

(No Model.)

F. B. PARRISH.

DEVICE FOR SEPARATING SLATE FROM COAL.

No. 261,381.

Patented July 18, 1882.

Fig. 1

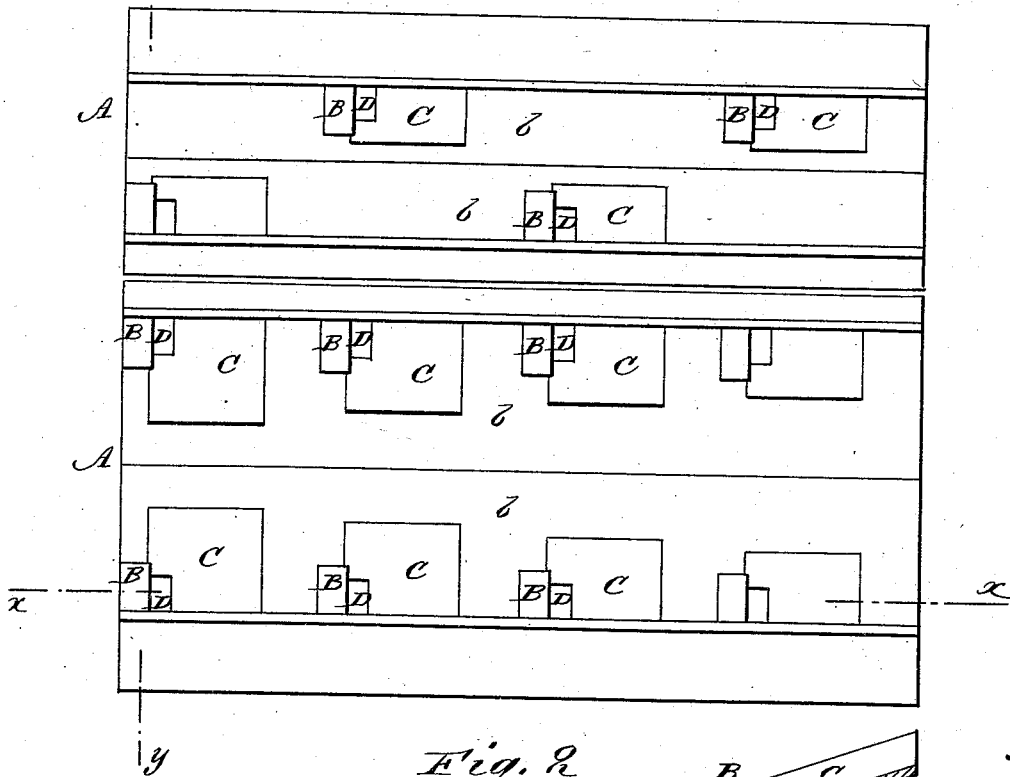


Fig. 2

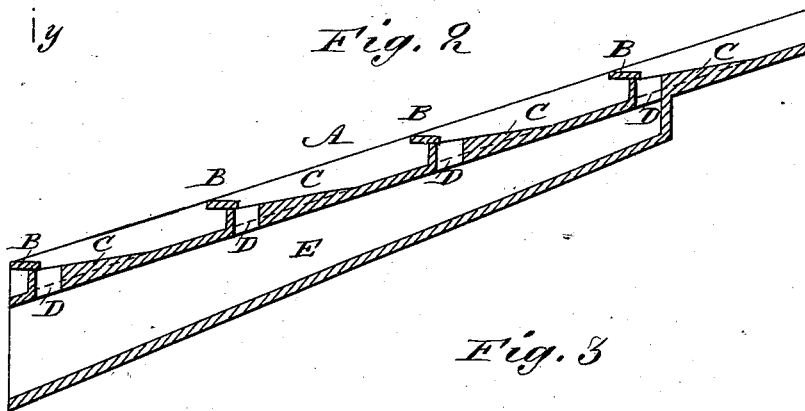
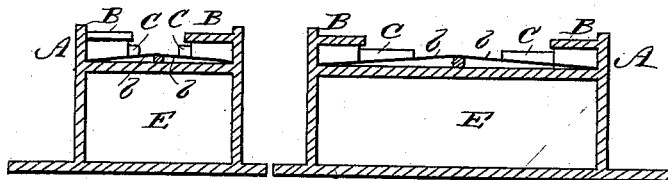


Fig. 3



WITNESSES:

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FRED B. PARRISH, OF WILKES-BARRÉ, PENNSYLVANIA.

DEVICE FOR SEPARATING SLATE FROM COAL.

SPECIFICATION forming part of Letters Patent No. 261,381, dated July 18, 1882.

