(No Model.)

2 Sheets—Sheet 1.

G. C. ALLEN.

STOVEPIPE ATTACHMENT.

No. 507,094. Patented Oct. 24, 1893.

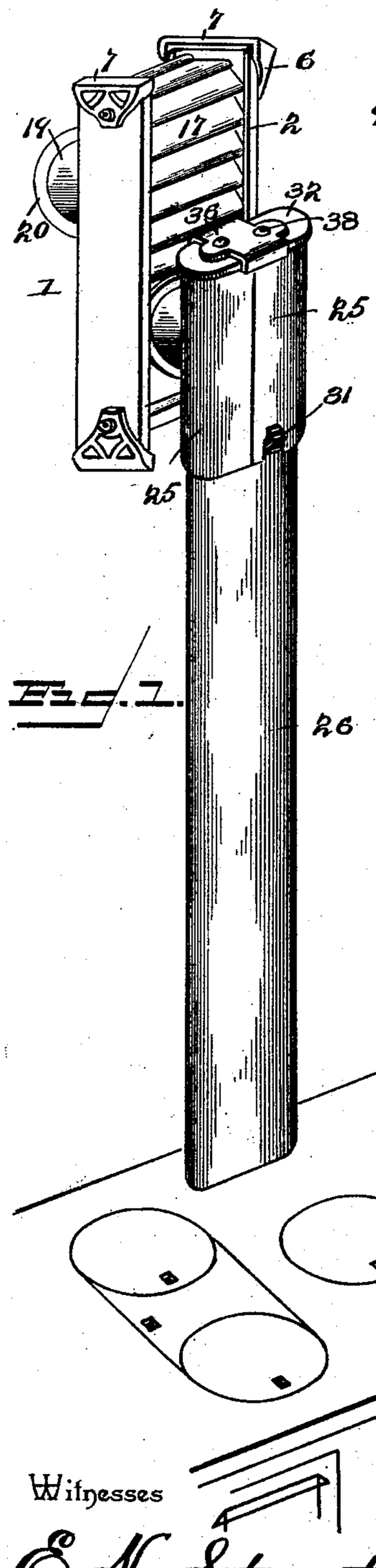


Fig. 1.

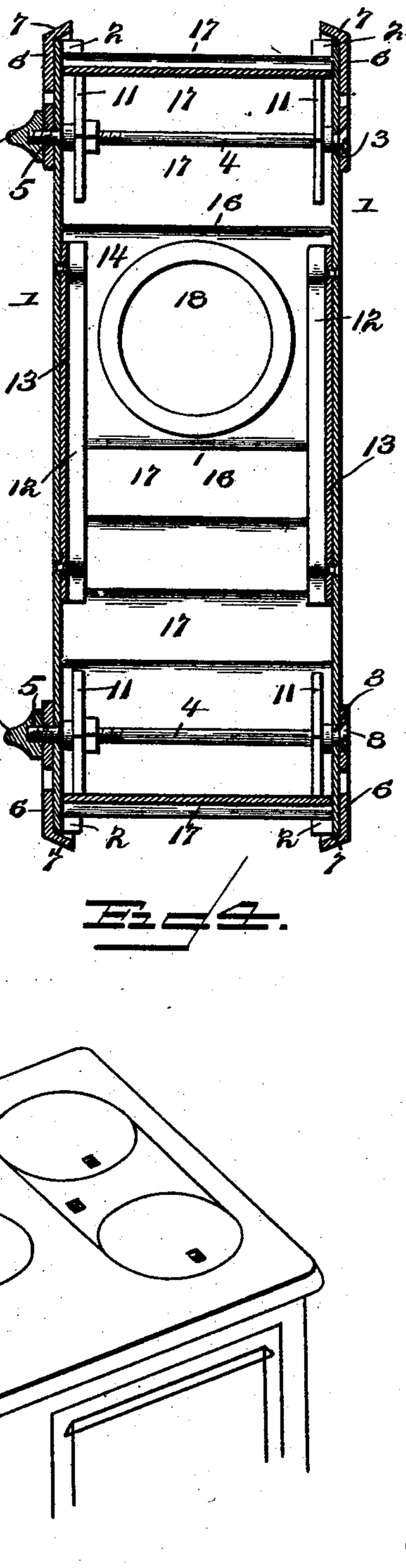


Fig. 2.

