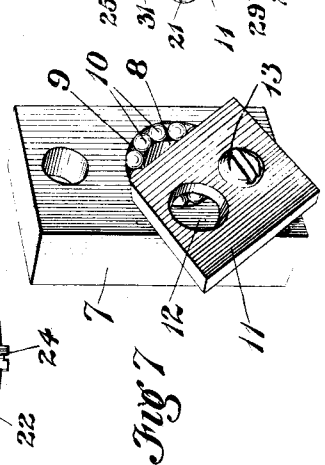
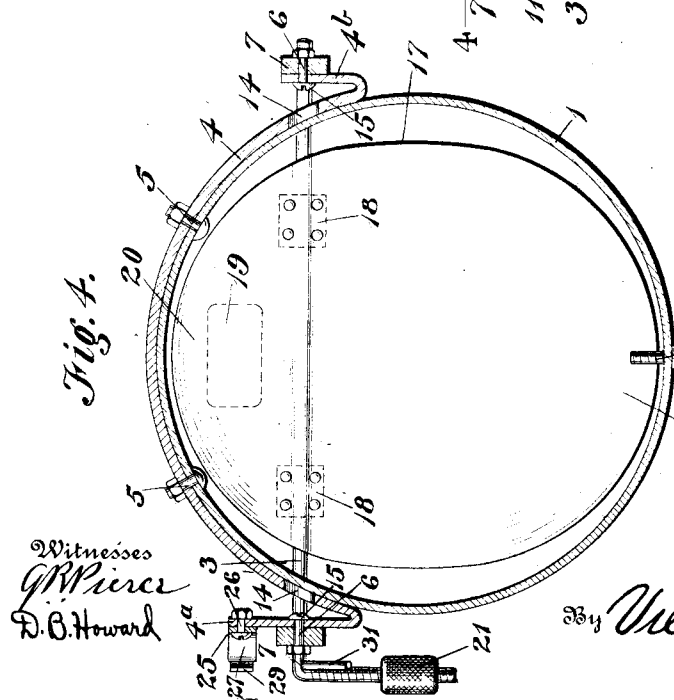
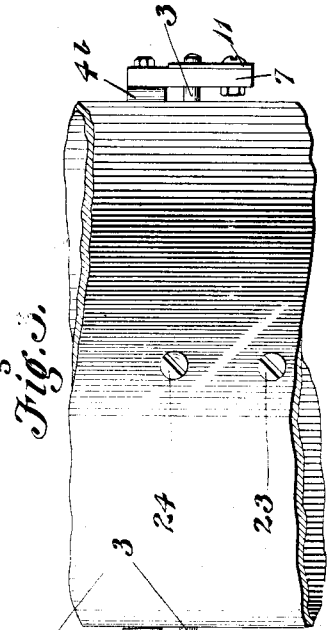
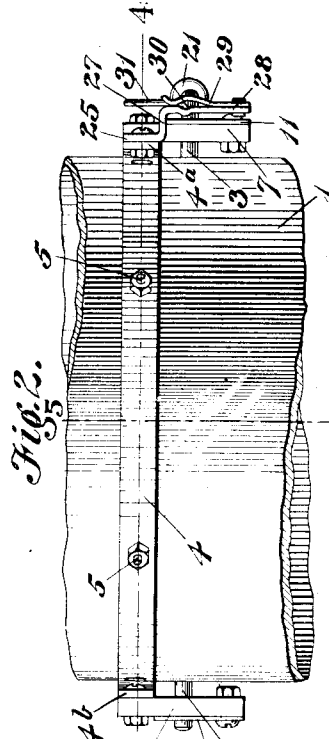
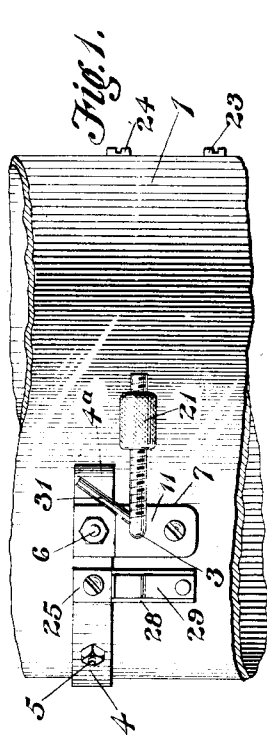


1,055,935.

Patented Mar. 11, 1913.

2 SHEETS—SHEET 1.



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1,055,935.

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AUTOMATIC STOVE DAMPER.
APPLICATION FILED APR. 9, 1912.

Patented Mar. 11, 1913.

