(Model.) 2 Sheets—Sheet 1.

F. A. RING.

STOVE PIPE ATTACHMENT.

No. 266,722. Patented Oct. 31, 1882.

Fig. 1.

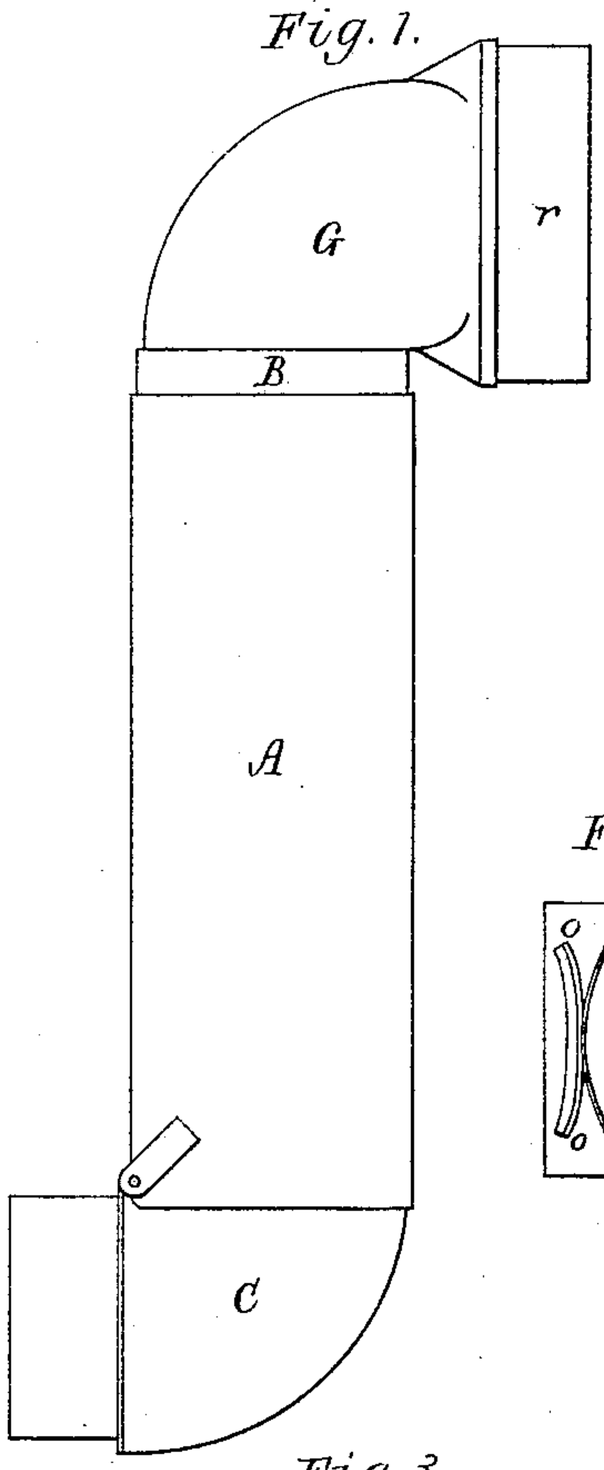


Fig. 2

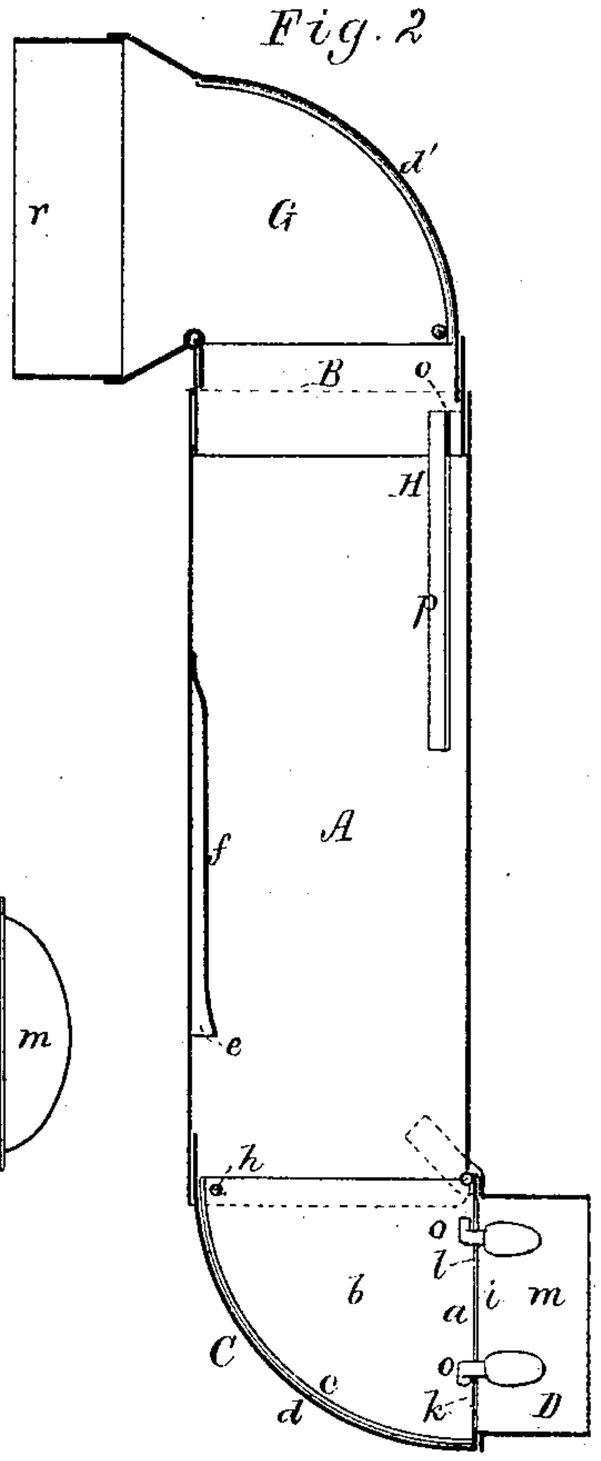


Fig. 9.

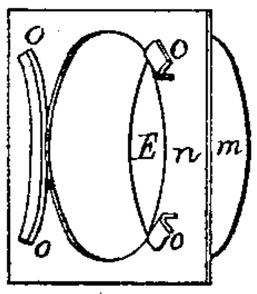


Fig. 10.

