C. MARCELLE.

COAL TRANSFERRING APPARATUS.

APPLICATION FILED MAY 8, 1912.

1,067,615. **Patented July 15, 1913.**

2 SHEETS—SHEET 1.

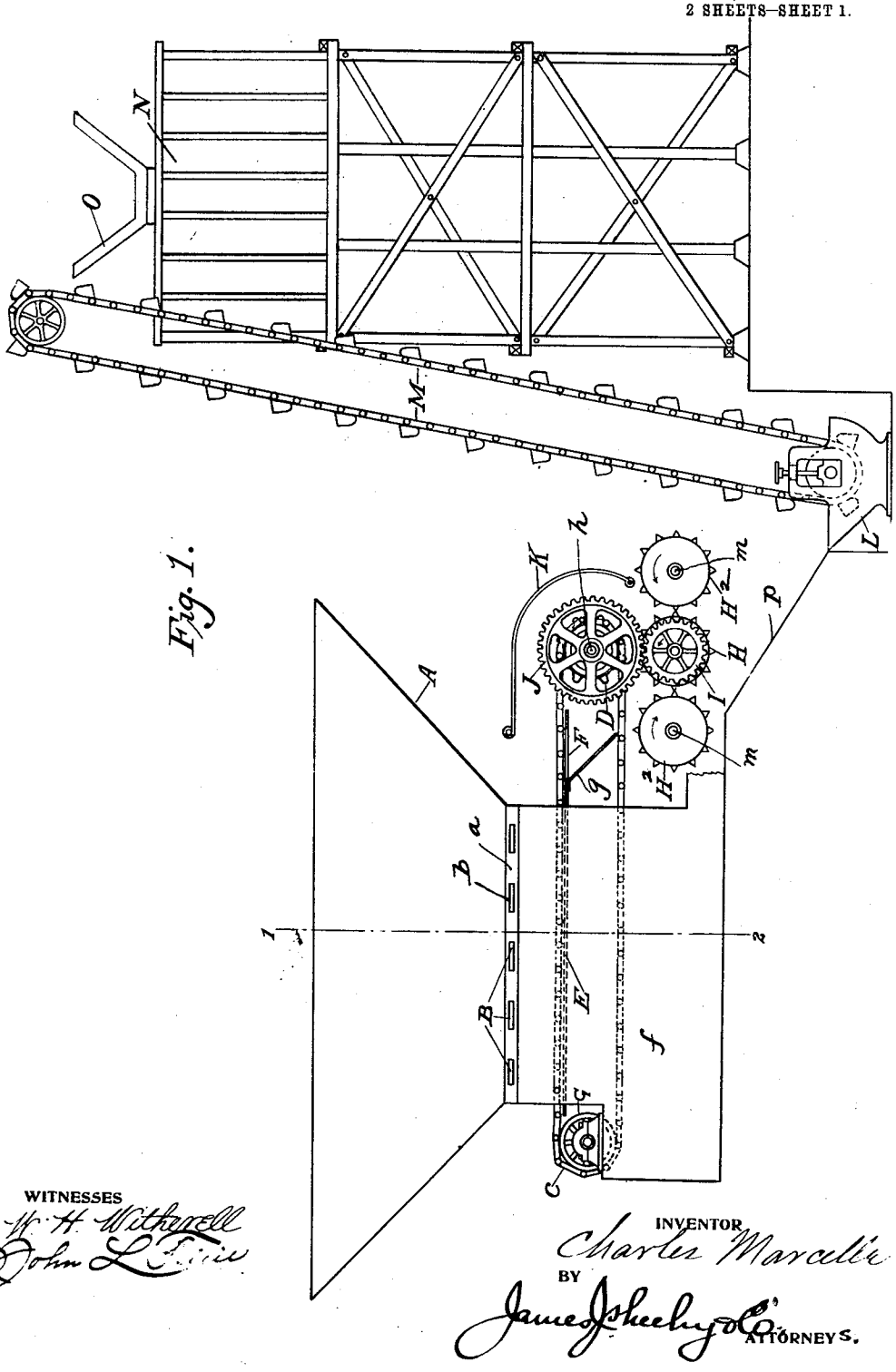


Fig. 1.

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 2.

