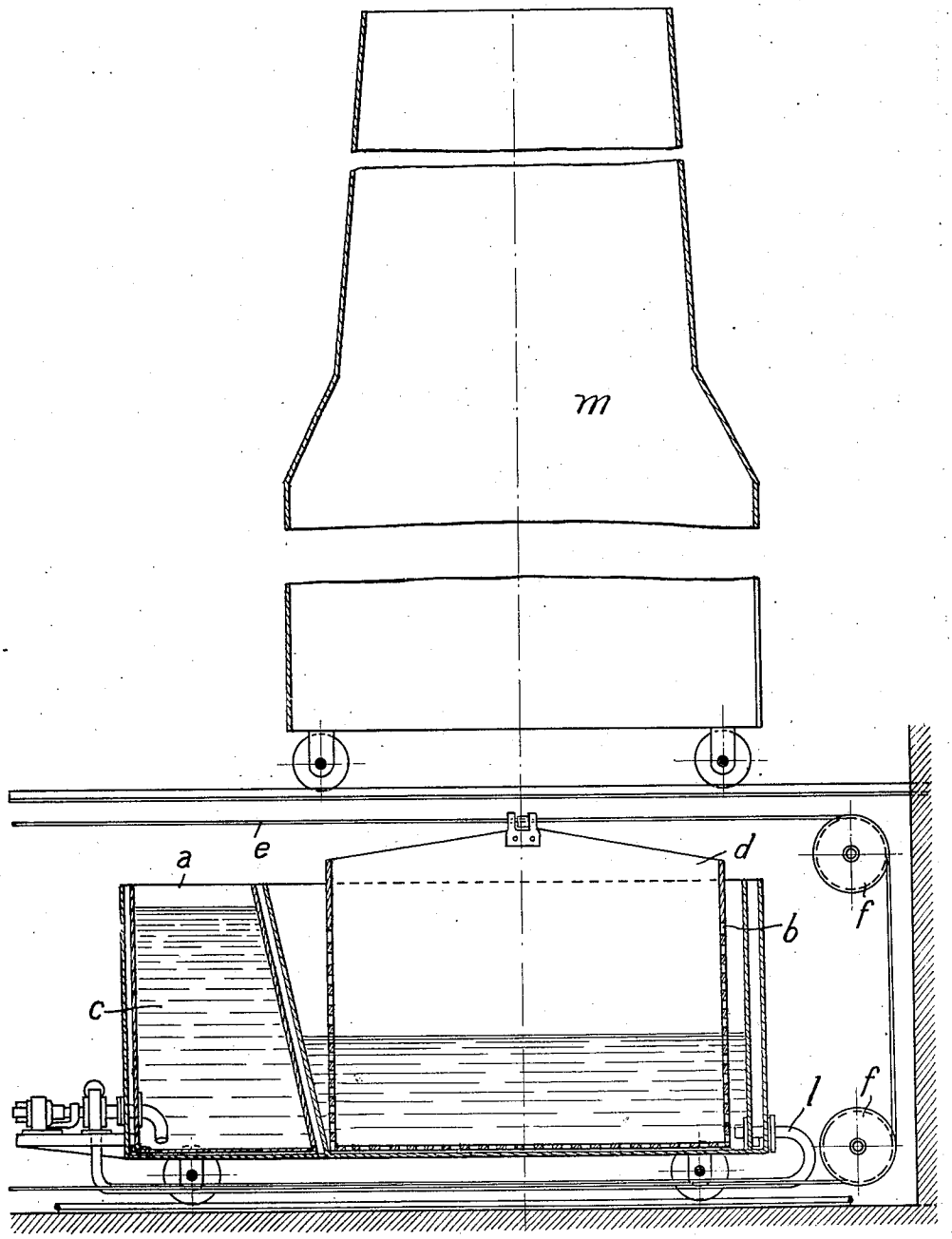
A. BRUNNER & W. SCHÖNDELING.

COKE QUENCHING AND CONVEYING APPARATUS.

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1,077,255.

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WITNESSES:

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ALFRED BRUNNER, OF LEIPZIG-EUTRITZSCH, AND WILHELM SCHÖNDELING, OF LEIPZIG-GOHLIS, GERMANY, ASSIGNORS TO ADOLF BLEICHERT & COMPANY, OF LEIPZIG-GOHLIS, GERMANY.

