

A. Colton.

Damper for Stove-Pipe.

N^o 75863

Patented Mar. 24, 1868.

Fig. 1.

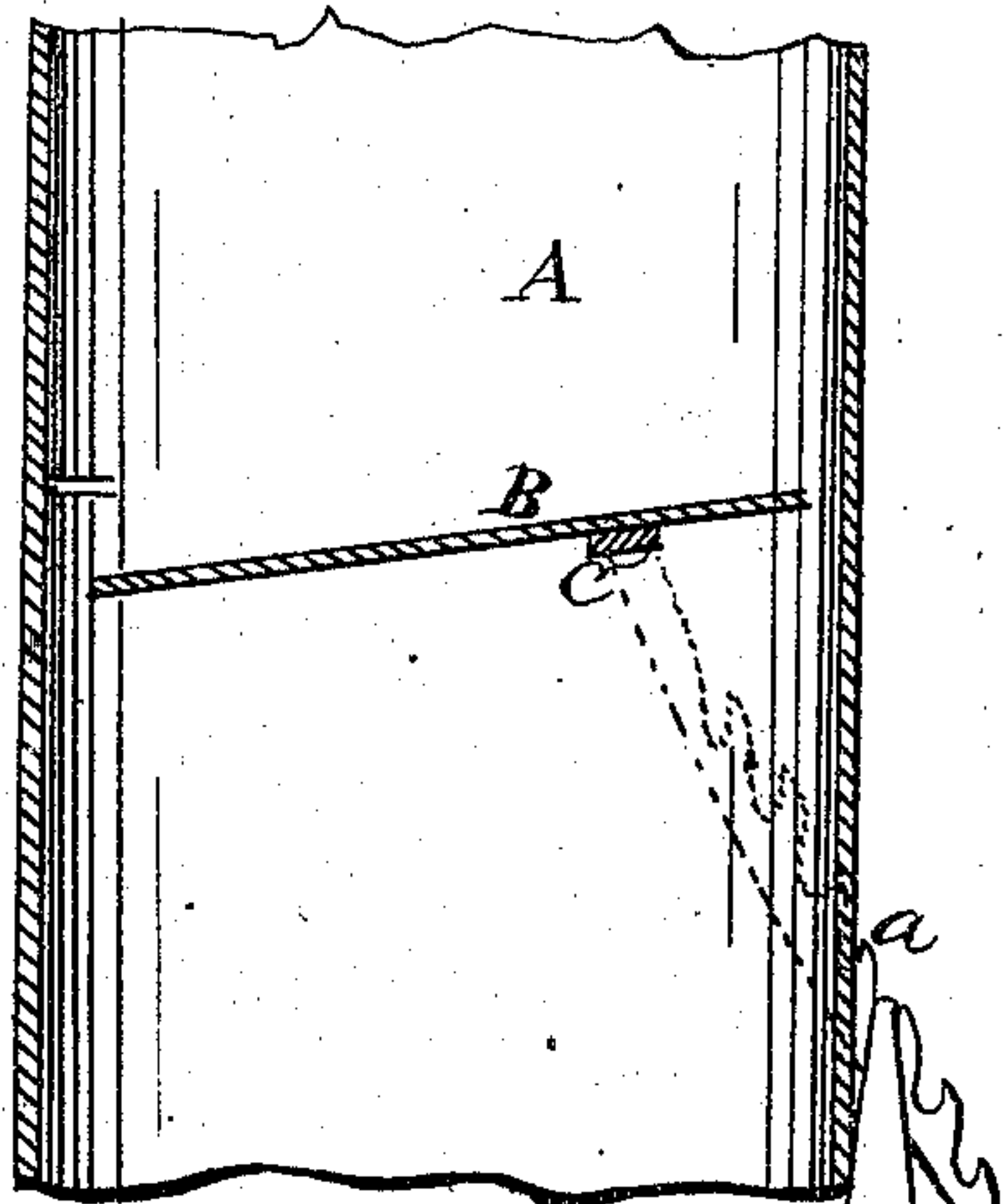
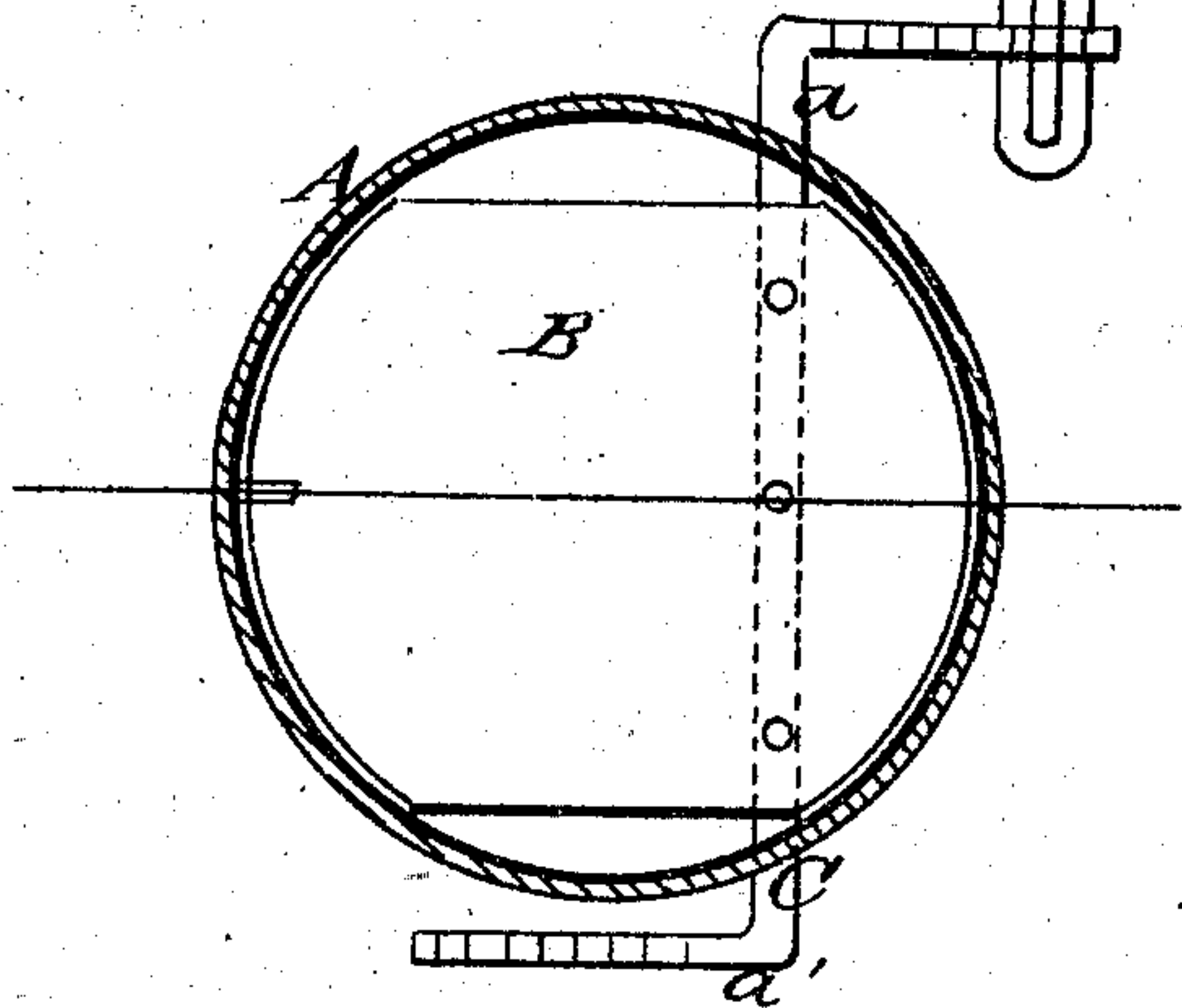


