

(No Model.)

A. ZERBAN.
FLUE FOR BUILDINGS.

No. 495,648.

Patented Apr. 18, 1893.

Fig. 1.

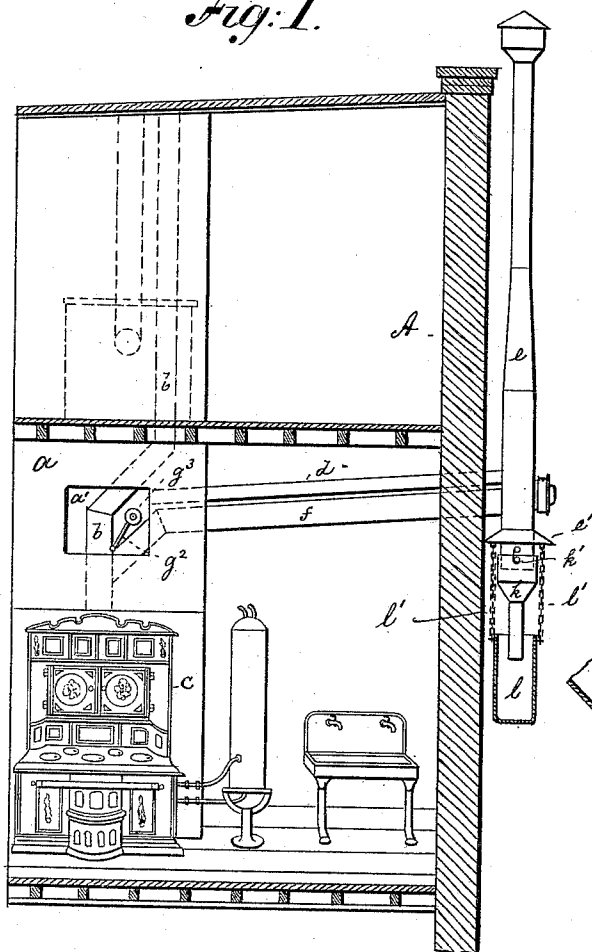


Fig. 2.

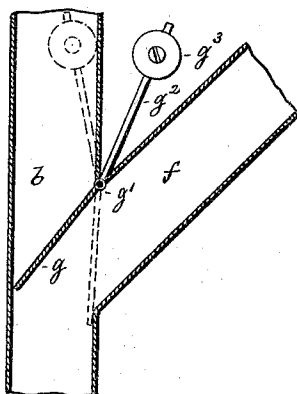


Fig. 3.

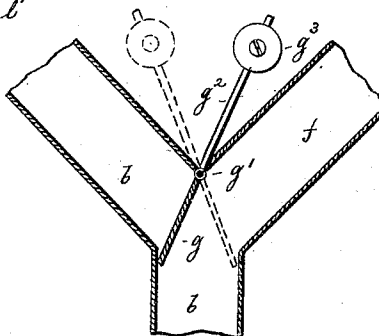
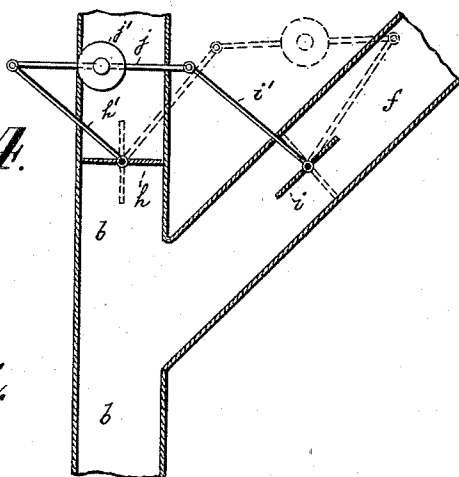


Fig. 4.



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FLUE FOR BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 495,648, dated April 18, 1893.

Application filed January 23, 1893. Serial No. 459,414. (No model.)

To all whom it may concern:

Be it known that I, ANDREW ZERBAN, of New York city, New York, have invented an Improved Flue for Buildings, of which the following is a specification.

This invention relates to a duplex arrangement of smoke flues for buildings that are both connected to the range, and through either one of which the products of combustion may be conducted. One of the flues is located within the chimney and is to be used in winter, while the other flue is placed outside the house wall and is to be used in summer. A joint damper is so arranged at or near the junction of the flues, that when one of the flues is opened the other is automatically closed and thus the smoke is excluded from one flue when admitted to the other. The outer or summer flue is provided with a trap that collects the products of condensation.

In the accompanying drawings, Figure 1 is an elevation partly in section of part of a building provided with my improved flue. Figs. 2, 3 and 4 are vertical central sections through three forms of pipe joint and damper.

The letter *a*, represents the chimney of a building through which ascends a smoke flue *b*, connected to the range *c*. A second flue *e*, extends along the outer wall *A*, of the building and is connected to flue *b*, by the inclined pipe *f*, that enters the flue *b*, within the chimney *a*. Above the pipe *f*, a ventilating pipe *d*, connects the chimney to the flue *e*, so as to conduct the kitchen gases from the chimney into such flue. At the junction of the pipes *b*, *f*, I hang a damper *g* (Fig. 2) the pivot *g'*, of which is placed at the angle formed by the two pipes. The damper is provided with an upwardly projecting handle *g²*, carrying a weight *g³*, that overbalances the damper plate. By throwing the handle to the right or left, the damper will close one pipe while permitting the products of combustion to escape through the other pipe. Thus in winter pipe *f*, is closed and the pipe *b*, remains open, while in summer the pipe *b*, is closed and the pipe *f* remains open. The overbalancing weight will always hold the damper plate against either one of its seats, so that both pipes can never be partially open at the same time. In Fig. 3, the construction is the same, excepting that the pipe *b*, is inclined where it

joins the pipe *f*, thus forming a Y-joint. The damper in this modification is tilted to the same angle either to the right or left, to close the mouth of either one of the pipes.

In Fig. 4, I employ two damper plates *h*, *i*, hung in the pipes *b*, *f*, a short distance above the joint. The damper rods *h'*, *i'*, are rigidly secured to the spindles of the damper plates and are pivotally joined to a common rod or handle *j*, carrying a weighted knob *j'*. The plates *h*, *i*, are so placed that when one damper is opened, the other damper is closed and in this way a movement of the rod *j*, in either direction will close one of the pipes while opening the other.

In order to permit access to the damper handle *g²*, (or to the rod *j*, when the latter is used) the front wall of the chimney *a* is provided with an opening *a'*, through which the damper may be operated.

From the lower open end of flue *e*, there is suspended a funnel *k*, that embraces the flue and is secured thereto by a suitable catch *k'*. The funnel opens into a drip cup *l*, suspended by chains *l'*, from a hood *e'*, secured to the flue. Any products of condensation that are conveyed by the pipe *f*, into flue *e*, will descend through the funnel and settle in the drip cup, from which they may be removed from time to time.

What I claim is—

1. The combination of a chimney with an interior flue, an exterior flue, connecting with the interior flue within the chimney and with a joint damper which is adapted to close either one of the flues and open the other flue, substantially as specified.

2. The combination of a chimney having opening *a'*, with an interior flue, an exterior flue connecting with the interior flue and with a joint damper having a weighted handle, substantially as specified.

3. The combination of a chimney with an interior flue an exterior flue, a connecting pipe *f*, a joint damper and with a funnel and drip cup secured to the lower open end of the exterior flue, substantially as specified.

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Witnesses:

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