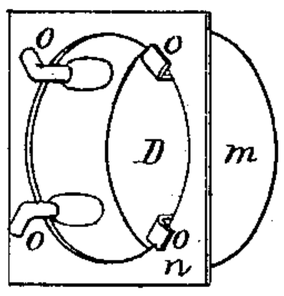


Fig. 3.

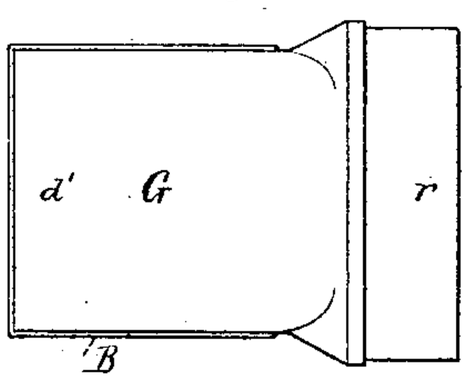


Fig. 8.

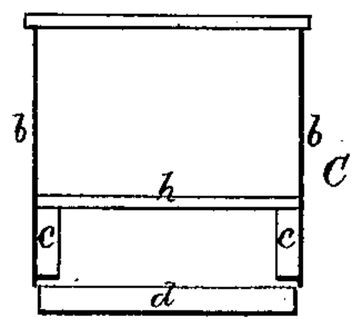


Fig. 7.

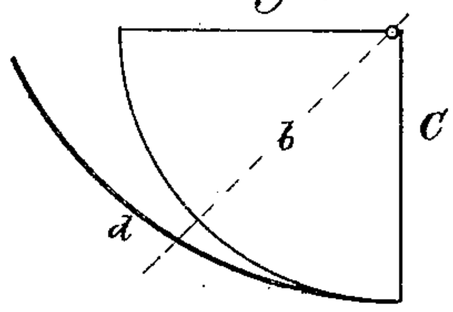


Fig. 4.

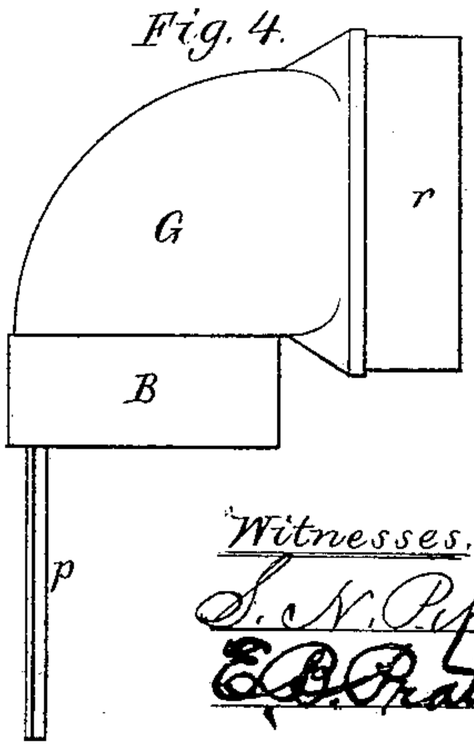


Fig. 5.

