

CONTENTS.

	PAGE.
DIVISIONS OF TEXTILE FABRICS, ACCORDING TO THEIR CONSTRUCTION,	
Squared Designing Paper for the Different Textile Fabrics.	9
 FOUNDATION WEAVES,	
The Plain or Cotton-Weave,	13
Fancy Effects Produced with the Plain Weave,	14
Twill Weaves (Method for their Construction),	16
Combinations of Two or More Colors for Producing Figured Effects upon Fabrics Interlaced on Twills,	22
Satin Weaves (Method for their Construction),	25
Influence of the Twist of the Yarn upon Fabrics Interlaced with Satin Weaves,	29
Arrangement for Commencing the Satin Weaves for Special Fabrics, such as Damask Table Covers, Etc.,	29
 "DRAWING IN THE WARP IN ITS HARNESS" AND THE PREPARATION OF DRAWING-IN DRAFTS.	
The Harness,	31
Principles of a Drawing-in Draft,	31
Different Divisions of Drawing-in Drafts,	32
Sub-Divisions of Fancy Drawing-in Drafts,	32
<i>A.</i> —Broken Draws,	32
<i>B.</i> —Point Draws,	33
<i>C.</i> —Drawing-in Drafts having a Section Arrangement,	34
<i>D.</i> —Skip Draws,	35
<i>E.</i> —Mixed or Cross Draws,	35
Specimen of a Complete Drawing-in Order,	35
Drafting of Drawing-in Drafts from Weaves,	36
Rules for Estimating the Number of Heddles Required on Each Harness,	38
The Reed, and Reed Calculations,	39
 DERIVATIVE WEAVES FROM THE PLAIN OR COTTON WEAVE.	
I.—Common Rib-Weaves,	41
II.—Common Basket-Weaves,	42
III.—Fancy Rib-Weaves,	43
IV.—Fancy Basket-Weaves,	45
V.—Figured Rib-Weaves,	46
Effects Produced by Using Two or More Colors in Warp and Filing in Fabrics Interlaced upon Rib and Basket-Weaves,	48
VI.—Oblique Rib-Weaves,	50
Combining Common, Rib and Oblique Rib-Weaves,	51

CONTENTS.—CONTINUED.

DERIVATIVE WEAVES FROM THE REGULAR TWILLS.	PAGE.
I.—Broken Twills,	52
Using Two or More Colors in Warp and Filling for Producing Effects in Fabrics Interlaced with Broken Twills,	55
II.—Steep Twills or Diagonals,	56
III.—Reclining Twills,	60
IV.—Curved Twills,	62
V.—Skip Twills,	63
VI.—Combination Steep Twills,	67
VII.—Corkscrew Twills,	68
VIII.—Entwining Twills,	75
IX.—Twills having Double Twill Effects,	77
X.—Twills Producing Checker-board Effects,	78
XI.—Fancy Twill Weaves,	80
XII.—Pointed Twills,	81
DERIVATIVE WEAVES FROM SATINS.	
Double Satins,	84
Granite Weaves,	85
Granite Weaves as Constructed by other Methods than having Regular Satins for their Foundation,	88
Combination of Different Systems of Weaves for One Design,	90
Figured Effects upon Fabrics interlaced with Derivative Weaves Produced by Arrangement of Two or More Colors in the Warp or the Filling, or in Both at the Same Time,	93
SINGLE CLOTH WEAVES FOR FABRICS OF A SPECIAL CONSTRUCTION AND PECULIAR CHARACTER.	
Honeycomb Weaves,	98
Imitation Gauze Weaves,	102
COMBINATION OF WEAVES FOR FABRICS CONSTRUCTED WITH ONE SYSTEM OF WARP AND TWO SYSTEMS OF FILLING.	
Combining Two Systems of Filling with One Kind of Warp for increasing the Bulk in a Fabric,	105
Combining Two Systems of Filling with One Kind of Warp for Figuring with Extra Filling upon the Face of the Fabric,	108
Swivel Weaving,	109
Combination of the Swivel Effect with figuring through the Warp,	111
Swivel Loom,	111
COMBINATION OF WEAVES FOR FABRICS CONSTRUCTED WITH TWO SYSTEMS OF WARP AND ONE SYSTEM OF FILLING.	
Two Systems of Warp and One System of Filling for Producing Double faced Fabrics,	114
Using an Extra Warp for Backing for Heavy-weight Worsted and Woolen Fabrics,	115
Figuring with an Extra Warp upon the Face of a Fabric Otherwise Interlaced with its own Filling,	117
Lappet Weaving,	123
Tricot Weaves,	126

CONTENTS.—CONTINUED.

