H. H. STEVENS.

STOVE-PIPE DAMPER.

No. 187,196. Patented Feb. 6, 1877.

FIG. 1

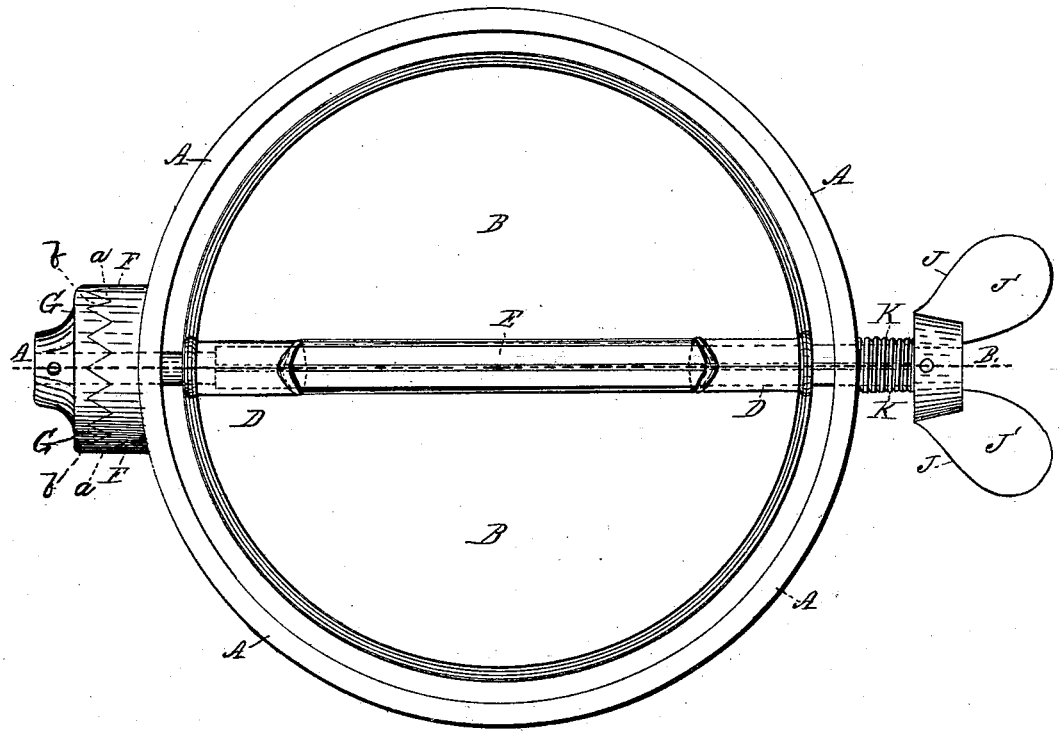


FIG. 2.

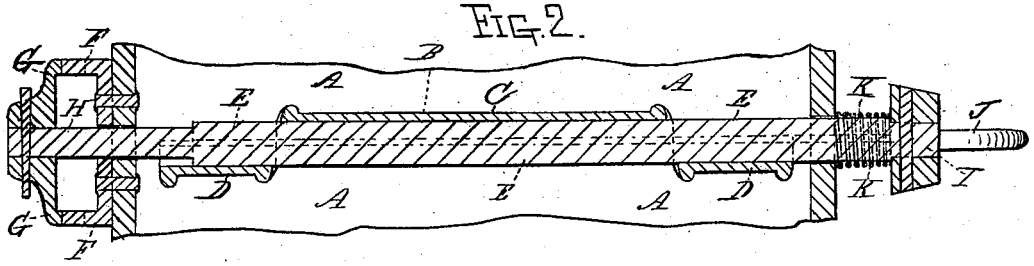
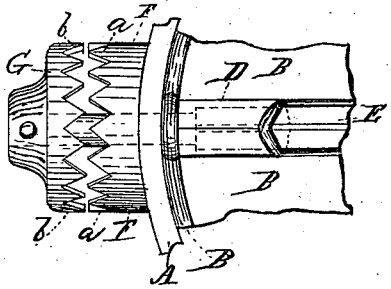


FIG. 3.



