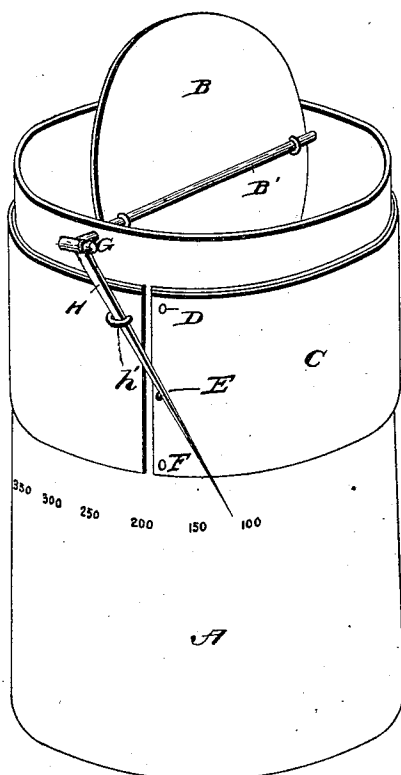


(No Model.)

J. M. BRADBURY & A. B. GRISWOLD.
AUTOMATIC DAMPER.

No. 472,102.

Patented Apr. 5, 1892.



Witnesses:

E. B. Morris

Inventors:

John M. Bradbury
Almon B. Griswold
By *Chas. E. Barber*
Attorney.

UNITED STATES PATENT OFFICE.

JOHN M. BRADBURY AND ALANSON B. GRISWOLD, OF BUNKER HILL, KANSAS.

AUTOMATIC DAMPER.

SPECIFICATION forming part of Letters Patent No. 472,102, dated April 5, 1892.

Application filed April 16, 1889. Serial No. 307,398. (No model.)

To all whom it may concern:

Be it known that we, JOHN M. BRADBURY and ALANSON B. GRISWOLD, citizens of the United States, residing at Bunker Hill, in the county of Russell, State of Kansas, have invented certain new and useful Improvements in Automatic Dampers, of which the following is so full, clear, and exact a description as will enable others skilled in the art to which

our invention appertains to make and use the same, reference being had to the accompanying drawing, which represents a side perspective of a section of stovepipe and the damper provided with our improved regulator.

The object of our invention is to provide a draft closer and opener which shall be automatic in its operation and by use of which the fire will be self-regulating. Referring to the drawings, A designates a section of stovepipe, and B a damper located therein. This damper B is rigidly secured to a rod or shaft B', which has its bearings in opposite sides of said pipe. Surrounding the pipe A is a bimetallic strip C, composed, preferably, of brass and iron, and having one of its ends riveted or otherwise suitably secured to the pipe, as shown at D, E, and F, while its opposite end is free to move to and from said secured end to allow of expansion and contraction of the same. One end of the rod or shaft B is connected eccentrically with the movable portion of the bimetallic strip, as shown at G.

H designates an index-finger or pointer, the upper end of which is pivoted in a loop h', secured on the movable portion of said strip C.

From the foregoing the operation of our invention will be readily understood.

The brass side of the bimetallic strip is put inside or next to the pipe, and it will be seen that the action of the heat therein will cause the said bimetallic strip to expand and its free end to move toward its secured end, carrying with it the bent end of the damper-shaft C and causing said damper to turn. At the same time the index-finger or pointer will act, in conjunction with the thermometric scale shown, to designate the degree of heat.

Having now described the objects, uses, and advantages of our device, what we desire to secure by Letters Patent, and what we therefore claim, is—

The combination, with a pipe and a damper and its pivot-rod held in the walls of the pipe, of a bimetallic strip surrounding the pipe with one end attached thereto and the remaining portion free, a pointer loosely guided and pivoted in a loop on the free end of said strip and connected at one end eccentrically with an extended end of the damper pivot-rod, and an index on the pipe, substantially as shown and described.

In testimony whereof we affix our signatures in the presence of two witnesses.

JOHN M. BRADBURY.
ALANSON B. GRISWOLD.

Witnesses:

JOHN B. MILLER,
CHRIS HOUSER.