

(No Model.)

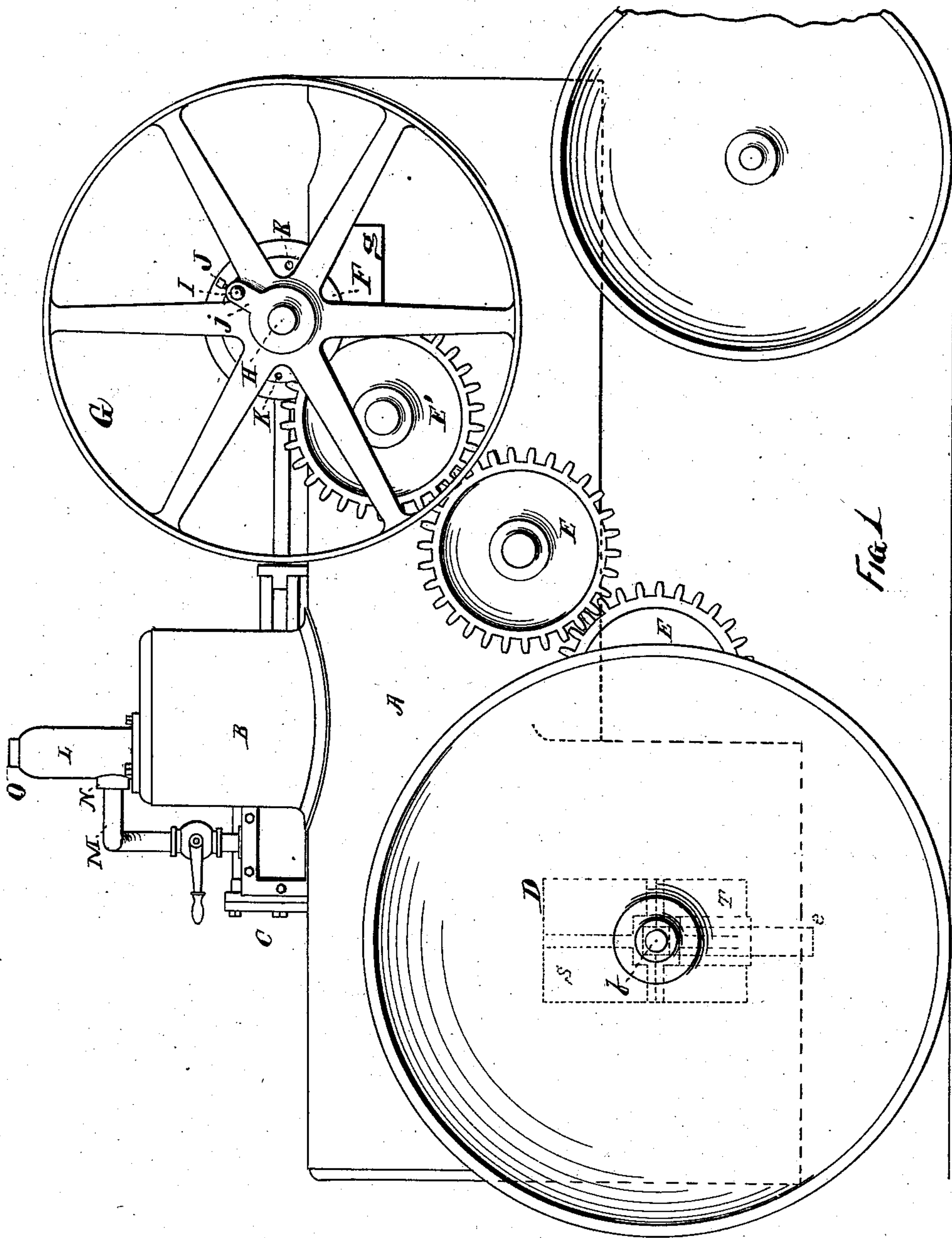
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G. H. HELVEY.

STEAM SEPARATOR FOR TRACTION ENGINES.

No. 259,686.

Patented June 20, 1882.



WITNESSES:  
John Loreng  
Jno. R. Woods.

