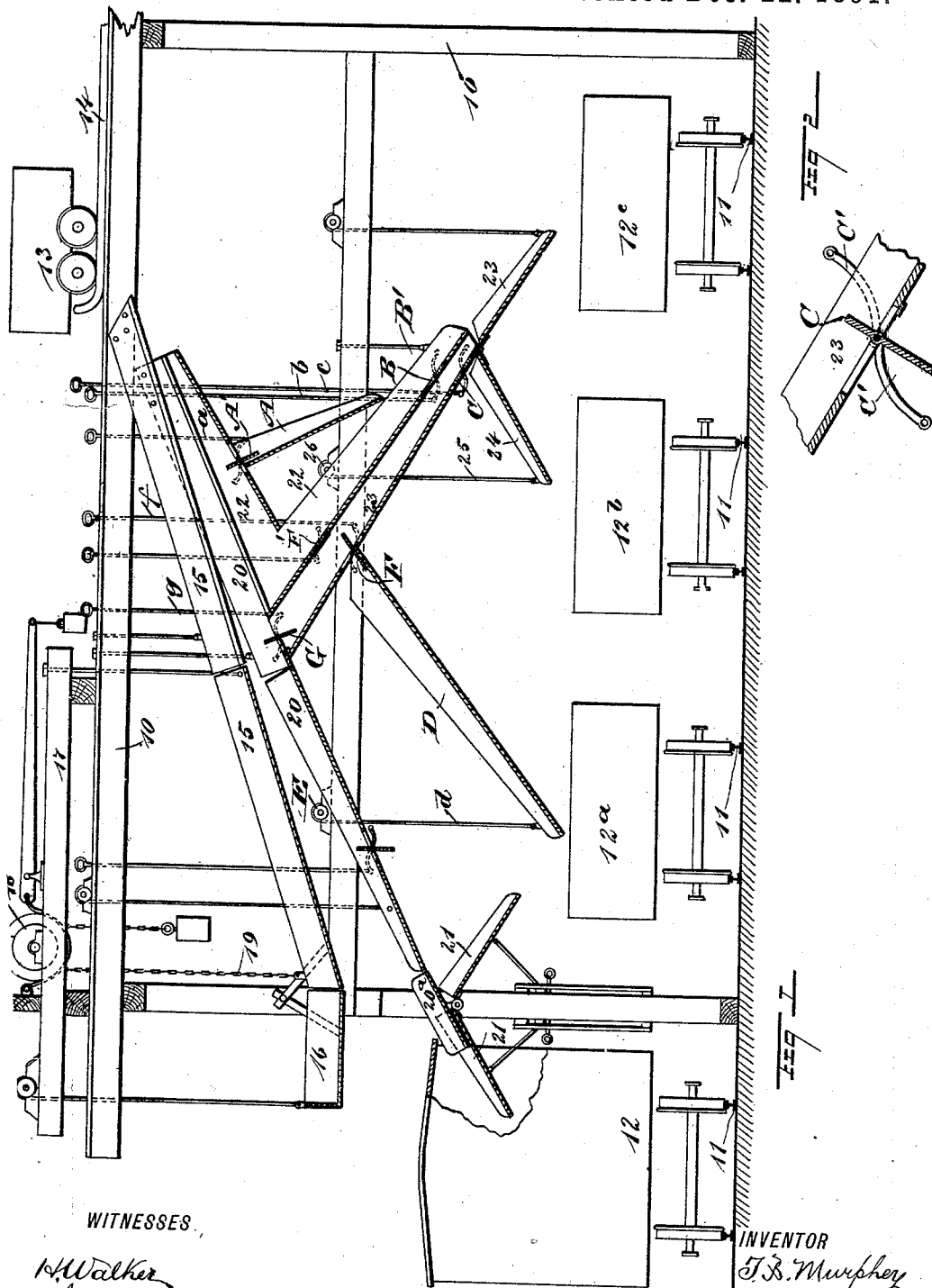


(No Model.)

T. B. MURPHEY.
COAL TIPPLE.

No. 465,720.

Patented Dec. 22, 1891.



WITNESSES,

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COAL-TIPPLE.

SPECIFICATION forming part of Letters Patent No. 465,720, dated December 22, 1891.

Application filed October 13, 1891. Serial No. 408,579. (No model.)

To all whom it may concern:

Be it known that I, THOMAS B. MURPHEY, of West Elizabeth, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Coal-Tipple, of which the following is a full, clear, and exact description.

My invention relates to improvements in coal-tipples, and is an improvement on the coal-tipple patented to Thomas Watkins and James H. Brown by United States Letters Patent No. 417,891, dated December 24, 1889.

The object of the improvement is to provide a more perfect means of conveying the nut coal or other fine coal to any desired car.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters and figures of reference indicate corresponding parts in both the views.

