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PRACTICAL

COTTON SPINNER

AND MANUFACTURER;

OR THE

MANAGERS', OVERLOOKERS', AND MECHANICS'
COMPANION,

BEING A COMPREHENSIVE SYSTEM OF

CALCULATIONS OF MILL GEERING AND MACHINERY,

From the First Moving Power, through all the Different Processes of

CARDING, DRAWING, SLUBBING, ROVING, SPINNING,
AND WEAVING,

With recent Improvements in Machinery;

TO WHICH ARE ADDED

*Compendious Tables of Yarns and Reeds, for Persons Engaged
in the Spinning and Manufacturing of Silk, Linen,
Worsted, and Woollen.*

FIFTH EDITION, WITH PLATES.

LONDON:

SIMPKIN, MARSHALL, & CO.

MANCHESTER:

J. THOMSON & SON, MARKET STREET.

1861.

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ENTERED AT STATIONERS' HALL.

Государственная
БИБЛИОТЕКА
СССР
им. В. И. Ленина

И 15987 -50

P R E F A C E.

SEVERAL publications on Cotton Spinning have already appeared before the Public, the merits of which it is not my intention to discuss. As a practical person, I may, however, observe, that those which have come under my notice are, to a considerable extent, destitute of much practical utility. The systems of working the calculations they contain are not sufficiently explicit, and hence can never achieve the great and important end of combining practice with theory, which is so essential, particularly to Managers and Overlookers.

The present work comprises every necessary calculation connected with the most recent improvements in machinery in the spinning and manufacturing business, with rules, examples, and illustrations simple and easy to be understood; so that any person, having a knowledge of the elementary rules of arithmetic, may, without difficulty, by attention to the rules and examples given, prepare himself for filling the most important situations as Overlooker or Manager in any department of the business. The rules and examples are all original, and have been reduced to practice by myself.

Calculations relative to all machinery used in the spinning and manufacturing of all fibrous substances, are attainable by the same rules; so that this work will be found equally beneficial to those engaged in the Spinning and Manufacturing of Silk, Linen, Worsted, and Woollen; compendious tables being arranged, with rules, examples, and illustrations, to show the size, girt, hank, or

proportion of hank, in every operation, with the fineness of Yarns, according to the different lengths, constituting the lea, cut, or hank, with the different systems of counting Worsted Reeds.

Having been engaged in the different departments of the Cotton business for many years, I have found a great deficiency in theoretical knowledge amongst practical persons filling important situations in Cotton and other Factories, which led to the determination, at the request and by the encouragement of several friends, to prepare a complete system of calculations: and I have no hesitation in saying that such a system will be found in the present work. And while it answers as a book of reference to the Masters, and an assistant to the Manager, Overlooker, and Mechanic, it will convey instructions to the aspiring Operative, and form a desideratum in the tuition of young persons intended for the Spinning, Manufacturing, or Machine business. This work will not only be found to convey a correct knowledge of calculations, but, in following out the rules laid down, a considerable degree of pleasure must be experienced from a perception that theory and practice are here combined, which it is hoped will enable persons to give general satisfaction in the management of their respective departments of business.

R. SCOTT.

ERRATA.

Page 26, line seventh, for corner, read cover.

Page 27, second line of Question, for 1535, read 1435.