From these figures, and the corresponding curves of Figs. 212 and 213, it appears that for any given value of β, the maximum efficiency is attained when α is almost exactly equal to $\beta \div 2$. The maximum attainable hydraulic efficiency falls off as β and α are increased, but for values of β between 30° and 60° the effect is not large. The values of the peripheral velocity for entry
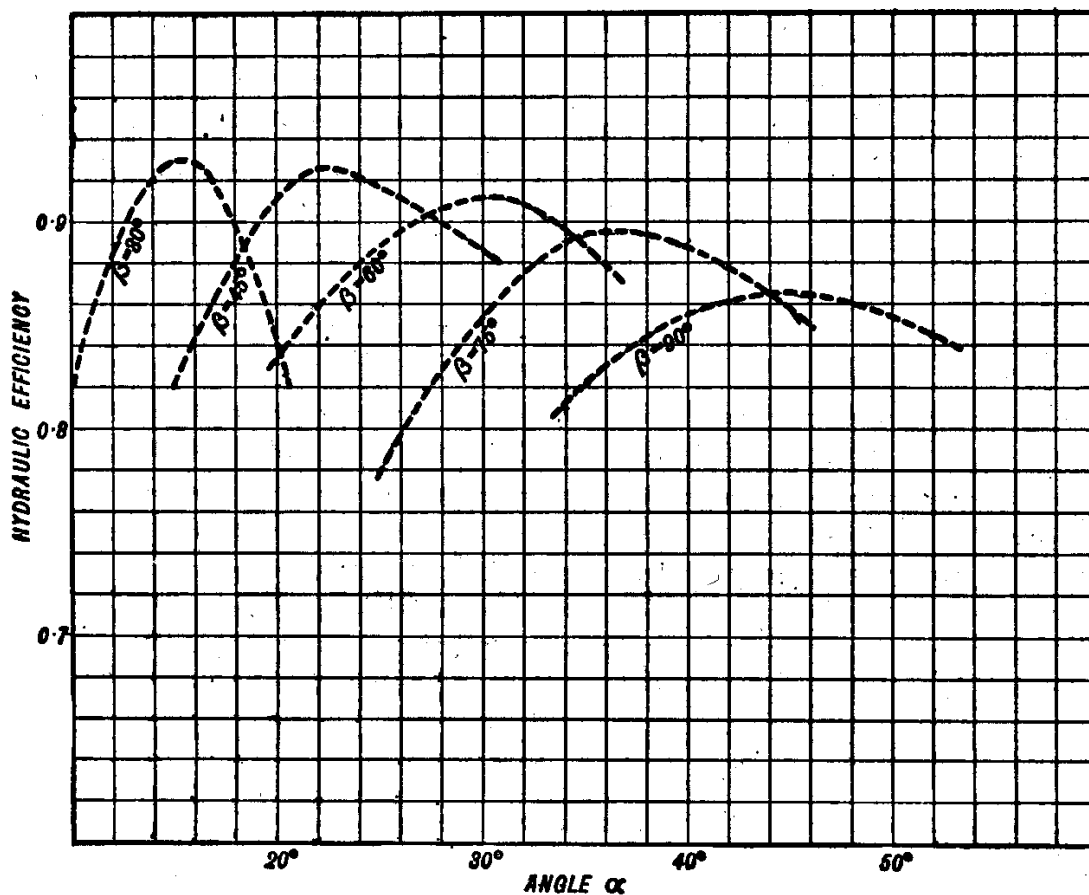

FIG. 212.

without shock for any value of β working in conjunction with the best value for α, are as follows :—

β.	30°	45°	60°	75°	90°
u_2/v_1	·52	·55	·58	·63	·71

So that since windage losses increase with the speed of rotation, the overall efficiency with a given size of jet and wheel will tend to fall off somewhat more rapidly than the hydraulic efficiency, with an increase in β.

Moreover, since the effective sectional area of the wheel passages at inlet