WITNESSES;

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HENRY H. STEVENS, OF DUDLEY, MASSACHUSETTS.

IMPROVEMENT IN STOVE-PIPE DAMPERS.

Specification forming part of Letters Patent No. **187,196**, dated February 6, 1877; application filed November 6, 1876.

To all whom it may concern:

Be it known that I, HENRY H. STEVENS, of Dudley, in the county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Dampers or Registers for Stove-Flues and other Purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a side view of my improved damper or register as it appears when closed. Fig. 2 represents a longitudinal central section; and Fig. 3 represents a view of the self-locking portion, as will be hereafter more fully described.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

The proper consumption of fuel, as well as the uniformity of the temperature of rooms, depends to a great degree upon the draft; and my invention is designed to promote and insure both of these objects, thereby not only saving in the expense of heating dwellings, but also promoting the health of the occupants by preventing too great and sudden changes in the heat of the rooms, and also by preventing the filling of the rooms with unhealthy gases or products of combustion.

In the drawings, A represents the pipe or flue, and B the damper or register, and these parts are connected together as follows:

The damper or register is made, in this instance, from cast metal, and one portion of the central part is cast in loop form, as shown at C, while upon either end of the loop C is cast a short loop, D—the loops D D projecting in one direction, and the loop C in the opposite direction. The openings through the several loops are of rectangular form, to receive the central stem or rod E, which passes through the pipe or flue, and also through the center line of the damper or register B. The stem E is fast to the damper, so that the latter cannot turn unless the former is turned. To one side of the pipe or flue A is attached a ratchet hub-piece, F, provided with teeth *a*, to fit into or mesh with the teeth *b* on the ratchet-piece G, fastened to the outer end H of stem E. The other end I of stem E is provided with a thumb-piece, J, by which the stem and damper or register can be operated. A spiral spring, K, is arranged upon stem E, between the thumb-piece J and the side of the pipe or flue A, as indicated in Figs. 1 and 2. As stem F is made long enough to permit the attendant pushing it longitudinally to unlock teeth *a* and *b*, (see Fig. 3,) it will be seen that the damper or register can be adjusted one or more teeth at a time, to give a greater or less opening, to increase or check the draft, as desired. As soon as the proper change has been made, spring K forces stem E back, thereby locking the parts, as shown in Fig. 1, until the attendant changes the relative position of the parts again.

Those skilled in the art to which my invention belongs will readily understand and appreciate the great practical value and importance of my invention. The construction is simple, strong, and the parts are not liable to get out of order, or become injured in use, and can be understood and operated by even a child.

The projections J J′ can be arranged so that when they stand in the relative position, as respects the pipe or flue A, shown in Fig. 1, they will indicate that the damper B is turned to close the pipe to its full extent, and any deviation of the projections J J′ from such position will indicate a corresponding change of damper B, and show that the opening in the pipe or flue A is greater or less, according to the degree thumb-piece J is turned. It will also be observed that there can never be such a closing of pipe A as to prevent a sufficient draft to carry off the gases and prevent their escape into the hot-air chambers or rooms. Then, again, there is no danger of a sudden current of air down the chimney or pipe, or up the same, throwing damper or valve B out of its adjusted position; consequently all such accidents are prevented, while the draft can be regulated very accurately to give the desired consumption of fuel to produce the required heat.

Having described my improvements in damp-

ers or registers for stove and furnace pipes and other purposes, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

The combination, with the pipe or flue A, valve or damper B, and stem E, of thumb-piece J, spring K, and ratchet-pieces F G, provided with adjusting and locking teeth *a b*, substantially as and for the purposes set forth.

HENRY H. STEVENS.

Witnesses:
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