Application filed May 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, FRED B. PARRISH, of Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented new and useful Improvements in Devices for Separating Slate and other Foreign Substances from Coal, of which the following is a full, clear, and exact description.

This invention relates to troughs, or what are commonly termed "telegraphs," for separating slate, bone, and other foreign substances from coal, and for conducting the separated coal to the usual pockets or chutes, ready for shipment. Ordinarily these telegraphs or troughs are plain straight or flat bottomed chutes, with seats for the men or boys engaged in the work of picking or separating, arranged one behind the other and across them. Said troughs are set inclining, and the coal as it comes from the screens enters the upper ends of them and slips down freely past the pickers, who pick out the slate and other rubbish, each picker successively handling it after the other until it passes the last picker, when it is supposed to have had the slate and other foreign substances separated from it, and is delivered at the bottom of the troughs into the pockets and chutes for shipment. One great difficulty with this form of telegraph or trough is that the layer of coal passing down it is sometimes so thick, varying from four to six inches (more or less) throughout the whole length of the trough, that it is impossible to effect a perfect separation of the slate, which, being the heavier material of the two, is liable to settle at the bottom of the coal, and is delivered along with it, thus defeating the very object for which breakers and separating-telegraphs are designed.

One object of my invention is to obviate this difficulty; and the invention consists in a coal telegraph or trough provided with tables upon which to pick the slate, apertures for dropping the separated coal through, and having a transversely-convex or reversely-shelving bottom, whereby not only is the coal spread and fed in thin layers onto the tables, but each succeeding picker is saved the labor of rehandling the coal previously handled by the preceding pickers, and the slate and rubbish are more thoroughly separated from the coal.

Reference is to be had to the accompanying drawings, forming part of this specification, in

which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a plan of a pair of coal telegraphs or troughs constructed in accordance with my invention for the purpose hereinbefore named, one of which is a single one—that is, has its seats and tables intermediately arranged on opposite sides of it—and the other of which is a double one—that is, has its seats and tables arranged opposite each other on opposite sides—either of which troughs may be used according to the room or space in the building for them, the operation of both being the same. Fig. 2 is a longitudinal vertical section on the line *x x*, and Fig. 3 is a transverse section on the line *y y*.

A in the drawings indicates either telegraph or trough, set inclining, as usual, and onto the upper end of which the coal is delivered from the screen to have the slate or other foreign substances picked from it as it passes down the trough.

B B indicate the seats on which the pickers sit. These seats are arranged at suitable distances apart down either side of the trough, and in front of said seats are tables C, meeting at their forward ends the bottom of the trough, and of a suitable pitch to enable the pickers to readily scratch or handle the coal over them, and on which the pickers carefully separate the slate and allow the coal to drop through apertures D in the trough A into a lower trough, E, which leads it to the usual chutes or pockets. This lower trough, E, however, may be dispensed with and the separated coal be caused to pass directly through the apertures D into the chutes or pockets. The coal is spread and fed to the tables by constructing the bottom of the trough of a convex or reversely-shelving form toward either side, as shown at *b b*. By means of the tables C each picker is enabled to handle all the coal he can do thoroughly, and he handles it in a single thickness only on the tables, thereby getting at the slate which is usually at the bottom, and the coal which one picker handles does not go back again into the same trough to be handled over and over again by the pickers behind him, as it does in the ordinary coal-telegraph, but each picker drops through the hole D between his seat and table the coal he has handled and separated. By this method of working the mass of coal in the

telegraph is constantly being diminished, and by the time it reaches the lower end of the telegraph or trough A the last picker finds it only a "single layer," as it may be termed, in thickness. Thus, as compared with the ordinary form of telegraph or trough, a double one having twenty pickers would entail upon each picker the handling of half of the coal, whereas my improved trough of the same capacity would only subject each picker to the handling of one-twentieth of the whole amount, thereby enabling one picker to pick as much slate as two pickers ordinarily do.

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

1. A coal telegraph or separating trough having seats, and tables arranged in front of said seats provided for the pickers, onto which the coal is passed as it slides down the trough, and having apertures in its bottom in proximity

to the tables for escape of the picked or separated coal, substantially as specified.

2. The trough A, having a transversely-convex or reversely-shelving bottom, in combination with the tables C, onto which the coal to be separated from slate or other foreign substances is fed by said bottom, essentially as described.

3. The combination, with the trough A, having a transversely-convex or reversely-shelving bottom, *b b*, and apertures D for the separated coal, of the side tables, C, arranged to meet, at their forward ends on their upper surfaces, said bottom, and the seats B, for the pickers, arranged so that the apertures D are interposed between the tables and the seats, substantially as and for the purposes herein set forth.

Witnesses: FRED B. PARRISH.

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