2 SHEETS-SHEET 2.

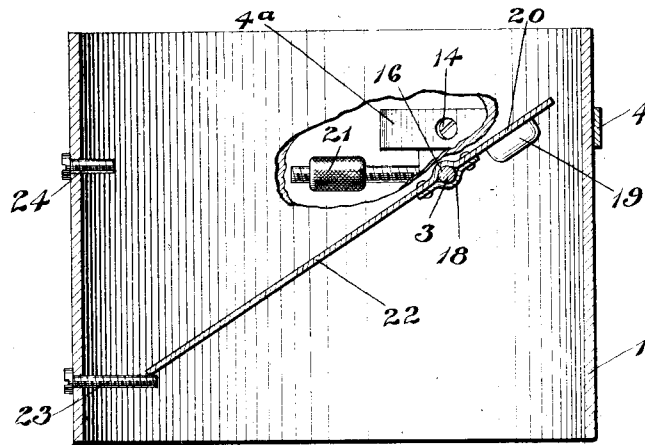


Fig. 5.

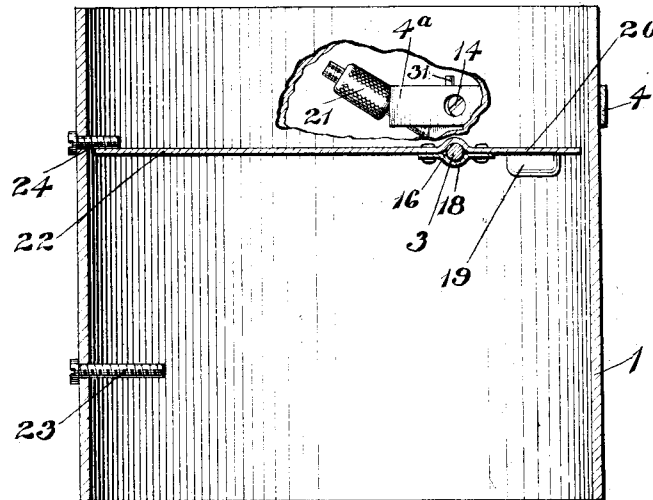


Fig. 6.

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UNITED STATES PATENT OFFICE.

CHARLES N. MIGNERY, OF JULIAN, NEBRASKA.

AUTOMATIC STOVE-DAMPER.

1,055,935.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed April 9, 1912. Serial No. 689,462.

To all whom it may concern:

Be it known that I, CHARLES N. MIGNERY, a citizen of the United States, residing at Julian, in the county of Nemaha and State of Nebraska, have invented new and useful Improvements in Automatic Stove-Dampers, of which the following is a specification.

My invention relates to dampers for stove pipes, the object being to provide a damper which will be automatically operated by the draft of the stove.

A further object of the invention is the provision of adjustable means by which the equilibrium of the damper may be regulated so as to operate upon an abnormal increase in draft above a certain desired degree.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawings which form a part of this application and in which:—

Figure 1 is a side elevation; Fig. 2 is a front elevation; Fig. 3 is a rear elevation; Fig. 4 is a sectional view taken on line 4—4 of Fig. 2. Fig. 5 is a sectional view on line 5—5 of Fig. 2 showing the damper in normal position; Fig. 6 is a similar view showing the damper in closed position; and Fig. 7 is a detail view of one of the bearing blocks.

In the drawings the numeral 1 designates the lower section of a stove pipe whose walls are provided with alining openings 2 for the reception of the pivot rod 3. These openings are so located that the rod 3 does not pass through the longitudinal axis of the pipe 1. A band 4 of suitable metal partially encircles the stove pipe immediately above the openings 2 and is secured rigidly thereto by means of the bolts 5. This band constitutes a supporting member, each of its extremities 4^a and 4^b being bent back at an acute angle so as to be attached by a suitable bolt 6 to the lower portion of a bearing block 7. The blocks 7 extend vertically and are provided with transverse openings 8 in alinement with the openings 2 in the stove pipe and adapted to receive the outer portions of the rod 3, the outer ends of these openings 8 are enlarged to form races 9 for the reception of balls 10 which encircle the rod 3 rotatably mounted in said openings. A plate 11, provided with openings 12 for the reception of the rod 3, is removably secured to the outer face of

the blocks 7 by means of the bolts 13. These plates serve to retain the balls 10 within the races, and may be swung laterally upon the bolts 13 as pivots when the rod 3 is removed. The supporting member 4 is provided with openings 14 which are in alinement with the bolts 6, so that a screw driver may be inserted therethrough for engagement with the grooved heads 15 of said bolts.

