

PREFACE TO SECOND PART.



CONSIDERABLE time has elapsed since the preparation of the former part of this work, during which so many improvements have been introduced into the practice of bridge construction, that a further extension of the descriptions of particular plans seems to be necessary. It is believed that no work has ever been published containing detailed calculations of the strains upon all the timbers which constitute the supporting trusses of a framed bridge, nor has any theory been advanced which furnishes rules by which these strains can be estimated. At the suggestion of several professional friends, who concurred in the opinion that such an addition was a desideratum, the writer was induced to prepare this second part, containing details of most of the arrangements that are exhibited in wooden structures, furnishing illustrations of all, or nearly all, the