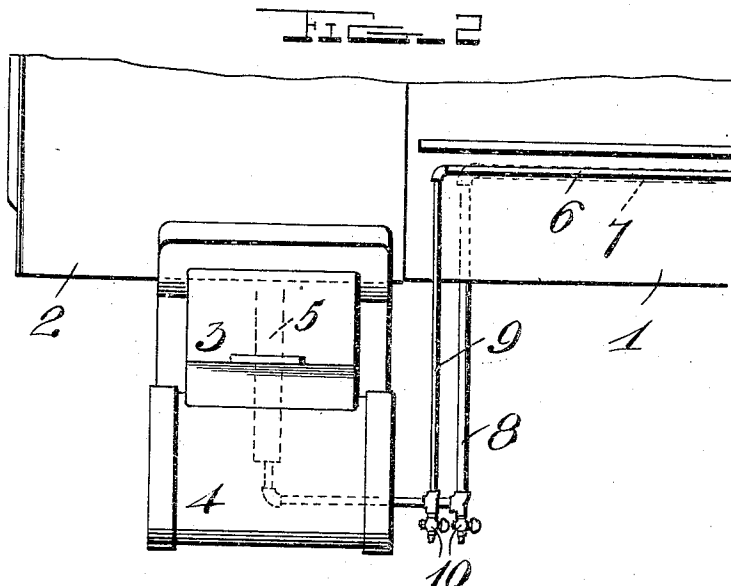
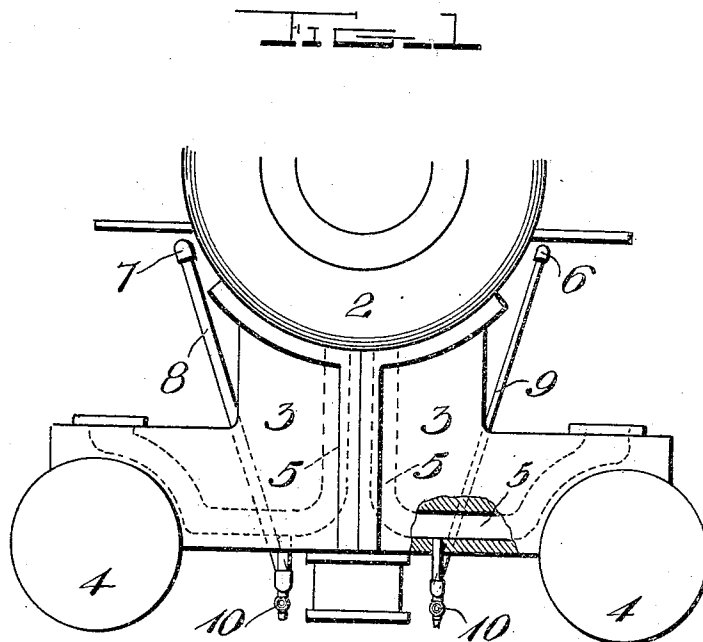


F. L. HOLCOMB.
LOCOMOTIVE BLOWER AND AIR PUMP EXHAUST PIPE.
APPLICATION FILED JUNE 7, 1909.

956,706.

Patented May 3, 1910.



Witnesses

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FRANK LORD HOLCOMB, OF KINGSTON, NEW YORK.

LOCOMOTIVE BLOWER AND AIR-PUMP-EXHAUST PIPE.

956,706.

Specification of Letters Patent.

Patented May 3, 1910.

Application filed June 7, 1909. Serial No. 500,470.

To all whom it may concern:

Be it known that I, FRANK LORD HOLCOMB, a citizen of the United States, residing at Kingston, in the county of Ulster and State of New York, have invented certain new and useful Improvements in Locomotive Blower and Air-Pump-Exhaust Pipes; and I do 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 appertains to make and use the same.

This invention relates to improvements in the blower and air pump exhaust pipes of locomotives.

The object of the invention is to provide an improved construction and arrangement of the blower pipe and the air pump exhaust pipe of locomotives whereby the necessity of extending said pipes into the smoke box is obviated.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a front view, partly in section of a portion of a locomotive, showing my improved arrangement of the blower and air pump exhaust pipes; Fig. 2 is a side view of the parts shown in Fig. 1.

Referring more particularly to the drawings, 1 denotes the locomotive boiler, 2 denotes the smoke box, 3 denotes the cylinder casting, 4 the cylinders, and 5 the cylinder exhaust pipes which are arranged in the cylinder castings and communicate with the smoke box of the boiler.

The foregoing parts may be of the usual or any desired construction and do not form a part of my invention.

In the usual construction of locomotives, the blower pipe 6 and the air pump exhaust pipe 7 are extended at their forward ends into the smoke box and communicate with the stack to exhaust the steam from the blower and air pump. When these pipes are arranged in this manner, it has been found that the heat and products of combustion in the smoke box sooner or later affect the joints of the pipes causing the same to leak steam and water into the smoke box and this water causes the smoke box sheets to crack and the leaking steam interferes with the

draft through the flues of the boiler and seriously interferes with the steaming of the engine. My improved arrangement of the blower pipe and air pump exhaust pipe is designed to overcome these objections by connecting said pipes with the cylinder exhaust pipes 5 and said pipes employed for conducting the exhaust steam from said pump and said blower pipes to the smoke box or stack of the locomotive, thus obviating the necessity of running said pump and blower pipes into the smoke box.

In carrying out my invention, the air pump exhaust pipe and the blower pipe are connected at a suitable point near the forward end of the locomotive to the upper ends of downwardly projecting pipes 8 and 9, the lower ends of which are connected with the exhaust passages in the cylinder saddle by the horizontal extension pipes 9' which extend forwardly beneath the cylinder saddle and connect with the exhaust passages thereof, whereby the exhaust steam from said pump and blower pipes will enter the cylinder exhaust pipes and be conducted by the same to the smoke box for discharge through the stack in the usual manner. In the lower portions of the extensions 8 and 9, are arranged drain cocks 10 by means of which the pump and blower pipes may be drained when necessary.

The exhaust pump and blower pipes are here shown as arranged on opposite sides of the boiler and the extensions of the same are shown as being brought down in the rear of the cylinder casting. In some forms of locomotives, the air pump pipe and the blower pipe are both arranged on one side of the boiler and in some constructions of locomotives only one cylinder exhaust pipe is provided, therefore, I do not wish to be understood as limiting my invention to the precise arrangement of the pump and blower pipes herein shown, but wish to reserve the right to arrange said pipes and connect the same with the cylinder exhaust pipes in any suitable manner subservient with the idea set forth in the foregoing specification.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may

be resorted to without departing from the principle or sacrificing any of the advantages of the invention, as defined in the appended claim.

5 Having thus described my invention, what I claim is:

In a locomotive having a cylinder saddle provided with exhaust passages, means for connecting the blower and exhaust pipes
10 with the exhaust passages in the cylinder saddle, said means comprising a pair of vertical downwardly inclined conducting pipes arranged at opposite sides of the locomotive and connected at their upper ends,
15 respectively, with the blower and exhaust

pipes and horizontal forwardly extending extension pipes connected at their rear ends with the lower ends of the vertical downwardly inclined pipes and extending forwardly beneath the cylinder saddle to the
20 exhaust passages thereof and drain cocks at the lower ends of the vertical downwardly inclined pipes.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.
25

FRANK LORD HOLCOMB.

Witnesses:

RAYMOND MARSH,

FRANK R. HOLCOMB.