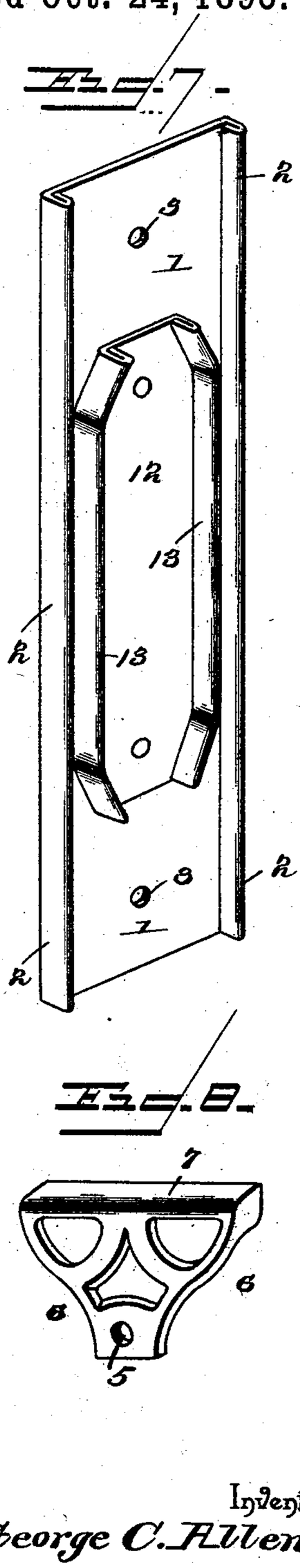


Fig. 3.

Fig. 4.

Witnesses

E. H. Stewart.

W. S. Dewees.

Inventor

George C. Allen,

By his Attorneys,

Church & Co.

(No Model.) 2 Sheets—Sheet 2.

G. C. ALLEN.

STOVEPIPE ATTACHMENT.

No. 507,094. Patented Oct. 24, 1893.

Fig. 2.