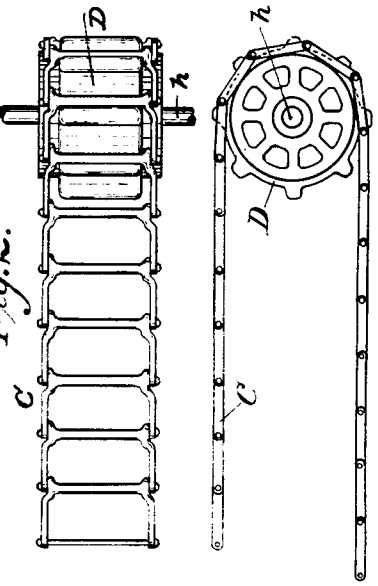


Fig. 3.

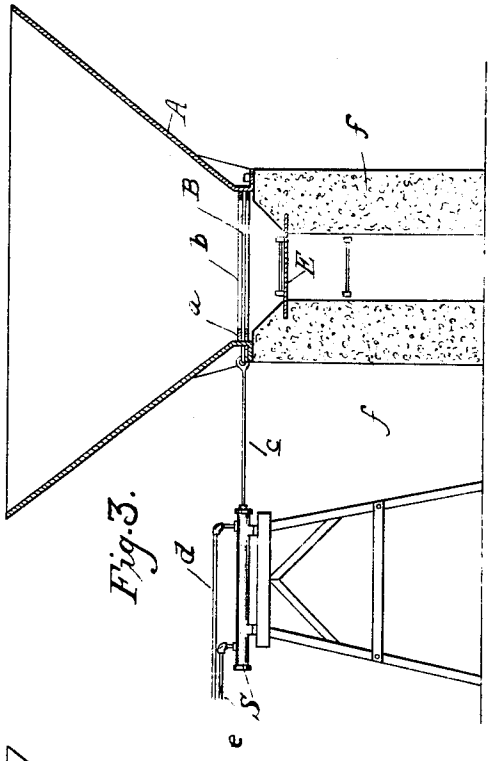
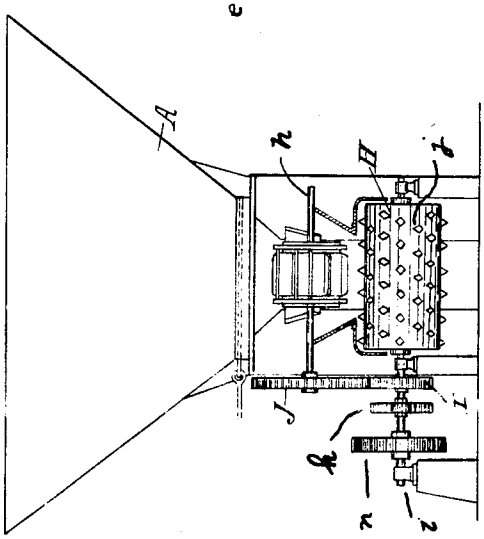


Fig. 4.



WITNESSES

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COAL-TRANSFERRING APPARATUS.

1,067,615. Specification of Letters Patent. Patented July 15, 1913.

Application filed May 8, 1912. Serial No. 695,821.

To all whom it may concern:

Be it known that I, CHARLES MARCELLE, a citizen of the United States, residing at Picayune, in the county of Hancock and State of Mississippi, have invented new and useful Improvements in Coal-Transferring Apparatus, of which the following is a specification.

My present invention pertains to apparatus for handling or transferring coal and other substance; and its novelty, utility and practical advantages will be fully understood from the following description and claim when the same are read in connection with the drawings, accompanying and forming part of this specification, in which:

Figure 1 is an elevation, partly in vertical section, of the apparatus constituting the best practical embodiment of my invention of which I am cognizant. Fig. 2 comprises projected views of the conveyer, through the medium of which coal is transferred from a point below the storage receptacle to the crushing mechanism. Fig. 3 is a view, partly in section and partly in elevation, taken at a right angle to Fig. 1, and showing the means I prefer to employ for opening and closing the slides in the bottom of the storage receptacle. Fig. 4 is a view taken at a right angle to Fig. 1 and showing the storage receptacle, the conveyer and the crushing mechanism.

Similar letters and numerals designate corresponding parts in all of the views of the drawings.

