

P. KUZNOR.
DIPPING DEVICE FOR COATING ROLLS.
APPLICATION FILED JUNE 12, 1909.

949,281.

Patented Feb. 15, 1910.

Fig. 1.

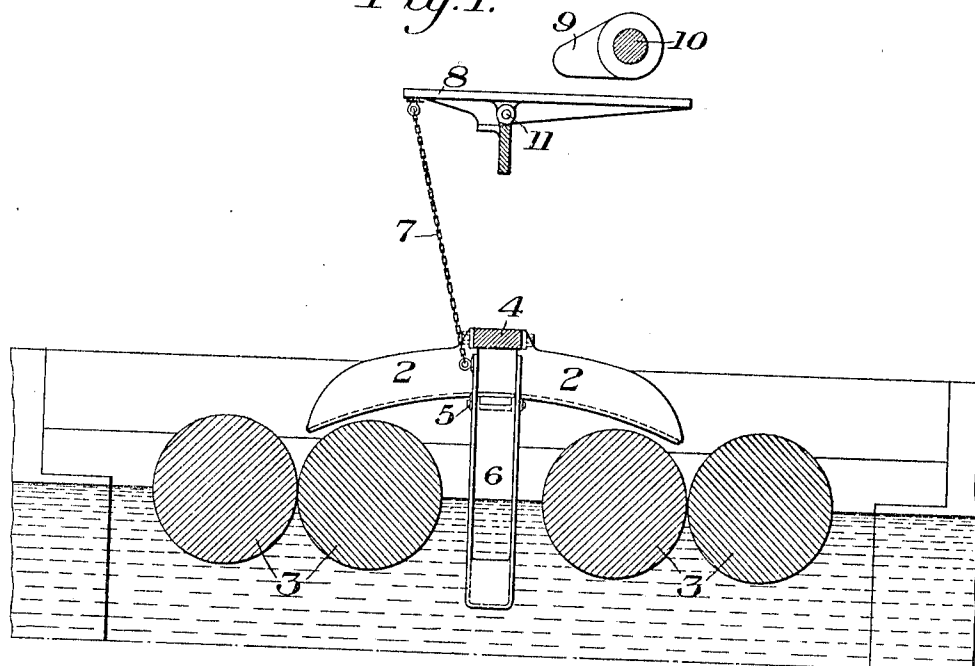
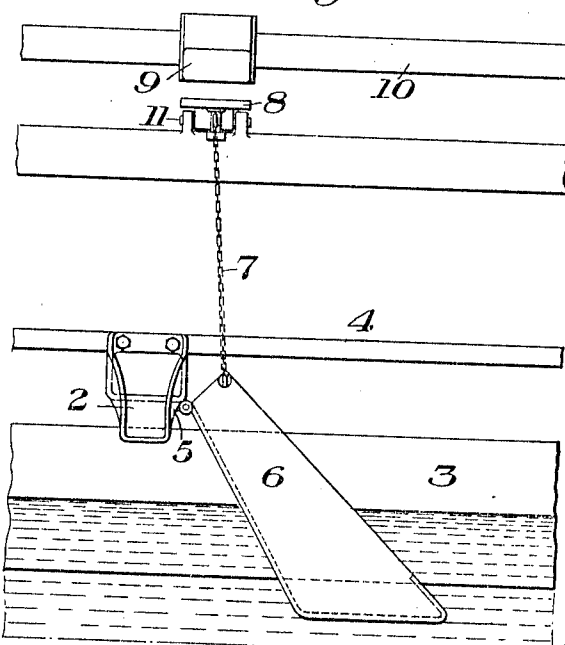


Fig. 2.



WITNESSES

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PETER KUZNOR, OF NEW CASTLE, PENNSYLVANIA, ASSIGNOR TO AMERICAN SHEET & TIN PLATE COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

DIPPING DEVICE FOR COATING ROLLS.

