

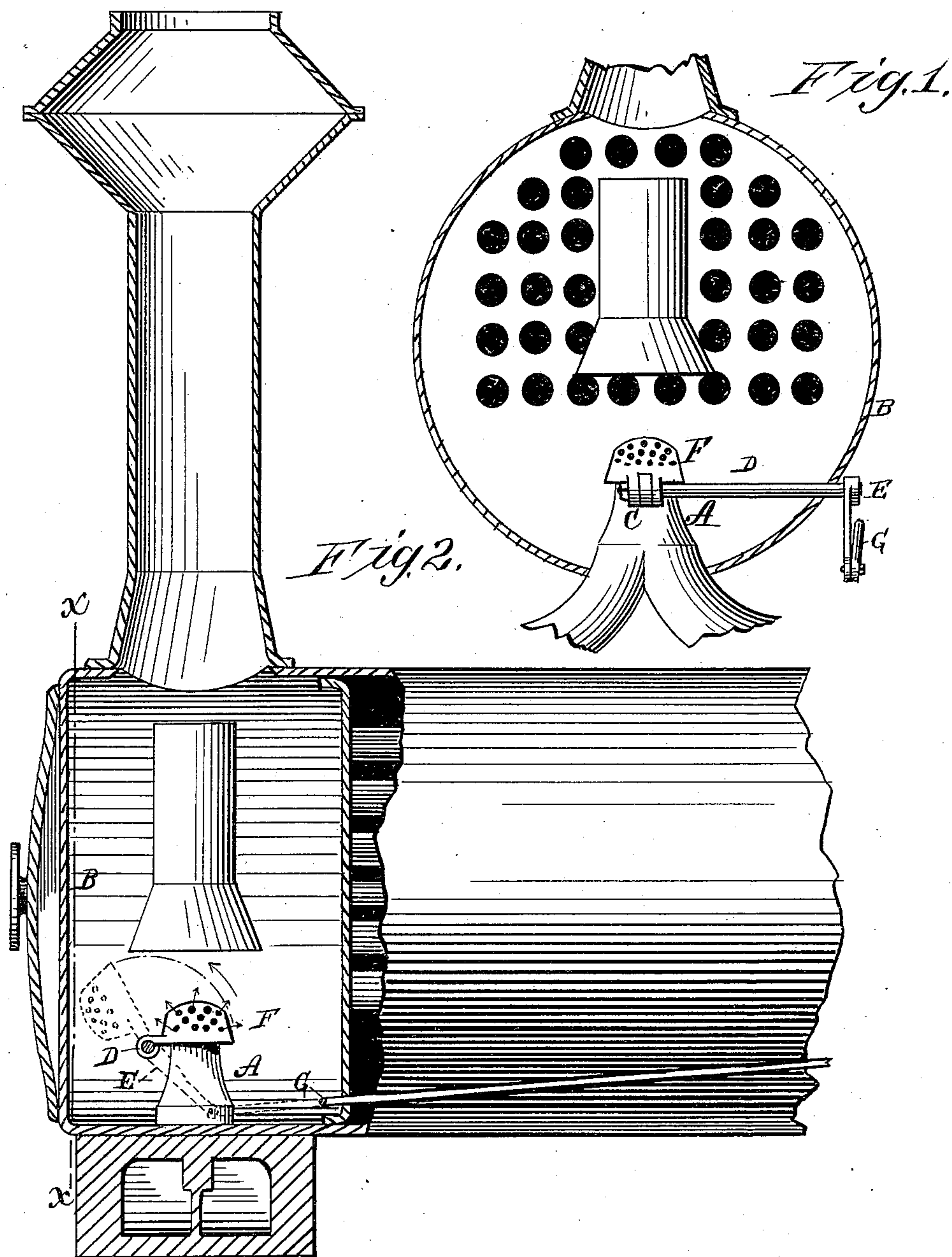
(No Model.)

R. THAYER.

QUIETER FOR LOCOMOTIVE EXHAUST NOZZLES.