The storage receptacle A of my novel apparatus may be of any desired capacity, and it is provided in its bottom wall *a* with transverse openings *b* which are controlled and are normally closed by rectilinearly movable gates B. These gates B may be drawn outward to permit the gravitation of coal through the openings *b*, and may be moved inward to close the said openings *b* and stop the discharge of coal from the receptacle A, by any suitable means compatible with the purpose of my invention without affecting the same as claimed. I prefer, however, to utilize fluid under pressure for actuating the said gates; the plurality of gates being connected in suitable manner with the rod *c* of a piston that is disposed in a suitably supported cylinder S; the said cylinder being connected through pipes *d* and *e* with a valve (not shown), which is connected in turn with a source of fluid pressure supply, so that when the said valve is positioned to let fluid under pressure through the pipe *e*, the gates B will be opened, while when the valve is arranged for the passage of fluid under pressure through the pipe *d*, the gates B will be closed. It will also be understood in this connection that when fluid under pressure is let through the pipe *d*, the pipe *e* will be opened to the atmosphere, while when fluid under pressure is supplied to the pipe *e*, the pipe *d* will be opened to the atmosphere. The source of fluid pressure supply and the valve referred to form no part of my present invention, and for this reason I have deemed it unnecessary to illustrate the same.

The receptacle A is preferably, though not necessarily, supported upon two spaced piers *f* of concrete or other suitable material, and also supported by and extending between the said piers *f* and disposed below the receptacle bottom *a* is a metallic plate E, Figs. 1 and 3, having at F a large opening, and also having a chute *g* disposed below the opening F for a purpose hereinafter set forth. Above the plate E is disposed the upper stretch of an endless conveyer C, which *per se* is preferably of the open construction shown in Figs. 1 and 2, though it may be of any other suitable open construction without departure from the scope of my claimed invention. The conveyer C is supported at one end of the plate E on a suitable idler G, and at the opposite end of said plate E the conveyer is passed around a sprocket gear D, the teeth of which are adapted to operate in the openings of the conveyer, as shown in Fig. 2. The sprocket gear D is fixed on a transverse shaft *h*, and on said shaft *h* is also fixed a spur gear J, Figs. 1 and 4. This spur gear J is intermeshed with a spur gear I on a transverse shaft *i*, and on the shaft *i* is also fixed a coal-crushing roll H having peripheral teeth *j*. It will further be noted by reference to Fig. 4, that the shaft *i* is provided with a spur gear *k* through the medium of which it may be connected with an engine or motor for the purpose of positively driving the roll H. Rolls H^2, similar to the roll H, are disposed at opposite sides of said roll H, and when desired the shafts *m* of the rolls H^2 may be provided with spur gears (not shown), connected in well known manner with the spur gear *n* on the shaft *i*. When this provision is resorted to rotary motion

will obviously be transmitted from the shaft i to the shafts bearing the rolls H^2. The rolls H and H^2 are preferably driven in the directions indicated by arrows thereon in Fig. 1.

The scheme of my invention contemplates the utilization of the upper stretch of the conveyer C to move coal received from the receptacle A forward on the plate E, to the opening F. Such pieces of coal as are sufficiently small to pass through the opening F will fall upon the chute g and be directed by the same to a point between the roll H and the roll H^2 at the left of said roll H. Such pieces of coal as are too large to pass through the opening F will be carried by conveyer C over the sprocket gear D, and in order to assure the delivery of said large pieces to a point between the roll H and the roll H^2 at the right of roll H, the guard K, Fig. 1, is provided. In this way it will be manifest that when the coal passes the crushing rolls, all of the large pieces of the same will be reduced to a proper common size. From the crushing mechanism described the coal passes, in the illustrated embodiment of my invention, down a chute incline p to the boot L of a suitably supported and driven endless elevator M, by which the coal is delivered to a chute O in communication with a suitably supported elevated receptacle N.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:—

In an apparatus for the purpose described, the combination of a suitably supported plate having an opening in its forward portion, an endless conveyer of open-work construction having its upper stretch disposed above said plate and extending forward of the opening in the plate, means for delivering coal to the upper stretch of the conveyer and the plate, at a point in rear of the opening in the plate, a chute carried by the plate and extending downward and forward from a point in rear of the opening in the plate, and a deflector disposed in front of and spaced from the forward portion of the conveyer.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES MARCELLE.

Witnesses:
W. H. WITHERELL,
JOHN L. FELIU.