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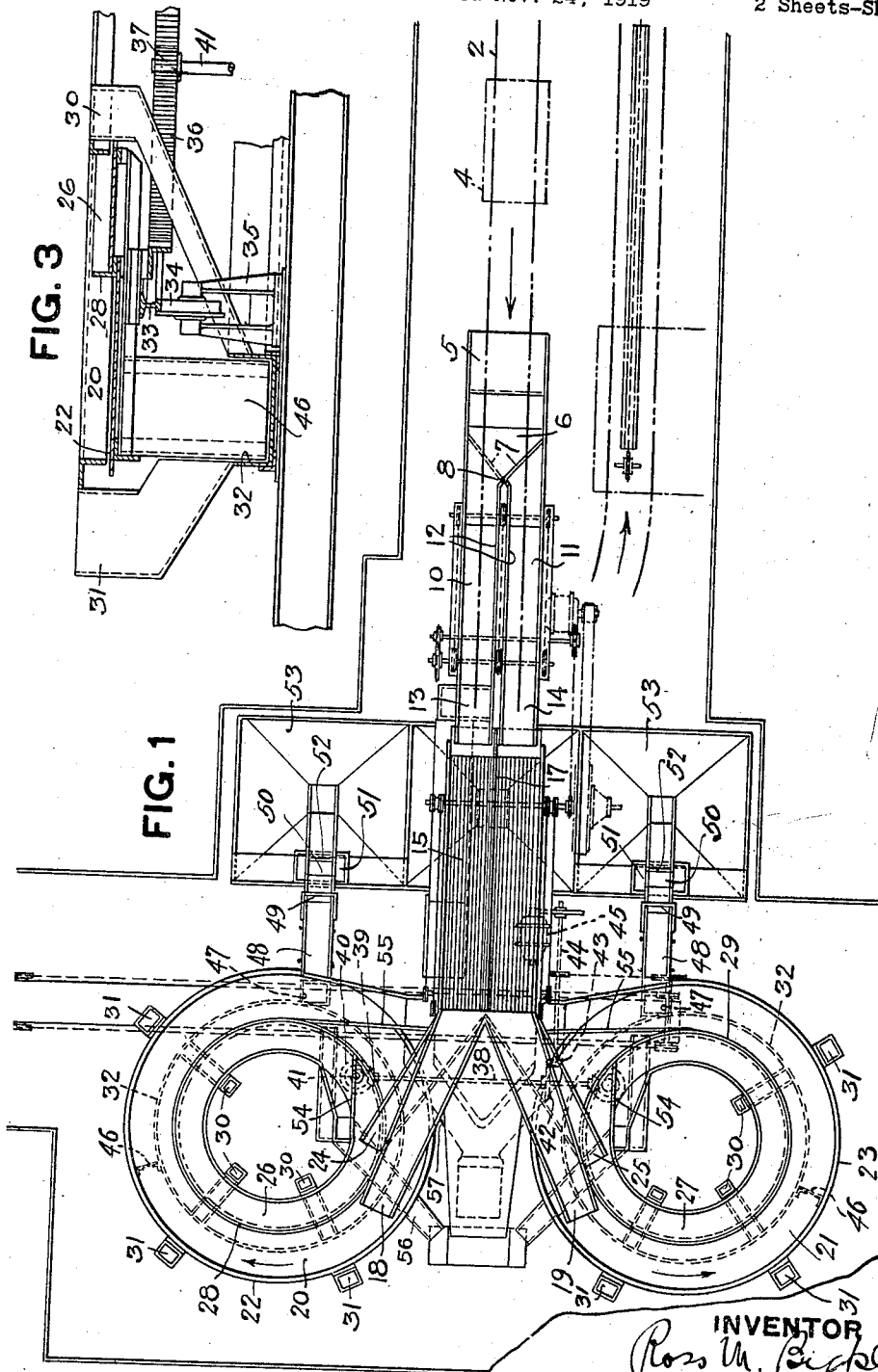
R. M. BICKLEY

