(No Model.) 2 Sheets—Sheet 1.

T. C. DU PONT.

COAL WEIGHING BASKET.

No. 505,394. Patented Sept. 19, 1893.

Fig. 1.

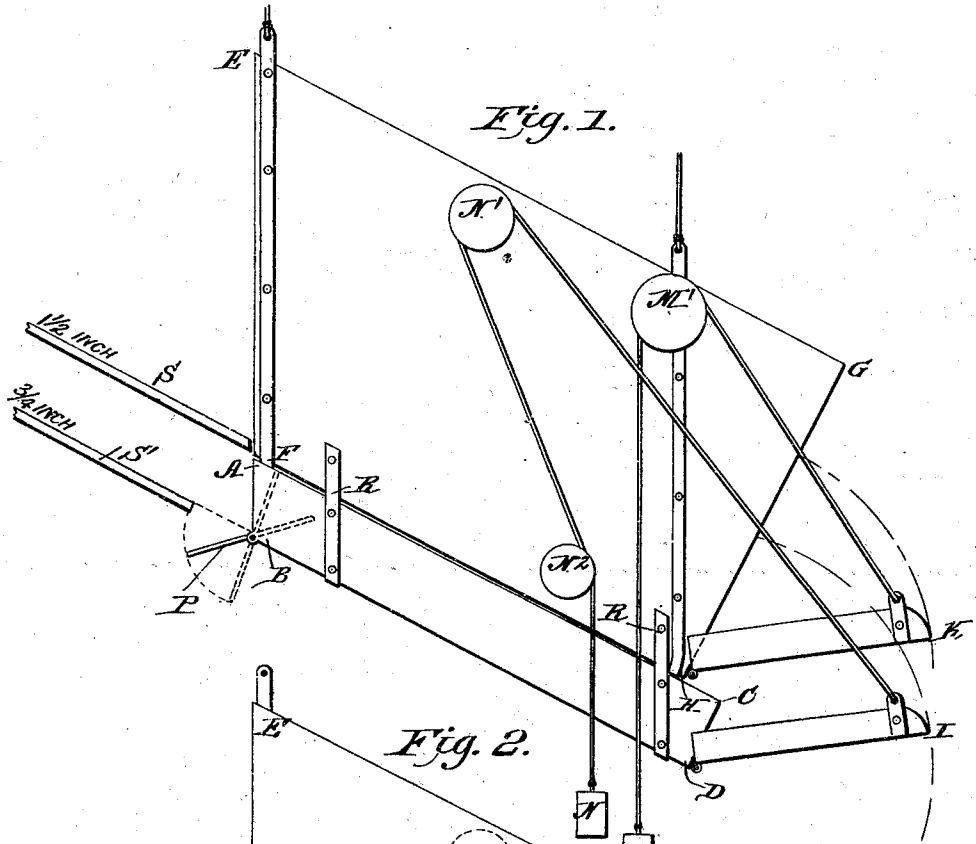
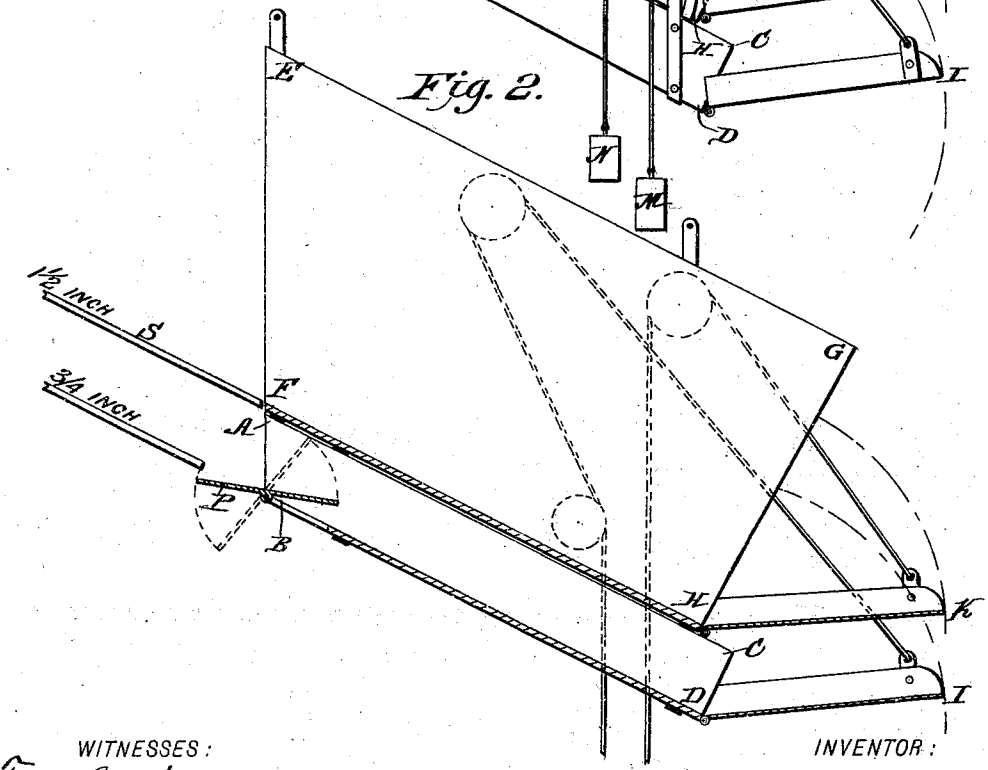


