H. ROSENBERG.

DAMPER.

APPLICATION FILED AUG. 30, 1911.

1,013,819. Patented Jan. 2, 1912.

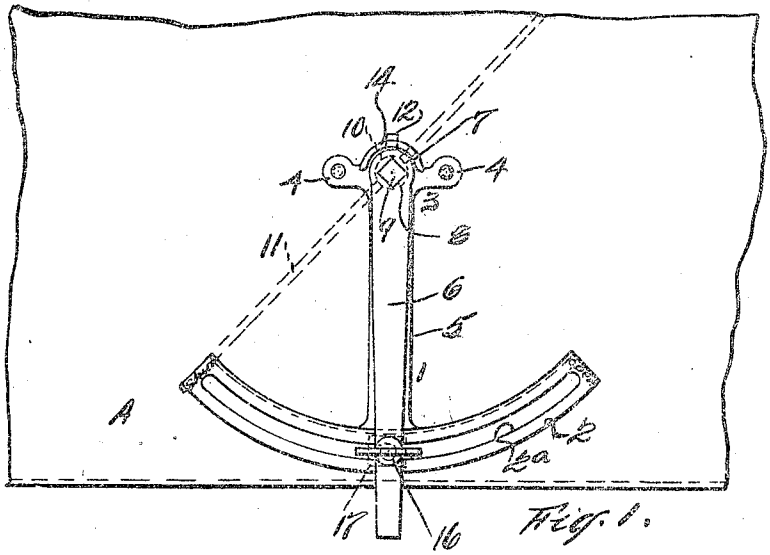

Fig. 1.

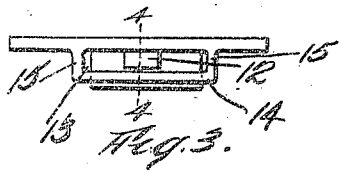

Fig. 3.

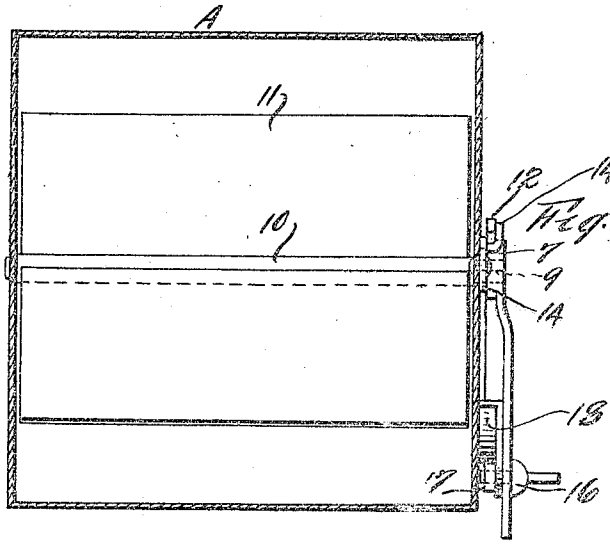

Fig. 2.

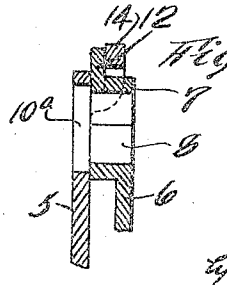

Fig. 4.

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UNITED STATES PATENT OFFICE.

HEYMAN ROSENBERG, OF NEW YORK, N. Y.

DAMPER.

1,013,819. Specification of Letters Patent. Patented Jan. 2, 1912.

Application filed August 30, 1911. Serial No. 646,894.

To all whom it may concern:

Be it known that I, HEYMAN ROSENBERG, a citizen of the United States of America, residing at New York city, Bronx borough, county and State of New York, have invented certain new and useful Improvements in Dampers, of which the following is a full, clear, and exact description.

This invention relates to an improvement in dampers, but more particularly to a handle and frame therefor adapted to operate the damper; the object of my invention being to provide a handle for dampers which can be applied thereto and caused to stay in position on the spindle of the damper without resorting to pins, nuts or the like.

A further object of my invention is to provide a frame or bracket which is adapted to pivotally support the damper-handle without resorting to pivot-pins or the like.

My invention comprises further features of improvement in the construction of the damper-handle and frame therefor, and in the manner of assembling same, which will be hereinafter more fully described.

One of the main features of my improved device is that it can be applied equally well to a square or circular duct or to ducts of any well-known construction.

