April 6, 1926. 1,579,991

C. WINKLER

MACHINE FOR CASTING STEREOPLATES

Filed Jan. 14, 1925 3 Sheets-Sheet 1

Fig. 4.

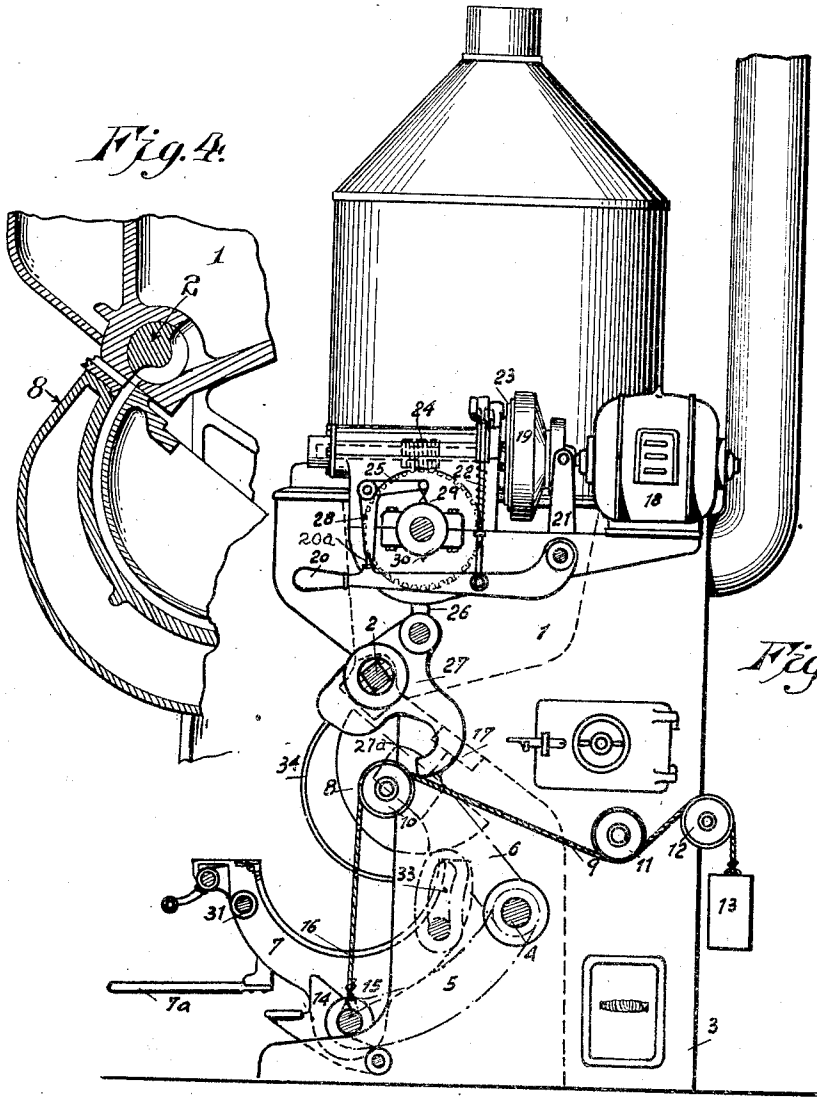


Fig. 1.