Fig. 2.



WITNESSES:

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Edw. W. Byrn.

INVENTOR:

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BY Munn & Co

ATTORNEYS

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

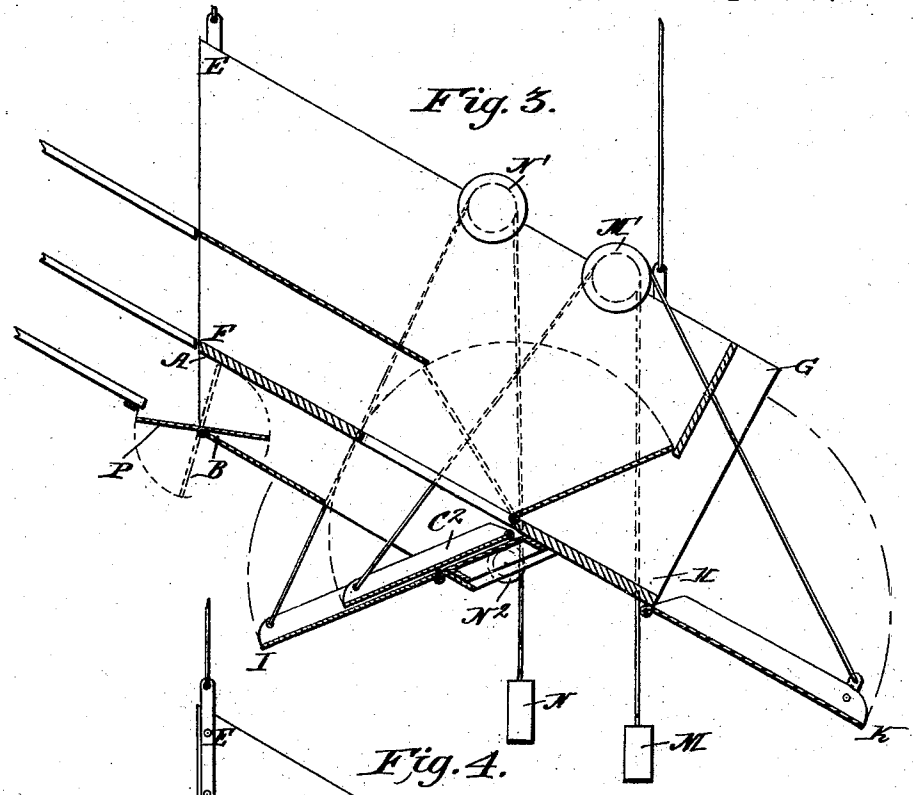
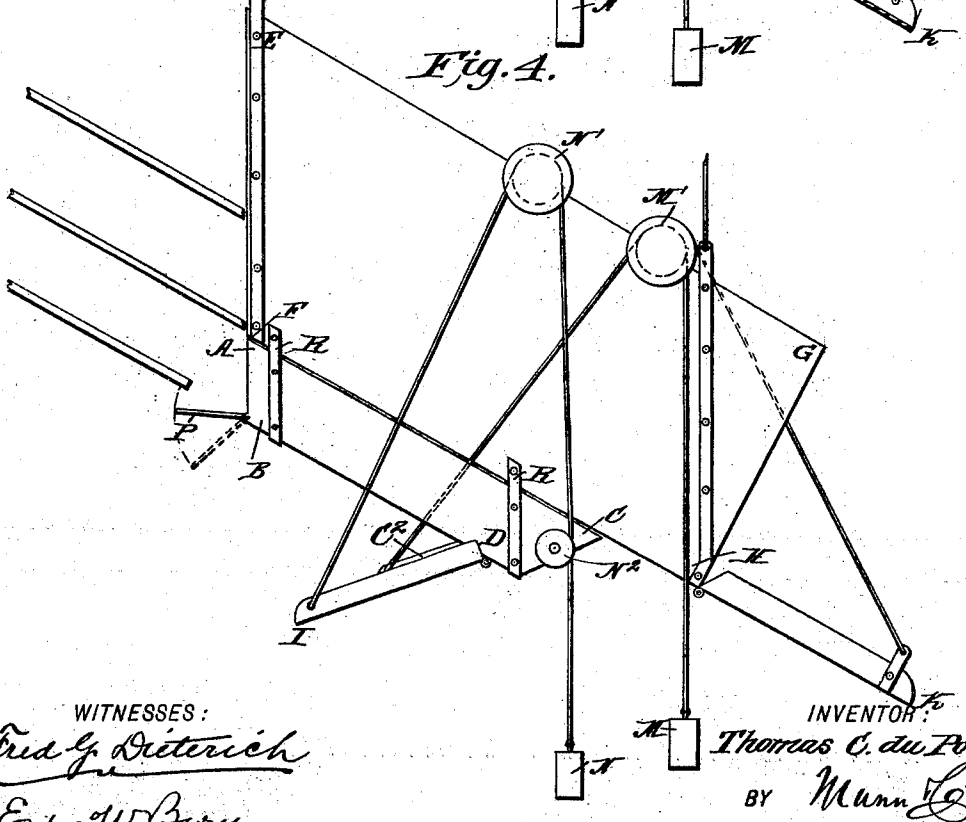


Fig. 4.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

THOMAS C. DU PONT, OF CENTRAL CITY, KENTUCKY.

COAL-WEIGHING BASKET.

SPECIFICATION forming part of Letters Patent No. 505,394, dated September 19, 1893.

Application filed April 3, 1893. Serial No. 468,885. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. DU PONT, residing at Central City, in the county of Muhlenberg and State of Kentucky, have invented a new and useful Improvement in Coal-Weighing Baskets, of which the following is a specification.

In mining coal in this region it is customary to pay the miner only for such coal as will pass over a one and one-half inch screen, and yet the nut coal which passes through this screen and over a three-fourths inch screen is sold with the other coal, and has to be accounted for in some way, either by weighing or estimation. It is desirable therefore to be able to weigh these two grades of coal separately for settlement with the miner, and to weigh them also together in loading the car for the consignee or consumer. Usually unless the mine is equipped with track scales this mixed coal is not weighed, but estimated, and the consumer or consignee sometimes disputes the weights, in which case the mine owner cannot "swear to" his weights.

My invention is in the nature of an attachment to an ordinary coal weighing basket, whereby the mixed coal (*i. e.* all coal larger than three-fourths of an inch) may be first weighed together for settlement with the consumer, and the coal in the basket over one and one-half inches (exclusive of the nut coal) subsequently weighed for settlement with the miner, all of which will be hereinafter more fully described.

Figure 1 is a side view, and Fig. 2 a vertical longitudinal section through the coal weighing basket and screens with my attachment applied thereto, and Figs. 3 and 4 are similar views of a modification thereof.