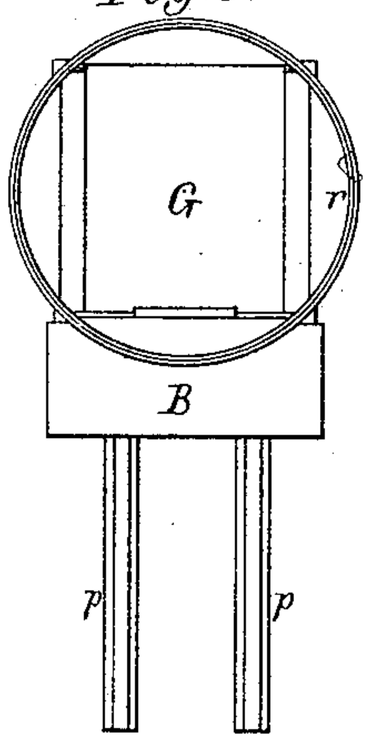
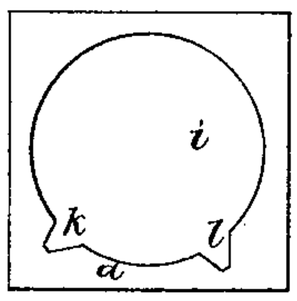


Fig. 6.



Witnesses.
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E. B. Pratt.

Inventor.
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by R. K. Eddy att'y.

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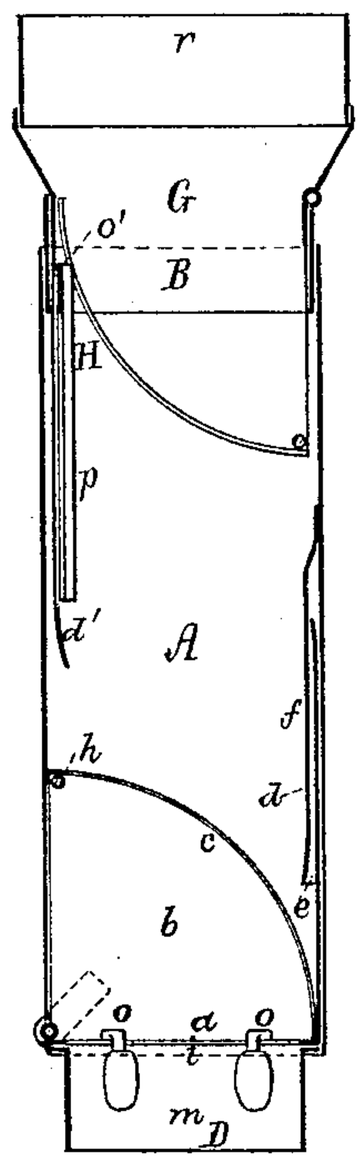
(Model.) 2 Sheets—Sheet 2.

F. A. RING.

STOVE PIPE ATTACHMENT.

No. 266,722. Patented Oct. 31, 1882.

Fig. 11.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK A. RING, OF MAPLEWOOD, MASSACHUSETTS.

STOVE-PIPE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 266,722, dated October 31, 1882.

Application filed July 10, 1882. (Model.)

To all whom it may concern:

Be it known that I, FREDERICK A. RING, of Maplewood, in the county of Middlesex, of the State of Massachusetts, have invented a new and useful Improvement in Stove-Pipe Attachments; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a side view; Fig. 2, a longitudinal section of an attachment containing my invention. Fig. 3 is a top view, Fig. 4 a side elevation, and Fig. 5 a front view, of the removable quadrantal elbow and its sustaining-tube and appliances, to be described. Fig. 6 is a view of the lower end or mouth of the adjustable quadrantal elbow, Fig. 7 being a side view, and Fig. 8 a radial section, of it. Figs. 9 and 10 are perspective views of two pipe or stove-educt connections, with their hooks for engaging them with the mouth of the adjustable quandrantal elbow. Fig. 11 is a longitudinal section, showing the positions of the aprons of the quadrantal elbows when such elbows are turned in.

The nature of my invention is defined in the claims hereinafter presented, the object of such invention being to connect two pipes arranged parallel or at an angle to each other, or a stove with a pipe leading from or to it more or less obliquely.

