(No Model.)

C. W. SHERBURNE.

TRACK SANDING DEVICE.

No. 486,646. Patented Nov. 22, 1892.

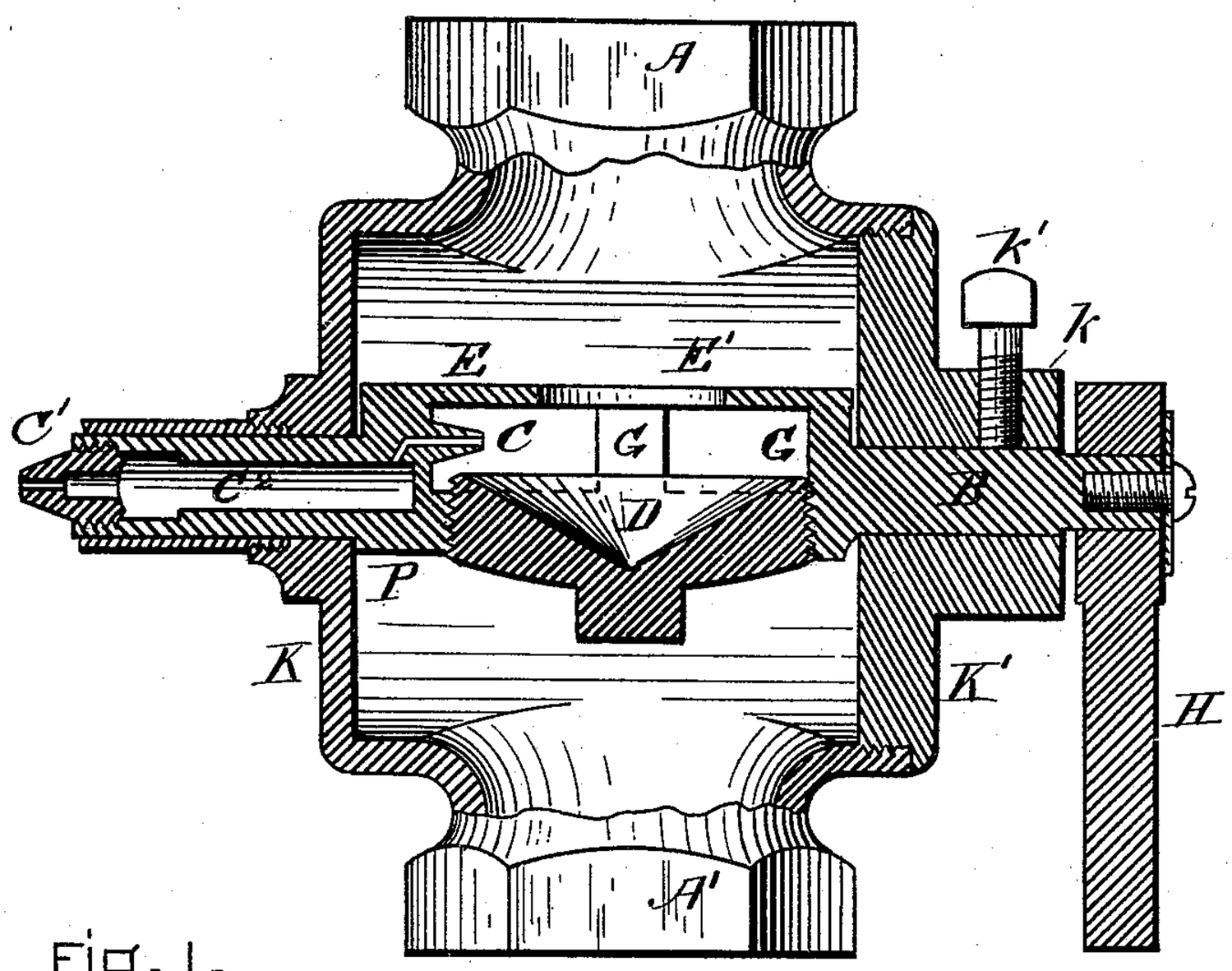

Fig. 1.

