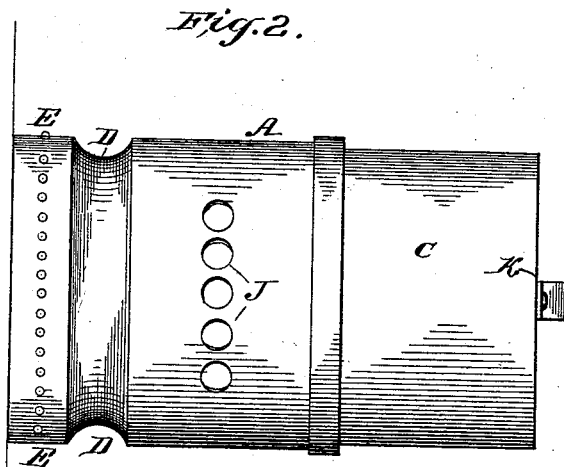
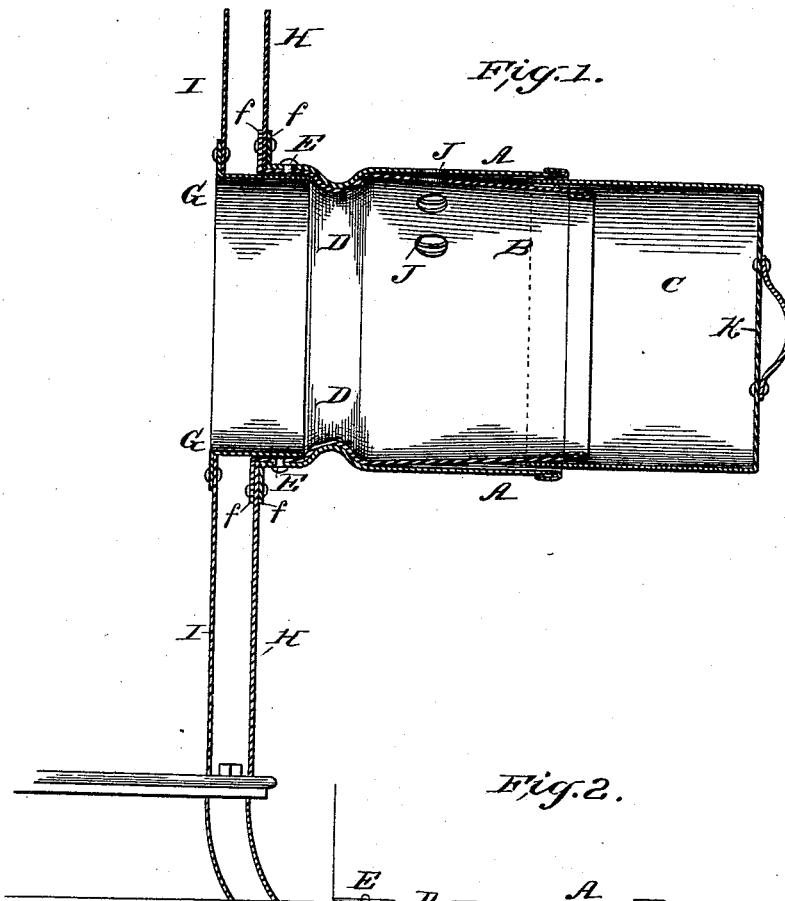


(No Model.)

E. C. COLE.  
DAMPER FOR STOVES.

No. 523,267.

Patented July 17, 1894.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

ERNEST CHAPIN COLE, OF COUNCIL BLUFFS, IOWA.

## DAMPER FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 523,267, dated July 17, 1894.

Application filed November 7, 1893. Serial No. 490,321. (No model.)

### *To all whom it may concern:*

Be it known that I, ERNEST CHAPIN COLE, a citizen of the United States, residing at Council Bluffs, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in the Construction of Dampers or Drafts for Heating-Stoves or other Fuel-Burning Apparatuses, of which the following is a specification.