I will now proceed to describe my invention in detail, the novel features of which I will point out in the appended claims, reference being had to the accompanying drawing, forming part hereof, wherein—

Figure 1 illustrates a side view of a portion of a duct having my improved device applied thereto; Fig. 2 is a sectional end view of a duct having my improved device applied thereto; Fig. 3 is an enlarged detail plan view of the upper end of my improved frame and also of the upper end of the handle supported thereby; and Fig. 4 is a detail sectional view, the section being taken on a line 4—4 in Fig. 3.

Referring to the accompanying drawing, the numeral 1 indicates my improved frame, which consists of a segmental or curved lower end 2, provided with a slot 2^a, an upper end 3 having ears 4, and a bar 5 which connects the top and bottom. The frame 1, as will be seen in the drawing, pivotally supports a handle 6 having an enlarged circular or curved head or hub 7 provided with a square opening 8 adapted to receive the squared end 9 of the damper spindle 10, the damper being indicated by 11.

To assist in holding the handle 6 in position, I provide the head 7 thereof with a teat or projection 12 which, when the handle 6 is in position, passes through and oscillates in a slot 13, the said slot being formed by the curved rail 14 and end members or stops 15 which connect the said rail and upper end 3 of the frame 1.

As can be seen in Fig. 1, the rail 14 is curved to correspond with the curve of the head 7 of the handle 6 and is located sufficiently close to the said head to act as a stop for the teat 12, which acts to prevent the head of the handle from being forced outwardly and away from the top of the frame by contacting with the inner surface of the said rail 14.

The slot 2^a in the lower end 2 permits the handle to be radially moved, whereby the damper 11 can be opened or closed or held in a desired position by means of a thumb-screw 16 and nut 17. As the radius of the curve 2^a is equal to the distance between the center of the head 7 of handle 6, and the center of the thumb-screw 16, the said curve acts as a guide to keep the head of the handle in position at the top of the frame at all times, whether the said handle is applied to a damper-spindle, or before the device is applied to a duct.

It will be seen from Fig. 2 that the lower end 2 is set off or of an angular formation, whereby a space 18 is provided for the nut 17; the offsetting of said lower end making it possible to take the nut 17 from the screw 16, so that the screw may be removed when the frame is riveted or otherwise secured to the duct A.

It will be seen that the only point at which the frame is secured to a duct or other structure is at the head 3; hence the said frame can be secured to a circular as well as to a square duct, the bar 5 being rigid enough to support the segmental end 2, even though the said end should hang free from a support other than that to which the head 3 is secured.

It will be seen in Fig. 4 that the upper end of the frame 1 is provided with an opening 10^a through which the end of the damper spindle 10 is passed.

From the foregoing description and the accompanying drawing it will be apparent that I have produced a simple and inexpensive frame and handle for operating dampers, my device being of such construc-

tion that it can be applied as a complete or assembled structure to ducts or the like of any formation, besides which I have obviated the use of nuts, pins or the like to hold the handle in position, and furthermore, my handle is less likely, by reason of my improved construction, to become detached from the device, not to speak of the saving caused by dispensing with the use of nuts, pins or the like to hold the handle in position.

Having now described my invention, what I claim and desire to secure by Letters Patent is:

1. A frame adapted for attachment to a duct or the like, the lower end of said frame being curved, said curved end being provided with a slot, a handle having an opening adapted to receive the end of a damper-spindle, a projection located at the upper end of said handle, the upper end of said frame being provided with a slot adapted to receive the projection on said handle, and a thumb-screw carried by said handle and adapted to travel in the slot in the curved lower end of said frame.

2. A frame adapted for attachment to a duct or the like, comprising a head provided with an opening, an offset lower end having a slot, and a bar connecting said head and said offset lower end, a handle having an opening adapted to receive the end of a damper-spindle, a projection located at the upper end of said handle, a rail carried by the upper end of said frame, said rail being positioned away from the face of said frame, whereby a slot, adapted to receive the projection on said handle, is provided, and a thumb-screw carried by said handle adapted to travel in the slot in the curved lower end of said frame.

3. A frame comprising a head provided with an opening, the lower end of the frame having a curved slot, a handle having an opening in alinement with the opening in said head, a curved rail at the upper end of said frame, said rail being positioned away from the face of the frame so as to form a slot therebetween, and a teat on the head of said handle entering said slot, together with means for holding the handle in desired position along said slot in the lower end of the frame.

Signed at New York city, N. Y. this 21st day of August, 1911.

HEYMAN ROSENBERG.

Witnesses:
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