

A. W. FOSTER.

STOVEPIPE COLLAR AND FASTENING DEVICE THEREFOR.

No. 470,327.

Patented Mar. 8, 1892.

Fig. 1.

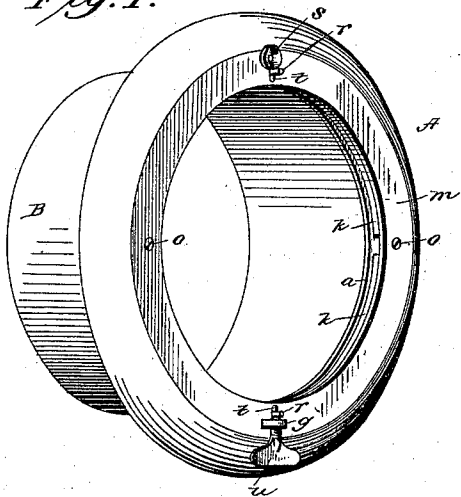


Fig. 2.

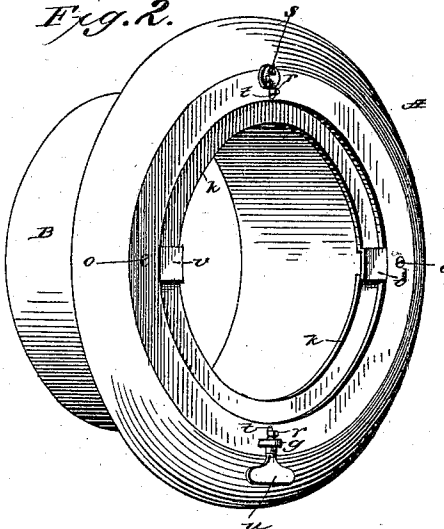


Fig. 3.

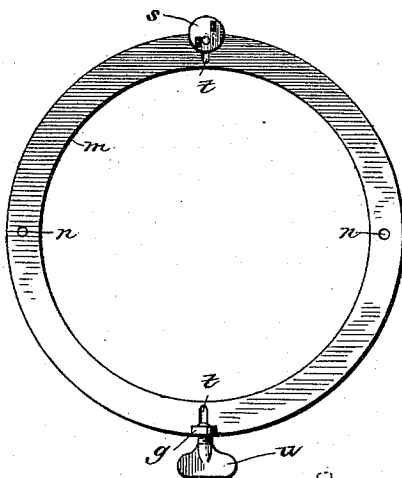


Fig. 4.

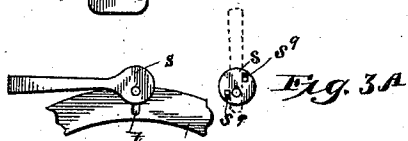
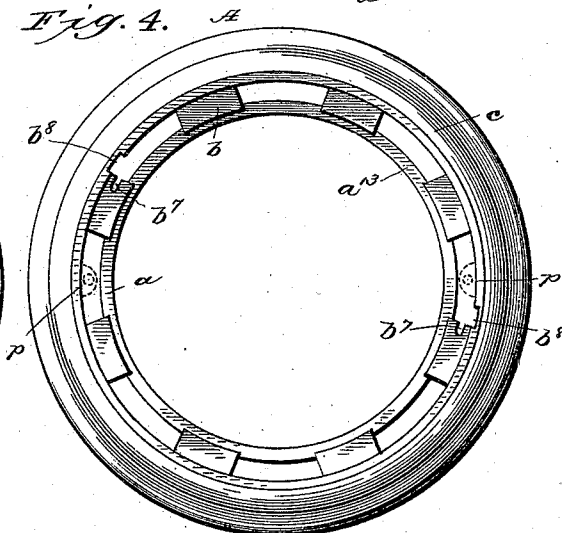


Fig. 3A

Fig. 3B

Witnesses:

E. R. Smith
Wm. J. Rich

Fig. 5.

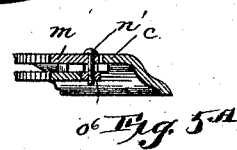
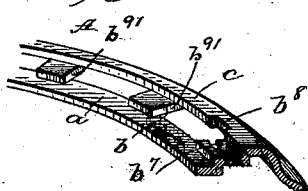


Fig. 5A

Inventor

Albert W. Foster.