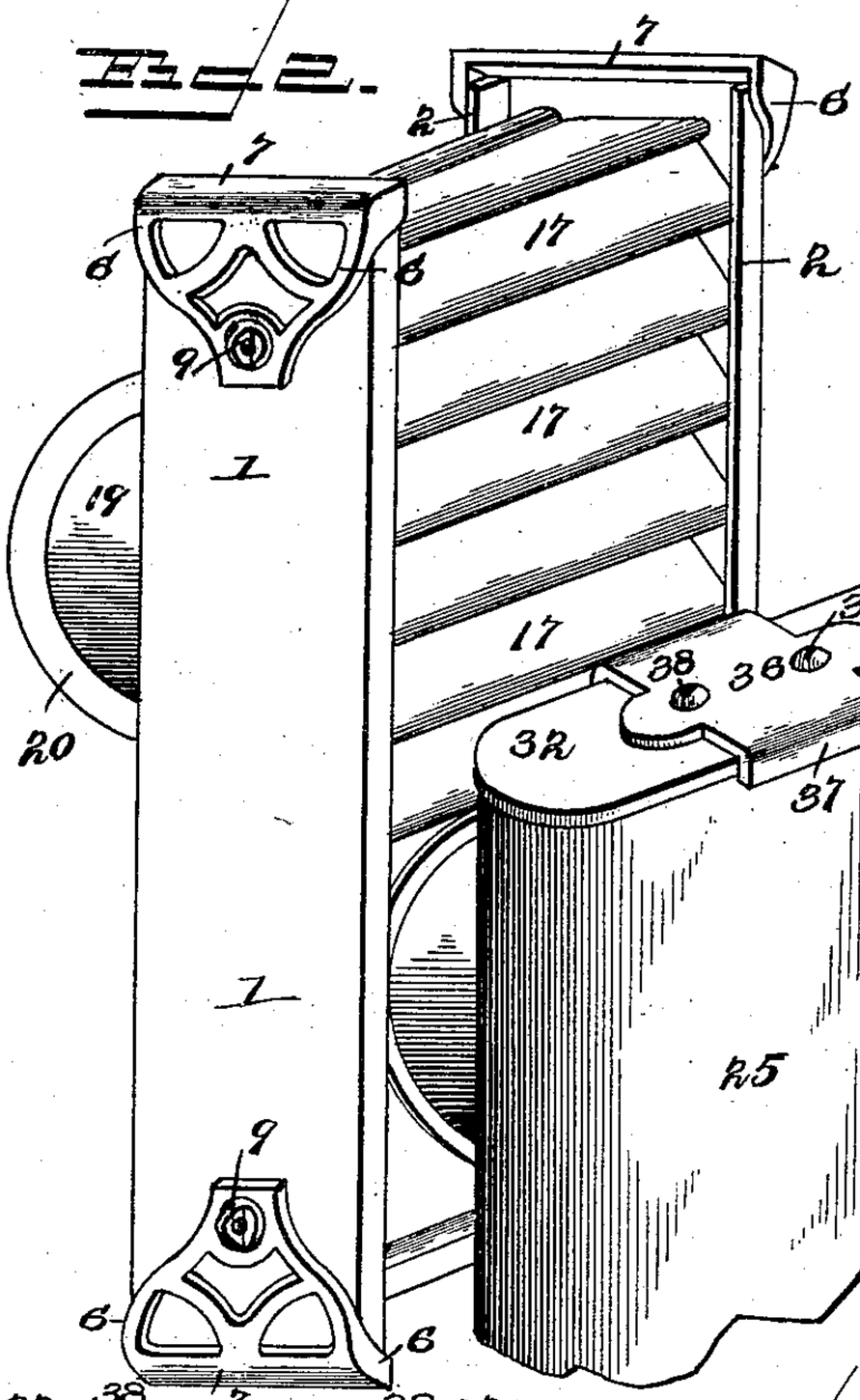


Fig. 3.

