

J. A. Robinson,

Coal Screen.

N^o 47,041.

Patented Mar. 28, 1865.

Fig. 1.

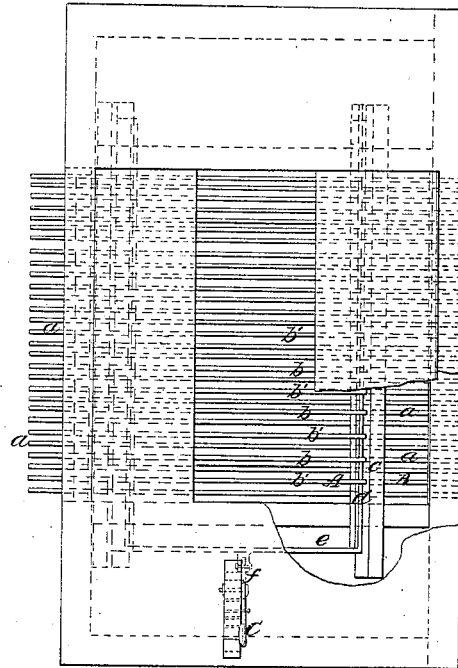
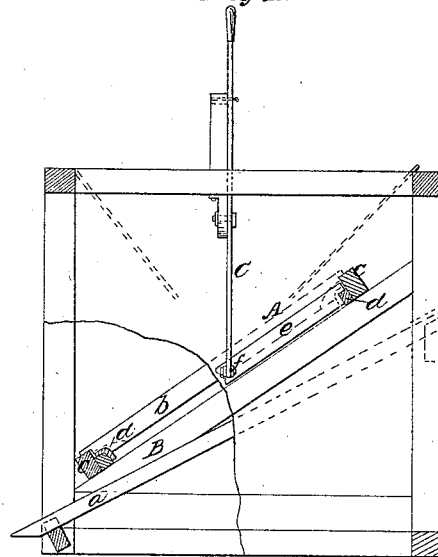


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN A. ROBINSON, OF PITTSBURGH, PENNSYLVANIA,

IMPROVED COAL-SCREEN.

Specification forming part of Letters Patent No. 47,011, dated March 28, 1865.

To all whom it may concern:

Be it known that I, JOHN A. ROBINSON, of Pittsburg, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Coal-Screen; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan or top view of my invention; Fig. 2, an end view of the same, partly in section.

Similar letters of reference indicate like parts.

This invention relates to a new and improved screen for screening coal, designed more especially for screening coal preparatory to cracking the same; and it consists in constructing the screen of fixed and adjustable or sliding bars, arranged in such a manner that the screen may be graduated to let through lumps of coal of greater or less size as may be required, and the dust and fine coal not necessary to be cracked not allowed, as hitherto, to pass through the cracker.

A B represent two inclined screens, which are placed one over the other in a suitable framing, the lower screen, B, having fixed bars *a* placed at such a distance apart as to allow the coal dust and dirt to pass between them, while the fine coal which cannot pass through said screen passes directly, by its own gravity, to the grading-screen.

The upper screen, A, is formed of two sets of bars, *b b'*. The bars *b* are fixed, their ends being permanently secured to two parallel rails, *c c*, one of which is considerably more elevated than the other so that the bars *b* will have a requisite degree of elevation.

Between the fixed bars *b* there are placed movable or sliding bars *b'*, the ends of which are secured to sliding rails *d d*, which are fitted in grooves in the rails *c c*, and are con-

nected at one end by a rod, *e*, which is attached at its center by a link, *f*, with the lower end of a lever, C. By moving or adjusting this lever C the screen A may be made coarser or finer, owing to the adjustment of the bars *b'*.

The coal is dumped from the cars upon the screen A, and all large coal which requires to be cracked is not allowed to pass through said screen, but passes directly into the cracker to be crushed or broken into lumps of requisite size for burning, while the dust, dirt, and coal that is already small enough passes through the screen A and falls upon screen B, the dust and dirt, as before stated, passing through B, while the coal passes to the grading-screen.

By this means it will be seen that a great saving is effected in coal, as the coal which is sufficiently fine without cracking is not allowed to pass through the cracker to be further reduced, and the waste attending that unnecessary cracking operation is consequently avoided.

The sliding or adjustable bars *b'* of the screen A also effect a great saving in time, as by their use the changing of screens from fine to coarse, and vice versa, is avoided, and the amount of large coal fed to the cracker may be regulated as desired—that is to say, coal of greater or less size may be allowed to pass through the screen A without being fed to the cracker.

I claim as new and desire to secure by Letters Patent—

1. The employment or use of screens A B, arranged substantially as shown and described, for the purpose of screening coal in its discharge to the cracker and grading-screen, as set forth.

2. Constructing the upper screen, A, with movable or adjustable bars, arranged to operate substantially as herein described.

JOHN A. ROBINSON.

Witnesses:

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