1,473,333

PICKING TABLE

Filed Nov. 24, 1919

2 Sheets-Sheet 1



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PICKING TABLE

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2 Sheets-Sheet 2

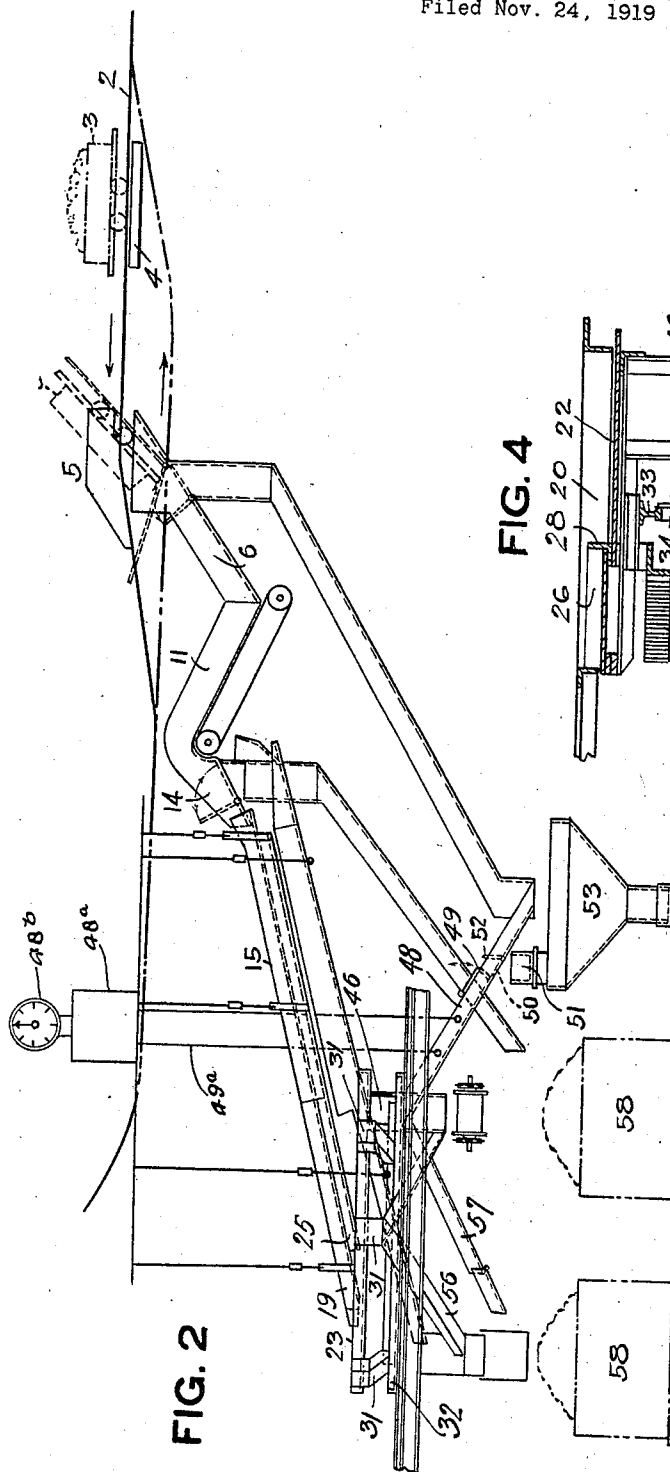
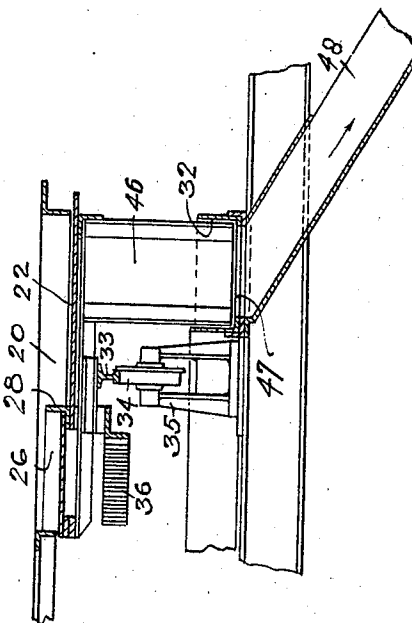


FIG. 2

FIG. 4



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Patented Nov. 6, 1923.

