PATENT SPECIFICATION

591,227

Application Date: Aug. 24, 1944. No. 16148/44.

Complete Specification Accepted: Aug. 12, 1947.

COMPLETE SPECIFICATION

Moulding Concrete and Similar Plastic Materials

We, WILLIAM HENRY JAMES SHOEBOTTOM, a British Subject, and THE RAPID FLOOR COMPANY LIMITED, a British Company, both of the Company's address, Albion House, 59—61, New Oxford Street, London, W.C.1, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to machines for moulding concrete and similar plastic materials and is directed towards the provision of an improved machine for moulding concrete articles such as beams and posts in a horizontal position in a mould, the two sides of which are moved up and down respectively to free the moulded article at the end of the moulding operation, the top of the article being shaped by a member, commonly called a "plough" which is moved from one end of the mould to the other.

Such a machine is described in Specification No. 372,153.

In machines of this kind as previously constructed the plough has been moved along the top of the mould by hand; in the improved machine the plough is moved by a power-operated traction mechanism, preferably by a cable and winch.

Improved means for guiding the plough are preferably provided and vibrators are preferably provided attached at intervals to the side members or bottom of the mould.

In the accompanying drawings which illustrate the invention:—

Fig. 1 shows a side elevation of the front part of one form of machine according to the invention with certain parts omitted.

Fig. 2 is a corresponding plan view.

Fig. 3 is a cross section to enlarged scale taken on the left-hand side of Fig. 1 and showing the plough in position.

Referring to these drawings the mould consists of side members 1 of channel steel bars and a bottom timber pallet 2, Fig. 3 formed in two parts; this rests upon an inverted channel bar 3 supported at intervals on posts 4 with bases 5 resting on an inverted channel bar 6 secured to angle bars 7 resting on the ground.

The plough 8 is carried by a plate 9 with inturned edges 10 which rides over small guides 11 of channel section resting upon and secured to the side channel members 1, the inturned edges passing over the flanges of the guides 11. This plough-guiding mechansim forms the subject-matter of Application No. 1165/47 (Serial No. 591,262).

Projecting from this plough is an attachment member 12 for a cable 13, Figs. 1, 2 which passes over a guide pulley 14 to a winding drum 15 forming part of a winch at the front of the machine.

This drum is driven through a clutch (not shown) from an electric motor 16 Fig. 2 through a shaft 26 by a belt 17 and toothed wheels 18, 19.

When the plough reaches the front of the machine the clutch is thrown out and the plough is returned by hand.

The channel-section mould side members 1 are supported and carry cams 20 in the manner described in Specification No. 372,153.

Vibrators 21 are carried at intervals, these may be attached to the webs of the side members 1, or as shown could be carried below the bottom channel members 3 or the mould.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that we are aware of Specification No. 168,631 and make no claim to anything described therein; but what we claim is:—

1. A machine of the kind referred to in which the plough is moved along the top of the mould by a power-operated traction mechanism.

2. A machine of the kind referred to in which the plough is moved along the top of the mould by a cable attached to a power-operated winch.

3. A machine as in claim 2 in which the winding drum of the winch is driven through gearing from an electric motor.

4. A machine as in claim 3 in which the winding drum is driven through a

[Price 1/-]

PATENT OFFICE

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Such a machine is described in Specification No. 372,153.

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Improved means for guiding the plough are preferably provided and vibrators are preferably provided attached at intervals to the side members or bottom of the mould.

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Vibrators 21 are carried at intervals, these may be attached to the webs of the side members 1, or as shown could be carried below the bottom channel members 3 or the mould.

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2. A machine of the kind referred to in which the plough is moved along the top of the mould by a cable attached to a power-operated winch.

3. A machine as in claim 2 in which the winding drum of the winch is driven through gearing from an electric motor.

4. A machine as in claim 3 in which the winding drum is driven through a

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clutch which allows hand return of the plough.

5. A machine of the kind referred to in which vibrators are attached at intervals to the side or bottom members of the mould.

6. A machine of the kind referred to substantially as described with reference to the accompanying drawings.

Dated the 24th day of August, 1944.

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