groove, and the distance between opposite points in the floor of the groove is approximately the same as the diameter of the beaded end of the flue 1, so that the latter may be sprung into the groove, as shown in Figs. 2 and 4. The flange 5 is provided with opposite flat surfaces and on its outer circumference is provided with a plurality of radial lugs 6 having openings 7, the function of which will appear later.

A flat ring or disk 8 of the same size as the flange 5 is provided on its outer circumference with a plurality of radial lugs 9 having openings 10 coinciding with the openings 7 of the flange 5. Suitable bolts 11 or the like are adapted to enter the openings of the lugs and serve to hold the parts together, as illustrated in Fig. 4.

Interposed between the flat surfaces of the flange 5 and ring 8 is the flexible flange of an expanding collar which surrounds the stove pipe. This expanding collar 12 has two curved strips of metal which are secured flat together in the form of an open ring, whose ends may be brought together to form a closed ring; or the ends may be separated more or less to form the arc of a ring of larger diameter. Thus the sleeve may be made to fit stove pipes of any diameter within certain limits. Each of the curved strips forming the collar or ring 8 has radial wings 13 and 14, respectively extending outwardly at right angles with the body 12 of the sleeve and forming a flange thereon which is disposed between the flat surfaces of the flange 5 and ring 8, as before stated. The wings of each strip are preferably in the same piece

with the strip, and, while they form an almost continuous flange at the strip, leave openings widening outwardly which are covered by the wings of the other strip, the wings 14 covering the openings between the wings 13, and vice versa. The wings slip upon each other as the collar is expanded or contracted. The collar is provided on the outer face and at one end of the body portion 12 with an angular keeper 15, and the opposite end portion of the body 12 is provided with a plurality of spaced openings 16. A hook provided with a threaded shank 17 terminating at one end in a right angular extension 18 is adapted to hold the opposite ends of the collar together, as shown in Fig. 1. The hook may be of metal, and at the terminal of the right angular extension 18 it is curved laterally so as to form a bill 19, which is adapted to enter either of the openings 16, while the opposite or threaded end enters an opening formed in the keeper 15. Thus it will be seen when the bill 19 is placed within one of the openings 16 one side of the right angular extension 18 will be parallel with the body portion 12 of the collar, while the other portion of the said right angular extension, or that terminating in the shank 17, will be at right angles to the said body portion 12, whereby the shank 17 will be disposed transverse the axis of the collar and in position to enter the opening of the keeper 15. By referring now to Fig. 1, it will be seen that the threaded shank 17 extends through the opening of the keeper and is provided with a thumb nut 20 which, when threaded on the shank, will bear against one face of the bracket, whereby the collar will be prevented from straightening. It can be seen when one end of a pipe is inserted into the collar, nice adjustment of the latter upon the pipe can be made by turning the nut 20 in the required direction. It will be further observed that the body portion 12 of the collar projects outwardly and at right angles to the outer face of the outer ring 8, so that careful adjustment can be readily effected.

From the foregoing it will be seen that I have provided a thimble which is simple in structure and comparatively inexpensive to manufacture, embodying few parts and these so arranged that the adjustment of the same to the various sizes in pipes may be readily effected.

What is claimed is:—

1. In a device of the class described, a flue member having at one end a flange, an expansible collar adapted to be clamped about a pipe to be supported, and a ring secured upon the flange, the said collar having a flanged portion clamped between the flange and the ring whereby the said collar and pipe supported thereby will be held in position.

2. In a device of the class described, a flue member having at one end a flange, an expansible collar adapted to be clamped about a pipe to be supported, and a ring, clamping bolts passed through the ring and flange, the said collar having a flanged portion clamped between the flange and the ring whereby the said collar and pipe supported thereby will be held in position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ABRAHAM LINCOLN McELVAIN.

Witnesses:
C. R. La Mar,
Ray S. Wilfley.