W. WEBER.

FLUSHING APPARATUS.

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1,428,728. Patented Sept. 12, 1922.

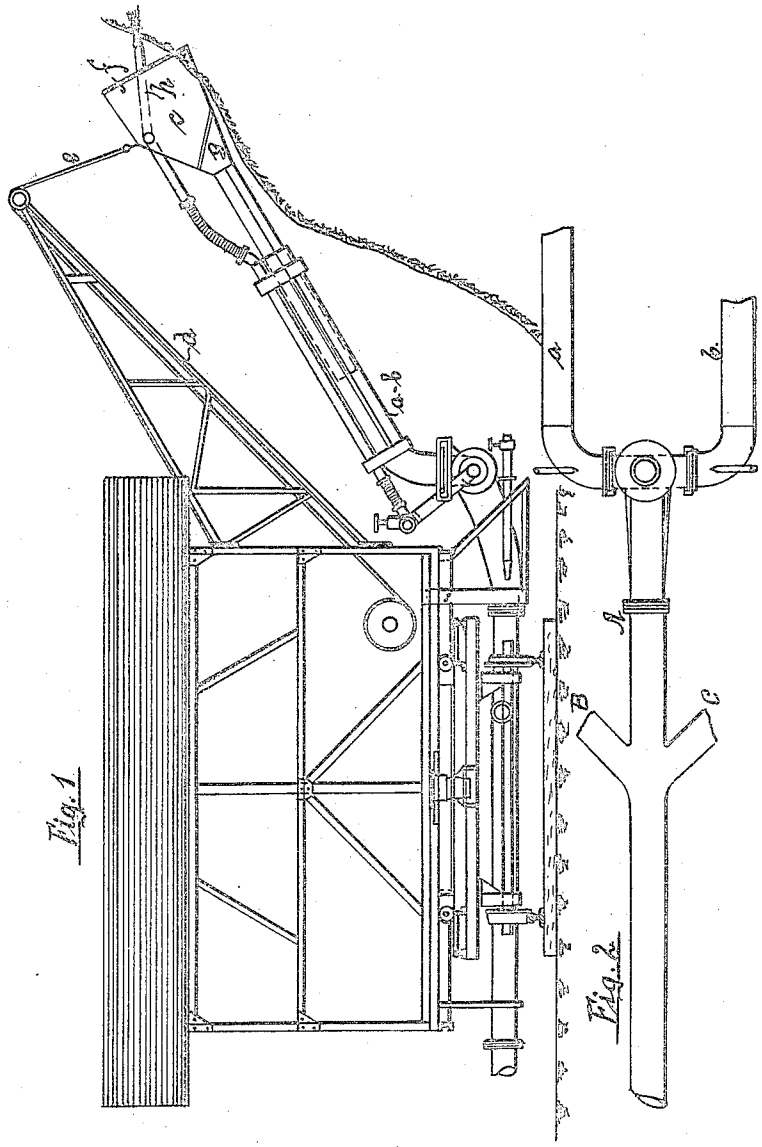


Fig. 1

Fig. 2

Witnesses:
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UNITED STATES PATENT OFFICE.

WILHELM WEBER, OF WIESBADEN, GERMANY, ASSIGNOR TO THE FIRM GEWERKSCHAFT HANSBACH II, OF WIESBADEN, GERMANY.

FLUSHING APPARATUS.

Application filed January 22, 1921. Serial No. 439,272.

To all whom it may concern:

Be it known that I, WILHELM WEBER, a citizen of the German Republic, residing at Wiesbaden, Germany, have invented certain new and useful Improvements in Flushing Apparatus (for which I have filed an application for patent in Germany on the 21st of March, 1918), of which the following is a specification.

This invention relates to rolling flushing apparatus designed to loosen by flushing masses of sand and gravel and to conduct the same away from the workings.

The apparatus is preferably used where flushing dredgers with open gutters cannot be used as for example with specially high workings. In such a case the position of the gutter could be too steep so that the material obtained by flushing would flow over the gutter. Owing to its movability in many directions the device is particularly adapted to flush deep cuts into the earth and to get at any angle of the field to be flushed.

The characteristic feature of the invention consists in the idea to use telescopic pipes instead of the open gutters used at present, said telescopic pipes having at the heads closed flushing funnels with movably spraying pipes for water under pressure. The device comprises two such heads arranged in U-shape it is movable in any directions and it is connected at the rear end with a closed conduit. In this manner the material obtained by flushing is conducted, directly at the place where it is obtained, by means of the flushing funnel which forms the head of the flushing pipe, to a closed pipe system, whereby the live force of the flushed material is utilized for the further transport of the material in a better manner than with open gutters. Owing to the U-shaped connection between the flushing heads the device can adapt itself much better to the inequalities of the said heap or incline, the general movability of the whole flushing device being ensured. A closed pipe conduit is arranged under the rolling and pivotable supporting frame for the flushing dredger in such a manner that the connecting pipe for the flusher heads can be connected in three positions *a*, *b* and *c*, its general capability of being turned in all directions being not impeded.

In order that the invention may be clearly understood, I shall proceed to describe the same with reference to the example of construction shown in the accompanying drawings, wherein:—

Fig. 1 is an elevation of the flushing plant and

Fig. 2 a plan view of the flushing pipes.

The flushing plant consists of a frame which is mounted on wheels and arranged so that it can be pivoted in horizontal direction. At the front end of the frame two telescopic pipes *a* and *b* are arranged which are fixed upon a connecting piece in U-shape and which carry at their free ends flushing funnels *c* which possess individual movability. These flushing funnels *c* can be brought, both together and the one independently from the other, by means of slewing arms *d* and ropes *e*, to any desired position. The flushing funnels *f* are directly in contact with the sand heap to be worked, and arranged in such a manner, that they can take up a quantity of material which corresponds with the holding capacity of the flushing conduit and which can be regulated by the grate *g*. A pipe *h* for flushing water under pressure is adjustably mounted in each flushing head *f*.

The working method is the same as with other plants used for the same purpose.

The apparatus is mounted at the foot of a heap of sand or gravel and supplied with water under a pressure of 2 to 5 atm. With the aid of the water under pressure the sand is loosened by flushing and conducted to the main conduit by means of the flushing heads.

I claim:—

1. An improved locomotive flushing apparatus for the obtention of flushing material from minings comprising in combination, a frame mounted on wheels, an electrically operated slewing crane supported by said frame, a flushing conduit under said frame, a U-shaped connecting pipe at the head of said flushing conduit, telescopic pipes in each arm of said connecting piece, a funnel shaped head at the upper end of each telescopic pipe suspended to said slewing crane, a water pipe upon each of said telescopic arms and a flushing nozzle of said water pipe in said flushing head.

2. An improved locomotive flushing apparatus for the obtention of flushing material from minings comprising in combination, a frame mounted on wheels, an elec-

trically operated slewing crane supported by said frame, a flushing conduit under said frame, a U-shaped connecting pipe at the head of said flushing conduit, telescopic pipes in each arm of said connecting piece, a funnel shaped head at the upper end of each telescopic pipe suspended to said slewing crane, a water pipe upon each of said telescopic arms, a flushing nozzle of said water pipe in said flushing head and means for moving said flushing nozzles in any direction.

In testimony whereof I affix my signature in presence of two witnesses.

WILHELM WEBER.

Witnesses:

WILHELM HIRSCHMAN,

WALTER SCHROEDER.