The inner portion of the rod 3 is received by the transverse offset groove 16 provided in the oval-shaped damper 17 adjacent one end thereof, and is rigidly secured in this position by means of the brackets 18. A block or weight 19 is secured to the short portion 20 of the damper against its under surface. An extremity 20 of the pivot rod 3 extends laterally and is screw threaded for the reception of an adjusting nut 21. This nut 21 is adapted to be adjusted along the extension 20 of the pivot rod so as to overbalance the weight 19 which tends normally to depress the short portion 20 of the damper 17 and thus elevate the opposite long portion 22. The portion 22 is thus held in downward position against a stop 23 carried by the stove pipe. A similar stop 24 is provided in the stove pipe on the level with the pivot rod 3 and directly above the stop 23 so as to limit the upward movement of the portion 22. When the portion 22 is in its uppermost position the damper 17 is horizontal, thus completely checking the draft. The extremity 4^a of the supporting member 4 is extended beyond the bearing block 7 and has attached thereto the lower extremity of a locking member 25 by means of the bolt 26. The member 25 is bent laterally as at 27 and then upwardly as at 28. A resilient member 29 is secured to the outer face of said upward extension 28 and depends from its point of attachment so as to form a spring clip with the extension 28, which latter is provided with an offset groove 30 for the reception of a laterally extending finger 31 provided on the rod 3 adjacent its lateral extension 20. This finger 31 is so positioned on the rod 3 as to be received by the spring clip when the longer portion of the damper is in its downward position.

In the operation of the device, the nut 21 is adjusted on the lateral extension 20 of the pivot rod 3 so that a certain amount of upward pressure or draft within the stove

pipe will be necessary to force the long portion 22 of the damper upward into closed position. Sudden increase in draft, which would tend to greatly promote the combustion of fuel within the stove and thus overheat the same, will close the damper thus cutting off the draft. When the draft diminishes, however, the damper will return to its normal position. On windy days, the draft will naturally be greater than on calm days, therefore on such days the adjustable nut 21 should be moved outwardly toward the end of the lateral rod extension 20, so that the damper will not be so readily closed. When feeding fuel to the stove, the damper may be locked in its open position by turning the pivot rod so that the finger 31 is engaged by the spring clip. The damper thus automatically closes in the event of a dangerous increase in draft, thus preventing excessive consumption of fuel, and shielding the stove pipe against injurious blazes or hot sparks, which would naturally be created upon sudden increase in draft.

25 What is claimed is:—

1. In a device of the class described, the combination with a stove pipe, of a horizontal pivot rod rotatably mounted therein and extending through the pipe at a distance from its center, an elliptical damper rigidly secured adjacent one of its ends to said pivot rod within the pipe, a weight fixedly secured to the shorter portion of the said damper and tending normally to hold the same in closed position, a lateral extension provided on one extremity of said pivot rod on the exterior of the pipe and disposed at an acute angle to the longer portion of the damper, an adjustable nut threaded upon said rod extension, said nut adapted to be adjusted so as to overbalance the fixed weight and maintain the damper in open position, and means for limiting the movement of the damper into closed position.

2. In a device of the class described, the combination with a stove pipe, of a supporting member secured thereto, a pivot rod journaled in said member and extending through the pipe, a damper secured to said rod within the pipe, a lateral extension provided upon said rod, and means carried by the supporting member for locking engagement with the said extension when the damper is in open position.

3. In a device of the class described, the combination with a stove pipe, of a supporting member secured to the exterior face thereof, the said member being in the form of a band of metal having its extremities bent back at an angle to its body, bearing blocks detachably secured to said extremities of the supporting member and having openings registering with openings in the stove pipe, a pivot rod journaled in said openings and extending through the pipe, and a damper secured to said rod within the pipe.

4. In a device of the class described, the combination with a stove pipe, of a supporting member secured to the exterior face thereof, the said member being in the form of a band of metal having its extremities bent back at an angle to its body, bearing blocks detachably secured to said extremities of the supporting member and having openings registering with openings in the stove pipe, a pivot rod journaled in said openings and extending through the pipe, a damper secured to said rod within the pipe, a lateral extension provided upon the pivot rod exteriorly with respect to the pipe, and means provided upon the adjacent supporting member extremity for locking engagement with the said extension when the damper is in one of its positions.

5. In a device of the class described, the combination with a stove pipe, of a supporting member secured to the exterior face thereof, the said member being in the form of a band of metal having its extremities bent back at an angle to its body, bearing blocks detachably secured to said extremities of the supporting member and having openings registering with openings in the stove pipe, a pivot rod journaled in said openings and extending through the pipe, a damper secured to said rod within the pipe, a lateral extension provided upon the pivot rod exteriorly with respect to the pipe, and a spring clip provided upon the adjacent supporting member extremity for locking engagement with the said extension when the damper is in one of its positions.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES N. MIGNERY.

Witnesses:

H. P. MILLER,
A. A. MEYER.