No. 352,720.

Patented Nov. 16, 1886.



WITNESSES:
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UNITED STATES PATENT OFFICE.

RUSSELL THAYER, OF PHILADELPHIA, PENNSYLVANIA.

QUIETER FOR LOCOMOTIVE EXHAUST-NOZZLES.

SPECIFICATION forming part of Letters Patent No. 352,720, dated November 16, 1886.

Application filed September 22, 1886. Serial No. 214,254. (No model.)

To all whom it may concern:

Be it known that I, RUSSELL THAYER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Adjustable Quieter for Locomotive Exhaust-Nozzles, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which—

Figure 1 is a front sectional elevation of the smoke-box of a locomotive, showing my improved quieter in position for use; and Fig. 2 is a side sectional elevation of the smoke-box of a locomotive, showing the quieter applied to the exhaust-nozzle.

Similar letters of reference indicate corresponding parts in both views.

The object of my invention is to provide a noise-quieter for the exhaust-nozzle of a locomotive, which may be readily applied to the nozzle when the locomotive is started and which may be easily removed from the nozzle after the locomotive is under way.

My invention consists in a noise-quieting cap attached to a rock-shaft journaled in and extended beyond the side of the smoke-box and provided with an arm connected with a rod extending to the cab of a locomotive, so that the engineer or fireman may readily turn the quieter down over the exhaust-nozzle or swing it back out of the way, as circumstances may require.

It is well known that the principal noise made by a locomotive is caused by the escape of the exhaust-steam while the engine is being started and the steam is allowed to follow the piston throughout nearly its entire stroke. Devices for quieting the noise of the exhaust have been permanently applied to the exhaust-nozzles of locomotives; but while they reduce the noise of the exhaust during the starting of the engine, they also diminish the power of the engine after the engine is adjusted to cut off the steam earlier in the stroke. My invention obviates this difficulty by providing a quieting-nozzle which may be held in position for use as long as is necessary, but which may be readily removed out of the way after the engine is started and the exhaust becomes practically noiseless.

The exhaust-nozzle A is arranged in the smoke-box B, in the usual way.

To the side of the exhaust-nozzle is attached

an ear, C, in which is journaled one end of a rock-shaft, D, the other end of which extends through the side of the smoke-box and is provided with an arm, E.

To the inner end of the shaft D is secured a noise-quieting cap, F, which is adapted to shut down over the upper end of the nozzle A, as shown in Fig. 1, or thrown back out of the way of the exhaust, as shown in dotted lines in Fig. 2.

To the arm E, on the outer end of the shaft D, is pivoted a rod, G, which extends to the cab of the locomotive, within easy reach of the engineer or fireman. By pushing this rod the noise-quieter F is carried down over the end of the exhaust-nozzle A, and by pulling the rod the noise-quieter is swung back out of the way, as indicated in dotted lines in Fig. 2.

The noise-quieting cap F may be made in any approved way; but I prefer the form shown in the drawings, in which the cap consists of a metallic perforated cup containing wire-cloth or a series of interlaced wire coils, to intercept or break up the exhaust issuing from the nozzle A and also absorb the vibrations, and consequently obviate the noise.

If desirable, the noise-quieter may be arranged to slide instead of swing, as shown in the drawings.

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

1. The combination, with the exhaust-nozzle A, of the movable noise-quieter F, constructed substantially as described.

2. The combination, with the exhaust-nozzle A, of the shaft D, the noise-quieter F, secured to the shaft and arranged to swing over the exhaust-nozzle A, the arm E, carried by the shaft, and the rod G, extending to the cab of the locomotive, substantially as described.

3. The combination, with the exhaust-nozzle A, of the perforated swinging noise-quieting cap F, provided on its interior with wire-gauze to intercept the exhaust-steam and prevent the vibrations thereof, substantially as described.

RUSSELL THAYER.

Witnesses:

F. M. DOUGHERTY,
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