

A Concrete Pergola.

Our illustrations show a well-designed pergola, erected from moulds in a cemetery in New York, in concrete, from which were cast the columns, caps, and bases, to the design of Mr. J. Beardsley, architect.

"Concrete" says the pergola concrete is of crushed white marble and Medusa waterproof cement. The column bases are 2ft. square, made of a tamped mix and with a rubbed finish.

The columns, 10ft. high, were wet east in concrete moulds, and also given a rubbed finish. The main girders, also dry tamped and rubbed, are 8in. by 10in. x 15ft. The footings were east with projecting reinforcement and columns, and bases made hollow and filled with concrete after setting.

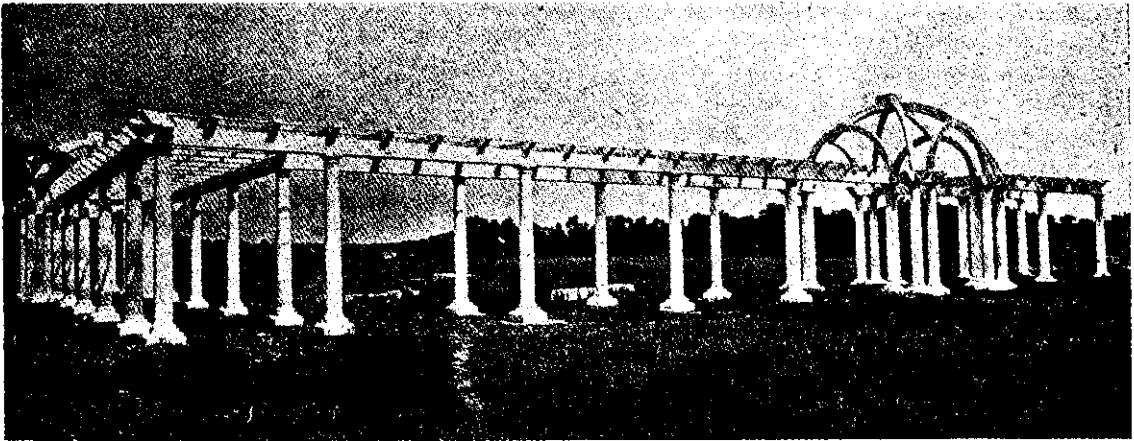
tudinal and circular, including a lifting hoop at the upper end, then another inch of mortar was applied, and screeded on over the circular end boards.

"The next day (or when sufficiently hard) we removed end pieces, turned forms upside down, and lifted the pallet.

"Then the second half of the wooden column was placed on top and fastened firmly and accurately in place, with circular end boards in position. The exposed grooved edge of the first half of the mould was grooved, and it becomes the base or pallet for the second half. Then mortar and reinforcing was placed.

"As soon as possible the wooden column was removed and the mold cured.

"When sufficiently cured, it was rubbed down with carborundum or sandstone, washed with acid, and all imperfections filled with neat cement grout.



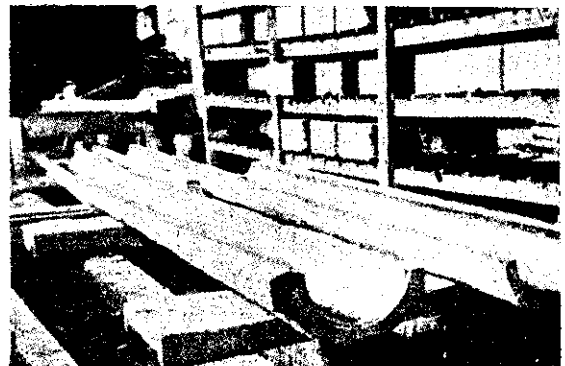
Concrete Pergola, St. Peter's Cemetery, New York. Columns, Caps and Bases were poured in Concrete moulds.

R. H. Bushnell, who did the work, says: "The making of moulds of concrete is almost identical with making moulds of plaster.

"The moulds for the columns, caps, and bases for the pergola at St. Peter's Cemetery were made and operated as follows: We purchased a stock wooden column, with cap and base of Tuscan design (over all, 10ft. by 1ft. diameter).

"We split the column with a fine saw lengthways, laid one-half flat side down on pallet large enough to give at least 2in. border all around. Then we fastened a small piece of board at each end of half-column resting on pallet, these boards sawed out in semi-circle 2in. larger than the ends of the column. Small half-round moulding was nailed on a large pallet along each side, and about 1in. from the column—this to form a key for the second half of mould. After oiling, or preferably giving model a coat of hot paraffin diluted (according to weather) with kerosene, the cement plaster was applied. This was put on 1in. thick and rather stiff (1 to 1½ mixture), and over this the necessary reinforcing longi-

When this had hardened it was again rubbed down and allowed to dry. It was then painted with hot paraffin and kerosene. The two halves were laid together on the ground and fastened with four Gemco column clamps. One end was raised about 2ft. off the ground, while hot paraffin (clear) was



Column Moulds made of Concrete.