M. E. SCANNELL.

ADJUSTABLE JOINT.

APPLICATION FILED SEPT. 23, 1914.

1,159,422.

Patented Nov. 9, 1915.

3 SHEETS—SHEET 1.

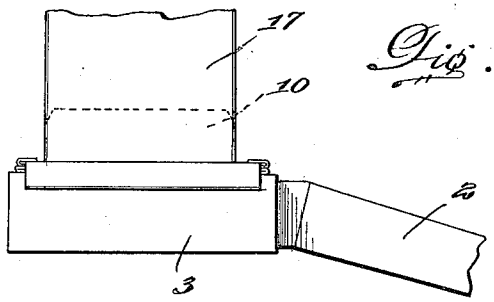


Fig. 1.

Fig. 2.

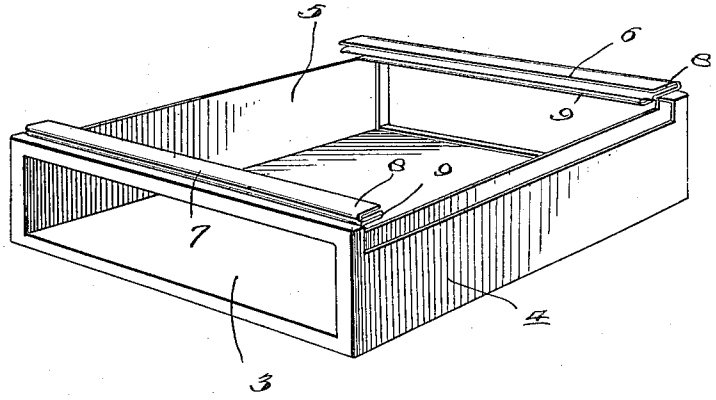


Fig. 3.

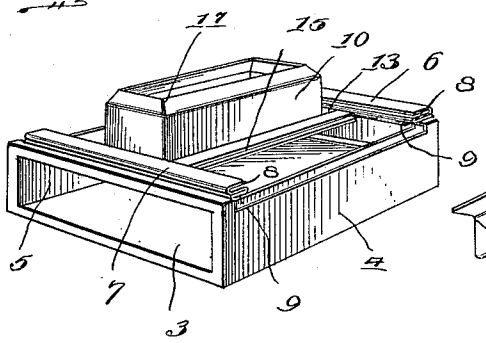
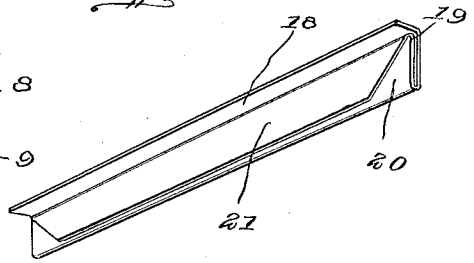


Fig. 8.



Inventor

M. E. Scannell.

Witnesses

Frederick L. Fox.

By Victor J. Evans.

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

M. E. SCANNELL.

ADJUSTABLE JOINT.

APPLICATION FILED SEPT. 23, 1914.

1,159,422.

Patented Nov. 9, 1915.

3 SHEETS—SHEET 2.

Fig. 4.

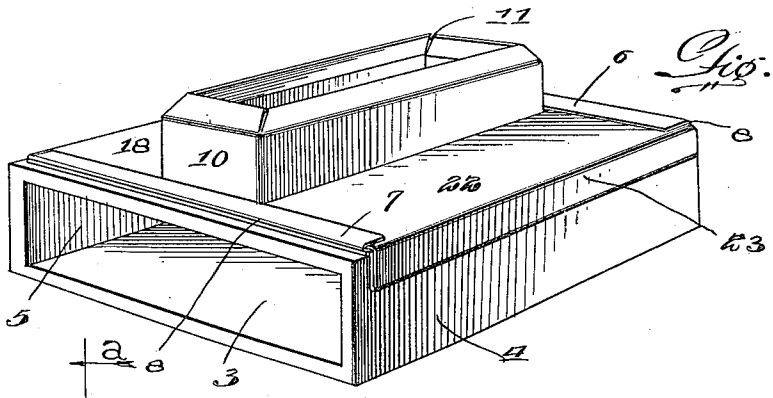


Fig. 5.

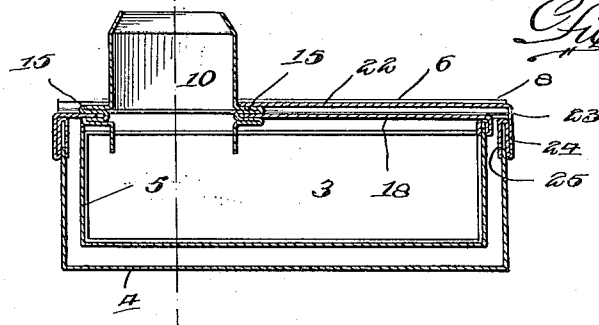


Fig. 6.

