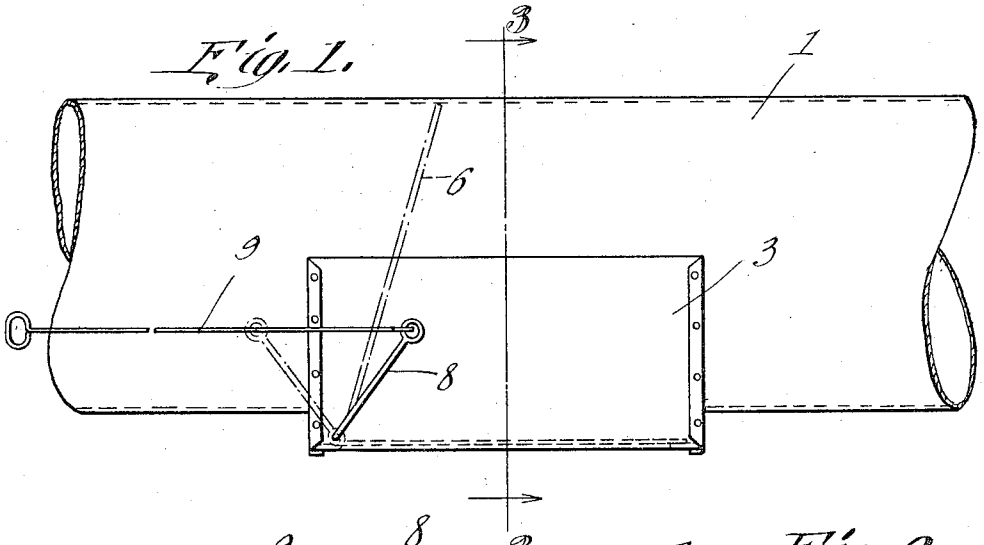
W. S. CLAPP.

DAMPER.

APPLICATION FILED OCT. 29, 1918.

1,317,614. Patented Sept. 30, 1919.

Fig. 1.



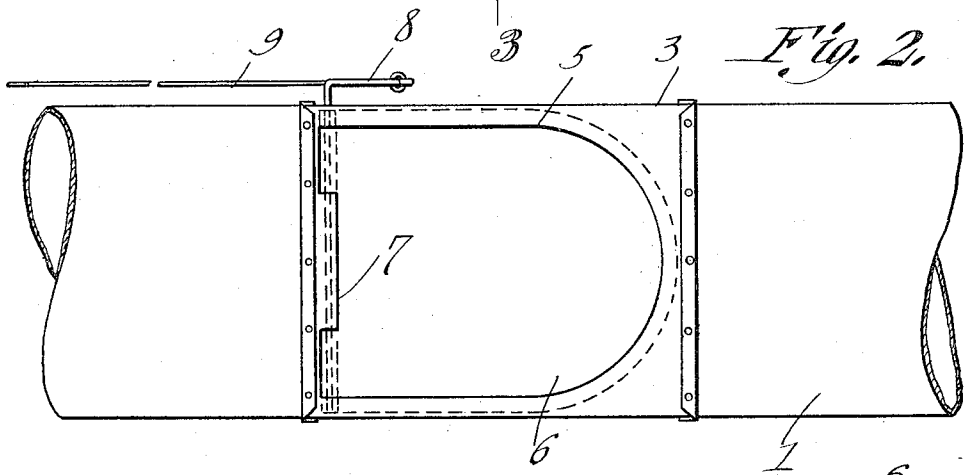


Fig. 2.

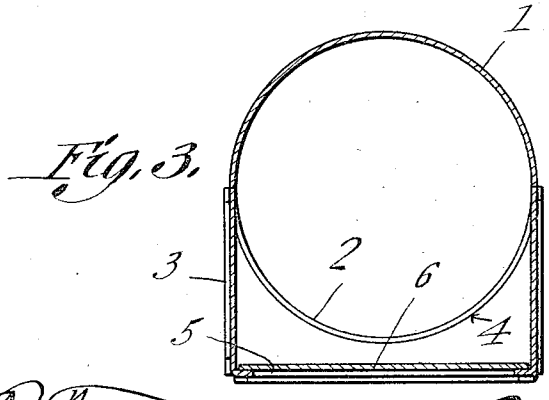


Fig. 3.

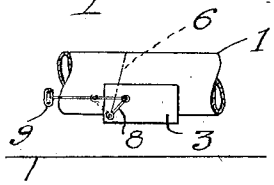


Fig. 4.

