

R. A. WILDER.

Conveyors and Separators for Coal-Breaking Machines.

No. 134,234.

Patented Dec. 24, 1872.

Fig. 1.

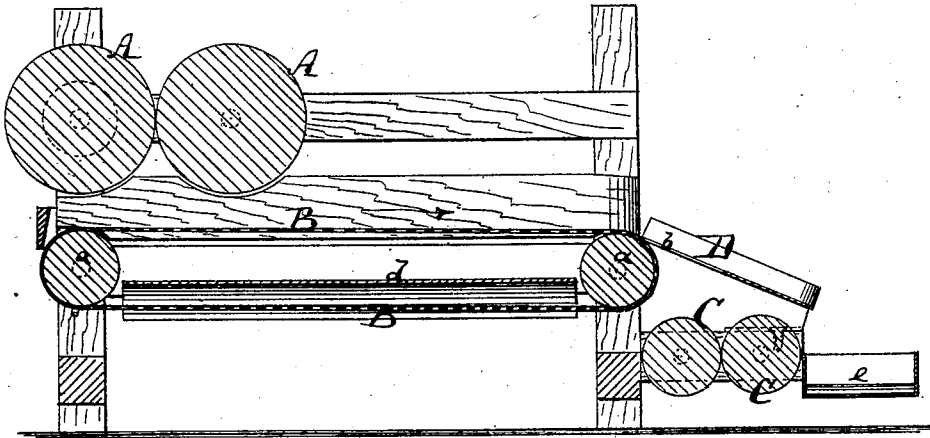
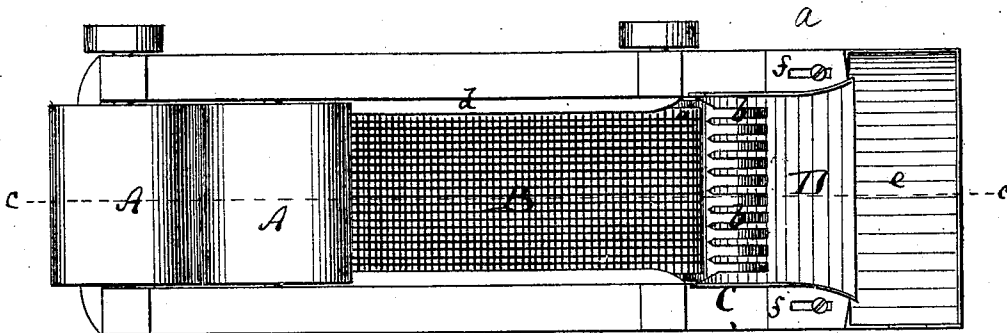


Fig. 2.



Witnesses:

E. Wolff
C. Scudder

Inventor:

R. A. Wilder

PER

Wm. L. ...
Attorneys.

UNITED STATES PATENT OFFICE.

RUFUS A. WILDER, OF CRESSONA, PENNSYLVANIA.

IMPROVEMENT IN CONVEYERS AND SEPARATORS FOR COAL-BREAKING MACHINES.

Specification forming part of Letters Patent No. 134,234, dated December 24, 1872.

To all whom it may concern:

Be it known that I, RUFUS A. WILDER, of Cressona, in the county of Schuylkill and State of Pennsylvania, have invented a new and Improved Coal Conveyor and Separator between Breaking-Machines, of which the following is a specification:

Figure 1 is a vertical longitudinal section of my improved coal conveyor and separator, the line *c c*, Fig. 2, indicating the plane of section. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new machine for conveying coal from one breaking-machine to another in reducing it to different sizes, and for taking out any required size or sizes between the breakers while so conveying the coal; also, for distributing the different kinds of coal to the several chutes or pockets that hold it. The invention consists, principally, in the arrangement of an endless rotary wire-screen between two coal-breaking machines, and in the combination, with said screen, of a notched or slotted separator, which will remove any desired grade from the coal that is being conveyed on the screen from one breaker to the other.

A A in the drawing are the cylinders of one coal-breaking machine, of ordinary or suitable construction. B is an endless wire-screen, placed around rollers *a a* and extending from under the breaking-machine A to above another breaking-machine, whose cylinders, C C, are shown in the drawing. The coal-dust and very fine coal will pass through the meshes of the screen B upon a chute, *d*, whereby it is conveyed to a desired place. D is a sheet-metal plate, notched, or provided with or composed of projecting fingers *b b*, that are placed with their ends toward and near to the screen B, so that coal of a certain desired size, larger than the spaces between the fingers, may pass over them upon the plate D, and thence to a chute, *e*, to be separated from the coal that

passes to the second breaker C. The plate D may be fastened by slotted ears *f f* to the supporting-frame, so that it may be adjusted toward or away from the conveyor to vary the size of coal it receives. The breaker C may, when the conveyor B is inclined, be placed on the same level with the breaker B, or at any other suitable height.

The operation by this machine is as follows: The coal is taken from the mines and passed through the upper breaker A, where it is reduced partially to the market sizes. The broken pieces fall upon the endless screen-carrier B, and are moved toward the second breaker. At one end of the conveyor, near the small rolls C C, are placed the pointed bars D, which take out the larger sizes of coal when it is not desirable to break them again, and which pass them over the small breaker into the chute *e*, while the irregular sizes are again broken to be conveyed to other chutes.

The separation of coal can be effected at any point or points on the endless carrier, and can have rotary or stationary means of doing it. The carrier can be made of straight bars with or without spaces between them, or with meshes to allow the dirt and fine coal to drop through upon the inclined plate *d*, placed below the part on which the coal moves.

In this arrangement I do not claim the rollers, or anything in the construction of the breakers.

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

1. In combination with two coal-breaking machines, the use of an endless carrier, B, in the manner as and for the purposes described.

2. The separator D; or separators placed at any point or points against the carrier, to take out any desired size of coal, as specified.

RUFUS A. WILDER.

Witnesses:

CHARLES W. DENGLE,
D. G. SMITH.