

G. M. Cole,
Railroad Tank Feeder,

No 37,152,

Patented Dec. 16, 1862.

Fig: 1.

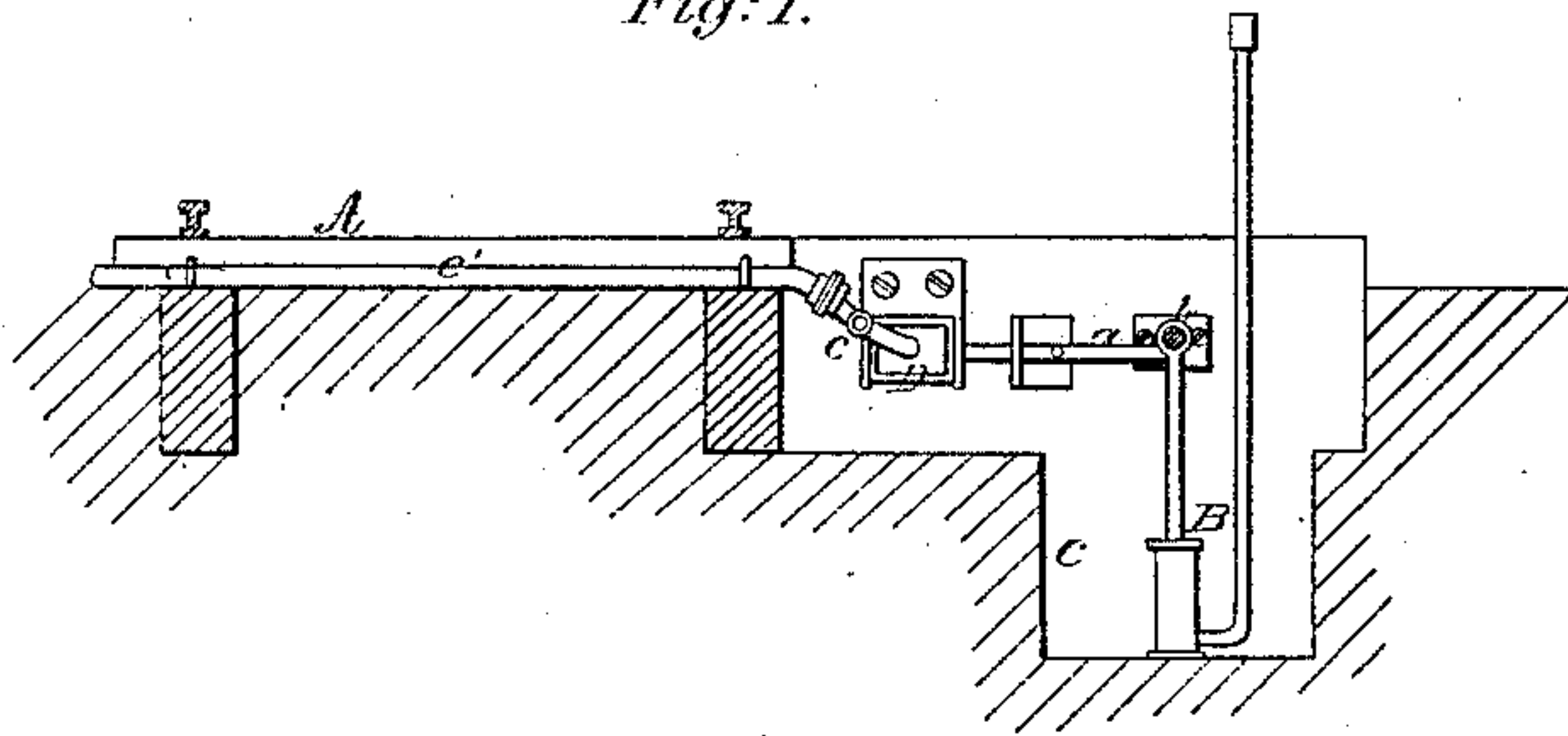
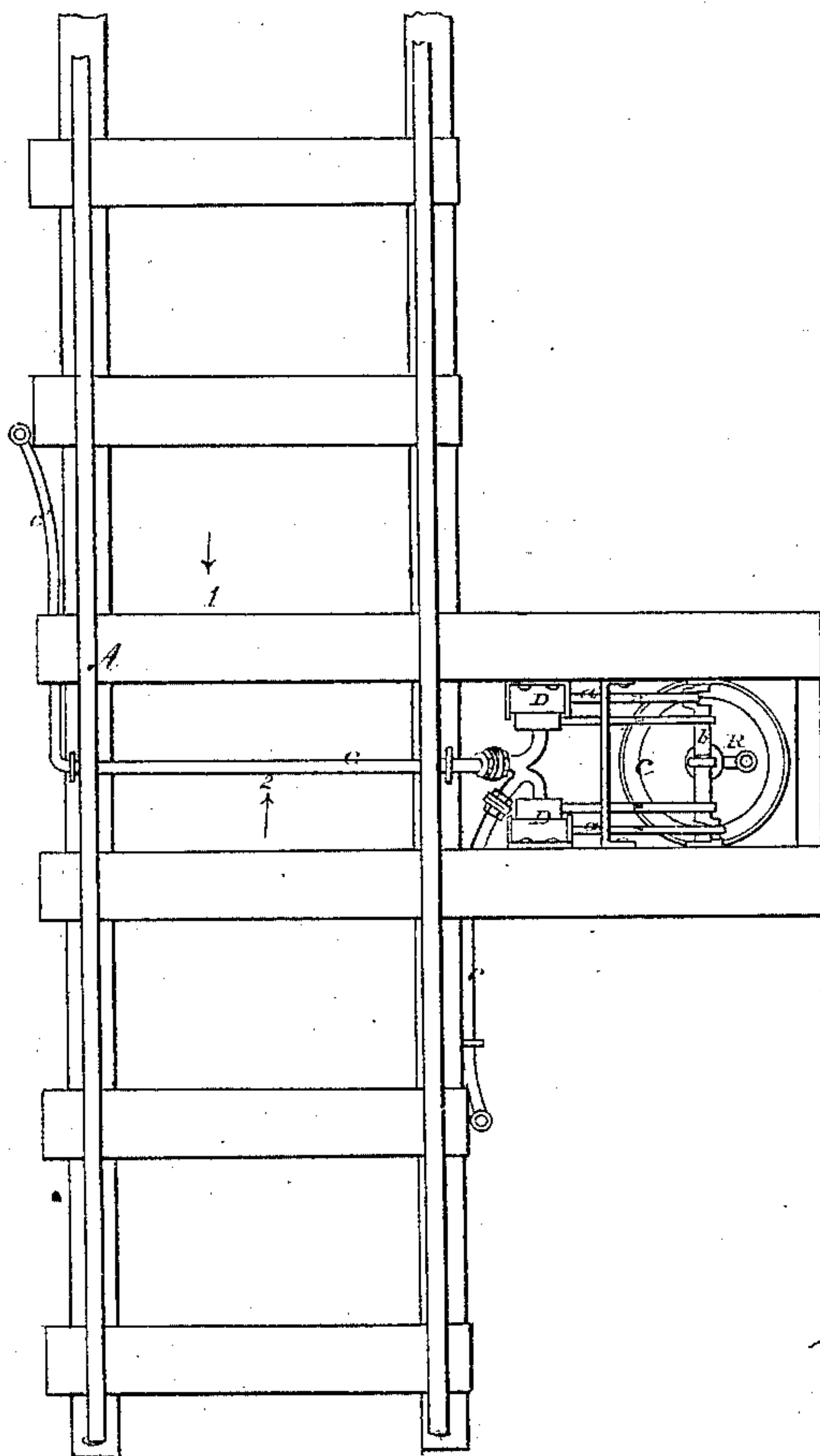