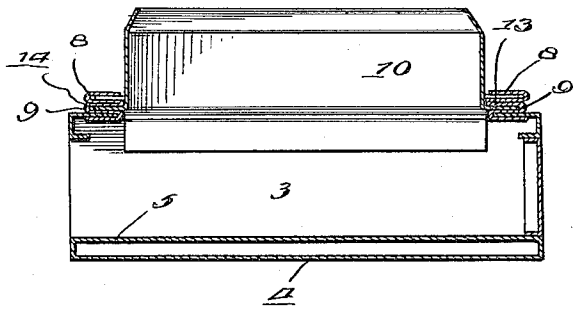
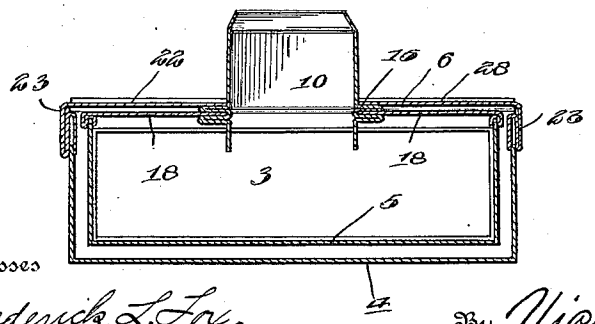


Fig. 7.



Witnesses

Frederick L. Fox.

W. M. Dorsey.

Inventor

M. E. Scannell.

By Victor J. Evans.

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

M. E. SCANNELL.

ADJUSTABLE JOINT.

APPLICATION FILED SEPT. 23, 1914.

1,159,422.

Patented Nov. 9, 1915.

3 SHEETS—SHEET 3.

Fig. 9.

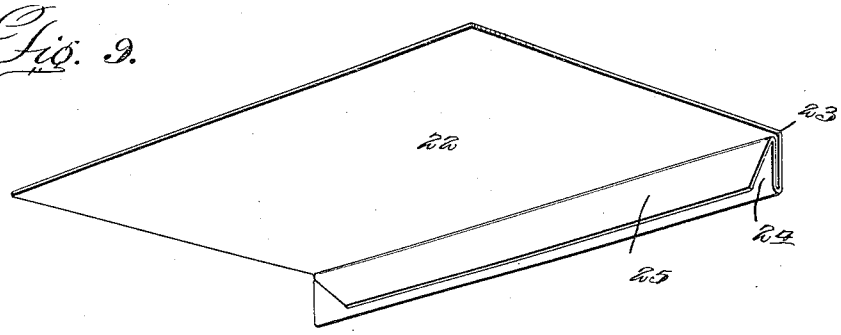


Fig. 10.

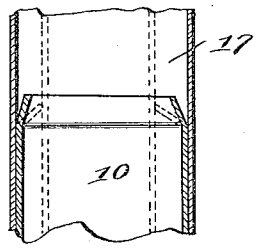
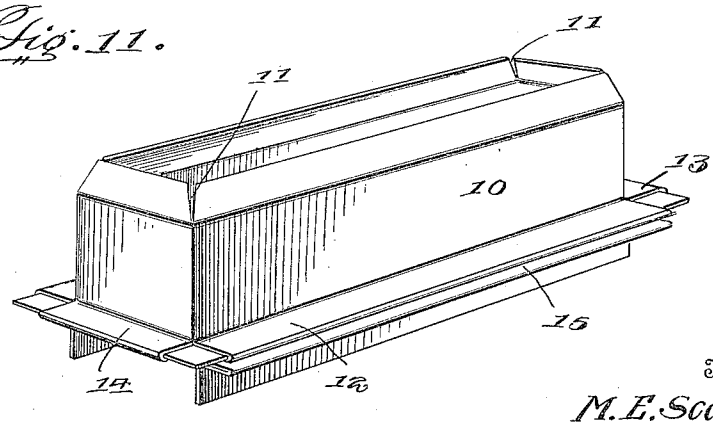


Fig. 11.



Witnesses

Frederick L. Fox.

Wm. J. Evans.

Inventor

M. E. Scannell

By Victor J. Evans.

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C

UNITED STATES PATENT OFFICE.

MAURICE E. SCANNELL, OF OMAHA, NEBRASKA.

ADJUSTABLE JOINT.

