This invention relates to casting machines, particularly machines designed for casting flat, plate-like objects such as grids for storage batteries, and the primary object is to provide a simple, efficient, and practical conveyer system that is so arranged with respect to the casting molds that it will receive the castings that are successively discharged therefrom, carry them to a point remote from the molds and there stack them upon a table or shelf, from which they may be carried or otherwise further conveyed to the cutting, trimming, and treating machines. The present application is a division of my co-pending application, Ser. No. 301,830, filed August 24, 1928, for grid casting machine.

In the accompanying drawings:

Fig. 1 is a side elevation of the lower portion of a grid casting machine, with various parts omitted, but showing a sufficient number of parts to illustrate the application and operation of the conveyer system. For purpose of reference this may be considered the left side of the machine, with the left end of the figure considered as the front.

Fig. 2 is a sectional plan view as on the irregular line 2-2 in Fig. 1.

Fig. 3 is an enlarged detail sectional elevation, on the line 3-3 in Fig. 2.

Referring to the drawings more particularly and by reference characters, 4 designates the base of the lead melting and feeding mechanisms, said base being supported on legs 5 and 6. The said melting and feeding mechanisms have been omitted, except that 7 designates feed nozzles through which the molten metal is supplied to the molds. There are two pair of molds, including stationary molds 8 and movable molds 9. The stationary molds are secured to a heavy cast frame 10, and connected to this frame is a housing 11 that slidably supports a pair of reciprocating rams 12 carrying the movable molds 9.

For present purposes it is sufficient to state that the molds are intermittently opened and closed, that a predetermined charge of molten metal is supplied to the molds, when closed, by the nozzle 7, and, that after such metal has hardened the molds open to discharge the castings 13 which drop under the influence of gravity.

As the castings 13 are successively released from the molds 8-9 they fall into sliding contact with a receiving plate 14. This plate is secured to and within the framework 10 and is so curved and inclined that it will receive and direct the castings downwardly and forwardly, discharging them, at its lower end, upon the lower rear part of an inclined endless conveyer belt 15 carried by a frame 16 secured to the legs 5.

The upper conveyer roller 17 has a sprocket pinion 18, driven from a sprocket pinion 19, by a chain 20. The pinion 19 carries a worm gear 21 meshing with the worm 22 of a shaft 23, driven by the motor 24. Slack in the belt 15 may be taken up by set screws 25, and the proper tautness in the chain 20 is had by moving the gear support block 26 on a rail 27, the shaft 23 being telescoped, as at 28, to permit such adjustment. The plates delivered by the chute 14 are carried up on the apron 15 until they deposit themselves, over the upper roll, upon a shelf 29, one on top of the other. When this shelf has received a certain number of plates they may be temporarily piled upon a larger shelf 30 until they are to be carried away or delivered to the cutting or trimming machine.

The shelf 29 is preferably adjustable secured to the upper ends of the conveyer frame bars 16, so that it may be set to the most advantageous position for properly receiving and stacking the grid plates 13.

It is understood that suitable modifications may be made in the structure as disclosed, provided such modifications come within the spirit and scope of the appended claims.

Having now therefore fully illustrated and described my invention, what I claim to be new and desire to protect by Letters Patent is:

1. In a casting machine having a base for a melting and feeding mechanism, a mold unit at one side of the base, a support at the opposite side of the base from the mold unit, and a conveyer for conveying castings from the mold unit to the support.

2. In a casting machine having a base for
a melting and feeding mechanism, a mold unit at one side of the base, a support at the opposite side of the base from the mold unit, and a conveyer extending under the base for transferring castings from the mold unit to the support.

3. In a casting machine having a base for a melting and feeding mechanism, a mold unit at one side of the base, and a conveyer extending under the base to transfer castings from the casting unit to the other side of the base therefrom.

4. In a casting machine having a base for a melting and feeding mechanism, a mold unit at one side of the base, a stacking shelf at the opposite side of the base from the mold unit, a chute extending downwardly from the molds of the mold unit to a point adjacent said base, and an inclined conveyer having its lower end disposed adjacent to the lower end of the chute and extending under said base with its upper end disposed adjacent to the stacking shelf so as to deliver the castings in a horizontal position thereto.

Signed at Minneapolis, in the county of Hennepin and State of Minnesota, this 15th day of August, 1929.

ARTHUR D. LUND.