(No Model.)

J. M. DODGE.

PROCESS OF REMOVING PILES OF MATERIAL.

No. 501,770. Patented July 18, 1893.

FIG. 1.

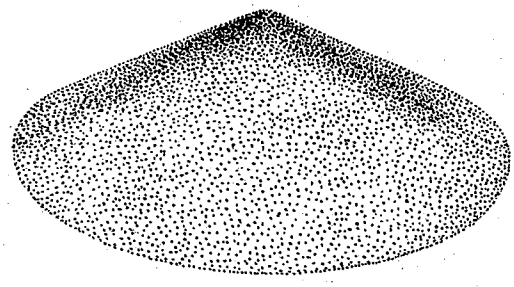


FIG. 2.

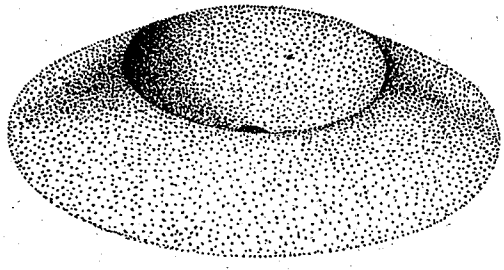


FIG. 3.

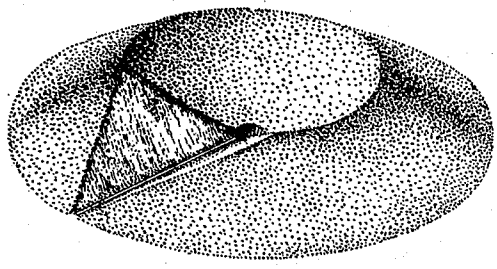
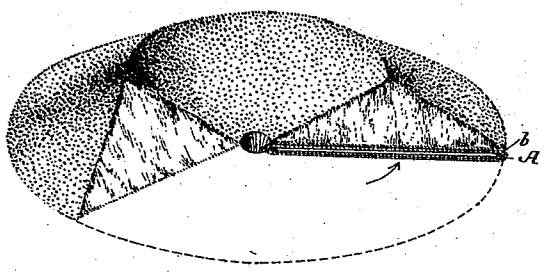


FIG. 4.



Witnesses:
Alex. Barkoff
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UNITED STATES PATENT OFFICE.

JAMES M. DODGE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE LINK-BELT ENGINEERING COMPANY, OF SAME PLACE.

PROCESS OF REMOVING PILES OF MATERIAL.

SPECIFICATION forming part of Letters Patent No. 501,770, dated July 18, 1893.

Application filed March 6, 1893. Serial No. 464,727. (No specimens.)

To all whom it may concern:

Be it known that I, JAMES M. DODGE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented a certain Process of Removing Piles of Material, of which the following is a specification.

The object of my invention is to readily and economically remove a conical pile of coal or analogous material, such as broken rock, sand, grain, &c. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1, is a perspective view of a conical pile of coal. Fig. 2, is a perspective view illustrating the first step of the process. Fig. 3, is a perspective view illustrating the second step of the process, and Fig. 4, is a perspective view illustrating the final step of the process.

The conical pile of material can be formed by any suitable apparatus such for instance as the apparatus set forth in the patents granted to me on August 20, 1889, No. 409,636, and on February 17, 1891, No. 446,314.

Preferably in the center of the piling floor is an opening through which the material of the pile is discharged, and the material flowing through this opening may flow by gravity or may be conveyed by suitable conveying apparatus, such for instance as described in the applications filed of even date herewith. The material of the pile flows into the opening by gravity, removing the center portion of the pile, thus leaving an annular pile with an annular apex, as shown in Fig. 2. The next step in the process is to remove a portion of the annular pile in a line radiating from the center, the material flowing by gravity to the point of discharge, forming a V-shaped opening, as shown in Fig. 3. The third step in the process is to entirely remove this annular pile if necessary by attacking one edge of the pile along the line radiating from the center, causing the material to flow by gravity on that side, as clearly shown in Fig. 4, the point of attack being carried forward around the center until the pile is removed. When it is wished to remove only a portion of the pile this step of the process may be discontinued at any point desired without departing from my invention.

In the drawings, Fig. 4, I have shown a conveyer B arranged on the line radiating from the center and having a trough on which is mounted an endless flighted conveyer chain *b* so that when this conveyer is put in motion the material will be conveyed to the center and discharged through the center opening. This conveyer may be made in accordance with the designs shown and described in the applications filed of even date herewith.

It will be seen by the above description that a conical pile of coal can be entirely removed from the piling floor by carrying out the process and all the material can be discharged through a central opening in the piling floor, so that the pile of coal where circumstances require can be walled in and roofed over so as to protect it from the weather.

I claim—

1. The process herein described of removing a pile of coal or other material in lump or granular form, said process consisting in beginning the removal of the material at the central portion of the pile, leaving an annular pile with an open center, second removing a portion of the annular pile in a line radiating from the center, and finally removing the remaining portion of the pile, from this line in an annular path, substantially as described.

2. The process herein described of removing a pile of coal or other material in lump or granular form, said process consisting in first removing the center of the pile by allowing the material to flow to a central discharge, leaving an annular pile with an open center, second removing a portion of the annular pile in a line radiating from the center, carrying said material thus removed through the central discharge, third, attacking the pile along one edge on the line radiating from the center, moving forward the point of attack in an annular path, and carrying the material thus removed through the central discharge, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES M. DODGE.

Witnesses:
JOSEPH H. KLEIN,
HENRY HOWSON.