1,159,422. Specification of Letters Patent. Patented Nov. 9, 1915.

Application filed September 23, 1914. Serial No. 863,192.

To all whom it may concern:

Be it known that I, MAURICE E. SCANNELL, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented new and useful Improvements in Adjustable Joints, of which the following is a specification.

The present invention relates to improvements in heads or boots terminal for the lead pipes from furnaces, and especially to the arrangement of a slidable collar thereon, whereby said collar may be moved laterally of the head or shoe to receive a branch pipe leading from the head or boot, so that the head or boot may be positioned within a wall or between the partitions of a wall and accommodate the branch which is not necessarily arranged centrally of the boot or head.

A further object of the invention is to provide a head for the lead pipe from a furnace having transverse guideways thereon, a slotted grooved plate arranged upon one of the slides, a collar secured to the plate and surrounding the slot of the same, and removable plates adapted to be received within the guides of the head and to engage with both the grooves in the slotted plate as well as the outer faces of the said plate and the guideways of the head to provide an air tight closure for the open face of the head and to permit of the lateral adjustment of the slotted plate and collar upon the head.

A further object of the invention is to provide a hollow head for the lead pipe from a furnace with an open face and to arrange the slidable collar upon the said open face and to provide filler plates between the collar and the head to fill the spaces between the said collar and head.

A still further object of the invention is to provide a head for this purpose with a slidable collar which communicates with the interior of the head and which is so arranged as to receive branch wall pipes of various dimensions.

With the above and other objects in view the improvement resides in the construction, combination and arrangement of parts set forth in the following specification and falling within the scope of the appended claims.

In the drawings: Figure 1 is a view, illustrating in a conventional manner, the arrangement of the collar upon the head and illustrating a branch or wall pipe connected with the head, Fig. 2 is a perspective view of the head, the collar and filler plates being removed, Fig. 3 is a similar view showing the collar in position, Fig. 4 is a similar view illustrating certain of the filler plates closing the space between the collar and the open face of the head, Fig. 5 is a transverse sectional view showing the collar arranged adjacent one of the ends of the head with the filler in position, Fig. 6 is a similar view on the line *a*—*a* of Fig. 5, Fig. 7 is a horizontal sectional view illustrating the collar arranged approximately central of the head, with the filler plates in position, Fig. 8 is a detail perspective view of the filler plate employed when the collar is arranged at one side of the head, Fig. 9 is a similar view of one of the larger filler plates, Fig. 10 is a sectional view illustrating the manner in which the collar may be adjusted to receive pipes of different dimensions, and Fig. 11 is a detail perspective view of the collar and the slotted plate upon which the same is arranged.

Referring now to the drawings in detail the numeral 2 designates the lead pipe from a furnace (not shown). The lead pipe enters a head or boot 3 which, in the present instance, is of a rectangular or box-like form. The head includes an outer casing 4 and an inner casing 5, both casings comprising sides, a top and a back, and the top as well as the lower edges of the back and sides of the outer casing extend inwardly over the inner casing and secure the inner casing to the outer casing. Both of the casings, it will be noted, are provided with outer open faces and the inner casing is provided, adjacent its upper and lower edges with transverse strips or cleats 6 and 7 respectively. The outer casing, at the upper and lower edges of its opening forward of the cleats 6 and 7 is provided with transversely arranged substantially U-shaped members 8 and 9 respectively, the same forming ways for a purpose which will presently be described.

The numeral 10 designates the slidable collar which in the present instance is of a rectangular formation and which has its corners split, as indicated by the numerals 11. The collar is secured to or may be formed with a plate 12, the said plate being slotted so that the collar proper surrounds the opening in the plate and the said plate extends at a right-angle from all of the walls of the collar. The extending portions

are all formed with grooves, the grooves 13 and 14 provided upon the upper and lower edges of the plate being arranged to engage with the upper and lower cleats 6 and 7 respectively of the inner casing 5, while the slots or grooves upon the outer edges of the side members of the plate, indicated by the numeral 15, are adapted for a purpose presently to be described. The collar is arranged at a right angle to the head, and is adapted to receive a laterally extending pipe 17 which leads to a register box (not shown) or to a wall stack (not shown).