By his Attorney

H. M. Lytle.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 6.

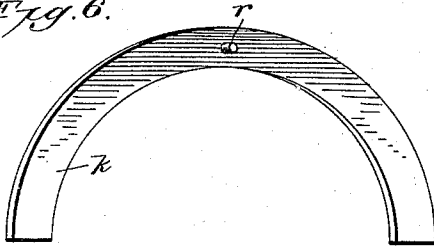


Fig. 7.

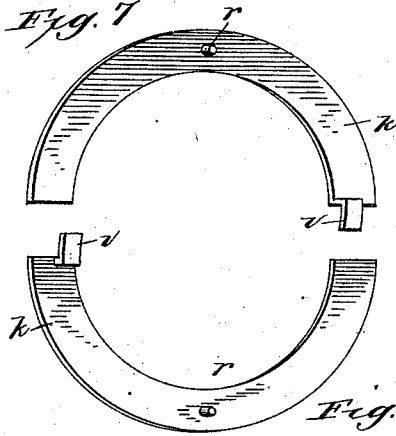


Fig. 9.

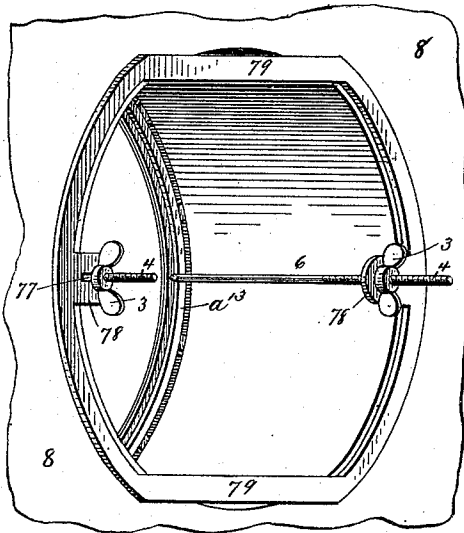


Fig. 10.

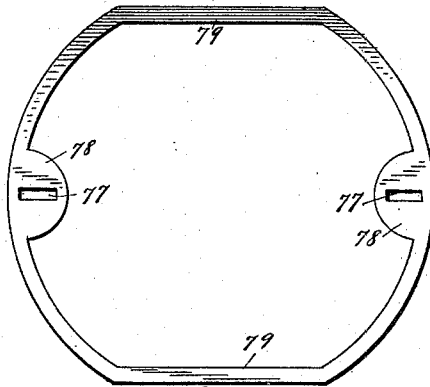


Fig. 11.

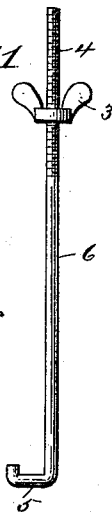
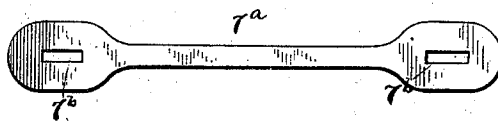


Fig. 12.



Witnesses
C. D. Smith
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UNITED STATES PATENT OFFICE.

ALBERT W. FOSTER, OF SEVILLE, OHIO.

STOVEPIPE-COLLAR AND FASTENING DEVICE THEREFOR.

SPECIFICATION forming part of Letters Patent No. 470,327, dated March 8, 1892.

Application filed October 4, 1890. Serial No. 867,037. (No model.)

To all whom it may concern:

Be it known that I, ALBERT W. FOSTER, a citizen of the United States, residing at Seville, in the county of Medina and State of Ohio, have invented certain new and useful Improvements in Stovepipe-Collars and Fastening Devices Therefor, of which the following is a specification.

Ordinarily stovepipe-collars are so constructed as to provide for fitting properly pipe of a certain size only, although in some instances stovepipe-collars have been provided with devices which may be adjusted to enable them to fit pipes of different sizes.

My invention provides an improved construction of stovepipe-collar supplied with a novel means of securing the stove-pipe in place, the parts of the collar being so constructed and arranged that certain portions thereof which engage with the pipe may be removed and replaced by others when desired in order to provide an accurate fit for the stovepipe, thus adapting it to varying sizes of pipe.

My invention also provides, in addition, a novel means of holding a stovepipe-collar in position, which is particularly serviceable when applying a stovepipe-collar to an old chimney-hole—that is, to one already having a thimble in place therein. It is adapted for use in connection with other forms of collars than that herein shown and described, although it was designed with a special view to its fitness for employment under certain circumstances in connection with the illustrated form of collar.