1,473,333

UNITED STATES PATENT OFFICE.

ROSS M. BICKLEY, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO HEYL & PATTERSON, INC., OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

PICKING TABLE.

Application filed November 24, 1919. Serial No. 340,341.

To all whom it may concern:

Be it known that I, ROSS M. BICKLEY, a citizen of the United States, and resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Picking Tables; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to coal handling apparatus, and more particularly to the delivery of the coal to the picking tables as well as its discharge therefrom.

One of the chief objects of my invention is to provide for the separation of the different cars of coal on the picking tables, so that the amount of refuse in each car may be determined exactly. In this way, the operator has a chance to check up any miners who are careless in loading, and disputes as between the operator and the miners can be settled by accurately weighing the refuse to determine just how much good coal has been mined, and what a particular miner is to be credited with.

To these ends my invention comprises the novel features hereinafter set forth and claimed.

In the accompanying drawings, Fig. 1 is a plan view of my improved apparatus more or less diagrammatic. Fig. 2 is a side elevation; Fig. 3 is an enlarged section of a portion of one of the picking tables; and Fig. 4 is a like view showing the refuse chutes.

In the drawings, the numeral 2 designates the track along which the coal cars 3 travel in their passage from the mine to the picking tables. Suitable weighing scales 4 are provided for weighing coal before the cars are dumped by the dumping apparatus 5 which may be of any suitable type, and as it forms no part of my invention it has not been deemed necessary to illustrate the same in detail.

A chute 6 is provided just beyond the dump and in this chute is the swinging gate 7 hinged at 8 and adapted to be swung across the chute 6 so as to direct the coal to one or the other of the conveyers 10 or 11, which are divided by the partition 12. The conveyers 10 and 11 deliver the coal to the chutes 13 and 14, respectively. A shaking screen 15 of the double-deck type receives the coal from the chutes 13 and 14, and said screen is divided into two compartments by the partition 17. The delivery troughs 18

and 19 receive the lump coal from the screen and deliver said coal to the outer compartments 20 and 21, respectively, of the picking tables 22 and 23.

The delivery troughs 24 and 25 receive the nut coal from the screens and deliver the same to the inner compartments 26 and 27, respectively, of the picking tables 22 and 23. The compartments 20 and 26 of the picking table 22 and compartments 21 and 27 of the picking table 23 are formed by the partitions 28 and 29, respectively.

The picking tables are provided with the inner and outer refuse chutes 30 and 31, which receive the bone or other impurities picked from the coal, and said chutes communicate at their lower ends with the refuse trough 32.

The picking tables are provided with the annular rails 33 which engage the wheels 34 mounted in the standards 35. A rack 36 is carried by the table and a pinion 37 engages said rack, said pinion being driven by shaft 38 which has the bevel pinion 39 engaging the bevel pinion 40 with the pinion shaft 41. The shaft 38 has the bevel gear 42 which is engaged by the bevel pinion 43 on the shaft 44 which is connected up to the motor 45. In this manner rotary movement is imparted to the table.

While I have illustrated my invention in connection with a circular rotary table, I do not wish to limit the invention to a table of this form as a straight table might be employed.

