

J. J. HAMILTON.

Improvement in Water-Elevators.

No. 129,887.

Patented July 30, 1872.

Fig. 1

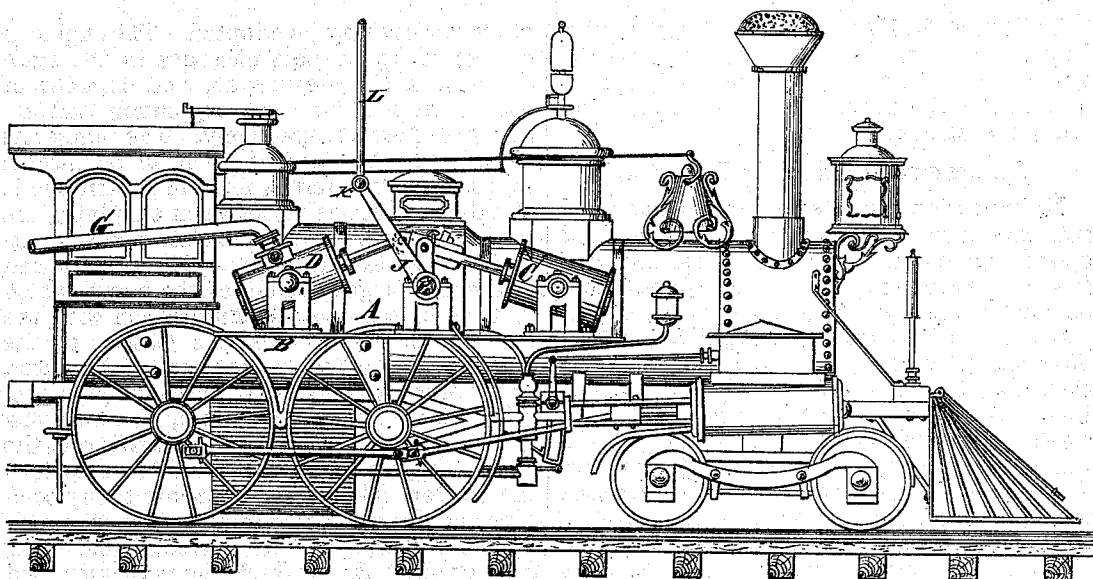
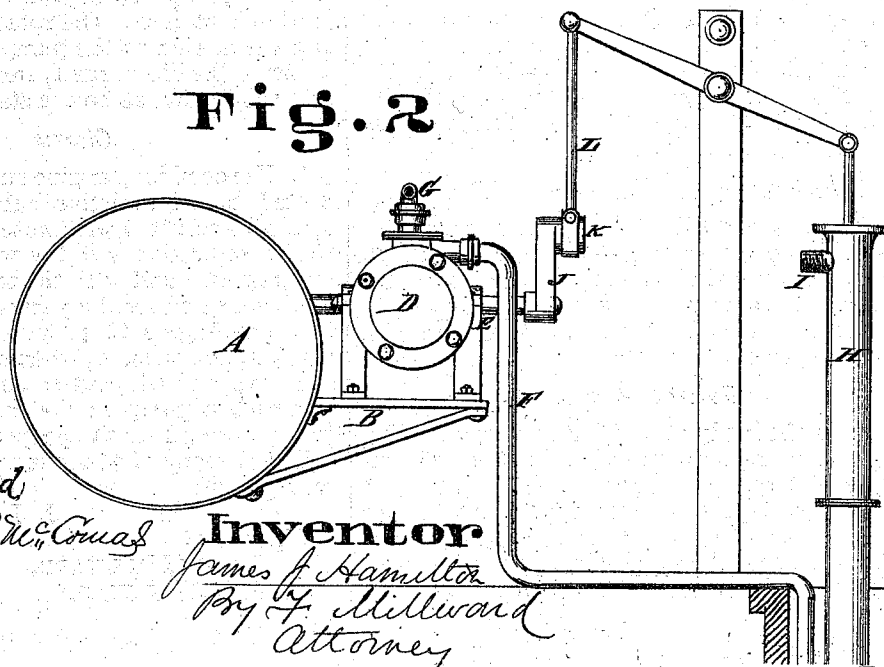


Fig. 2



Attest

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JAMES J. HAMILTON, OF CONNERSVILLE, INDIANA, ASSIGNOR TO HIMSELF,
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IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 129,887, dated July 30, 1872.

I, JAMES J. HAMILTON, of Connerville, Fayette county, State of Indiana, have invented a certain new and useful Pumping Attachment to Locomotives, of which the following is a specification:

Nature and Objects of the Invention.

My invention consists in the provision and attachment to a locomotive of a combined steam engine and pump, the engine having a steam-pipe connection with the locomotive and exhaust-steam-pipe connection with the smoke-stack of the locomotive; the pump having a discharge-pipe connection with the tender of the locomotive and a flexible pipe for the suction, which is adapted to be thrown into a cistern at water-stations of railroads for the purpose of supplying the tender with water. The object of the invention is to dispense with the customary elevated water-tanks at water-stations of railroads, which are liable to freeze up. My invention further consists in the provision, upon the shaft of the combined engine and pump of a crank and wrist for the attachment of the rod of a lever-pump secured in a cistern at a water-station for the purpose of enabling the combined engine to pump from deeper water-levels than is possible by "suction."

Description of the Accompanying Drawing.

Figure 1 is a side elevation of a locomotive with my combined engine and pump attached. Fig. 2 is an end elevation of a portion of the locomotive attached to a pump permanently secured in a well or cistern at the side of a railroad track.

General Description.

A is the body of the locomotive, and B a special frame for supporting my combined engine and pump. The combined engine and pump is composed of steam-cylinder C, pump D, crank-shaft E, with suitable slides and rod-connections. The engine selected for illustration is of the oscillating description; but any

other variety may be adopted. The engine is connected, by suitable passages in the trunnions, with the steam-space and chimney of the locomotive for necessary supply and exhaust of steam, respectively. The pump has flexible hose F attached to it, to be thrown into a well or cistern when the locomotive is standing, to act as a suction in supplying the tender with water from the cistern of a water-station. A flexible hose, G, is also attached to the discharge-chamber of the pump, which is kept in constant communication with the tender. In some cases the cistern of the water-station, owing to the depth of the water, or for other reasons, must necessarily be supplied with a permanent pump, H, whose discharge-pipe I is adapted to discharge the water by gravity, through suitable hose, into the tender. Connection is made to my combined engine and pump from this cistern-pump by means of the provision of a crank and wrist, J K, or shaft E, on which the permanent rod L of the pump may be coupled when the locomotive is at rest. The rotation of the shaft E gives motion to the pump and elevates the water to the discharge I, from whence it runs into the tender, as before stated.

Claims.

1. The combined engine and pump C D, connected to a locomotive substantially as described, and fitted with water-pipes or hose F G, for connection with the well or cistern of a water-station and with the tender of the locomotive, as and for the purpose specified.

2. The engine C, provided with shaft E, crank J, and wrist K, when connected to a locomotive and adapted to operate, in connection with a pump in the cistern of a water-station, as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

J. J. HAMILTON.

Witnesses:

FRANK MILLWARD,
J. L. WARTMANN.