Fig. 2.



Witnesses

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AARON COLTON, OF SYCAMORE, ILLINOIS.

Letters Patent No. 75,863, dated March 24, 1868.

IMPROVEMENT IN DAMPERS FOR STOVE-PIPES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, AARON COLTON, of Sycamore, in the county of De Kalb, and State of Illinois, have invented a new and improved Damper for Stove-Pipes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention consists in counterpoising or balancing a damper for stove-pipes in such a manner that the damper will be self-regulating, closing as the draught of the stove increases, and opening as the draught diminishes, so as to insure a steady or uniform combustion of the fuel at all times. The difficulty which has hitherto attended the introduction into general use of the self-regulating damper has been partly owing to the cumbersome manner in which they have been designed, but chiefly to the fact that they have been ungainly in appearance and cumbersome, because of the elaborate machinery by which said devices have been attached to stove-doors, which cause has almost precluded their application to cooking-stoves, (the door having frequently to be opened,) where uniform heat is most desirable, and the economy of fuel equally if not more important than in the parlor-stove, and this device is designed to remedy those fatal objections to the automatic damper which have hitherto prevailed and prevented its adoption. In the accompanying sheet of drawings—

Figure 1 is a longitudinal central section of a piece of stove-pipe provided with a damper constructed or arranged according to my invention.

Figure 2, an end view of the same.

Similar letters of reference indicate corresponding parts.

A represents a section of a stove-pipe, and B a damper fitted therein, and attached, at one side of its centre, to a shaft, C, which passes transversely through the pipe, and is allowed to turn freely therein. The ends of this shaft C, at the outer side of the pipe, are bent so as to form arms or cranks, $a a'$, which are about in the same plane but project from opposite sides of the shaft, as shown in fig. 2. These cranks $a a'$ are notched, so that a weight, D, may be suspended upon them to counterpoise the damper. In the two figs. 1 and 2, the weight is shown suspended on the arm a , which is designed for it when the pipe is in a vertical position, and the weight is placed higher up or lower down on the arm according to the strength of the draught, a strong draught having a tendency to raise and close the damper, and requiring the weight to be adjusted further down on the arm than when the draught is weak or light. The weight therefor must be adjusted on the arm to suit the condition of the draught at the time being, it being well known that the draught of chimneys varies very materially according to the wind, the velocity and direction of the same, and the state of the atmosphere, light or heavy. After the weight is properly adjusted, the damper will be self-regulating, rise (close) when the draught temporarily increases in strength, and fall (open) as the draught temporarily decreases. By this means a steady and uniform combustion of the fuel is obtained. When the pipe is in a horizontal position, the weight D is hung on the arm a . This is the object of having two arms, which is a necessary provision, on account of the section of pipe in which the damper is fitted being placed as frequently in a horizontal as in a vertical position.

I claim as new, and desire to secure by Letters Patent—

The damper, constructed as described, consisting of the right-angular shaft C, passing transversely through the stove-pipe, A and secured to the under side of the damper B, the arms $a a'$ of said shaft, upon each side of the stove-pipe, being notched to receive the weight D, as herein described, for the purpose specified.

AARON COLTON.

Witnesses:

L. F. COLTON,
GEO. MANDLER.