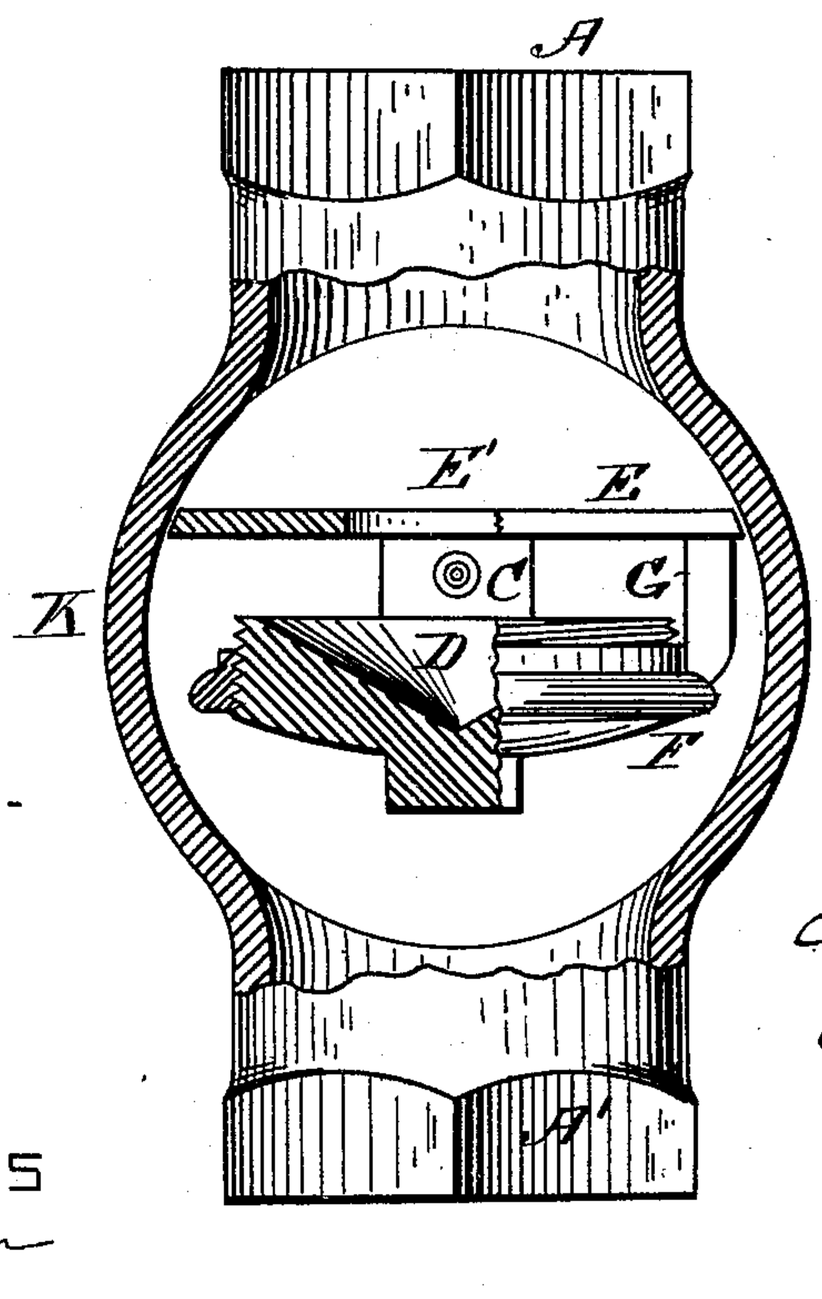

Fig. 2.

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TRACK-SANDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 486,646, dated November 22, 1892.

Application filed October 3, 1892. Serial No. 447,607. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. SHERBURNE, a citizen of the United States, residing at Boston, in the county of Suffolk, State of Massachusetts, have invented a new and useful Improvement in Track-Sanding Apparatus, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, sufficient to enable others skilled in the art to make and use my invention without other invention on their part.

The apparatus hereinafter described is a modification and improvement of the apparatus patented in Letters Patent No. 481,594, dated August 30, 1892.

The shell of the track-sanding apparatus is of cylindrical form with ends (shown in the patent, No. 481,594, referred to) and is marked in this application K. The end of this shell is removable, as shown in the former patent, and in the drawings at K′. This end has a neck *k* and set-screw *k′*, which set-screw impinges on the shaft B, which is attached to the internal device and sets it in any desired position.

In the drawings, Figure 1 represents a vertical section on the line of the shaft B, and Fig. 2 a vertical section transverse to said line.

