(No Model.)

W. T. & J. J. MAYPOLE.

DRAIN FOR CONDENSERS FOR ESCAPE PIPES.

No. 264,093. Patented Sept. 12, 1882.

Fig. 1.

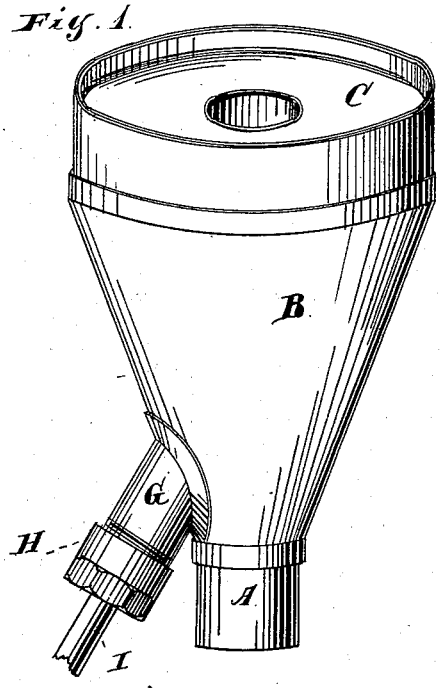


Fig. 2.

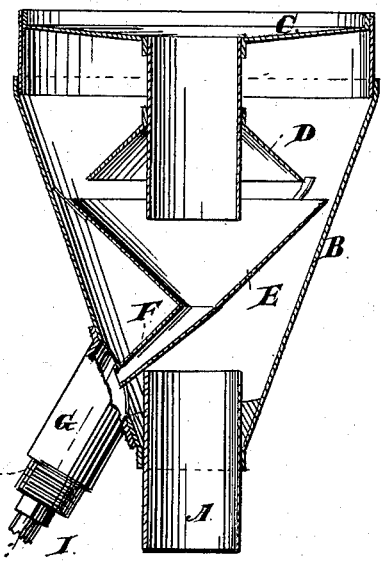
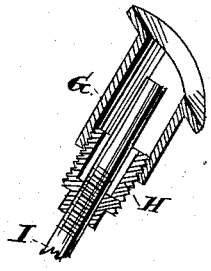


Fig. 3.



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WILLIAM T. MAYPOLE AND JOHN J. MAYPOLE, OF CHICAGO, ILLINOIS.

DRAIN FOR CONDENSERS FOR ESCAPE-PIPES.

SPECIFICATION forming part of Letters Patent No. 264,093, dated September 12, 1882.

Application filed July 28, 1882. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM T. MAYPOLE and JOHN J. MAYPOLE, residing in the city of Chicago, county of Cook, and State of Illinois, have invented a new and Improved Drain for Condensers for Escape-Pipes, of which the following is a specification.

The object of our invention is to provide condensers for escape-pipes with a drain-pipe that will always remain open and uninterrupted by the various sediments that form from the condensing steam, and that are liable to clog or wholly close the drain if not occasionally removed, and to permit of such sediment being readily removed if it should form in sufficient quantity in our form of construction as to make its removal desirable; and the invention consists in making the drain-pipe of enlarged diameter, with a plug in its end, through which a pipe of much smaller diameter is inserted, and extended back for several inches, so as to form a space around it in which the sediment must settle, while the condensed water overflows at the end of the small drain-pipe and passes off through it.

In the accompanying drawings, Figure 1 is a plan view of our improved condenser-head. Fig. 2 is a vertical sectional view thereof, and Fig. 3 is a detached sectional view taken longitudinally of our improved drain-pipe.

Similar letters refer to similar parts in all the drawings.

A represents the upper end of an exhaust-pipe; B, an inverted conical cap attached to the end of the exhaust-pipe; C, the head of this cap, with a short section of pipe depending from a hole in its center, through which the exhaust-steam escapes; D, a conical deflector surrounding the suspended pipe; E, an inverted conical deflector supported by straps from the sides of cap B; F, a pipe leading from the bottom of the deflector E to discharge the water of condensation and other matters into the drain; G, the enlarged drain-pipe; H, the plug in its end, and I the small drain pipe inserted through such plug.

In constructing our improved drain-pipe we take the ordinary condenser-head—such, for instance, as is shown in Letters Patent to William Jeggle and L. A. Brooks, No. 63,391, dated April 2, 1867, for improvement in condensers, or in Letters Patent to Wilfred C. Lyman, No. 179,581, dated July 4, 1876, for improved exhaust-pipe heads—and make the drain-pipe of enlarged diameter. In the end of this enlarged drain-pipe we screw or otherwise detachably fasten a plug, securely closing the pipe. This plug is provided with a hole through its center, through which we insert another drain-pipe of much less diameter than the enlarged drain-pipe. This small pipe is inserted some distance and until its upper end is, say, six or eight inches beyond the plug and within the enlarged pipe. An annular space is thus formed between the smaller and the larger pipe, into which all sediment must settle, while the water of condensation rises until it flows over the top of the smaller pipe, which remains open, and is carried off.

If the sediment should sufficiently accumulate to fill the space between the pipes and interfere with the outflow of the water through the smaller pipe, the plug containing such smaller pipe can be unscrewed and removed, which will allow all the accumulated sediment to fall out of its own accord, after which the plug can be again inserted.

As the sediment cannot choke the small drain-pipe or affect it until it has filled the space between the two pipes to the top of the smaller one, the necessity of a hand-hole or of frequent cleaning is dispensed with; and, as the sediment accumulates very slowly, the condenser-head would probably be worn out before any necessity of removing the plug would arise.

As we have already said, our improved drain-pipe can be used on any ordinary exhaust-steam condensers; and, as the invention consists in the improvement in the drain-pipe, we of course do not limit ourselves to any particular forms as to other parts of the condenser-head.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a condenser for escape-pipes, of the enlarged drain-pipes G and the small drain-pipe I, substantially as described, and for the purpose set forth.

2. The combination, in a condenser for escape-pipes, of the enlarged drain-pipe G, the plug H, and the small drain-pipe I, substantially as described, and for the purpose set forth.

WILLIAM T. MAYPOLE.
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