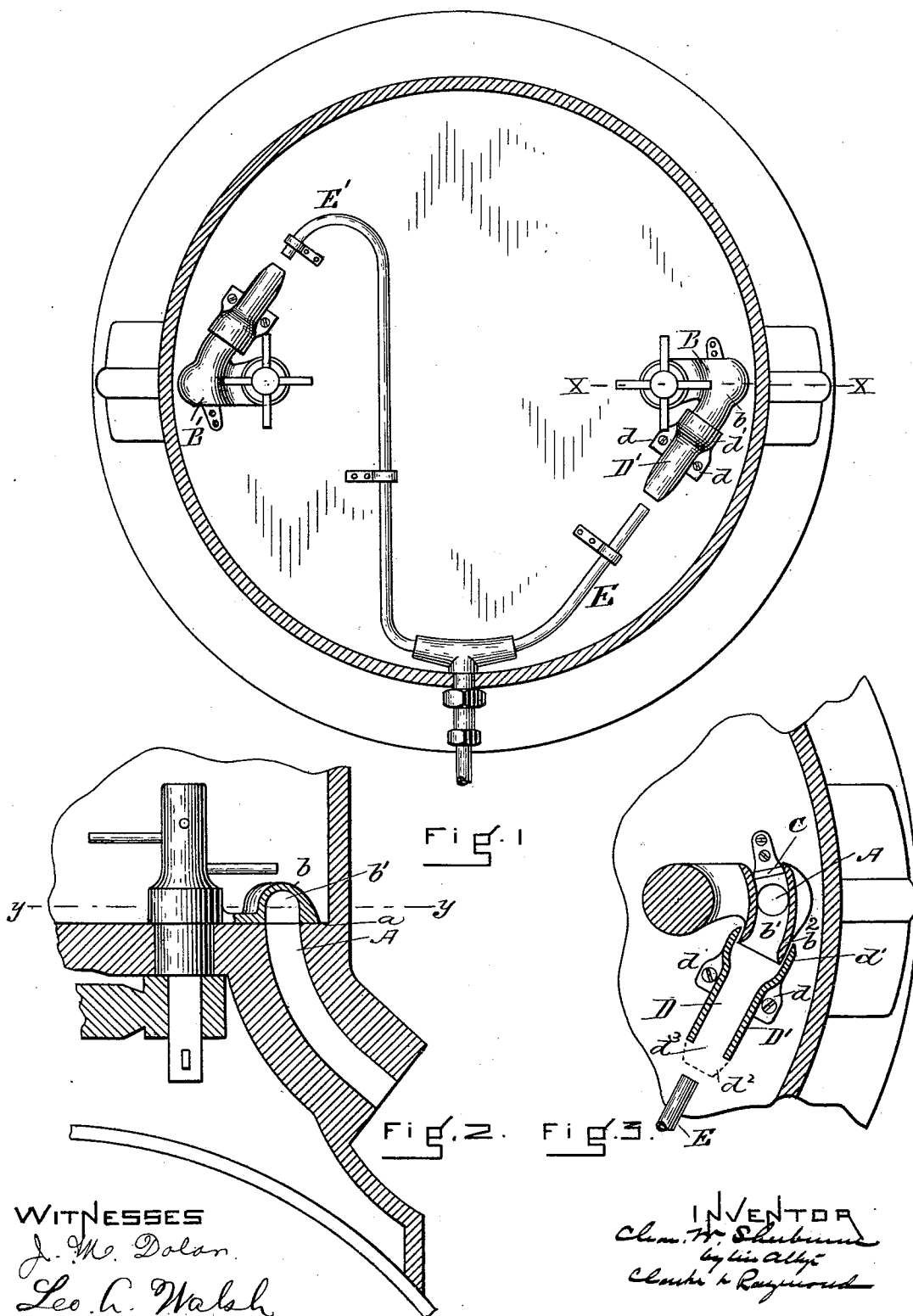


(No Model)

C. W. SHERBURNE.
TRACK SANDING APPARATUS.

No. 582,554.

Patented May 11, 1897.



UNITED STATES PATENT OFFICE.

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AUTOMATIC TRACK SANDING COMPANY, OF SAME PLACE AND PORT-
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TRACK-SANDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 582,554, dated May 11, 1897.

Application filed June 15, 1896. Serial No. 595,619. (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 and 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, forming a part of this specification, in explaining its nature.

The invention herein described is an improvement upon that illustrated in my Letters Patent, No. 544,073, dated August 6, 1895; and it consists in certain modifications whereby the apparatus is adapted to conditions somewhat different from those applicable to my said patented invention, I having ascertained in the course of the introduction of the said device that for the proper delivery of certain kinds of sand and sand under certain conditions the structure of the patent is not so well adapted for use as its modification herein specified.