George H. Helvey

INVENTOR

by  
James W. See

ATTORNEY

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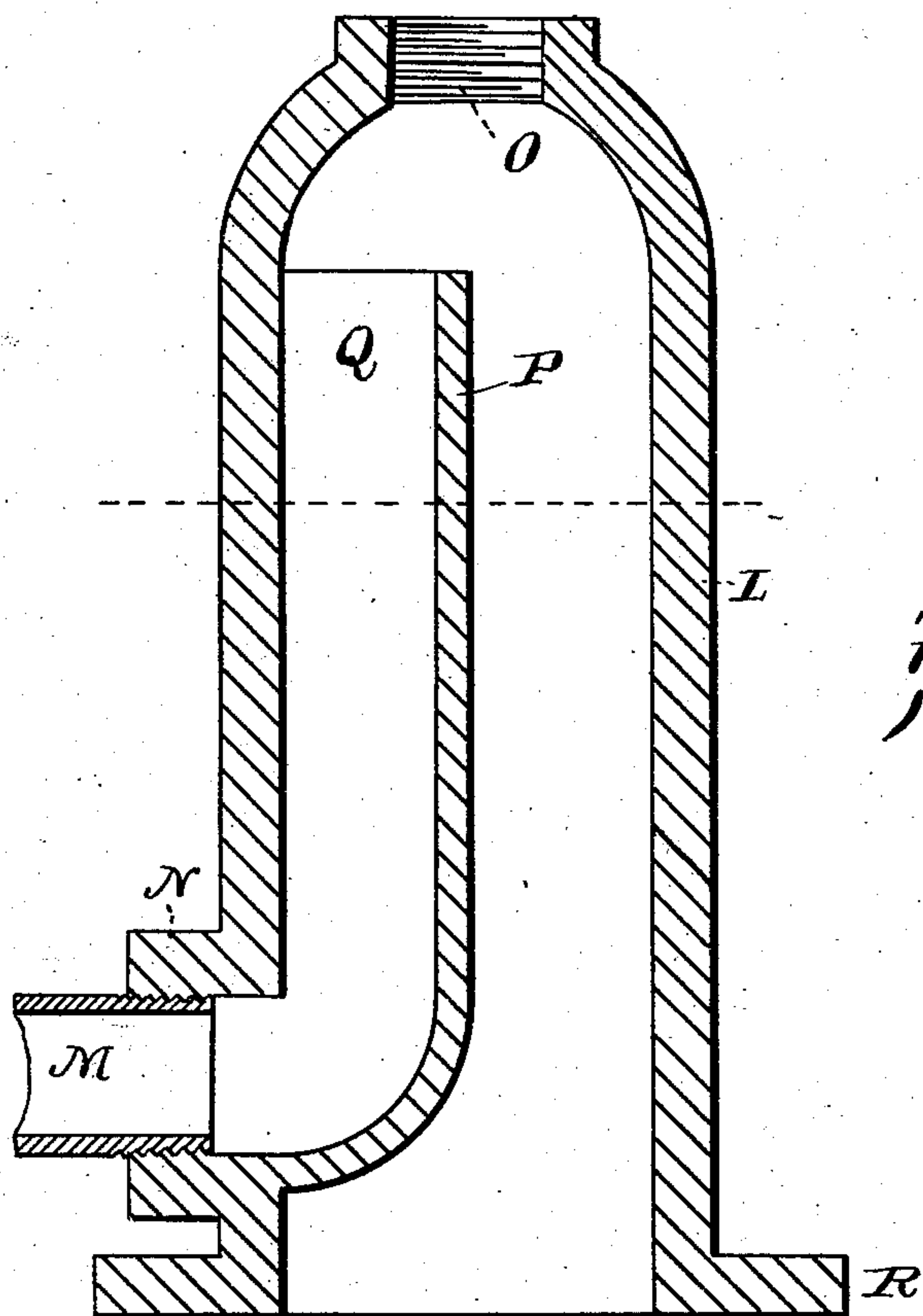
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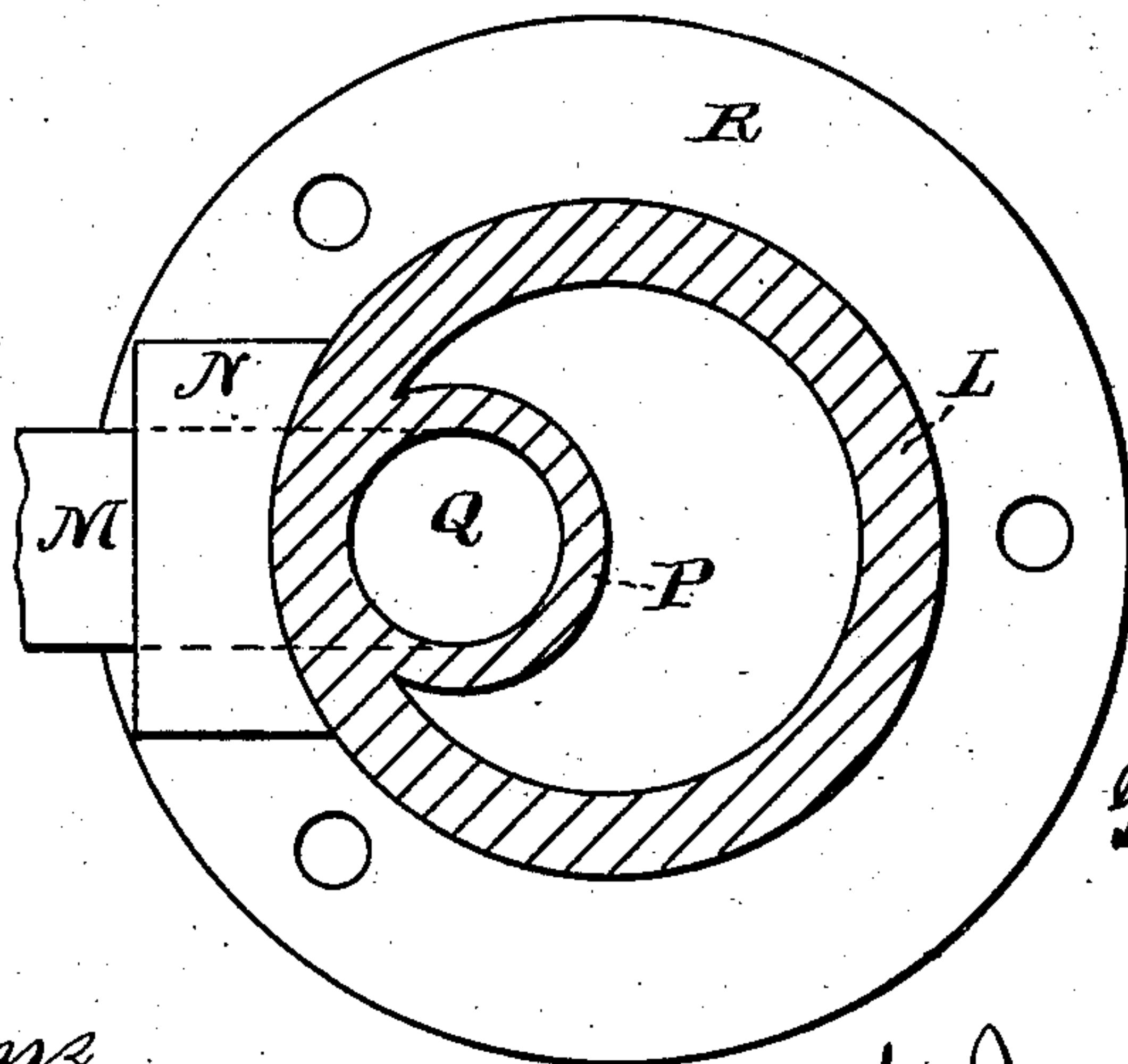
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*Fig 2*