In the drawings, Figure 1 is a perspective of a collar embodying my invention, showing the same as applied to the end of a thimble of ordinary construction and as provided with pipe fitting and holding segments, such as will receive pipe of a larger size—as, for instance, pipe seven inches in diameter. Fig. 2 is a similar view showing, however, the collar fitted with segments, such as will be employed for receiving pipe of a smaller diameter—as, for instance, pipe six inches in diameter. Fig. 3 is a view showing detached the preferred form of the removable face-piece or retaining portion which secures in position the pipe fitting and holding segments. Fig. 3^A is a view showing detached the cam-button employed

for pressing one of the pipe fitting and holding segments against the pipe. Fig. 3^B is a detail view showing a cam-lever or eccentric lever that may be substituted for the cam-button. Fig. 4 is a view showing the collar with the removable portion or face-piece and segments removed therefrom. Fig. 5 is a sectional detail view showing a portion of the collar. Fig. 5^A is a detail view showing the fastening means for the face-plate. Fig. 6 is a detail view showing one of the segments of Fig. 1. Figs. 7 and 8 are detail views of the segments of Fig. 2. Fig. 9 is a perspective view showing the collar applied to a chimney-hole and my improved devices applied for the purpose of securing the collar in position. Fig. 10 is a view of one form of the cross-piece. Fig. 11 is a view of one of the screw-threaded hooked rods hereinafter described and its wing-nut. Fig. 12 shows a modified form of cross-piece.

A is a stovepipe-collar embodying my invention, and B a stovepipe-thimble of ordinary construction.

The body of the collar is formed with the outer raised rim portion *c* and with interior ledges *b* and *a*, the latter being deeper or depressed farther below the surface of the raised body portion than the ledge *b*. In the drawings I have shown the ledge *a* as formed by one surface of a ring-like portion *a*¹³, which is connected by arms or lugs *b*⁹¹ to the outer portion or body of the collar, the ledge *b* being formed by the exterior surfaces of the said lugs.

When applying a collar such as that herein presented to a newly-built chimney, or to one which has had no thimble previously fixed therein, the collar and thimble may be connected together by having a flange at the end of the thimble fitted to the ledge *a* of the collar, and when thus connected they will be applied to the chimney-hole. In this manner the collar will be secured firmly in position without the use of other fastenings. When applying the collar to a chimney-hole already containing a thimble, I make use of the devices hereinafter described. Upon the ledge *b* are placed segmental pipe fitting and holding or clamping pieces *k k*, and over these pieces, to hold them in place, is placed a removable face-piece or retaining portion, herein

shown as a ring *m*, formed with holes *n* for the reception of holding screws or bolts *o o*. The threaded portions of the screws or bolts may enter threaded openings in lugs *p p* on the body of the collar. (Shown in dotted lines in Fig. 4.) Preferably, however, one of the lugs connecting the inner ring of the collar with the body thereof, on each side of the center of the collar, is notched or slotted at one side at *b⁷*, as shown in full lines in Fig. 4 and in Fig. 5, and the adjacent portion of the body of the collar is notched at *b⁸*. Short bolts *n'* having been passed through the holes *n* in the face-piece and nuts *o⁶* started upon the ends thereof, the face-piece is placed in position upon the collar. The notches *b⁸* permit the nuts to pass to place and the stems of the bolts enter slots *b⁷*. The bolts may now be turned by a screw-driver applied to their notched heads and drawn tight, the nuts being kept from rotation by contact with the side of the ring.

The pipe fitting and holding pieces *k k* are shaped to fit around the stovepipe, which is passed through the collar. Any suitable number of such pieces may be employed around the opening in the collar, although I find it most convenient to use two, as shown. For the purpose of securing a close fit against the pipe and to hold the pipe in place one or more of the said pieces will be provided with means for pressing the same against the pipe. Thus one of the said pieces, or, if preferred, each of them, may be pressed toward the pipe by means of a cam-button *s*, consisting of a disk eccentrically pivoted to the face-piece *m* and acting by its edge against a pin or a lug *r* on the piece *k*, which pin or lug projects through a slot *t* in the face-piece. The said cam-button may be provided on its face with lugs *s⁹ s⁹* and may be turned by placing a bar across the disk, resting it against opposite sides of the lugs, as shown in dotted lines in Fig. 3^A, and turning it around the axis of the disk. A cam-lever or eccentric lever, such as that shown in Fig. 3^B, may be substituted for the cam-button; but the latter is preferred, because it has no projecting end. Instead of forming the cam-button with projecting lugs, an equivalent would be to form it with oppositely-placed holes or recesses or with a transverse notch for the end of a screw-driver.