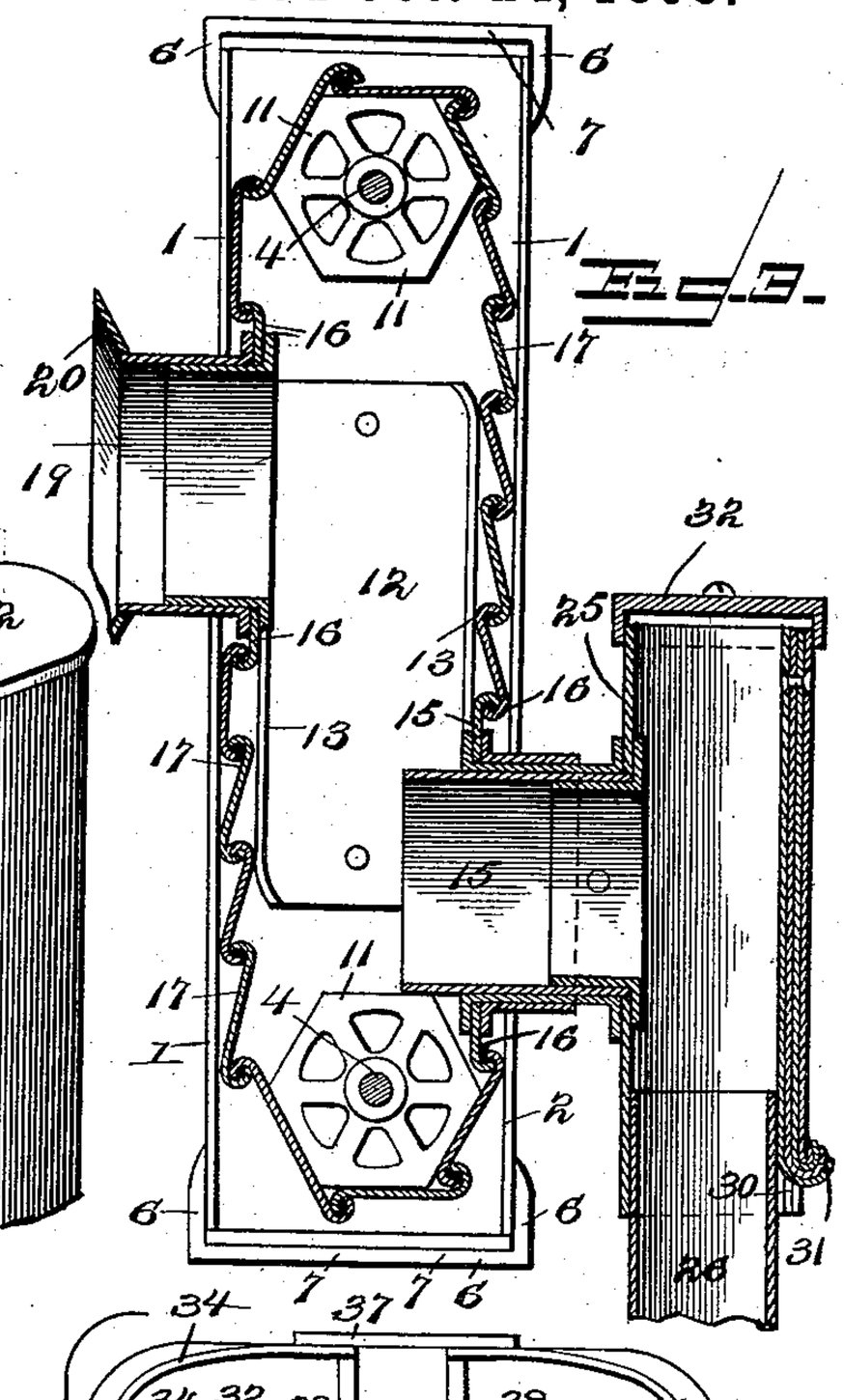


Fig. 10.

Fig. 8.

Fig. 11.

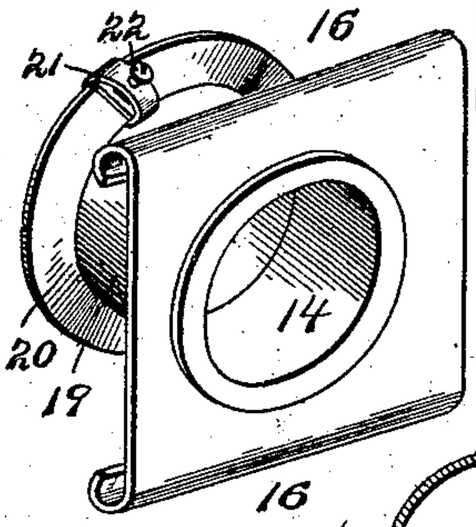


Fig. 5.

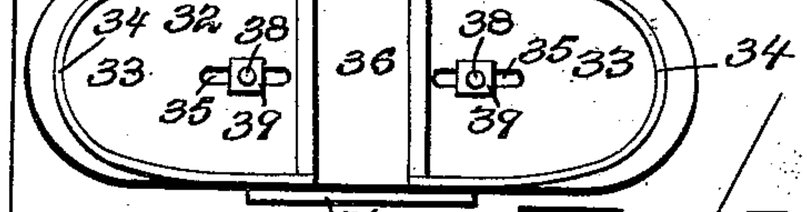


Fig. 6.

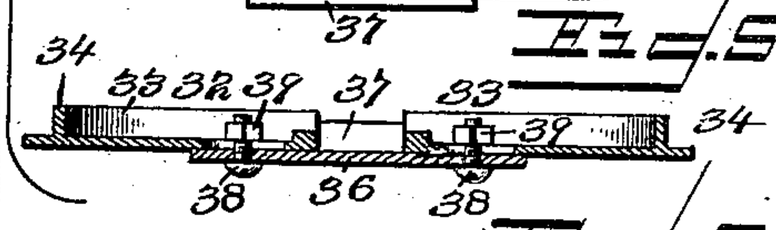
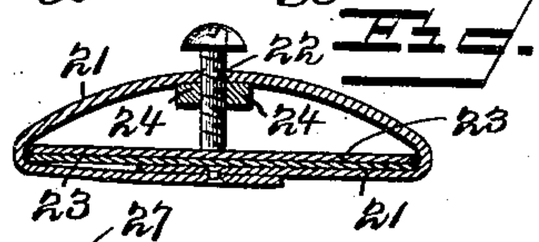


Fig. 7.



