

**GIRDER-MAKING AND THE
PRACTICE
OF BRIDGE BUILDING IN
WROUGHT IRON**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649593767

Girder-Making and the Practice of Bridge Building in Wrought Iron by Edward Hutchinson

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

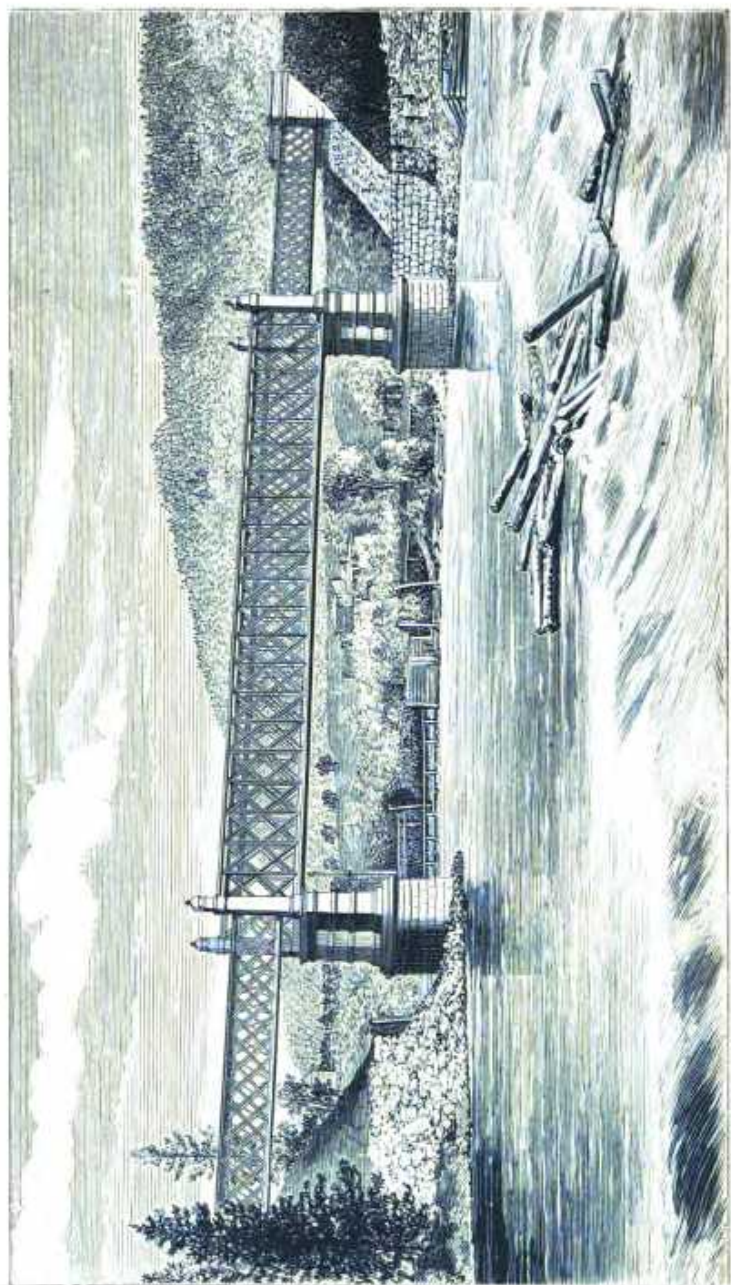
Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

EDWARD HUTCHINSON

**GIRDER-MAKING AND THE
PRACTICE
OF BRIDGE BUILDING IN
WROUGHT IRON**



RIVER DAL BRIDGE.

Frankfort.

25-0-01

GIRDER-MAKING

AND THE PRACTICE OF

BRIDGE BUILDING

IN WROUGHT IRON.



ILLUSTRATED BY

EXAMPLES OF BRIDGES, PIER, AND GIRDER-WORK, &c.

CONSTRUCTED AT THE SKERNE IRON WORKS,

DARLINGTON.

BY

EDWARD HUTCHINSON,

MEMB. INST. MECHANICAL ENGINEERS.

London:

E. & F. N. SPON, 46, CHARING CROSS.

NEW YORK: 446, BROOME STREET.

MDCCCLXXIX.

1279

Printed by
UNWIN BROTHERS,
LONDON AND CHILWORTH.



202005-118

Preface.



THE writer, in the present work, does not pretend to have any higher aim than to offer a few suggestions of a practical kind to the professional engineer in designing, or the inspector in superintending, the construction of such works as those he has endeavoured to illustrate and describe.

Confining himself exclusively to the practical part of the question, he does not wish to be understood even to have an opinion as to the relative merits of the various designs introduced into the work, further than as these are associated with questions of quality of material, or workmanship; durability as affected by time or exposure; or any other consideration of a purely practical character.

In recapitulating, however, many of the difficulties, and in trying to point out some of the sources of needless expense, in the construction of Girders, a little may be done, it is hoped, towards promoting a condition of mutuality between engineer and contractor; and that whilst the former will be able to get what he requires at

287
7-1-42
Belang

less cost and of a better quality, the latter will find more satisfaction, both in the work he produces and the profit it leaves him, by attention to such questions as the writer has endeavoured to give prominence to.

With the exception of Mr. Matheson's admirable "Works in Iron" (to which elaborate treatise the writer acknowledges his indebtedness for some valuable hints), but few essays have been made in this direction; and whatever want of ability in dealing with his subject the writer may betray, he can hardly be accused of dwelling upon an exhausted theme.

Restricted as the notice altogether is to such works as have been executed at, or in connection with, the Skerne Iron Works, the several types of Girder-bridge are not, perhaps, so fully represented as they would otherwise have been; but they will, no doubt, for the present purpose be found sufficiently varied and numerous.

The writer trusts he will not be deemed to have exceeded the limits of propriety in briefly noticing works, in one or two instances, without the express sanction of the engineer to whose designs they were carried out. In all such cases he has refrained from giving details, dimensions, or drawings to scale.

List of Plates.



RIVER DAL BRIDGE	<i>Frontispiece</i>
KISTNA VIADUCT	73
MURRUMBIGEE BRIDGE, AT HAY, AUSTRALIA	81
MONTESA BRIDGE	83
AIRE BRIDGE	87
BRIDGE OVER THE RIVER DEVON... .. .	93
GRANDTULLY BRIDGE	101
STAITHES VIADUCT... .. .	111
DAGLÖSELFVEN BRIDGE	115
LEITH DOCKS SWING BRIDGE	121, 123
CARLISLE BRIDGE, DUBLIN	129
SWING BRIDGE ACROSS THE RIVER LIFFEY, DUBLIN	133
PIER AT LLANDUDNO	137
HUELVA PIER	147, 149
SWING BRIDGE OVER THE RIVER OUSE	153
COOKHAM BRIDGE	159
BRIDGE OVER THE RIVER DAL	177