In practice one only of the pieces *k* will be moved by means of a cam-button or cam-lever, and in order to adjust the size of the opening within the pipe fitting and holding pieces or segments approximately to the size of the pipe one or more of the said pieces or segments opposite the piece or segment acted upon by the cam-button or cam-lever is provided with an adjusting device by which its position relatively to other portions of the collar may be varied. This adjusting device is herein shown as a set-screw *u*, passing through a lug *g* on the face-piece and bearing at its extremity against a pin or lug *r*,

attached to the said opposite piece or segment and passing through a second slot *t* in the face-piece. The adjacent ends of the pipe fitting and holding pieces or segments are separated slightly, as shown. Through spaces intervening between the said ends pass the screws or bolts *o o*, by which the face-piece *m* is secured in place.

In use, the collar having been secured in place around the chimney-hole, the cam-lever or cam-button is moved so as to permit the piece or segment operated thereby to move outward, the stovepipe is put in place, and then the lever or button is turned to press the corresponding piece or segment against the pipe. If found necessary, in order to secure a perfect fit and firm contact, the adjustable piece or pieces may be moved inward by the adjusting device or devices provided therefor.

It is desirable to provide for the use of different sizes of stovepipe. It is for this purpose that I employ detachable pipe-fitting pieces. To provide for readily removing and applying said pieces, I employ a removable covering or retainer, which in the illustrated embodiment of my invention is constructed in one piece, as a ring-shaped face-piece *m*, and secured in place by screws *o o*, the said retainer or face-piece serving to retain in place the pieces *k k*, which rest loosely upon the ledge *b*, while fully permitting the necessary movement thereof. When the retainer or face-piece is removed, the said pieces may easily be taken out of the collar and quickly replaced by others of the proper dimensions. This construction enables me, by supplying interchangeable pieces or segments having different circular internal dimensions, to provide for fitting the collar to stovepipes of different sizes.

In Fig. 1 I have shown the collar as having fitted thereto segments *k k*, such as would be employed for the reception of the largest size of stovepipe that can be passed through the collar, which size may be assumed to be seven inches.

In Fig. 2 I have shown the collar fitted with segments suitable for use with a smaller size of stovepipe, which size may be assumed to be six inches.

In Fig. 6 I have shown one of the segments represented in Fig. 1, both segments being alike, and in Figs. 7 and 8 I have shown separately the segments represented in Fig. 2, these two segments also being alike.

When using a small size of stovepipe and employing the wider segments, I find it advisable to close the openings or spaces left between the adjacent ends of the segments in order to prevent the escape of smoke and dust. I therefore form guard-lips *v v* on the ends of the segments, these guard-lips being offset from the plane of the surface of each segment sufficiently to enable them when the segments are placed in position, as in Fig. 2,

to overlap the adjacent ends of the opposite segments. I form one guard-lip on each segment by preference, and these guard-lips are of sufficient length completely to close the spaces in all positions of adjustment. The guard-lips are formed on that portion of the width of each segment which does not extend under the face-piece *m*. It is not necessary that the retainer should comprise a complete ring, inasmuch as it may consist of a segment of a greater or less arc than one hundred and eighty degrees, or even of several small overlying sections separately secured in place and either closely abutting at their ends or somewhat separated. The holding-segments *k k* may also in part be overlaid by a fixed part of the collar, which fixed part may carry the lug *g* and adjusting device *u*.

The stovepipe-collar constructed as described, with the ledge *a*, is particularly well fitted for being secured in place by having an outwardly-projecting flange on the stovepipe thimble fitted over the ledge *a*. When the collar is applied to a chimney-hole already having a thimble therein, it becomes necessary to provide other means for holding the collar in place. I have designed the novel form of securing devices which I will now proceed to describe.