Witnesses
E. K. Stewart.
W. S. Duvall

Inventor
George C. Allen,
By his Attorneys,
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

GEORGE C. ALLEN, OF TAUNTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO CLINTON SPROAT, OF SAME PLACE.

STOVEPIPE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 507,094, dated October 24, 1893.

Application filed February 10, 1893. Serial No. 461,803. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. ALLEN, a citizen of the United States, residing at Taunton, in the county of Bristol and State of Massachusetts, have invented a new and useful Stovepipe Attachment, of which the following is a specification.

My invention relates to stove-pipe attachments; the objects in view being to provide an attachment adapted to be adjusted to any size or shape of stove-pipe and to serve as a means for connecting the same with the chimney-hole whereby I obviate the necessity of the presence of the usual double-elbow employed for this purpose; furthermore, to so construct the attachment as to adapt the same to be readily adjusted so as to connect with the chimney-hole regardless of its position, or in other words, to compensate for any ordinary variance between the points of elevation of the chimney-hole and the end of the stove-pipe, whereby the fitting of elbows to the chimney-holes and the usual employment in such operation of various lengths of pipes are obviated.

With these and other objects in view, the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a portion of a stove-pipe, a chimney-breast, and a device constructed in accordance with my invention applied to the stove-pipe and serving to connect the same with the hole in the chimney-breast. Fig. 2 is a detail in perspective of the attachment. Fig. 3 is a vertical transverse sectional view of the same. Fig. 4 is a vertical longitudinal section of the attachment. Fig. 5 is a detail in plan and section of the adjustable cap for closing the upper end of the stovepipe. Fig. 6 is a detail in cross-section of the flange for encircling the opening in the chimney-breast. Fig. 7 is a detail in perspective of one of the sides of the device. Fig. 8 is a detail in perspective of one of the end-castings for clamping the sides together. Fig. 9 is a detail in elevation of the outer movable pipe-receiving collar. Fig. 10 is a detail view of the inner movable collar. Fig. 11 is a cross-section of the pipe.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I preferably construct the device principally of sheet-metal in order to render it light, easy of manufacture, and cheap, and in its makeup provide opposite vertical sides 1. These vertical sides 1 are oblong, as shown, and have their front and rear vertical edges inwardly bent to form the guide-flanges 2. Near their upper and lower ends they are provided with transversely-opposite perforations 3, and through these perforations are passed transverse shafts 4. The shafts 4 in addition to passing through the sides also pass through corresponding openings 5 formed in upper and lower pairs of cast-metal end-plates 6, the same having formed at their outer ends inwardly-disposed flanges 7 which take over and protect the ends of the sheet-metal sides 1. One end of each shaft has a head 8, while its opposite end is threaded beyond the casting through which it passes, and is supplied with a thumb-nut 9 by which, as will be seen, the distance between the sides may be regulated, and said sides may be made to clamp more or less tightly upon any intermediate object. The shafts are provided between the sides with polygonal-shaped wheels 11, and between the wheels there is secured to each side a guide-plate 12, whose edges are inwardly bent to form guide-flanges 13 that correspond with the flanges 2 of the sides, extend parallel therewith for the major portion of their length, and combine to produce intermediate guides. At the front and rear sides of the structure and located in these guides are rectangular sheet metal plates, designated as 14 and 15, respectively. Each of the plates has its upper and lower edges bent or curved upon itself, as indicated at 16, and connecting these bent edges of the two plates, mounted for movement in the guides, and disposed around the pairs of wheels is a series of slats 17 formed of sheet-metal and having their opposite longitudinal edges bent in reverse directions, the entire series interlocking and thus forming a flexible wall. It will be seen that this wall may be made rigid in position by a tightening of the clamping-nuts upon the shafts, where by the edges of the slats