A A′ are the necks to the shell K, by which it is united to the sand-pipes, and H is a handle attached to the shaft B, by which the internal parts of this apparatus are adjusted in position, and C^2 is the hollow journal through which air is supplied to this apparatus, and C is a single air-nozzle through which the air is blown in and among the sand.

In the patent referred to the sand descended upon the top of a dome and under the edge of the dome upon a stage perforated in the center, and the air was applied inside of the dome.

In the present improvement on the invention the stage E, which is attached by legs G to the shaft B and to the rim F and the air-pipe C^2, is placed toward the induction sand-pipe A or the induction sand-pipe end at the neck A instead of away from it, and the thing which was formerly called a "dome" D is placed farther away from the neck A, through which the induction sand-pipe enters, and the part formerly called a "dome" becomes a cup. In other words, this apparatus may be conceived of in some degree as an apparatus in which the internal arrangements of the sanding-barrel are reversed in their relations to the necks of the sanding-barrel. The arrangement for adjusting these parts, consisting of the shaft B, the set-screw *k*, and the head K′, and the hollow air-pipe C^2 are substantially like the arrangements in the patent referred to.

E is a stage on which the sand rests, and which is perforated at the center, as shown at E′. From this stage legs G descend and connect with a rim F, which has upon its interior a threaded screw, as shown. Into this threaded screw a cup D is screwed, which may be raised higher up, nearer the stage E, or may be removed farther from it. With coarse sand the opening between the stage and the edge of the cup D should be wider than with the fine sand, and the rim F should be sufficiently short in height to permit the edge of the cup D to be raised considerably above the upper edge of the rim F, so as to narrow the aperture between the lower part of the stage and the upper part of the cup D.

Instead of having a ring with several holes in it in the dome I have found it usually sufficient to have a single nozzle C for furnishing air, and the air furnished by the pipe C^2 is blown through the single nozzle C into the sand column, which has descended through the stage E, and this blast of air coming through the nozzle C carries the sand out over the edges of the cup E before it reaches them, and down through the neck A′.

It will be observed that the nozzle C is entirely above the edge of the cup D and that it delivers air into the side of an open column of sand, detaching from said open column such sand as its force may permit and delivering it into the cavity of the cylinder, and thence carries it by force of the blast through the neck A and into the delivery-pipe.

I do not claim in this apparatus anything which was shown or described in the former patent, or in another patent, No. 481,595, granted to me for track-sanding apparatus on the same day; but I propose to derive the air for actuating this apparatus from the Westinghouse air-brake system in the same manner as it was proposed to derive the air in the apparatus patented August 30, 1892, No.

481,595. If the air-blast is too strong and requires to be modified, a reducing-plug C′ can be applied in the air-pipe C^2 to prevent a waste of air and control the sand from too violent an action.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a locomotive track-sanding apparatus, the combination of a hollow body having two necks, one A for attachment to the sand-pipe leading from the sand-box and the other A′ for attachment to the sand-pipe leading in front of the driving-wheels, and an interior stage E, perforated for a sand-channel and provided with legs G, which support a rim F and having attached thereto cup D, with an air-nozzle C located between the upper edge of said cup and the lower surface of said stage, substantially as and for the purposes described.

2. In a track-sanding apparatus having an interior stage E, a sand-channel through said stage, a cup covering the aperture through the stage of said sand-channel, and an air-blast between the bottom of said stage and the upper edge of said cup, and the cup D, adjustable to and from said stage, substantially as and for the purposes described.

3. In an air-brake apparatus having a stage, a sand-channel through the stage, a cup opposite said sand-channel and extending laterally beyond the edges of said sand-channel, and the air-nozzle C between the upper edge of said cup and the lower surface of said stage, substantially as described.

4. In a track-sanding apparatus having an internal stage, a sand-channel through said stage, a cup below said stage and extending laterally beyond the borders of the channel through said stage, and the air-blast pipe C^2, provided with a reducing-plug C′, substantially as and for the purposes described.

5. In a track-sanding apparatus provided with a stage E, a sand-channel through said stage, a series of depending legs G, and a rim F, supported by said legs, the combination of the adjustable cup D and nozzle C above the upper edge thereof, substantially as and for the purpose described.

6. In a track-sanding apparatus provided with a cup D, which is interposed across the sand-channel and is larger in area than the sand-channel above it, the combination of the cup D, having an induction sand-channel about its center and an induction sand-channel around its edge with, an air-blast nozzle C, substantially as and for the purposes described.

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