949,281.

Specification of Letters Patent. Patented Feb. 15, 1910.

Application filed June 12, 1909. Serial No. 501,868.

To all whom it may concern:

Be it known that I, PETER KUZNOR, of New Castle, Lawrence county, Pennsylvania, have invented a new and useful Dipping Device for Coating-Rolls, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a sectional side elevation of a double tinning machine showing my dipping device; and Fig. 2 is a partial sectional front elevation.

My invention relates to coating machines where there is a floating layer of oil, flux or other liquid material lying on the top of the bath. In such machines, the upper rolls should be provided with a film of the floating oil or flux, in order to prevent dry spots on the sheets.

My invention is designed to provide an automatic device for dipping up portions of the floating liquid and feeding it to the nip of the rolls, thus insuring their being wet or provided with a film of the liquid.

In the drawings, in which I show a preferred form of my apparatus, 2 represents a trough which extends longitudinally of the tinning rolls and transversely of the machine, said trough in the form shown having a bottom inclined downwardly from the center to each side so as to feed the oil to two pairs of tinning rolls 3, 3.

While I have shown the invention as applied to a duplex tinning machine, it will be understood that the same may be applied to a single coating machine of any desired type. The trough 2 may be supported upon a bar 4, which extends from side to side of the machine, or in any other suitable manner, being fixed in position.

Between the two pairs of tinning rolls, I pivot to a lug 5 at one side of the trough a dipper 6, having a connection 7, leading to one arm of a pivoted two-armed lever 8, whose other arm is actuated by a cam 9, and rotary shaft 10. The lever may be pivoted at 11 to any suitable fulcrum above the top of the machine. This lever is located between the feed-out planes of the sheets, so as

not to interfere therewith, and the shaft 10 may be the shaft of feed-out or catcher rolls, such as shown in the Cronmeyer patent, No. 832,537, dated October 2, 1906.

In the operation of the device, the dipper normally lies with its lower end in the floating layer of oil. As the shaft 10 revolves, the dipper will be moved up and down intermittently at any desirable intervals, and as it rises it will lift a small quantity of oil and deposit it in the trough 2. From the trough 2, it will flow in opposite directions to the nip of the two pairs of tinning rolls.

The advantages of my invention will be apparent to those skilled in the art. The applying of oil to the rolls to keep them in proper condition, to prevent dry spots and give a proper finish to the rolls, is carried out automatically without any attention from the operator. This oil is, of course, kept at a suitable temperature to insure its being liquid, by lying on the bath of molten coating metal beneath it. I thus avoid the use of any exterior tank for feeding oil to the rolls, in which case, the oil becomes cold, and utilize the floating layer itself.

Many variations may be made in the form and arrangement of the mechanism, the dipping means, etc., without departing from my invention, since I consider myself the first to dip up portions of the floating liquid on the top of a coating bath and apply it to the nip of the rolls.

I claim:

1. A coating machine having a dipping device arranged to enter the upper layer of floating liquid on the coating metal, and mechanism for actuating the dipper to supply oil to the rolls, substantially as described.

2. A coating machine having means for lifting liquid therefrom, and a trough or suitable means for directing the lifted liquid to the nip of the rolls, substantially as described.

3. A coating machine having means for elevating a portion of the liquid from the pot and allowing it to flow to the nip of the rolls, substantially as described.

4. A coating machine having a dipper, connections arranged to actuate the dipper,

and a feed channel arranged to direct the lifted liquid to the nip of the rolls, substantially as described.

5 5. A coating machine having a movable dipper arranged to lift liquid from the pot, connections for actuating the dipper, and a channel to which the dipper feeds the lifted liquid, said channel being arranged

to direct liquid to the nip of the rolls, substantially as described.

In testimony whereof, I have hereunto set my hand.

PETER KUZNOR.

Witnesses:

JAMES N. EUWER,
JAMES M. HAMILTON.