composing the wall are clamped between the opposite sides 1, or on the other hand, by a loosening of the nuts the wall may move so as to bring the plates 14 and 15 opposite each other, or in any relative position that may be desired. That is to say, the front plate may be raised to a point above the rear plate, or vice versa. Each of these plates 14 and 15 is provided with circular openings 18, and surrounding each opening is a collar 19. The rear collar 19 is designed to fit the opening in the chimney-breast and is of such size as to readily take into the smallest opening in a chimney-breast ordinarily employed. In order to effect a tight joint at this point the said rear collar 19 has mounted thereon a flange 20, which flange 20 will cover up the opening in the chimney-breast should the same be of greater diameter than the rear collar 19. In order to render the flange adjustable and secure upon the collar 19 the same has mounted thereon an elliptical spring-clip 21 which has its outer portion or half bowed and perforated, receiving a screw 22 whose inner end rests upon the plate 23. A nut 24 is located upon the screw under the bowed portion, and by manipulating the screw through the medium of a screw-driver and then setting the nut against the under side of the bowed portion it will be seen that the clip may be more or less bowed and thus be made to bind upon the exterior of the rear collar 19, whereby the said flange is locked upon the collar and cannot slip.

25 designates a section of pipe which is connected at any lateral point with the front collar 19. The pipe in the present instance is of peculiar construction in order that it may be adapted to fit the stove-pipe 26.

Stove-pipes, as is well known, vary in shape as well as diameter, and it is one of the objects of my invention to meet this difficulty and adapt the section of piping to readily take over any ordinary stove-pipe. The piping has one edge doubled upon itself as at 27, and after extending inward for some distance is redoubled upon itself as at 28 forming an intermediate space 29 into which the opposite edge of said piping may be more or less inserted, and consequently the diameter of the pipe more or less increased or reduced so as to fit over the upper end of a stove-pipe. The pipe may be secnred in its adjusted position by means of rivets, if so desired, or by having its edges slit as at 30 and its intermediate portions bent over upon itself as at 31. The upper end of the piping has fitted thereover a cap 32, the same being elliptical in plan and comprising opposite semi-elliptical sections 33 whose curved edges are surrounded by depending flanges 34 adapted to fit within the upper end of the piping. Each of the sections near its transverse inner edge has a longitudinal slot 35, and the two sections are surmounted by a central section 36 provided at its ends with depending flanges 37 which embrace the edges of the semi-elliptical sections. Screws 38 depend through the central section and through the longitudinal slot in the semi-elliptical sections and are provided below the latter with clamping-nuts 39. It will be seen that the lower end of the piping may be adjusted to fit either a circular or elliptical stove-pipe of any diameter whatever without disturbing the elliptical outline of the upper end of the piping but necessarily increasing or diminishing the size of the ellipse and hence requiring in some cases a slight adjustment of the cap for covering the same, and hence it is that I provide an adjustable cap. It will be seen that the cap will automatically adjust itself to the size of the elliptical opening at the upper end of the piping.

In setting up the device the lower end of the piping is adjusted to fit the upper end of the stove-pipe and the thumb-nuts operated so as to loosen the shafts. When this has been accomplished the flexible wall is moved so as to bring the rear collar 19 in transverse alignment with the opening in the chimney-breast, the lower end of the piping is fixed in position over the upper end of the stove-pipe, and the inner collar inserted in the opening in the chimney-breast, after which the metal flange is adjusted and the device is completely set up.

It will be seen that I avoid by this device the necessity of the presence or the employment of the usual double-elbow, and that I avoid the necessity of the careful fitting of new stoves to chimneys or old stoves to chimneys when the stoves have been moved from their positions, that is from one room to another as is often the case, and wherein usually different lengths of stove-pipe must be procured and employed. Furthermore the device is attractive in appearance, that is ornamental, detracting from the usually unsightly stove-pipe and producing a finished appearance.

Various details of construction differing from those herein shown will readily suggest themselves to persons, and I do not limit my invention to those that I have described, but hold that I may vary the same to any degree and extent within the skill and knowledge of the ordinary mechanic.