It is highly desirable that the collar be adjusted upon the head so that a pipe 17 arranged within a building without particular regard to the precise location of the head may be received by the collar and also that the open space between the collar and the head be filled after the said pipe 17 has been arranged upon the collar, so that the head is rendered practically air tight so that the heat units will not escape therefrom except through the said pipes 17. Therefore, I provide a plurality of filler plates which, while of a substantially similar construction are of various widths so that the same may be arranged upon the head to engage with the collar and the grooved plate of the collar to fill the spaces between the collar and the end walls of the head. These plates each comprise a body portion 18 which is of a length corresponding with the height of the head and certain of the said plates 18 are adapted to be arranged between the cleats 6 and 7 and the inner faces of the U-shaped members 8 and 9, and to be also received within the groove 15 in the sides of the plates 12. The outer edges of the plates are bent at a right angle, as indicated by the numeral 19, and are from thence folded inwardly over the right angular portions, as indicated by the numerals 20, the said portions 20 after contacting with the inner faces of the bodies 18 are bent outwardly to provide what I term spring lips 21, and these lips are adapted to be brought into engagement with the inner side walls of the inner casing 5 of the head, the right angular member 19 or rather the inturned portion 20 provided thereby engaging with the outer surface of the sides of the inner casing of the head.

The outer plates which may be distinguished by the numerals 22, are of a similar construction to those of the inner plate, just described, the same having their ends provided with right angular flanges 23 which are bent inwardly and the ends of said plates are bent inwardly over the flanges 23 as indicated by the numerals 24, the said portions 24 contacting with the inner faces of the plates, and are from thence bent outwardly to provide spring lips 25. The upper and lower edges of the plates 22 are slid within the U-shaped ways 8 and 9, until the inner edges of the same contact with the sides of the collar. The flanged ends 23 are adapted to contact with the outer side walls of the outer casing 5 of the head, while the spring lips 25 frictionally engage with the inner walls of said side members of the said inner casing.

It is, of course, to be understood that while all of the plates are provided upon their outer edges with the flanges, the said plates must be cut to have their inner edges engage either within the grooves in the slotted plate of the collar or with the opposite side faces of the collar and as the filler plates are preferably constructed of tin it has been found preferable not to construct the same in various sizes, but to provide a stock all of the same size and all of the said stock plates being of a width sufficient to engage with the collar when it is moved to the extreme end of the head, and certain of the stock sized plates are cut so that the same may be arranged at the side or end of the head toward which the collar has been adjusted and the said cut plates are arranged to engage with the collar and its plate in a manner as heretofore described.

It has been previously stated that the corners of the collar 10 are slitted. The slits are rather in the form of V-shaped notches, so that the outer sides of the collar as well as the upper and lower sides of the same may be bent inwardly or outwardly to permit of a pipe of a certain size passing over the exterior of the collar or to permit of pipes of smaller sizes passing within the collar and the side and ends of the said collar bent inwardly against the said pipe. Thus it will be noted that various sizes of pipes may be accommodated by the collar.

From the above description, taken in connection with the accompanying drawings, the simplicity of the device as well as the advantages thereof will, it is thought, be perfectly apparent to those skilled in the art to which such invention appertains without further detailed description.

Having thus described the invention, what I claim is:

1. A head for the lead pipe from a furnace comprising a hollow member having an open face, a laterally movable collar upon the said open face, plates arranged upon the head from the opposite ends thereof for filling the spaces between the collar and the said ends of the head.

2. A head for the lead pipe from a furnace having an open face and its upper and lower edges provided with inwardly extending cleats, a collar, a curved plate arranged upon the cleats, said plate having an opening, a collar arranged upon the plate and surrounding the opening, filler plates co-acting with the grooves and con-

tacting with the slotted plate of the collar and the ends of the head for filling the spaces between the collar and the ends of the head.

3. A head for the lead pipe from a furnace comprising a box-like member having an open face and including an inner and an outer casing, the inner casing having its upper and lower walls at its open face provided with longitudinal cleats, the outer casing having its upper and lower walls at its outer ends provided with longitudinally extending U-shaped members arranged forward of the cleats, a rectangular plate having its edges grooved and the grooves provided upon its upper and lower edges engaging with the cleats of the inner casing, a collar upon the plate arranged at the inner edges thereof, inner filler plates having flanged ends provided with spring lips passed longitudinally between the cleats of the inner casing and the inner face of the U-shaped members of the outer casing and entering the grooves in the side of the collar plate and having its flange and lips engaging with the outer and inner walls of the said inner casing, outer filler plates arranged within the U-shaped members of the outer casing and contacting with the collar carrying plate, said outer filler plates having side flanges provided with U-shaped lips and adapted to engage with the outer and inner faces of the outer casing.

4. A hollow head for the lead pipe from a furnace having a rectangular collar slidably arranged thereon and communicating with the head and the said collar having its corners slitted.

In testimony whereof I affix my signature in presence of two witnesses.

MAURICE E. SCANNELL.

Witnesses:

CHARLES E. CONN,

F. C. MCDERMOTT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."