Secured to the bottom of the table are the flights 46 which travel in the refuse trough 32, and said flights move the refuse along through said trough to the opening 47 which places the refuse trough 32 in communication with the refuse weigh-chute 48. This refuse chute 48 is provided with the chop-gate 49, said chute being suspended by rods 49^a from scales 48^a of suitable capacity having quick weighing dials 48^b with extra large type, so that they can be easily read by the operator stationed at the picking tables at the end of the shaking screen. Beyond the chop-gate 49 is the opening 50 through which the refuse may be delivered into the inspection box 51. or by closing said opening by the gate 52 the refuse may be delivered directly into the refuse bin 53.

The different compartments of the picking

tables are provided with plows 54 and 55 for directing the nut and lump coal to their respective loading booms 56 and 57 to be disposed of as may be desired, or for loading into the cars 58.

In handling coal with the above apparatus, the coal is brought up on the tracks 2 in the cars 3 and weighed by the scales 4. The car then passes to the dump and the coal is delivered into the chute 6 whence it moves on to the conveyer 10, the gate 7 having been adjusted to direct the coal to one side or other of the feeder. The coal is delivered by the feeder to the upper deck of the shaking screen, whereupon the lump coal passes by the delivery trough 18 to the outer compartment 20, let us say, of the picking table 22. The nut coal is delivered from the lower deck of the shaking screen to the delivery trough 24 to be delivered to the inner compartment 26 of the picking table 22. The coal of the next car that comes over the tracks 2 is delivered to the picking table 23 by shifting the gate 7. In this manner the cars are delivered alternately to the tables, and a space is left on the tables between each car load so that each load is kept separate on the tables. The refuse as it is picked from each load is thrown into the refuse chutes 30 and 31 and may be collected in the chute 48 to be weighed by closing the chop-gate 49. In this way a check may be kept on the amount of refuse in each car load, so that the operator is enabled to check up the miner who loaded the coal and accurate records can be kept of just how much refuse was loaded in each car.

In case the miner desires to inspect the refuse, the refuse after weighing can be delivered into the inspection box 51, or where no inspection is required, it may be delivered directly into the refuse bin 53. It is to be understood that the inspection box 51 has a sliding gate of some character in its bottom for discharging the refuse, after it has been inspected, into the refuse bin 53.

What I claim is:

1. The combination of a pair of annular rotating horizontal hand picking tables, means for delivering coal thereto and means for shifting the direction of movement of the coal to one or the other of said tables.
2. The combination of a pair of annular

rotating horizontal hand picking tables, means for delivering coal by the load thereto, and means for shifting the loads alternately to one or the other of said tables.

3. The combination of a pair of annular rotating horizontal hand picking tables, delivery apparatus divided into two compartments, and means for directing the coal to one or other of said compartments.

4. The combination of a pair of annular rotating horizontal hand picking tables, delivery apparatus divided into two compartments and a gate for directing the coal to one or other of said compartments.

5. The combination of a pair of annular rotating horizontal hand picking tables, delivery apparatus divided into two compartments, and a swinging gate for directing the coal to one or the other of said compartments.

6. The combination of a traveling picking table, having a receiving surface for the coal to be picked, means for delivering the coal to be picked thereto, a conveyer below said receiving surface to receive the refuse picked from said receiving surface, and a refuse weigh-chute into which said conveyer discharges.

7. The combination of a traveling picking table, having a receiving surface for the coal to be picked, means for delivering coal thereto, a conveyer below said receiving surface to receive the refuse picked from said receiving surface, a refuse weigh chute into which said conveyer discharges, and means for temporarily holding the refuse in said chutes while being weighed.

8. The combination of a traveling picking table having a receiving surface, means for delivering the coal to be picked on to said surface, a conveyer below said receiving surface to receive the refuse picked from said receiving surface, a refuse weigh chute into which said conveyer discharges, an inspection box, and means for delivering said refuse from said weigh chute into said inspection box.

In testimony whereof, I, the said Ross M. BICKLEY, have hereunto set my hand.

ROSS M. BICKLEY.

Witnesses:

WILLIAM J. BRUNER,
C. T. MCCREA.