COKE QUENCHING AND CONVEYING APPARATUS.

1,077,255. Specification of Letters Patent. Patented Nov. 4, 1913.

Application filed April 30, 1910. Serial No. 558,592.

To all whom it may concern:

Be it known that we, ALFRED BRUNNER and WILHELM SCHÖNDELING, subjects of the Duke of Brunswick and the King of Prussia, respectively, residing at Leipzig-Eutritzsch and Leipzig-Gohlis, Germany, respectively, have invented new and useful Improvements in Coke Quenching and Conveying Apparatus, of which the following is a specification.

The present invention relates to an apparatus for the quenching and conveyance of glowing materials, in particular coke from chamber and coke ovens.

The purpose of the same is to permit the employment of suspension railways even when the local conditions in front of the oven chambers are unfavorable, and consists in the connection or removal of the material-carrier and the water-tank from a fixed point outside the range of the ovens, whereby both the carrier and the water-tank run together along the ovens. Simultaneously, to avoid any dislodgment of the water by the falling mass, the water is forced into the receiving coke carrier from the tank in proportion to the bulk thrown into the carrier.

The embodiment of the invention is shown in the annexed drawing which illustrates a vertical section of our apparatus.

The water-tank *a* is arranged to run on rails before the coke-battery and is suitably designed with a chamber *b* for the perforated quenching carrier, and the water-tank *c*, from which the water is forced into the said quenching-carrier as required. The perforated carrier *d* is for the purpose of holding and carrying the material coming from the ovens, the movement of which can be effected by means of a suitable drive from any desired point through an endless rope *e*, chain or similar contrivance, running over the rollers *f* and attached to said carrier. In the present case the drive is placed near the feeding point. In accordance with the position of the point of discharge, the member for locomotion *e* is guided upward by means of guide sheaves, etc. outside the oven-battery. At this point special guide rails etc. can be provided for the carrier and, if necessary, can also be laid before the ovens as a runway.

The operation with this arrangement is as follows:—The water-tank *a* and the quenching and conveying carrier *d* placed in it, stand before one of the ovens, whereby only the bottom of the carrier is covered with water to avoid any overflow when the material is discharged into the said carrier. On opening the oven the material falls into the perforated quenching carrier, thereby absorbing the small quantity of water contained in it, which is then gradually replaced from the storage tank *a* by pumping. For this purpose a connection can be made with a special pressure pipe *l*. As soon as the quenching carrier *d* is filled, the rope is put in motion and both the water-tank and the conveying and quenching carrier are carried together to the deflection point of the member for locomotion *e*, during which journey the quenching operation is completed. At the point of deflection the quenching and conveying carrier *d* is raised from the tank and carried to a bunker, storage ground or similar arrangement *k*, (not shown), where the contents are discharged and the rope *e* then moves in the reverse direction. The steam caused by the quenching is conducted through a stack *m*, which is adjustable with respect to the ovens and which is positioned each time above the quenching car. The conveying carrier participates in this movement and, at the point where it left the water-tank, it is again lowered and is then carried conjointly with the same by the rope *e* to the next oven which is to be emptied.

Claims for patent.

1. In an appliance for quenching coke, a quenching receptacle, a water supply tank in connection therewith and traveling conjointly with the quenching receptacle on rails extending past the fronts of a number of fixed coke ovens, means for circulating the water between the supply tank and the quenching receptacle, and a coke receiving bucket with perforated walls standing loosely in the quenching receptacle and adapted to be raised therefrom by means of any kind, said means being free from connection with the quenching receptacle.

2. In an appliance for quenching coke, a quenching receptacle, a water supply tank in connection therewith and traveling conjointly with the quenching receptacle on

rails extending past the fronts of a number of fixed coke ovens, means for circulating the water between the supply tank and the quenching receptacle, a coke receiving bucket with perforated walls standing loosely in the quenching receptacle and adapted to be raised therefrom by means of any kind, said means being free from connection with the quenching receptacle, and an endless rope connected to the coke receiving bucket for moving the bucket with the receptacle and the tank along the oven fronts.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ALFRED BRUNNER.
WILHELM SCHÖNDELING.

Witnesses:
FRITZ v. KELLER,
RUDOLPH FRICKE.