In the drawings, Figs. 1 and 2, E F G H is an ordinary coal weighing basket, in which coal is temporarily retained at the foot of the inclined screens and then discharged into the car below, a hinged chute H K being journaled at the lower end of the basket, which chute is balanced by a counter weight M which is connected to a cord passing over a pulley M′ which cord in turn is attached to the outer end of the hinged chute. This chute may be folded up against the lower end of the basket to retain its contents while being weighed, or may be let down to allow of the discharge of the contents at the will of the operator. The bottom F H of the basket is adjusted at the same inclination and on a line with the screen S, whose meshes are one and one-half inches, and all the coal that goes over this screen goes into the basket E F G H to be weighed.

To the bottom of the basket E F G H is connected by hangers R R a subjacent transfer chute A B C D. This has at its lower end a hinged section D I held in a balanced condition by a cord passing around pulleys N′ N^2 and attached to a counterweight N so as to permit the hinged section to be adjusted in a manner similar to the hinged chute H K, so as to close or open the lower end of the transfer chute A B C D. The transfer chute A B C D has its bottom arranged at the same inclination and in a plane with a second screen S′ below the screen S, which screen S′ has a mesh of three-fourths of an inch. All of the coal that passes through screen S and over S′ is graded as nut coal which, although sold by the mine owner, is not paid for in settlement with the miner.

At the upper end of the bottom of the transfer shute is a tilting valve P, which is fulcrumed in the middle, and is susceptible of an adjustment in line with screen S′ that causes it to bridge the space between the latter and the transfer chute, so as to conduct the coal from screen S′ into the transfer chute, or be turned to a position at right angles, as shown in dotted lines, so as to discharge the nut coal at the end of screen S′, without entering the transfer chute.

The operation of the basket with my attachment is as follows: The hinged sections H, K, and D, I, are raised so as to close the ends of the basket and subjacent chute, and the valve P is adjusted into alignment with the screen S′ and bottom B D of the transfer chute. Now when the coal comes down the screen, all that is over one and one-half inches in size enters the basket, and all that is less than one and one-half inches and over three-fourths of an inch enters the subjacent transfer chute. Both these quantities are now weighed together to give the positive and actual weight of the mixed coal which is to

be charged to the consignee or consumer. This being done the lower hinged section D I is then lowered and the nut coal is discharged into the car. The diminution in weight of the basket and contents is now noted on the scales and the weight of the coal which is over one and one-half inches remaining in the basket is thus obtained as a basis for settlement with the miner. This it will be perceived is accomplished in a simple and certain way, with but one handling of the coal, and evidence of satisfactory weight may be thus given to both the consumer of the mixed coal and the miner. If desired this transfer chute need not be used, but the nut coal may be separately discharged without being weighed by simply turning the valve P into the dotted position.

In making use of my subjacent transfer chute I may apply it to the coal weighing basket for which I have applied for a patent in connection with Simon Jones and Samuel Bishop, Serial No. 457,525. This modification of the invention I show in Figs. 3 and 4. In such modification the subjacent transfer chute has its hinged section in its bottom instead of its end, so as to permit of the operation of the hinged apron C^2 of that basket.

Having thus described my invention, what I claim is—

1. The combination with the inclined screen S, and coal weighing basket E F G H having a hinged section H K at its lower end; of a subjacent transfer chute attached to the bottom of the coal weighing basket, the screen S′ arranged on a line with the transfer chute, and a hinged section for holding or discharging the contents of the transfer chute, substantially as shown and described.

2. The combination with the inclined screen S, and coal weighing basket E F G H having a hinged section H K at its lower end; of a subjacent transfer chute attached to the bottom of the coal weighing basket, the screen S′ arranged on a line with the transfer chute, a hinged section for holding or discharging the contents of the transfer chute, and a valve P arranged at the upper end of the latter, adapted to connect the screen S′ with the transfer chute, or cut off the latter, substantially as shown and described.

THOMAS C. DU PONT.

Witnesses:
W. E. FOWLER,
B. DU PONT.