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WILLIAM S. CLAPP, OF WHITTLES DEPOT, VIRGINIA.

DAMPER.

1,317,614. Specification of Letters Patent. Patented Sept. 30, 1919.

Application filed October 29, 1918. Serial No. 260,131.

To all whom it may concern:

Be it known that I, WILLIAM S. CLAPP, a citizen of the United States, residing at Whittles Depot, in the county of Pittsylvania and State of Virginia, have invented a new and useful Damper, of which the following is a specification.

The subject of this invention is a damper intended, primarily, for use in heating tobacco curing houses and it is the object of the invention to provide novel means for directing hot gases of combustion from a flue toward the floor of the curing house.

The invention also contemplates generally improving the construction and enhancing the utility of dampers.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arangement of parts and in the details of construction hereinafter described and claimed, it being understod that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

A practical embodiment of the invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a view in side elevation of a damper constructed in accordance with the invention;

Fig. 2 is a bottom plan view of the same;

Fig. 3 is a cross section taken on the line 3—3 of Fig. 1.

Fig. 4 is a diagrammatic side elevation showing the relation existing between the flue or pipe, the damper, and the floor of the tobacco curing house.

Referring to the drawing by numerals of reference:—

In carrying out the invention there is provided a section of pipe 1, which is provided with an opening 2. A damper or valve casing 3 is provided, which is preferably of rectangular formation, and the ends of this casing are cut, as at 4, to receive the pipe section 1.

An aperture 5 is formed in one face of the casing 3, and a damper or valve 6 is adapted to normally close this aperture. The damper 6 is hinged to the casing 3 at one end of the aperture 5 and is adapted to be swung within the pipe section 1.

The stem if the damper 6 extends laterally of the casing in one direction and this end is formed with a crank arm 8 to which an operating rod 9 may be pivotally connected for the purpose of swinging the valve or damper to opened or closed positions. It is to be observed that the length of the damper 6 is such that when the free end of the damper engages the top of the flue or pipe 1, as indicated in dot and dash line in Fig. 1, the damper will be disposed at an angle between 90 degrees and 45 degrees with respect to the horizontal.

The operation is as follows:—

The piping is arranged in the curing house in the usual manner and near the floor 100. By "near" I mean that the piping is not disposed near the upper part of the curing house. As a matter of practice, the piping often is spaced from the floor 100 by a distance equal to or less than the diameter of the piping. A space of from 6 to 10 inches between the floor and the piping will answer the purpose. The section containing the damper is placed in the piping at a convenient place with the opening 5 preferably facing the floor so that the hot gases discharged therethrough will be expelled toward the floor and distributed thereon before rising.

The device forming the subject matter of this application is adapted for a single specific use, namely, in connection with drying tobacco on the floor of a curing house. It has been found by experiment that if the damper stands at an angle of approximately 45 degrees with respect to the horizontal, the heated air or gases proceding from the damper 1 will tend to shoot longitudinally of the damper 1, beneath the damper, and rise on an upward curve, a proper distribution of the air or gases being impossible. It has been found, further, that if the damper stands at an angle of ninety degrees with respect to the horizontal, the effect is to shoot the air or gases directly downwardly, resulting in a scalding or an overheating of the tobacco, in a single spot, the gases or heated air rising immediately in a vertical direction, without any general diffusion. If, however, the damper is disposed with respect to the horizontal, at an angle between ninety degrees and forty-five degrees, the heated air or gases are not projected downwardly, directly in a vertical path, nor are they projected longitudinally of the damper 1, and beneath the same, to rise upon a curve, as hereinbefore explained.

Having described the invention, what is claimed as new is: —

The combination with the floor of a tobacco curing house, of a heating flue disposed above and close to the floor and having an opening in its bottom; a box-like casing secured to the flue about the opening and projecting straight downwardly toward the floor, the casing having an aperture in its extreme lower end; and a damper pivoted at one end to the casing adjacent to one lower corner of the casing, and mounted to swing upwardly into the flue through the opening and downwardly into the casing through the opening, the damper controlling the aperture, the length of the damper being such that when the other end of the damper engages the top of the flue, the damper will be disposed at an angle between ninety degrees and forty-five with respect to the horizontal.

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

WILLIAM S. CLAPP.

Witnesses:
N. B. WALKER,
E. H. SHELTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."