My invention has reference more especially to that class of stoves which are known in the trade as "air tight" stoves in which a great desideratum is to be able to close the draft openings as tightly as possible, and which as heretofore generally constructed do not permit of very tight closure, on account of looseness of joints at the draft which for the most part are exposed to the direct influence of the fire and are thus made more liable to leak air from the warping and burning of the metal.

The objects of the improvements herein set forth are to furnish a draft which in the first place is air tight, and which is adapted to be used in connection with a sheet iron heating stove, all joints of which are double seamed and thus rendered air tight. It is so constructed that the points of connection to the sheet iron body of the stove are thoroughly protected from the direct action of the fire and thus rendered not liable to warp or get loose by the consequent extreme expansion and contraction.

Another object of the improvements as herein set forth is to furnish a draft with an opening large enough through which to remove the ashes by means of an ordinary fire shovel, without destroying its air tight construction, and thus do away with the very dirty method of dipping the ashes up through a hole in the top of said stove.

Another object is to furnish a draft that is not liable to stick from expansion of the iron and which a child can operate.

I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of the damper or draft as attached to the sheet iron body of the stove showing flange that protects joint at point of connection; Fig. 2. a top view of damper as attached to stove.

In the specification and claims, wherever the word cylinder or cylinders, is used it is intended to signify short pipe or pipes.

The two cylinders A and B are riveted together at E. around the complete circumference. A and B are also swaged together at D. and have projecting flanges *f. f.* The flange *f* of inside cylinder butts against the inside of body of stove, and flange *f* of outside cylinder butts against outside of body of stove both fitting against same air tight. Outside cylinder A may extend to within a half inch of outside end of cylinder B. or may be made to extend an inch beyond the swage or any length between these points. Inside cylinder B tapers slightly from point E to opposite end of same, forming an annular space between A and B increasing in size outwardly.

G G is a flanged cylinder that is riveted to the sheet iron lining I. I. and projects into the inside end of damper butting against the swage D and protects the joint made in connecting the two cylinders A. B. to the body H by flanges *f.* from the direct action of the fire.

J. J. are holes through both cylinders A and B holes in A being over holes in B.

I. I. is lining of stove, and H. H the body of stove to which damper is connected.

C. is a sheet iron cylinder with one end open and handle fastened to closed end K.

Cylinder C is of such diameter as to slip between cylinders A and B and of such length that when pushed in between A and B the edge of open end fits perfectly tight against beveled surface of swage D, thus when cylinder C is pushed in to the swage it closes openings J. and before the air could enter through the damper it must pass between cylinders A and C the whole length of C, then pass the edge of C that butts against swage D, pass back between cylinders C and B to holes J J where it could then enter.

The cylinders or short pipes A—B—and C as shown in the drawings, may be constructed either round, elliptical, oblong or square to attain the same results.

I am aware that prior to my invention oval cylinder stoves have been made with projecting dampers. I therefore do not claim the invention broadly; but

What I do claim, and desire to secure by Letters Patent, is—

1. A draft damper consisting of two concentric pipes or tubes arranged to form an annular tapering space between them and having coincident air holes; in combination  
5 with an adjustable tube section closed at one end and adapted to pass between the concentric pipes or tubes to cut off communication between their coincident holes substantially as shown and described.
- 10 2. A draft damper consisting of two concentric pipes or tubes having a set of coincident air holes and swaged or creased transversely as at D; in combination with an adjustable tube section closed at one end and  
15 adapted to pass between the concentric pipes or tubes and to shut tightly against the swage

or crease D substantially as shown and described.

3. The combination with an airtight stove having an outer casing H, and an inner lining I; of a tubular draft device connected to the outer casing H, and a draft tube lining G connected to the stove lining I and extending past the joint of the tubular draft device with the outer casing to prevent the burning,  
20 warping, and loosening, of the same substantially as shown and described.

ERNEST CHAPIN COLE.

Witnesses:

E. L. DUQUETTE,  
H. A. COLE.