Fig: 2.



Witnesses:

M. Hauff
J. W. Cooney

Inventor:

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UNITED STATES PATENT OFFICE.

GILBERT M. COLE, OF FOLSOM CITY, CALIFORNIA.

IMPROVEMENT IN MODE OF OPERATING RAILROAD-PUMPS.

Specification forming part of Letters Patent No. 37,152, dated December 16, 1862.

To all whom it may concern:

Be it known that I, GILBERT M. COLE, of Folsom city, in the county of Sacramento and State of California, have invented a new and Improved Mode of Operating Railroad-Pumps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a transverse vertical section of my invention, and Fig. 2 a plan or top view of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists in the application of steam from the locomotive-boiler to operate the piston or pistons of one or more steam-cylinders which connect by suitable mechanism with the plunger of a railroad-pump, in such a manner that whenever the locomotive arrives in the neighborhood of a pump, and when it is desired to throw water into the tender or into a tank situated at the side of the track, from which it can be let down into the tender, this object is effected by connecting said steam cylinder or cylinders with the locomotive-boiler, thereby operating the pump by steam-power, instead of the ordinary slow process of operating the pump by hand or otherwise.

To enable those skilled in the art to make and use my invention, I will proceed to describe it with reference to the drawings.

A represents the railroad-track in a station or other place in the neighborhood of a pump, B, which serves to throw water into a tank or directly into the tender, as may be most desirable. Such pumps are generally operated by hand or sometimes by horse-power, or by small stationary steam-engines used in a station for cutting fire-wood and similar purposes, and the water is raised into a tank of such a capacity that it holds a large supply of water, and placed at such a level that the water from the same runs readily down into the tender. The supply of water is taken from a well, C, and the pump may either be placed down on or near to the bottom of said well, or a double-acting pump may be used and placed above ground with a suction-pipe leading down into the well.

Instead of operating the pump by hand or by some other power, which requires some extra attendance and expenditure, I employ one or more steam-cylinders, D, which are put up at the side of the track and in the neighborhood of the pump. The pistons of said cylinders connect, by means of rods *a*, with a crank-shaft *b*, through the agency of which motion is imparted to the plunger of the pump. The cylinders D are supplied with steam through pipes *c* or *c'*, which extend on opposite sides of the track, and which are provided with suitable couplings, so that the same can be readily connected with a pipe leading from the boiler of the locomotive. If the locomotive approaches the pump in the direction of arrow 1, Fig. 2, the pipe *c* is connected with the boiler; and if the locomotive arrives in the direction of arrow 2, the pipe *c'* is connected with the boiler, and the pipes *c c'* must be so arranged that the steam entering through either of the pipes has access to both cylinders without being permitted to escape through the other pipe. These cranks of the shaft *b*, which connect with the pistons of the cylinders, ought to be placed at an angle of ninety degrees toward each other, so that no fly-wheel is needed to pass the dead-centers.

By these means, whenever the locomotive arrives in a station or in the neighborhood of the pump and while the train stops, the boiler of the locomotive is connected with the cylinders D, and the pump is operated. The tender can thus be supplied with water either directly from the pump, or the water may be raised to a supply-tank, from which it is admitted to the tender without requiring any hand labor or extra expense for a horse or other source of power.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The application of one or more cylinders, D, which are supplied with steam from the locomotive through pipes *c c'*, in combination with the pump B, as and for the purpose shown and described.

G. M. COLE.

Witnesses:
W. HAUFF,
J. W. COOMBS.