Having described my invention, what I claim is—

1. In a device of the class described, the combination with opposite guides, intermediate movable plates having pipe-receiving openings, the opposite edges of the plates being bent, and a flexible wall connecting said bent edges, said wall consisting of a series of slats having their longitudinal edges oppositely bent and loosely interlocked, of means for clamping and locking the wall at any point of its adjustment, substantially as specified.

2. In a device of the class described, the combination with the opposite sides provided with guides, shafts passing through the guides

and provided with clamping-nuts, of a series of slats mounted in the guides and having their longitudinal edges oppositely bent loosely interlocked therewith and provided with collars, substantially as specified.

3. In a device of the class described, the combination with the oblong sheet-metal sides having inwardly-bent vertical edges, guide-plates secured to the inner surfaces of the sides and having their outer edges bent so as to combine with those of the sides and form guides, transverse shafts mounted in the sides, nuts mounted on the outer ends of the shafts, and polygonal wheels located upon the shafts, of a flexible wall mounted in the guides and passing over the wheels, said wall consisting of a series of slats flexibly connected, and front and rear plates interlocked with the slats and having openings, substantially as specified.

4. In a device of the class described, the combination with the opposite sheet-metal sides provided with guides, the flexible wall located between the sides, the shafts passing through the sides, the cast-metal corner-plates receiving the shafts and overlapping the ends of the sides, nuts mounted on the ends of the shafts, polygonal wheels mounted on the shafts and supporting the flexible wall, of the plates located in said flexible wall at the front and rear sides of the device, each of said plates having a collar, substantially as specified.

5. In a device of the class described, the combination with the opposite guides, and the intermediate flexible wall, of means for securing the wall at any point of its adjustment, front and rear plates carried by the wall and provided with openings, collars located upon said plates, the rear collar being adapted to enter a chimney-breast, and an expansible pipe connected with the front collar, substantially as specified.

6. In a device of the class described, the combination with the rear plate carried by the wall and provided with a collar surrounding the opening in the plate, of the expansible pipe connected with the collar, means for diametrically adjusting the pipe, and an adjustable cap mounted on the upper end of the pipe, substantially as specified.

7. In a device of the class described, the combination with the plate carried by the wall and provided with a collar surrounding the openings therein, of the piping secured to the collar the same being elliptical in cross section and having one edge bent and rebent upon itself to render it adjustable, with relation to the opposite edge fastening devices for securing the edges of the piping, and an adjustable cap upon the upper end of the pipe, substantially as specified.

8. In a device of the class described, the combination with the plate at the side thereof, said plate having an opening surrounded by a collar, of a pipe secured to the front collar, said pipe being elliptical in cross-section and diametrically adjustable, and a cap for the upper end of the pipe, said cap consisting of opposite elliptical end-sections provided with depending flanges and having slots, an intermediate section surmounting the end sections and provided with opposite flanges depending at the sides of said end-sections, and screws passed through the central section and taking into the end sections, and nuts mounted on the screws, substantially as specified.

9. In a device of the class described, the combination with the plate carried thereby and provided with an opening for the collar, of a flange mounted on the rear collar, and adjusting device carried by the flange for securing the same in position, substantially as specified.

10. In a device of the class described, the combination with the plate having an opening provided with a flange, of a flange encircling the collar, a bowed clip encircling the flange, a plate located under the clip upon the flange, a screw passed through a perforation in the bowed portion of the clip and bearing on the plate, and a nut carried by the screw and located under the bowed clip, substantially as specified.

11. In a device of the class described, the combination with the opposite guides, the plate carried by the wall, the collar mounted on the plate, of a pipe secured to the collar and having one of its meeting edges doubly bent upon itself to form an intermediate space receiving the opposite edge, a pair of slits formed in the lower edge of the pipe, and the intermediate portion of the stock of the pipe bent outward to form an interlocking connection, substantially as specified.

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

GEORGE C. ALLEN.

Witnesses:
J. C. REYNOLDS,
ALFRED W. WEBBER.