*Fig 3*

WITNESSES:

*John Lorenz*  
*John R. Woods*

*George H. Helvey*  
INVENTOR

*by James W. See*

ATTORNEY



# UNITED STATES PATENT OFFICE.

GEORGE H. HELVEY, OF HAMILTON, OHIO, ASSIGNOR TO THE HOOVEN,  
OWENS & RENTSCHLER COMPANY, OF SAME PLACE.

## STEAM-SEPARATOR FOR TRACTION-ENGINES.

SPECIFICATION forming part of Letters Patent No. 259,686, dated June 20, 1882.

Application filed October 18, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE H. HELVEY, of Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Steam-Separators for Traction-Engines, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a traction-engine with the separator attached; Fig. 2, a vertical, and Fig. 3 a horizontal, section of the separator.

Traction - engines, in running over rough roads, uphill, and downdale, have a tendency to slop the water around in the boiler and produce extraordinary priming. The boilers of such engines are small, and it is difficult to apply the dry-pipe commonly used on locomotives, and in old engines it is almost impossible to put such dry-pipes in, as the boilers are completed and often no man-hole provided.

This invention relates to a novel construction of the device for guarding against priming in traction-engines, as hereinafter set forth. The device may be easily attached to old engines.

In Fig. 1, C is the motor of a traction-engine; A, the boiler, and B the steam-dome, from which the steam is usually taken. L is my improved separator, set upon the dome and

taking steam therefrom. M is the steam-pipe for supplying the engine. It receives its steam from the point N, near the base of the separator.

In Figs. 2 and 3 the separator is shown in section. It is formed of a single casting having base-flange R, by which it is bolted to the dome of the boiler. P is a partition cast in the body L, and joining the body-wall below the outlet N, thus producing a downtake, Q, from near the top of the body to that outlet. The effect of the partition P as a steam-separator is the same as if the steam-pipe M were carried up within the body, as is usually done with locomotives, except that the pipe M is in such cases carried directly up into the bottom of the separator-body and requires different joints to be made in the steam-pipe. The top boss, O, may be used for a whistle or safety-valve or other accessory.

I claim as my invention—

The combination, with dome B of boiler A, of the body-casting L, attached to the dome B, and having partition P cast integrant with the body, and having steam-outlet N, substantially as and for the purpose set forth.

GEORGE H. HELVEY.

Witnesses:

J. W. SEE,

J. P. OWENS.