In Fig. 9 the numeral 8 designates a portion of the front wall of a chimney. 79 is a cross-piece. (Shown separately in Fig. 10.) 6 6 are rods, (one of them being shown separately in Fig. 11,) each having one end bent to form a hook 5 (see Fig. 11) and the other end screw-threaded at 4, and 3 designates a wing-nut turned upon the threaded end of each of the said rods 6. The form of cross-piece shown in Figs. 9 and 10 resembles a ring having opposite flattened sides 79 79. By forming the ring with these flattened sides it is made possible to pass the ring through the chimney-hole into the flue. Having been passed through the chimney-hole into the flue the cross-piece may be turned so as to lie across the chimney-hole, and its ends may then be caused to rest against the front side of the flue on opposite sides of the chimney-hole. When the cross-piece is in this position and the rods 6 6 have been passed through the slots or openings 77 77, formed in the enlargements or lugs 78 78 on the curved sides of the cross-piece, the nuts 4 4 have been placed on the threaded ends of the rods, the collar has been placed in position, and the hooks of the rods 6 6 have been engaged with the ring *a*¹³ of the collar, the nuts 4 4 may be turned up so as to cause the collar to be drawn firmly to its seat, and the collar thereby will be held securely in position. The form of cross-piece represented in Fig. 10 is only one of the different forms that may be employed. Thus another and simpler form of cross-piece is represented in Fig. 12. In this latter figure I have shown a simple bar 7^a of sufficient length to extend across the chimney-hole and

rest against the side of the flue on opposite sides of the said hole, the said bar being slotted at 7^b 7^b for the passage therethrough of the threaded hooked rods 6 6.

The slots or openings in each form of cross-piece are in practice made of sufficient dimensions to admit of the hooked ends of the rods 6 6 being readily passed therethrough in assembling the parts for use and preparatory to applying the said hooked ends to the ring *a*¹³ of the collar. This renders it unnecessary to remove the nuts from the rods before assembling the parts together in their proper relations for use. The said slots or openings will permit of a limited lateral shifting or adjustment of the parts relatively to each other.

Having described my invention and the best manner at present known to me of reducing the same to practice, I declare that what I claim as of my invention, and desire to secure by Letters Patent, is—

1. A stovepipe-collar having a body portion formed with a seat or ledge, pipe fitting and holding portions resting on said seat or ledge, a removable face-piece or retainer overlying said portions and holding them in place on the seat or ledge, means for adjusting one of said portions into set position, and means for moving the other of said portions into contact with the pipe, substantially as described.

2. A stovepipe-collar having opposite pipe fitting and holding portions and a removable face-piece or retainer overlying said portions and holding them in place on the body of the collar and carrying an adjusting device, whereby one of the said portions may be moved into desired set position, and a clamping device whereby the other of said portions may be moved into contact with the pipe, substantially as described.

3. A stovepipe-collar having opposite pipe fitting and holding portions and a removable face-piece or retainer overlying said portions and holding them in place on the body of the collar and carrying an adjusting screw, whereby one of the said portions may be moved into desired set position, and a cam-button whereby the other of the said portions may be moved into contact with the pipe, substantially as described.

4. A stovepipe-collar having a removable face-piece or retainer, removable pipe fitting and holding segments provided with guard-lips such as described, and means for moving one of said segments to cause it to press against the pipe, substantially as described.

5. A stovepipe-collar having a removable face-piece or retainer slotted as described and having a lug formed thereon, a set-screw passed through said lug, a cam pivoted to said face-piece or retainer, and removable pipe fitting and holding segments held in place by said face-piece or retainer and provided with pins or lugs passing through the slots in the face-piece or retainer and ar-

ranged to be engaged by the set-screw and cam, respectively, whereby one of the said segments may be adjusted into the desired set position by the set-screw and the other of the said segments may be moved by the cam into contact with the pipe, substantially as described.

6. A stovepipe-collar having the body portion thereof formed with the ledges *a b* and having the removable pipe-fitting segments resting upon the said ledge *b* and the removable retainer overlying the said pipe-fitting segments and holding them in place, substantially as described.

7. The combination, with the collar notched at *b^s* for the passage of nuts and at *b^r* for the reception of the stems of bolts, of the faceplate or retainer, the bolts passing there-through and adapted to rest in the notches *b^r*,

and the nuts on the threaded parts of said bolts, all substantially as described.

8. The combination, with a stovepipe-collar, of securing means comprising a cross-piece slotted as described, rods passing through the slots of the cross-piece, each having a hook at one end for engagement with the collar and the other end threaded, and nuts mounted on the threaded ends of the rods, substantially as described.

In testimony whereof I have hereunto affixed my signature, in the presence of two witnesses, on this 25th day of September A. D. 1890.

ALBERT W. FOSTER.

Witnesses:

F. W. BOYER,
THOS. C. LEITER.