The stove-pipe attachment herein described has its intermediate or main tubular portion, A, composed of a tube square in transverse section. Inserted in and fitting in the said pipe at its upper end is a shorter or removable tube, B. A quadrantal elbow, C, composed of a bottom plate, *a*, and two parallel circular quadrants, *b b*, arranged as represented, is hinged or pivoted at its vertex to the tube A, at one end and one side thereof, each of the quadrants having along its arc a flange, *c*, projecting inward from such plate. To the free end of the bottom plate, *a*, a flexile or elastic plate or apron, *d*, is fixed at one end of it, such apron being bent into contact with the outer surfaces of the said two flanges. This apron extends within the pipe A, and when the elbow C is being turned in the apron passes in a narrow chamber or space, *e*, formed therein by a plate, *f*, arranged in the pipe in manner as represented. The two quadrants are connected by a bar, *h*, extending from one to the other of them near their upper corners. In the bottom plate, *a*, is a circular mouth, *i*, which opens into two notches, *k l*, arranged in the bottom plate in manner as represented. These notches are for enabling either of two tubular or stove-educt connections, D E, to be engaged with the elbow or disengaged from it, as circumstances may require, the tubular part *m* of one of such connections being elliptical, and that of the other being circular in transverse section. Each connection consists of a short tube provided at one end with a square flange, *n*, and with hooks *o* to extend from the flange.

By inserting the hooks in the mouth and notches of the elbow, and revolving the connection a short distance, it may be coupled with the elbow. On moving the elbow into the pipe A the flexible apron will pass up within the narrow chamber or space *e*, the part of the apron that may extend out of the said space being in the meantime borne against the flanges. With the flexible apron, and with the chamber *e* for its reception, the elbow can be moved into the tube without materially reducing the passage from the elbow into such tube. Were the apron fastened along its edges to the two quadrants, it, on their being moved into the tube, would extend across its base, so as to intercept or lessen the passage therein from the elbow.

Besides the quadrantal elbow C, there is to the pipe A, at its upper end, the shorter removable tube B, adapted to fit into the bore of the tube A, and furnished with a quadrantal elbow, G. This elbow is pivoted to the said shorter tube, and is like the elbow C, and is provided with a flexile apron, *d'*, that projects between one side of the tube B and a guide, H, extending across and down from the tube, and consisting of a cross-bar, *o*, and two bars, *p p*, projecting therefrom. This guide is to operate with respect to the flexile apron as does the plate *f* with that of the elbow C. By having the tube B to support the elbow G, such tube can be arranged in the tube A so as to have the tubular mouth *r* of the elbow project directly over either side of the tube A, as occasion may require.

By having to the tube A quadrantal elbows adjustable in such tube in manner as described, the tube may be engaged with two tubes de-

parting from it at different angles or distances, or with a stove and a discharge-pipe disposed obliquely to the stove.

It will be observed that as the elbow has the power of extension and contraction by sliding out of and into the prismatic tube A in the arc of a circle, said elbow may be appropriately described as "telescopic."

What I claim as my invention is as follows, viz:

1. The quadrantal elbow C, provided with the flexile apron *d*, fixed to it, and arranged with its quadrantal sides substantially as set forth.

2. The quadrantal elbow C, having flanges *c* to extend inward from its quadrantal sides *b*, and also having a flexile apron, *d*, applied and to operate with such flanges, substantially as set forth.

3. The combination of the tube A and its partition *f*, arranged therein, as described, with the quadrantal adjustable elbow C, as explained, pivoted to the tube, and with the flexile apron *d*, applied to such elbow, and arranged with the partition *f*, substantially as shown and specified.

4. The combination of a separable stove-educt connection, substantially as described, with the quadrantal elbow C, provided with the flexile apron *d* and pivoted to the pipe A, such educt-connection and elbow having means of engaging them, as set forth.

5. The combination of the prismatic tube A with the shorter auxiliary prismatic tube B, and with a quadrantal elbow, G, and its flexile apron *d'* and the guide H therefor, applied to such tube B, as explained.

6. The quadrantal elbow G, provided with the cylindrical mouth *r* and the flexile apron *d'*, arranged with each other and the quadrantal sides of the said elbow, substantially as set forth.

7. The combination of the tube A with two quadrantal elbows, their aprons, and guides therefor, substantially as described, adapted to such tube A at its opposite ends.

8. The combination of the tubes A and B with the two quadrantal elbows C and G thereof, and with their flexile aprons and guides therefor, adapted to operate substantially as set forth.

9. The improved stove-pipe section or attachment, composed of the prismatic portion A and a telescopic end section pivoted to the portion A, and provided with a terminal adapted to fit a section of pipe, as set forth.

10. The improved stove-pipe section or attachment, composed of the prismatic portion A and two telescopic end sections pivoted to opposite ends of the portion A, and each provided with a terminal adapted to fit a section of pipe, as set forth.

11. The combination of the prismatic pipe A and an elbow pivoted thereto at one or each of the ends of such pipe, and provided with a mouth or terminal to receive and fit to a second pipe at one end thereof, such elbow being constructed so as to be adjustable, as described, relatively to the pipe A, and constitute, in any of the positions of it, (the said elbow,) a close conduit from the pipe A to the said second pipe.

FREDERICK A. RING.

Witnesses:
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E. B. PRATT.