



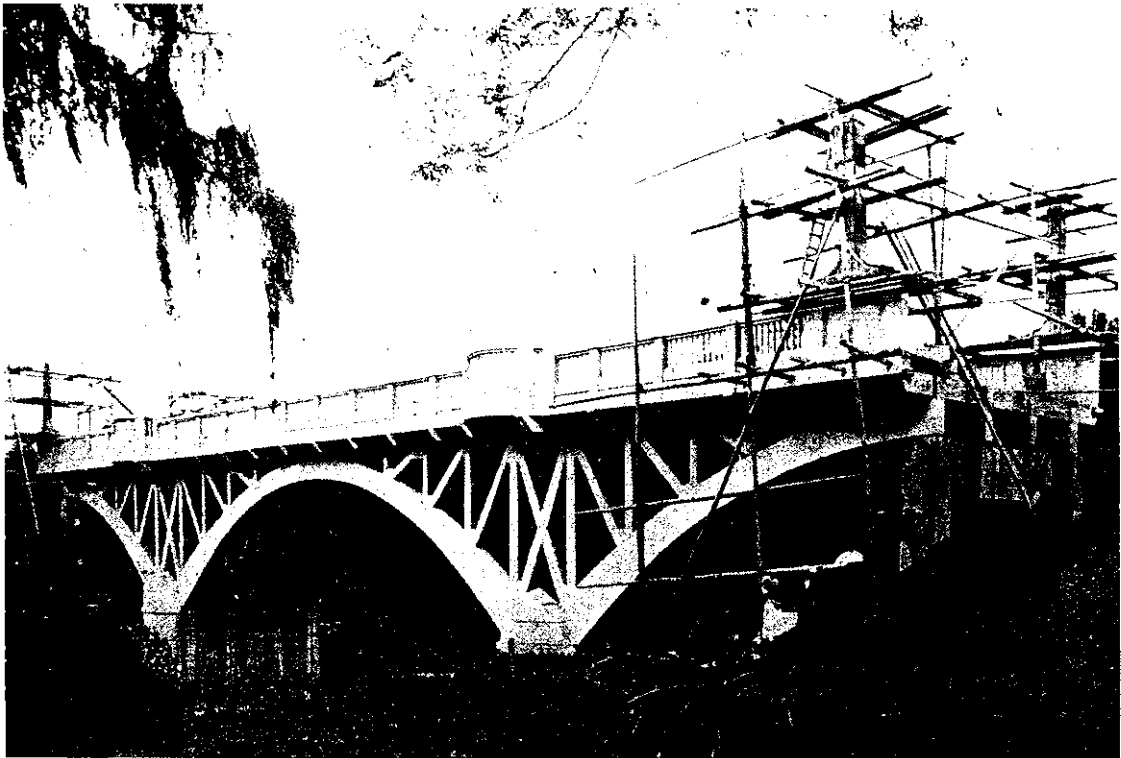
Kahn System of Reinforced Concrete



The steel situation to-day is serious. Orders for supplies for buildings, railroads and manufactured articles generally have created a demand for steel, the production of which seems to be entirely beyond the capacity of the rolling mills.

Munitions of war are consuming a vast quantity of steel, and the difficulties attendant upon the importation of anything better than shell discard steel all point to the necessity of economising the

while in columns and other structural members, the ratio is even greater. Its fire-proofness and economy have been demonstrated in so many different ways as to be beyond question; because of the comparatively small amount of steel required, the cost of this type of building is not materially affected by the increase in the price of steel. Under these conditions the relative economy is much greater than before.



Decorative treatment of Kahn System, Bridge, Pietermaritzburg, Natal

stocks already in this country; because steel enters so largely into modern construction work of buildings, we must be prepared to cope with this new situation. The aim should be to keep down the quantity of steel required, but without sacrificing permanence or quality of construction.

ECONOMY OF REINFORCED CONCRETE

A large portion of steel can be saved by the use of reinforced concrete. The permanence of the building will not only be enhanced, but its cost will be reduced. The ordinary structural steel building uses large quantities of steel; even the simplest rolled steel joist requires about three times as much steel as a reinforced concrete beam of equal strength,

Sir Henry Tanner, the former principal architect to H.M. office of works, addressing the Royal Institute of British Architects in reference to reinforced concrete stated, "as to economy, there was no question about it. One of the works I had in hand in this material cost about twopence a cubic foot for the carcass. You could not touch that under certainly twice the sum of money in any other material." Lieut-Col. Winn, R.E., in his "Notes on Steel-Concrete Construction," says:—"A large goods-station at Newcastle has recently been erected of reinforced concrete complete for the price the steelwork only on ordinary construction would have cost."