(No Model.)

L. P. HAWES.

SEDIMENT TRAP.

No. 265,600. Patented Oct. 10, 1882.

Fig. 1.

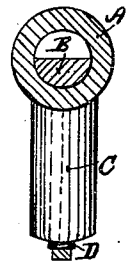


Fig. 3.

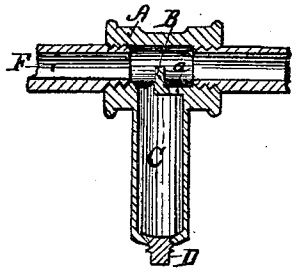
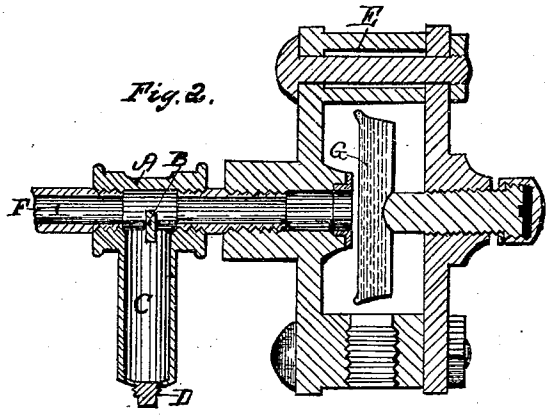


Fig. 2.



Witnesses.
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SEDIMENT-TRAP.

SPECIFICATION forming part of Letters Patent No. 265,600, dated October 10, 1882.

Application filed April 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, LORING P. HAWES, of New York, in the State of New York, have invented an Improvement in Sediment-Traps, of which the following is a specification.

My invention relates to an improvement in sediment-traps for steam and water pipes; and it consists in a sediment-obstructing bar extending across the lower portion of the direct steam or water passage and across the upper end of the sediment-chamber, whereby the flowing current will be divided unequally into upper and lower portions, the sediment passing with the weaker lower current into the sediment-chamber.

Figure 1 represents an end view of a pipe-coupling provided with a sediment-chamber and with my improved sediment-obstructing bar, the whole forming a sediment-trap which may be inserted at any required location in a line of pipe. Fig. 2 represents an axial section of the same in connection with a steam-trap. Fig. 3 represents a modification of the sediment-trap in section.

In the continued use of steam-pipes in connection with a steam-trap the accumulating rust or scale, which becomes detached from the surface of the pipes and then passes along with the steam and water of condensation through the pipes, is liable to interfere with the action of the valve, so as to prevent it from seating steam-tight, thus destroying the efficiency of the trap, and various devices have been invented for collecting such sediment and preventing it from reaching the valve; but, owing to the form and lightness of the particles, it has been found extremely difficult to thoroughly prevent annoyance from this source; and in order to render such devices more efficient in their action, and at the same time to economize in space and cost, I form a pipe-coupling, A, provided with a transverse bar, B, extending across the lower half of the direct bore of the coupling and edgewise across the upper end of a sediment-chamber, C, which is to be provided with a valve or plug, D, for drawing off the accumulated sediment from time to time as required.

In Fig. 2, E represents a steam-trap, to the supply-pipe F of which my improved sediment-trap is connected. The steam or water in the pipe F will pass both above and under the bar B; but the sediment passing along the bottom of the aperture of the pipe will be deflected downward by the bar into the sediment-chamber C, from which the current will not be sufficient to cause it to rise so as to pass over to the valve G of the steam-trap; and in order to gage the force of the current passing under the bar B, and to still further obstruct the sediment and prevent it from rising from the chamber C, I extend the base of the bar B at a right angle, so as to cover the upper end of the sediment-chamber on the side toward the steam-trap E, and perforate the extended portion, as shown in Fig. 3, thus securing a current under the bar B of any desired quantity, as determined by the size of the aperture *a* made in such extension.

My improvement may be employed in connection with all pipes for conveying steam or water where it is desirable to catch and hold the sediment passing from any cause through said pipes; but it is specially useful for preventing the flow of sediment to a valve-seat where the admission of such sediment would affect the proper seating of the valve, as in steam-traps.

The sediment-trap when made as in Fig. 2 is reversible, so that it is immaterial on which side it is joined to the inlet-pipe F, which reversibility is an important feature, as no instructions are in this case required to insure its proper application to the pipe. The current of steam or water through the coupling will in all cases be greatest in volume over the top of the bar, since the passage above that point is direct and unobstructed, whereas the fluid in its passage under the bar must curve into the upper end of the sediment-chamber and rise therefrom.

I claim as my invention—

In a sediment-trap for pipes, the combination of a pipe-coupling and a sediment-chamber, provided with a discharging-outlet controlled by a valve or plug, with a transverse bar extending across the lower portion of the direct passage through the pipe-coupling, and adapted for the passage of a diminished current under the bar and across the upper end of the sediment-chamber, substantially as described.

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Witnesses:

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