INVENTOR
CARL WINKLER
BY Munn & Co.
ATTORNEYS

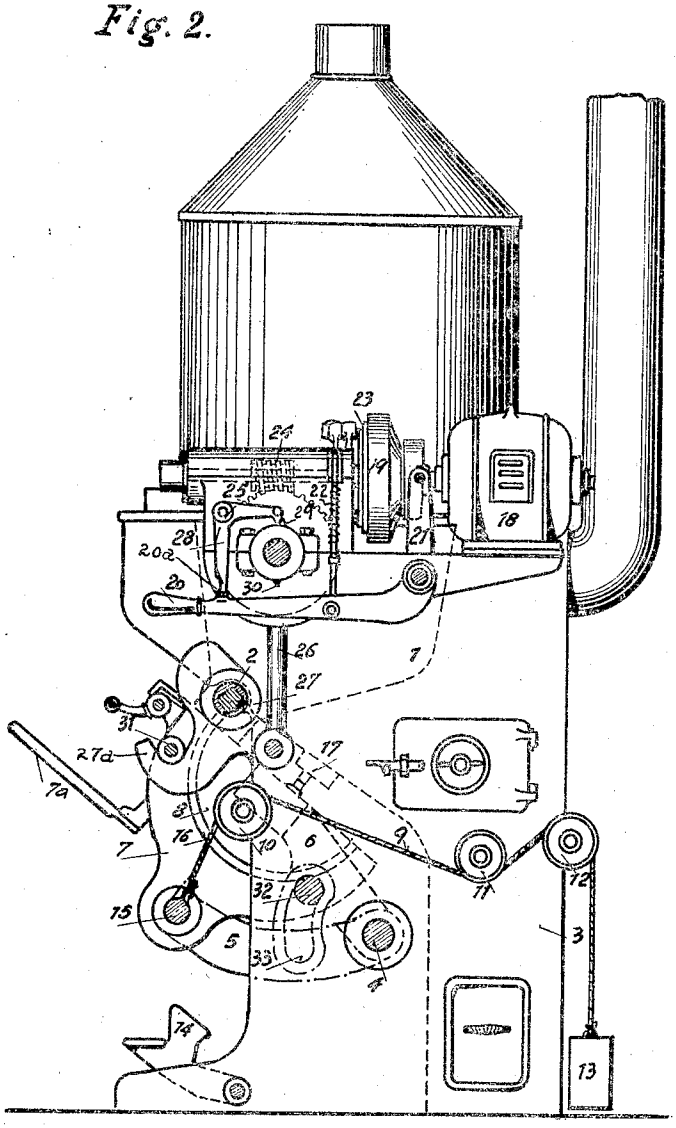
April 6, 1926. 1,579,991

C. WINKLER

MACHINE FOR CASTING STEREOPLATES

Filed Jan. 14, 1925 3 Sheets-Sheet 2

Fig. 2.



INVENTOR
CARL WINKLER
BY Munn & Co
ATTORNEYS

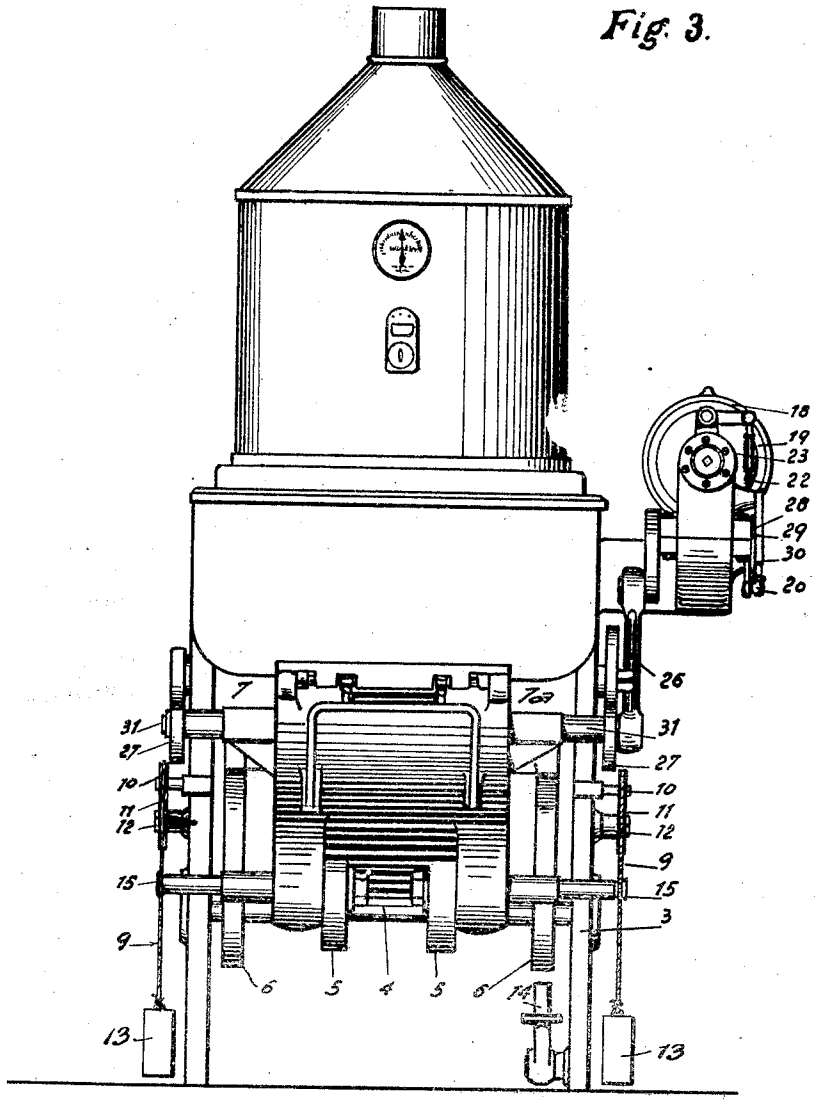
April 6, 1926. 1,579,991

C. WINKLER

MACHINE FOR CASTING STEREOPLATES

Filed Jan. 14, 1925 3 Sheets-Sheet 3

Fig. 3.



