

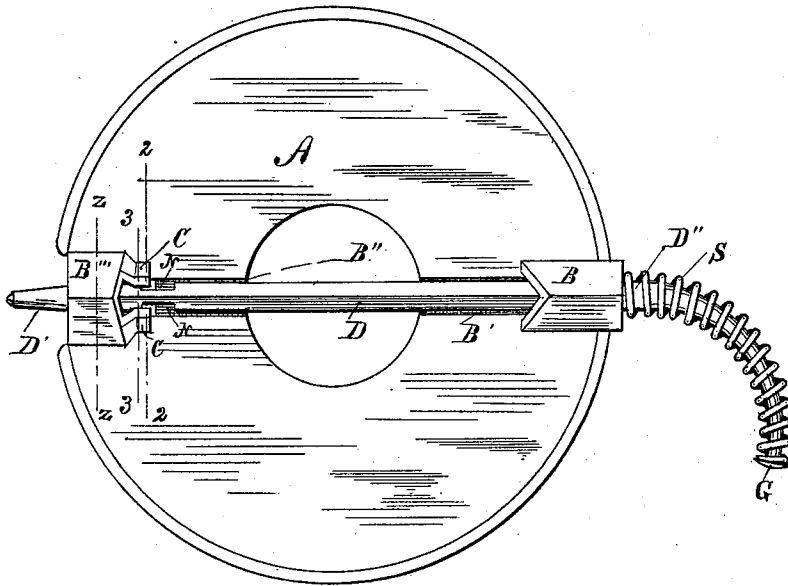
(No Model.)

L. M. DEVORE.  
STOVEPIPE DAMPER.

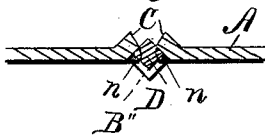
No. 478,414.

Patented July 5, 1892.

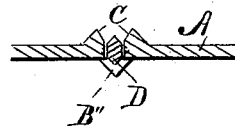
*Fig. 1.*



*Fig. 3.*



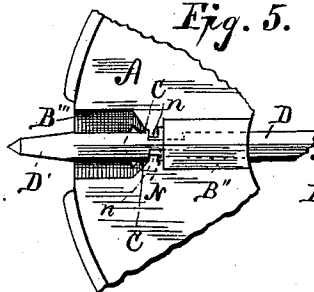
*Fig. 2.*



*Fig. 4.*



*Fig. 5.*



Witnesses:  
Clement F. Word  
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# UNITED STATES PATENT OFFICE.

LEVI M. DEVORE, OF FREEPORT, ILLINOIS, ASSIGNOR OF ONE-HALF TO  
M. H. WILCOXON, OF SAME PLACE.

## STOVEPIPE-DAMPER.

SPECIFICATION forming part of Letters Patent No. 478,414, dated July 5, 1892.

Application filed August 12, 1890. Renewed June 10, 1892. Serial No. 436,188. (No model.)

*To all whom it may concern:*

Be it known that I, LEVI M. DEVORE, a resident of Freeport, in the county of Stephenson and State of Illinois, have invented certain  
5 new and useful Improvements in Stovepipe-Dampers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make  
10 and use the same.

The object of this invention is to provide a damper that shall be more convenient in insertion and removal than those ordinarily used and that at the same time shall be extremely simple and inexpensive, not liable to become inseparable by warping with heat, and that shall have a non-heating handle, with the usual security against accidental turning, or, in short, that shall have all or  
15 most of the advantages desired in a stovepipe-damper. It is fully shown in the accompanying drawings, in which—

Figure 1 is a plan of the complete damper. Fig. 2 is a section on the line 2 2, Fig. 1. Fig. 25 3 is a section on the line 3 3, Fig. 1. Fig. 4 is a section on the line 4 4, Fig. 1. Fig. 5 is a view showing a part of the damper seen from the side opposite that of Fig. 1.

In the figures, A is a circular damper-blade  
30 having the usual opening in the center, and D is a handle-shank crossing the plate diametrically and held in the plane of the plate by bridges B B' and B' B'', formed integrally with the plate or blade and upon opposite faces thereof, respectively. The shank  
35 is non-cylindrical and fits the bridges B' B'' when in place in such manner that it cannot rotate without at the same time rotating the plate. It projects at each end beyond the  
40 edge of the plate, terminating at one end in a point D' and at the other in a curved portion D'', provided at its extremity with a button G. A spring S is coiled about this curved portion, and, reacting against the button,  
45 presses the outer end of the bridge B (or the intermediate pipe-wall when the damper is in operative position) and tends to withdraw the shank longitudinally. Lugs C C, formed integrally with both the plate and the bridge

B'', project from opposite sides into the path  
50 of the shank and are separated by a distance less than the shank's thickness. The shank is notched at N N, whereby its thickness is so reduced that this portion may pass between the lugs C, and the bridge B'' is high enough  
55 to allow the end of the shank to pass beneath it when swung laterally away from the plate to pass over the lugs which extend outward from the plate beyond the normal position of the shank. Now in introducing the shank it  
60 is passed beneath all the bridges, its end being thus swung outward, and is forced inward, the spring S being compressed until the notches N register with the lugs C. It is then  
65 swung perpendicularly toward the plate until it rests against the bridges B' B' and released. The reaction of the spring draws it outward until the shoulder formed by notching at N meets the lugs C at n n. The lugs C are undercut upon the side toward the point  
70 of the shank, so that they overhang the faces N n. The overhanging parts rest upon the body of the shank when the latter is drawn back by the spring, and thus effectually prevent the same from swinging again away  
75 from the plate until by compression of the spring the notches are caused to again register with the lugs.

It is to be observed that while the handle is engaged with the plate by motion perpendicular to the plane of the latter, with well-known advantages, the plate cannot swing to any considerable distance away from the shank at either end, since it is retained by the usual bridges, and, further, that the plate  
85 has the bridges disposed as in dampers not permitting this motion of the shank, and is therefore no more liable to break or warp.

What I claim is—

1. The combination, with a damper-plate  
90 and handle-shank provided, respectively, with devices to mutually engage and prevent longitudinal withdrawal of the shank, of bridges formed upon opposite faces of the plate and spanning the path of the shank, one  
95 of said bridges being high enough to permit lateral motion of the shank away from the plane of the plate, whereby the engaging de-

vices may pass while the shank is beneath all the bridges, substantially as set forth.

2. The combination, with the non-cylindrical shank having the notches N and the  
5 spring upon its handle end, of the plate provided with the bridges B B' B'' and higher bridge B''' and with the undercut lugs C, arranged to register with said notches when the shank is pressed inward, overcoming the

force of said spring, substantially as and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LEVI M. DEVORE.

Witnesses:

R. H. WILES,  
LEONARD STOSKOPF.