In the drawings, Figure 1 is a view showing the bottom of the sand-box and the arrangement and construction of my improvements. Fig. 2 is a detail view in vertical section, enlarged, upon the dotted line *xx* of Fig. 1. Fig. 3 is also a detail view, enlarged, upon the dotted line *yy* of Fig. 2.

The sand-box has two outlets, one upon each side, as described in said patent, one of which, the outlet A, is shown in the drawings. They each extend from the bottom of the sand-box and are the passages by which sand is fed from the sand-box to the delivery-pipes. (Not shown.) Over each of these openings there is arranged a valve, and they are respectively lettered B B'. They are counterparts and preferably are moved upon an arc of a circle to uncover the said passages A and by any desirable means, the means usually employed for this purpose being preferable. Each valve is in the form of a hood *b*, forming a long chamber *b'*, the hood when the valve is in its normal or closed position extending quite a distance each side of the outlet that it covers and the chamber being across of about the diameter of the outlet.

There is arranged upon one side of the outlet a stationary clearer C, preferably fixed to

the bottom of the sand-box and of a size slightly less than the bore of the valve-chamber *b'* and which acts upon the movement of the valve upon it to clear the wall of the chamber from adhering sand or other matter. The valve is also movable in relation to a stationary covered way, passage, or inlet D. This preferably is formed by a hollow casting or shield D' in the form of an open-ended hook, having ears *d*, which rest upon the bottom of the sand-box and provide means by which it is attached to the sand-box bottom. This passage may be of any desired length. It is preferably of the shape in section of the passage in the valve, excepting that the end toward the valve is enlarged at *d'*, to permit the end *b'* of the valve to be closed into it. (See Fig. 3.)

The end *d'* of the casting may be extended over the opening *d'* to the passage D, as shown, forming a hood thereto. It will be seen that by this construction sand in the box is prevented from escaping by gravity into the outlet A when the valve is closed or occupying the position represented in Fig. 3, the stationary extension D therefrom acting as a barrier or shield in keeping the sand away from the said outlet. It would be possible of course to extend the end *b'* of the valve sufficiently to perform the office of the stationary shield D; but this construction is not as desirable, because it would require that greater movement be given the valve to open and expose the outlet A sufficiently to permit sand to freely leave the box by gravity.

It will also be seen that the clearer C not only serves to clean the under surface of the valve from adhesions, but also acts as end to the valve when it is in its closed position and serves to cause the sand blown into the valve to be deflected into the outlet A rather than to be blown through the valve.

It will be seen that the air blast or supply is obtained from the supply-pipes E E', one for each valve, and that the outlet of each is preferably arranged to be in line with the passage D of the valve apparatus with which it is used, the end of the pipe being separated somewhat from the end *d'* of the shield.

I prefer to use the form of air-supply pipe described in my said patent.

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

1. In a track-sanding apparatus the combination of the sand-box having the sand-outlet A with a long valve B movable over the outlet and longer than the diameter of the outlet, closed upon its sides and continuously open upon its bottom throughout its length and at one end only, as and for the purposes set forth.

2. In a track-sanding apparatus, the combination of the sand-box having the outlet A with the movable valve B having side walls extending to the bottom of the sand-box and forming a continuous longitudinal passage opening at one end into the chamber and a stationary clearer C closing the other end of said passage and in relation to which the said valve is movable, as and for the purposes described.

3. The combination in a track-sanding apparatus of the sand-box having a sand-outlet, the valve B having a passage b' and the shield D' having a passage in continuation of the passage of the valve.

4. The combination in a track-sanding apparatus of the sand-box, the sand-outlet A, the movable valve B having the passage b' and the stationary shield D' having a passage in extension of the passage of the valve, said

valve being movable toward and from the shield.

5. In a track-sanding apparatus, the combination of the sand-box having the outlet A, the movable valve B having the passage b' , the shield D' having a passage D and a pipe or nozzle E for supplying a sand-forcing medium, the outlet to which is adjacent to the open end of the shield.

6. In a track-sanding apparatus, the combination of the movable valve B having a passage b' with a shield D' having the enlargement d' to receive the end of the valve.

7. In a track-sanding apparatus, the shield D' adapted to operate in connection with a valve, as specified, and having the passage D and the hood or extension d^2 .

8. In a track-sanding apparatus, a shield having side walls and a top, which in connection with the bottom of the sand-box forms a closed passage and one or more ears by which it is adapted to be secured to the sand-box.

9. The combination in a track-sanding apparatus of the sand-box having the sand-outlet A, the valve B shaped as described, the clearer C, the shield D' arranged as specified, and the pipe E.

CHARLES W. SHERBURNE.

Witnesses:

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J. M. DOLAN.