INTRODUCTION.

It is about thirty years since the Author's attention was especially directed to the subject of Bridge Construction; and, his Original Essays published in 1847, are believed to have aided considerably toward establishing the foundation upon which a knowledge of the principles involved, and the conditions required in the proper construction of Truss Bridges, has been built up, and carried to a high state of advancement.

However that may be, the flattering terms in which his former labors in the premises have often been referred to, as well as the frequent applications for copies of his former publication, since the supply became exhausted, have prompted the issue of the present volume.

This work inculcates the same development of General Principles, and treats of essentially the same General Plans, Combinations, and proportions for bridge work, as were discussed and recommended in its humble predecessor; with such