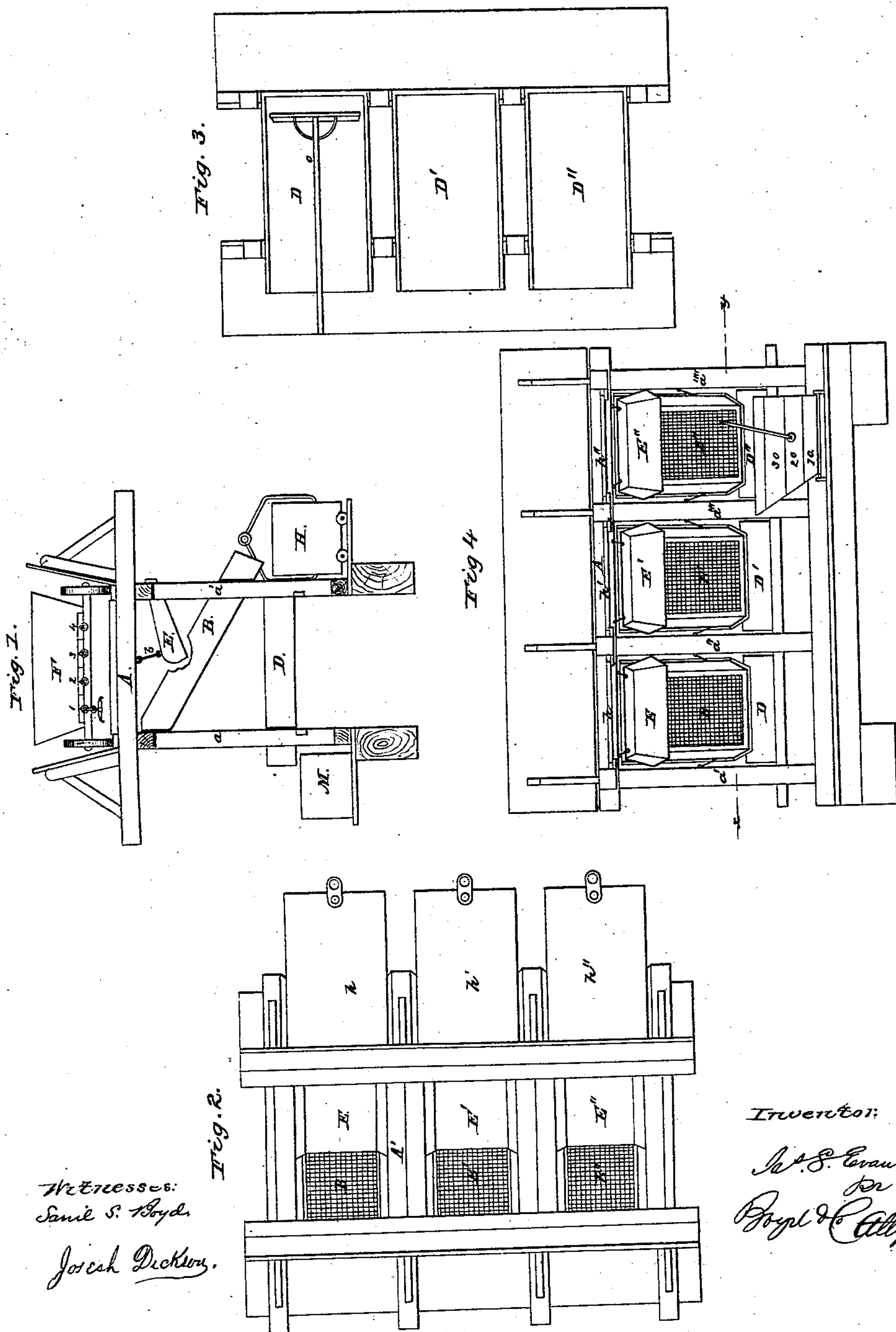


J. S. Evans, Charcoal Screen.

N^o 84,866.

Patented Dec. 15, 1868.



Witnesses:
Samuel S. Boyd,
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JAMES S. EVANS, OF IRONDALE, MISSOURI.

Letters Patent No. 84,866, dated December 15, 1868.

PROCESS OF SCREENING CHARCOAL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES S. EVANS, of Irondale, in the county of Washington, State of Missouri, have invented a new and useful Improved Method or Process of Screening Charcoal, of which the following is a full, clear, and exact description, reference being had to the annexed drawing, making a part of this specification, in which—

Figure 1 represents an end elevation of my invention.

Figure 2 represents a top view of same.

Figure 3 represents a top view of a section of same made at $x-y$.

Figure 4 is a front elevation of the same.

Similar letters indicate like parts.

