# THE AMERICAN COTTON SPINNER AND MANAGERS' AND CARDERS' GUIDE: A PRACTICAL TREATISE ON COTTON SPINNING

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The American cotton spinner and managers' and carders' guide: a practical treatise on cotton spinning by Robert H. Baird

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### ROBERT H. BAIRD

# THE AMERICAN COTTON SPINNER AND MANAGERS' AND CARDERS' GUIDE: A PRACTICAL TREATISE ON COTTON SPINNING



## AMERICAN COTTON SPINNER,

AND

#### MANAGERS' AND CARDERS' GUIDE:

A PRACTICAL TREATISE

OX

#### COTTON SPINNING:

GIVING

THE DIMENSIONS AND SPEED OF MACHINERY, DRAUGHT AND TWIST CALCULATIONS, ETC.; WITH NOTICES OF RECENT IMPROVEMENTS.

#### TOGETHER WITH

RULES AND EXAMPLES FOR MAKING CHANGES IN THE SIZE AND NUMBERS OF ROVING AND YARN.

ROBERT H. BAIRD.

PHILADELPHIA:
A. HART, LATE CAREY & HART.
1852.

### PREFACE.

The following pages are chiefly the work of the late Robert H. Baird, well known as an expert cotton spinner. But, as the manufacture of cotton is rapidly progressing, and his manuscript was written some few years since, it was found necessary to make such additions to it, as would bring the subject up to the present time. It is not the intention of this treatise, to give a perfect description of cotton machinery, such as is at present in use; the chief object is, to furnish the managers and foremen of cotton factories with a guide, by which to calculate the draught and twist of the various machines, and afford them some assistance in managing the machinery.

But little could be said on the subject of weaving, as it has been already ably treated of in other works of merit; still, a treatise on weaving is very much needed, particularly on plain weaving. But, as this subject, if fully developed, would occupy more space and absorb more means than can be assigned to it in this instance, we hesitated about entering fully upon it at this time, and intend, at some future period, to offer to the public an elaborate work on w aving.

(iii)

The large amount of capital invested in cotton plantations, in mill-scats, buildings, water-works, steamengines, and all the machinery required for the manufacture of cotton goods, the number of persons that are employed in perfecting these manufactures, and the value of the articles manufactured, all entitle the cotton manufacture in this country to a claim upon our particular attention.

It is evident that the manufacture of cotton has become a very important branch of our national industry, and that a practical work upon this subject, the first of the kind published in this country, explanatory of the movements of cotton machinery, and of the various processes used in the manufacture of the goods, together with plain and practical rules for ascertaining the best modes of operating the various complicated machines used in this highly important manufacture, cannot fail to be interesting to all the parties engaged therein.

This work is intended for the mutual advantage of employers and operatives; and, as the interests and welfare of both are inseparably identified, the motto, "united we stand, divided we fall," is truly applicable to cotton growers, mill owners, and operative cotton spinners.

PHILADELPHIA, April 1, 1851.

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