Figure 1 is a vertical cross-section of the entire apparatus, showing the chutes in position to deliver different qualities of coal to the various cars; and Fig. 2 is a broken enlarged detail view of one of the chutes and of the fly for closing the opening therein.

The invention as described in the former patent alluded to is intended to screen coal and deliver the different sizes into their appropriate cars, and in order that the old parts and the parts constituting my invention may be more readily distinguished I have indicated the old parts in the drawings by numerals and the new parts by letters.

The apparatus consists, chiefly, of a series of chutes made up in sections and suspended in a suitable frame-work 10, which is arranged above and adjacent to the tracks 11, on which are mounted cars 12, 12^a, 12^b, and 12^c, adapted to receive the different qualities of the coal, and the coal is delivered to the upper portion of the chutes from the top of the frame, the coal being conveyed to the frame-top by means of a car 13, which runs on the usual form of track 14. In the top portion of the frame-work is a chute 15, made up in sections and having at its lower end an auxiliary chute 16, which is hinged thereto, the chute being supported from a scale 17 on the top of the frame

10 and being connected with a winding-drum 18 by means of a chain 19. The upper portion of the chute is provided with screen-bars, 55 and beneath this chute is another inclined chute 20, also made up in sections and provided with finer screen-bars at its upper end, the chute 20 delivering at its lower end by means of a sliding chute 20^a into the branch 60 chutes 21, so that coal may be delivered into either the car 12 or the car 12^a.

Leading rearwardly from the upper portion of the chute 20 is an angular chute 22, supported by a hanger B', and which is adapted 65 to convey nut coal, and beneath this chute is another chute 23, which also opens from the chute 20 and which has an extended end section adapted to deliver into the car 12^c. Opening from the main section of the chute 23 is 70 a branch chute 24, which is adjustably supported by a cable 25 and drum 26 and which is adapted to deliver into the car 12^b. The above construction I have not described in detail, as it forms no part of my invention; 75 but it is shown in order that the operation of the new parts may be readily understood.

Opening from the upper portion of the chute 22 is a swinging branch chute A, at the upper end of which is a fly A', which is pivoted in 80 the opening of the floor of the chute 22 and which is controlled by a crank connecting with the rod a, which rod extends to the top of the frame 10 and terminates in a suitable handle. The chute A delivers into the lower 85 portion of the chute 22 and facilitates the rapid handling of the fine coal or slack.

Near the lower end of the main section of the chute 22 is a fly B, which is arranged in the floor of the chute and which has a crank 90 connection with a rod b, which leads to the top of the frame 10 and by means of which the fly may be opened or closed. Immediately beneath the fly B is the fly C, which is located in the floor of the chute 23 and which has a 95 crank connection with the rod c, leading to the top of the frame 10. The fly C has a double crank C', one end of which connects with the handle-rod c, and the other end may be connected with a handle-rod, if necessary, so that 100 the flies may be easily operated, and at the same time the incline or grade of the chutes 23 and 22 may be changed.

It will be noticed by reference to Fig. 1 that

the flies B and C align vertically and that each is placed in relation to the chute A, so that if both are opened the coal which passes through the chute A will drop directly through the two fly-openings and into the chute 24, where it will be delivered into the car 12^b. If desired, however, the two flies B and C may be closed and the fly A' also closed, so that the coal will pass over the end extension of the chute 23 and into the car 12^c.

Hinged to the bottom of the chute 23 near its upper end is an inclined chute D, which is adjustably supported by a cable *d*, which is suspended from a winding-drum E, and at the upper end of the chute D is a fly F, which is pivoted in an opening in the floor of the chute 23 and which has a crank connection with the handle-rod *f*, by means of which the fly may be operated. Above the fly F and in the floor of the chute 22 is a similar fly F', which is also provided with a suitable handle, and by opening the flies F and F' and closing the fly A' the entire slack or fine coal which comes from the screens may be delivered into the car 12^a. This arrangement also enables the run of mine-coal to be properly screened and delivered into said car. There is also a fly G at the upper end of the chute 23 and in the floor of the chute 20, which is connected by a crank with the handle-rod *g*,

and it will be seen that the coal passing downward from the upper portion of the chute 20 may be allowed to pass through to the chute 23 and into the chute D, and from thence into the car 12^a.

From the foregoing description it will be seen that the nut coal which passes through the screen portion of the chutes 15 and 20 may be delivered into the car 12^c, that the finer coal may be delivered by means of the chutes A and 24 into the car 12^b, and that the next coarser quality may be allowed to pass through the opening for the fly G and into the chute D, and from thence into the car 12^a. Consequently the coal may be nicely screened and sorted and at the same time delivered into the proper car.

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

The combination, with the chutes 22 and 23, of the flies B and C, mounted in the floors of said chutes, the double cranks, and handle-rods pivoted to the ends of said cranks, substantially as described.

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Witnesses:

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