The nature of my invention consists in a method or process of screening charcoal, without manipulating the same, after it has been placed in the wagon which conveys it to the screening-apparatus, the charcoal being caused to automatically deposit itself directly upon a "chute," from which it passes through the said screening-apparatus, the screened charcoal being deposited in a suitable receptacle, and the fine particles or "brazé" being likewise deposited in a suitable receptacle, whereby I am enabled to dispense with considerable labor and annoyance, and to greatly expedite the operation.

I will describe an apparatus by which my process may be successfully put into practice.

A, figs. 1, 2, and 3 of the accompanying drawing, designates a platform, which is supported on a framework, a a' , fig. 1, a^1 a^2 a^3 , &c., fig. 4, of a convenient height.

Between a^1 and a^2 a "chute," B, figs. 1, 2, 3, is placed, one extremity being attached to the top of the framework at c , fig. 1, while the other is supported by links, d d' , the "chute" being so hung as to have a lateral motion between a^1 and a^2 , and its mouth extending beyond the frame-work, as shown in fig. 1. The bottom of this "chute" is covered, for nearly its whole length, with a net-work of wire, forming a sieve, as seen in figs. 2 and 4.

A smaller "chute," E, figs. 1, 2, 3, is attached to the top of the frame, opposite the head of B, and its mouth is also supported by links b b' .

Beneath B is a trough, D, figs. 1, 3, 4, its mouth extending beyond the frame on the side opposite the mouth of B, as seen.

Similar "chutes," B' B'', figs. 2 and 4, are arranged between a^2 and a^3 , and a^3 and a^4 , and smaller "chutes," E' E'', figs. 2 and 4, are connected with them, and troughs, D' D'', figs. 3 and 4, are placed below them in the manner already detailed.

There may be as many series of "chutes" and troughs as desired.

There is a track laid on the platform, and a portion of the platform, h h' h'' , figs. 2 and 4, is made to slide in and out, by suitable appliances, the sides of the platform or frame being raised above the track, as seen in fig. 1.

The wagon F, containing the coal to be screened, being driven on the platform, which has an inclined

plane leading to it, as soon as the horses have passed the sliding platform, the wagon standing on the track and over the slide, the same is drawn out, as seen in fig. 2, and then the bottom boards 1, 2, 3, 4 of the wagon being withdrawn, the coal falls partly on the "chute" B directly, and a portion on the "chute" E, thence sliding on to B, from which the coarser part falls into the box H, placed to receive it, while the finer portion, or "brazé", falls through the screen into the trough D.

The "chute" E prevents the coal from passing too rapidly over the screen, and also causes all the coal to have the benefit of the whole length of the screen, by throwing it on to the upper end of it, instead of allowing a great part of it to fall almost on the mouth of the screen, as would be the case if the "chute" E were not there. The "brazé" is then drawn out by a rake, o , fig. 3, into a box, M, fig. 1, provided to receive it.

Both the boxes H and M are provided with casters, so that they can be easily rolled on to the wagon, which carries them away.

The sides of H being graduated to a scale, the coal is measured as it falls into it.

This platform may be made of any desired length, and the number of "chutes" increased proportionally.

From the above description it will appear obvious that, by constructing the apparatus with a platform suitable for receiving upon it a wagon containing the charcoal to be screened, no handling of the same, subsequent to that required for loading the wagon, is necessary, the charcoal being allowed to deposit itself directly from the wagon upon a "chute," from which it passes to the screen, running down the whole length thereof, whereby the charcoal is separated from the "brazé," and deposited in a receptacle provided for it, and the "brazé" being deposited in a receptacle provided for it.

It will therefore appear obvious that, by my improved method or process of screening charcoal, a great amount of labor, in handling the same, is dispensed with, and thereby much expense saved, and that the operation is very greatly expedited.

I will here remark that I am aware of an apparatus for screening charcoal, shown and described in a patent issued to William Sparks, on the 12th of September, 1865, in which there was a hopper, and a screen, and a platform, the said platform being designed and intended as a place on which the workman could stand in order to take hold of and dump into the hopper the buckets of charcoal, as the same were hoisted up to him. This apparatus is different in construction from that I have described, and could not be used for putting into practice my improved process or method of screening charcoal.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The method or process of screening charcoal, substantially as herein specified.

2. The apparatus herein described as being adapted for carrying out the said process, that is to say, the

combination of the sliding platforms, the screens, "chutes," and troughs, substantially as herein specified.

3. In a charcoal-screening apparatus, the combination with a screen of a platform so constructed, adapted, and arranged, as to receive upon it, in a position directly, or nearly so, over the screen, a wagon contain-

ing the charcoal, whereby the charcoal may be delivered directly to the screen, without manipulating the same, substantially as herein specified.

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Witnesses:

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