INVENTOR
CARL WINKLER
BY Munn & Co
ATTORNEYS

Patented Apr. 6, 1926.

1,579,991

UNITED STATES PATENT OFFICE.

CARL WINKLER, OF BERN, SWITZERLAND.

MACHINE FOR CASTING STEREOPLATES.

Application filed January 14, 1925. Serial No. 2,413.

To all whom it may concern:

Be it known that I, CARL WINKLER, a citizen of the Swiss Republic, residing at Bern. in the Swiss Republic, have invented new and useful Improvements in Machines for Casting Stereoplates, of which the following is a specification.

In small machines for casting curved stereoplates, in which the mould is pressed immediately against the pot, and the flow of metal is regulated by a cock provided in the pot itself, the power drive for the mould is not necessary. According to the present invention, instead of the power drive, the bed of the mould is carried by levers and pressed against the core by a counterweight. The core is also supported by levers, and is pressed by the bed against the pot.

This arrangement is extremely simple in design, and it even enables plates to be cast as quickly as with a power drive, although, of course, for a shorter time.

In the drawing Fig. 1 shows a side elevation of one construction of the casting machine, the mould being in the open position. Fig. 2 is a similar view showing the mould closed. Fig. 3 is a front elevation of the machine with the parts in the same position as in Fig. 2. Figure 4 is a detail sectional view showing the valve in the bottom of the pot for controlling the flow of the metal to the mold.

The pot 1 for melting the stereo-metal is heated in the usual manner by fire, gas, or electricity. In the bottom of the pot there is a slot-opening which can be opened and closed by a cock 2.

To the side walls of the furnace 3 are journalled at 4 pairs of levers 5 and 6, of which the pair 5 carries the bed 7, and the pair 6 carries the core 8. With the bed 7 steel ropes 9 are connected, which pass over guide rolls 10, 11, 12 and carry counterweights 13. In the open position the bed is held by a pedal 14 which engages over the bolt 15 used to fasten the rope 9. When this pedal 14 is depressed the ropes 9 pull the bed upwards against the core 8, whereupon both parts of the mould (core and bed), together with the end segment pieces 16, are pressed against the pot 1, the mould in rising being easily controlled by the stereotyper by means of the handle 7^a.

As soon as the mould presses against the pot, the press button 17 closes the circuit of the motor 18. This turns the fly-wheel 19 forming a clutch element and adapted to be moved on the shaft by means of the hand lever 20 and fork 21. When the lever 20 is pressed down against the pressure of the spring 22, the fly-wheel 19 is moved towards the clutch element 23 which by means of the worm 24, the worm-wheel 25, connecting rod 26 and lever 27 opens the cock 2. In the lower position the hand lever 20 is held by a pawl 28, from which it is released again by a tappet 29, rotating with the worm-wheel 25, moving the pawl 28 away from the stop 20^a on the lever 20, so that the hand lever 20 is raised by the stretched spring 22.

In order to close the cock the handle 20 must be depressed again. It is held by the pawl 28 in its lowest position, and is released by a second tappet 30 acting on the pawl 28.

For the purpose of pressing the mould against the pot in the casting machine, and securing same, the lever 27 is formed with a hook 27^a which in opening the cock engages over a roller 31 on the bed 7.

The mould is opened by pressing down the handle 7^a, whereupon a roller 32 on the bed 7 runs in a guide 33 and turns the bed into a horizontal position, suitable for putting in the matrix. The plate 34 hangs from the top edge of the core when the form is open.

What I claim and desire to secure by Letters Patent of the United States is:

1. In a casting machine for curved stereoplates the combination with a pot, a mould adapted to be pressed against the pot, and a cock to control the flow of metal from the pot, of levers to support the bed of said mould, levers to support the core of said mould, a counterweight adapted to press said bed upwards against said core and to move said core against the pot, substantially as set forth.

2. In a casting machine for curved stereoplates the combination with a pot, a mould adapted to be pressed against the pot, and a cock to control the flow of metal from the

pot, of hooks moving with the cock and adapted on opening the cock to pass over stops on the mould bed and to fasten the mould until the cock is closed again, substantially as set forth.

3. In a casting machine for curved stereoplates the combination with a pot, a mould adapted to be pressed against the pot, and a cock to control the flow of metal, of electromechanical means to turn said cock, and an automatic switch for supply current to said electromechanical means when the mould is pressed against the pot, substantially as set forth.

In testimony whereof I have signed my name to this specification.

CARL WINKLER.