

ary coils can be placed close together, thus cutting down the leakage reactance and improving the regulation of the transformer. With the higher voltages and capacities the high tension coils have to be separated considerably from the low tension coils to provide for insulation and ventilating ducts for

In order to discuss the main advantages and disadvantages of three phase transformers, as compared with a group of single phase transformers of equal capacity, we will take the classification as outlined by Mr. J. S. Peck in a paper before the American Institute of Electrical Engineers, as follows:

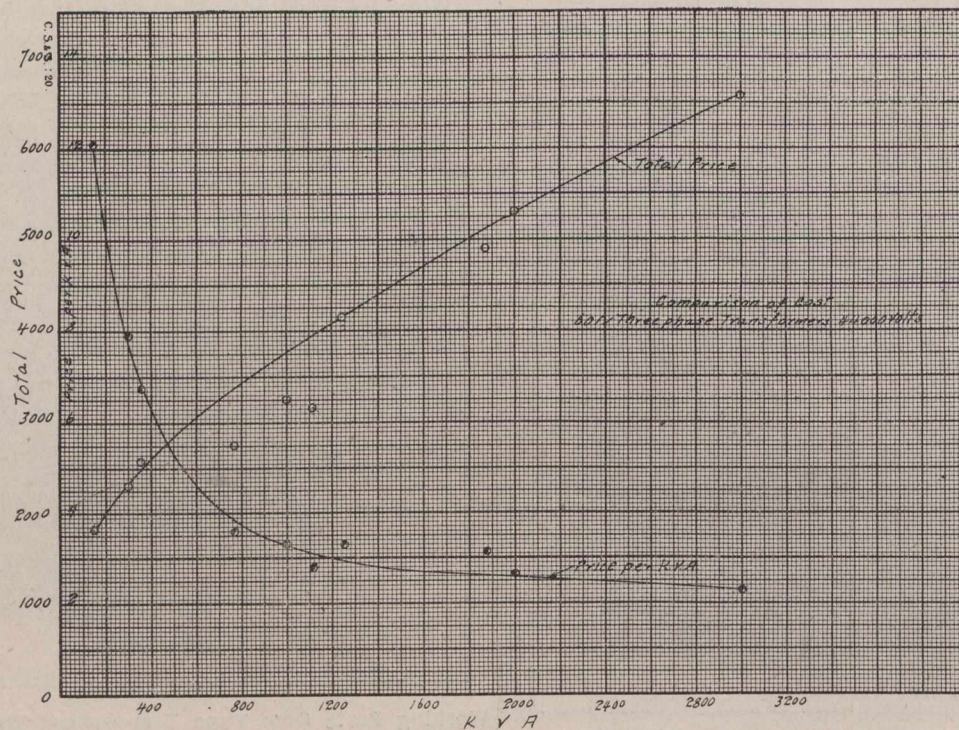


Fig. 2.

oil, and it is impossible to design the transformer for good regulation.

The shell type has then to be resorted to and by interleaving the primary and secondary coils, good regulation may be

Advantages:

- (a) Lower cost for same capacity.
- (b) Higher efficiency.
- (c) Less floor space and hence cheaper stations.

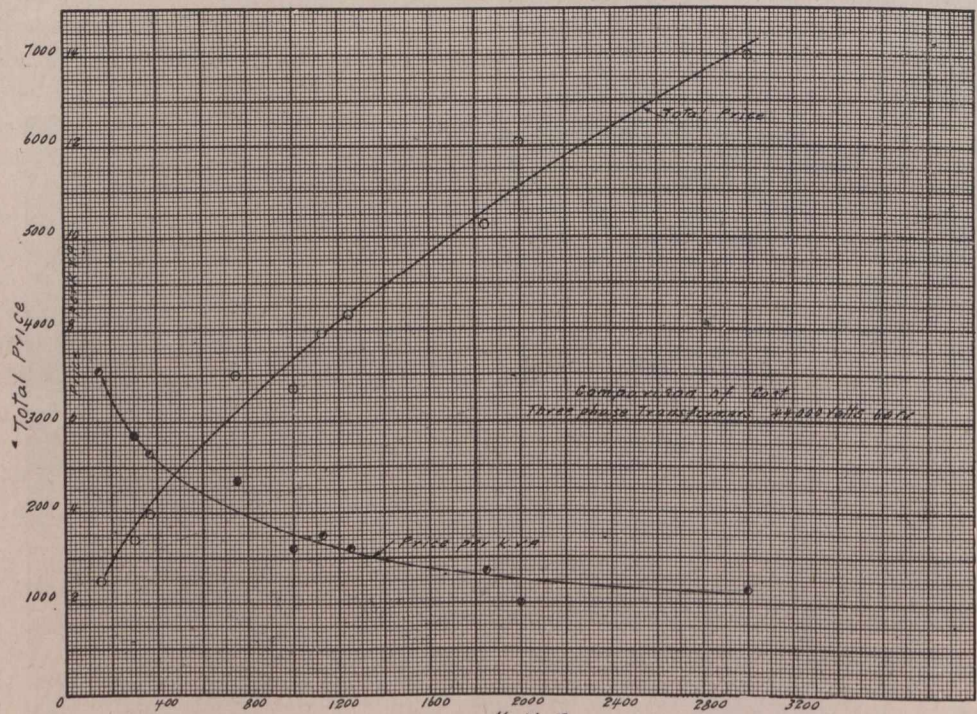


Fig. 3.

procured without sacrificing the insulation or reducing the size of the oil ducts. However, when it comes to a breakdown the advantage is altogether with the core type of transformer.

- (d) Less weight and hence cheaper transportation.
- (e) Simplification of outside wiring and hence reduced size of buildings.