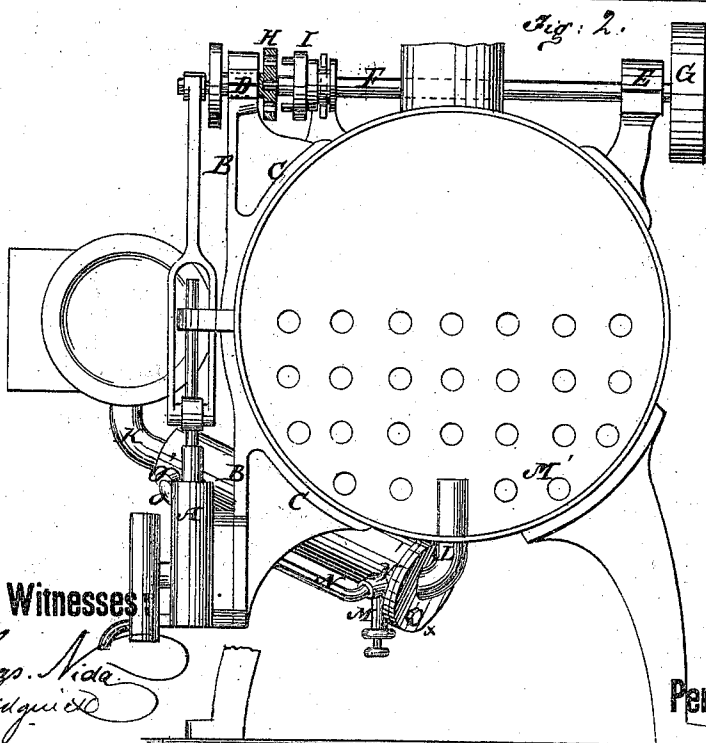
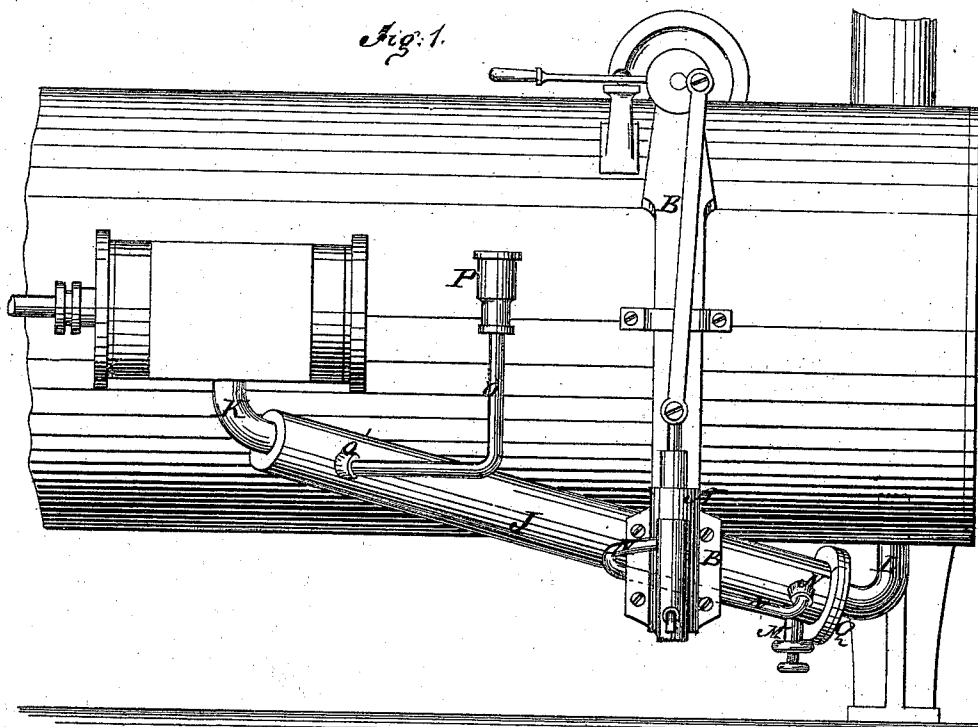


R. SCHEIDLER & J. H. McNAMAR.
Portable Steam-Engines.

No. 141,955.

Patented August 19, 1873.



Witnesses:

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UNITED STATES PATENT OFFICE.

REINHARD SCHEIDLER AND JOHN H. McNAMAR, OF NEWARK, OHIO.

IMPROVEMENT IN PORTABLE STEAM-ENGINES.

Specification forming part of Letters Patent No. **141,955**, dated August 19, 1873; application filed May 10, 1873.

To all whom it may concern:

Be it known that we, REINHARD SCHEIDLER and JOHN H. McNAMAR, of Newark, in the county of Licking and State of Ohio, have invented a new and Improved Portable Steam-Engine, of which the following is a specification:

The invention consists in the improvement of the heaters of portable furnaces, as hereinafter described and pointed out in the claim.

Figure 1 is a side elevation of the principal portion of our portable engine. Fig. 2 is an end elevation with the end of the smoke-jacket removed.

Similar letters of reference indicate corresponding parts.

A represents the pump, which we arrange in a vertical position on one side of the boiler near the smoke-pipe, attaching it to a vertical supporting-plate, B, having a concave side, C, fitting the boiler and bolted to it; also having a bearing, D, at the upper end for a counter-shaft, F, for driving the pump, said shaft extending across the top of the boiler, in front of the smoke-pipe, to a bearing, E, on the other side, where it carries a pulley, G, for turning it by a belt from the crank-shaft at the front end of the boiler. The plate B C is detachably connected to the boiler, so that it can be taken off readily for shipping. The portion H of the shaft having the crank for driving the pump connects with the other portion by a clutch, I, which is shifted by a lever, so that the pump can be worked or not, at will. This arrangement affords a simple, compact, and reliable connection of the pump in a portable engine, so that it can be stopped without stopping the engine whenever it may be required to do so, which often happens, and

causes considerable unnecessary delay in all portable engines having the pump directly connected to the cross-head in the ordinary way. Moreover, it saves the unnecessary loss of power expended in running the pump when it is not required to run. J represents the heater, which we connect at one end to the exhaust-pipe K at the engine, and extend therefrom in a descending position toward the rear end and bottom of the boiler, and connect at the other end with the nozzle L, where it projects upward into the smoke-jacket M', by which we economize space and facilitate the draining off of the water through the drain-pipe M when the engine is stopped, to prevent freezing in cold weather. N is the feed-pipe, connecting the pump with the coil inside of the heater, at the lower end, by a detachable connection at N', so that it can be readily disconnected whenever it may be desired to remove the coil for repairs or removing the sediment. O is the pipe connecting the upper end of the coil with the check-valve P; it is also detachably connected at O', to allow of removing the coil, and the head Q and nozzle L are connected together and bolted to the heater by bolts X, so that the coil can be removed from that end without disturbing the connection of the heater with the exhaust K.

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

The inclined heater J, arranged substantially as and for the purpose described.

REINHARD SCHEIDLER.

JOHN H. McNAMAR.

Witnesses:

JOEL M. DENNIS,
GIDEON McQUEEN.