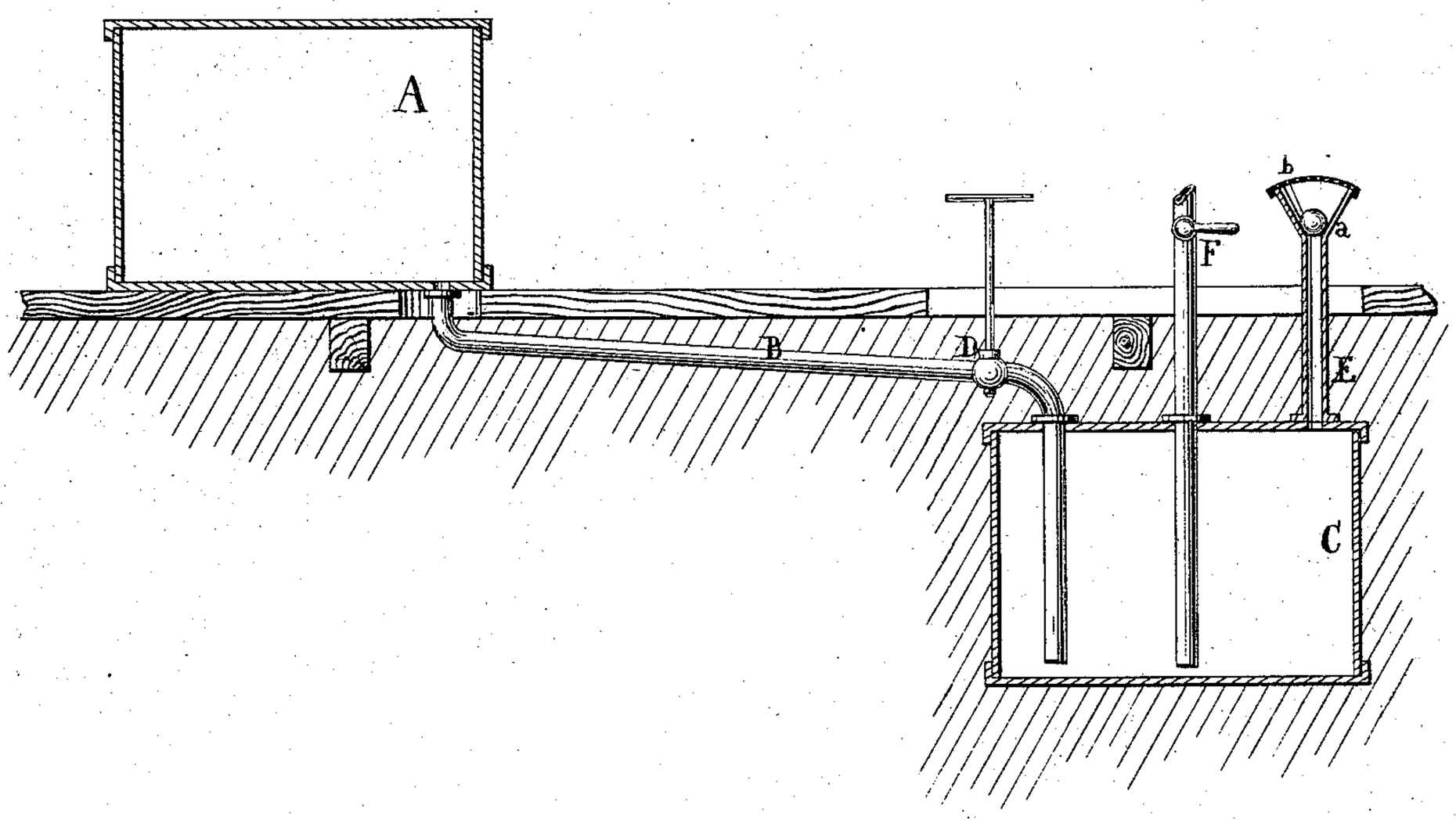
J. N. REYNOLDS.

# Apparatus for Storing Petroleum, &c.

No. 154,716. Patented Sept. 1, 1874.




Witnesses:

Henry Gentner
Chas. Wahlers.

Inventor:

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# UNITED STATES PATENT OFFICE.

JOHN N. REYNOLDS, OF NEW YORK, N. Y.

## IMPROVEMENT IN APPARATUS FOR STORING PETROLEUM, &c.

Specification forming part of Letters Patent No. **154,716**, dated September 1, 1874; application filed July 30, 1874.

*To all whom it may concern:*

Be it known that I, JOHN N. REYNOLDS, of the city, county, and State of New York, have invented a certain new and Improved Safety Apparatus for Storing Petroleum and other Inflammable Liquids, of which the following is a specification:

This invention is illustrated in the accompanying drawing, which represents a longitudinal vertical section.

This invention consists in the combination, with one or more tanks containing petroleum or other inflammable liquids, of a receiving-tank, situated under ground, or otherwise protected against fire, said receiving-tank being connected with each of the storing-tanks by a pipe emanating from the bottom of the latter, in such a manner that, whenever the liquid in one of the storing-tanks should catch fire, this liquid can be drawn off from the bottom of said tank and run into the protected receiving-tank, and thereby the fire is effectually prevented from spreading, and the largest portion of the liquid contained in the burning-tank can be saved.

The protected receiving-tank is provided with a safety-valve, protected by a wire screen, so that the gases which may rise from the liquid in said receiving-tank can escape without danger.

In the drawing, the letter A designates a tank which is intended for storing petroleum or other inflammable liquids, and which is situated at a convenient elevation, so that the liquid from said tank can be run into the stills without the aid of a pump. This tank connects, by means of a pipe, B, with a receiving-tank, C, which is situated at a level below the storing-tank A, and which is protected against fire either by placing it entirely below the ground, or by submerging it under water, or by any other suitable means. The pipe B emanates from the bottom of the storing-tank A, and it is slightly inclined toward the top of the receiving-tank, through which it extends, so that the liquid from the storing-tank will run freely into the receiving-tank whenever the communication is open. This communication is governed by a stop-cock, D, situated in the pipe B at a suitable distance from the storing-tank A, so that, in case the liquid in said storing-tank catches fire, the stop-cock can be approached and opened without danger. It is also desirable to place the pipe B below the ground, so that it will be protected against the influence of fire, and that the liquid flowing through the same will be cooled off before it reaches the receiving-tank. From the top of this receiving-tank rises a pipe, E, which contains a safety-valve, *a*, and the mouth of which is protected by a wire screen, *b*, so that the gases rising from the liquid in said tank are free to escape, and that, in case these gases should catch fire on passing off from the pipe E, the screen *b* will prevent the fire from extending down into the tank. A pipe, F, which extends down through the receiving-tank, serves to draw the liquid out of said tank.

When the liquid in the storing-tank should catch fire, the stop-cock D in the pipe B is opened, and, as the liquid discharges from the bottom of the storing-tank, the fire, being deprived of fuel, must soon go out, while the liquid, on reaching the receiving-tank, is fully protected against the influence of fire, and all danger that the conflagration might spread is avoided.

It is obvious that the receiving-tank C may be connected with a number of storing-tanks.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of one or more tanks for storing inflammable liquids with a receiving-tank, the same communicating with each other by one or more pipes provided with a cut-off valve, the receiving-tank being below the ground, or otherwise protected against fire, and provided with an eduction-pipe for drawing off the liquid, and a pipe for the escape of gases, all substantially as described, for the object specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 23d day of July, 1874.

J. N. REYNOLDS. [L. S.]

Witnesses:
W. U. REYNOLDS,
W. HAUFF.