DOUBLE CLOTH.	PAGE.
Description of the Construction and the Purposes for Making Double Cloth Fabrics,	129
Rules for Designing Double Cloth Weaves,	130
Double Cloth Weaves having for their Arrangement One End Face to Alternate with One End Back in Warp and Filling,	132
Double Cloth Composed with Different Proportions of Face and Back Threads,	134
Double Cloth Weaving without Stitching both Fabrics,	137
Double Cloth Fabrics in which the Design is Produced by the Stitching Visible upon the Face of the Fabric,	138
Rib Fabrics,	142
Three-Ply Fabrics,	146
Four and Five-Ply Fabrics,	147
PILE FABRICS.	
File Fabrics Produced by Filling.	
Velveteens, Fustians, Corduroys,	149
Chinchillas, Whitneys,	152
Chenille as Used in the Manufacture of Rugs, Curtains, etc.,	153
Chenille Cutting Machine,	158
Chenille as Produced in the Manufacture of Fringes,	160
File Fabrics in Which the Pile is Produced by a Separate Warp in Addition to the Ground Wasp.	
Structure of Warp Pile Fabrics,	166
Terry and Velvet Pile,	166
Method of Operation in Producing Warp Pile Fabrics,	167
Velvet and Plush Fabrics,	166
Figured Velvet,	171
Astrakhans,	173
Machines for Curling Warp-threads for Astrakhans,	180
Tapestry Carpet,	185
Brussels Carpet,	188
Double Faced Pile Carpets,	193
Double Pile Fabrics,	194
Terry Pile Fabrics,	216
Pile Fabrics of a Special Method of Construction,	221
TWO-PLY INGRAIN CARPET,	225
GAUZE FABRICS.	
Principle of Their Construction,	228
Combination of Ordinary and Gauze Weaving,	231
Gauze Weaving Mechanism for Open-Shed Looms,	237
Jacquard Gauze,	240
Cross Weaving for Chenille Fabrics,	244
Cross Weaving as Used for the Manufacture of Filtering Bags,	246
Cross Weaving as Used for Producing Fast Centre Selvages,	247
THE JACQUARD MACHINE,	250
Modification of the Single-Lift Jacquard Machine,	252
Card Stamping,	253
The Jacquard Harness,	253
The Comber-board and Methods of Figuring for it,	254
GOBELIN TAPESTRY,	256

CONTENTS.—CONTINUED.

APPENDIX.

	PAGE.
ANALYSIS OF THE VARIOUS TEXTILE FABRICS AND CALCULATIONS NECESSARY FOR THEIR MANUFACTURE.	
I.—Ascertaining the Weight Per Yard of the Finished Fabric, and its Finished Texture,	257
II.—Ascertaining the Weave,	259
III.—Ascertaining Raw Materials Used in the Construction of a Fabric,	261
IV.—Ascertaining the Texture for Fabrics as Required in Loom,	263
V.—Ascertaining the Arrangement of Threads in a Sample, According to Their Color and Their Counts, for the Warp and Filling,	264
VI.—Ascertaining the Size of the Yarns (their counts) Found in Sample, and the Amount and Direction of Twist,	264
VII.—Ascertaining the Weight of Cloth Per Yard from Loom,	265
VIII.—Ascertaining the Process of Finishing Necessary and the Amount of Shrinkage of the Fabric,	268
GRADING OF THE VARIOUS YARNS USED IN THE MANUFACTURE OF TEXTILE FABRICS ACCORDING TO COUNTS.	
I.—Cotton Yarns,	269
II.—Woolen Yarns, "Run System,"	270
III.—Woolen Yarns, "Cut System,"	271
IV.—Worsted Yarns,	272
V.—Silk,	273
RULES FOR FINDING THE EQUIVALENT COUNTS OF A GIVEN THREAD IN ANOTHER SYSTEM.	
A.—Cotton, Woolen and Worsted Yarn,	274
B ¹ .—Spun Silk Compared to Cotton, Woolen or Worsted Yarn,	275
B ² .—Raw Silk Compared to Spun Silk, Cotton, Woolen or Worsted Yarn,	275
TABLES OF RELATIVE LENGTHS .	
Of Cotton Yarn by Numbers and Woolen Yarn by Runs,	276
Of Cotton Yarn by Numbers and Woolen Yarn by Cuts,	276
Of Cotton Yarn by Numbers and Worsted Yarn by Numbers,	276
Of Woolen Yarn by Runs and Cotton Yarn by Numbers,	277
Of Woolen Yarn by Runs and Woolen Yarn by Cuts,	278
Of Woolen Yarn by Runs and Worsted Yarn by Numbers,	278
Of Woolen Yarn by Cuts and Cotton Yarn by Numbers,	279
Of Woolen Yarn by Cuts and Woolen Yarn by Runs,	279
Of Woolen Yarn by Cuts and Worsted Yarn by Numbers,	280
Of Worsted Yarn by Numbers and Cotton Yarn by Numbers,	281
Of Worsted Yarn by Numbers and Woolen Yarn by Runs,	282
Of Worsted Yarn by Numbers and Woolen Yarn by Cuts,	282
MISCELLANEOUS YARN CALCULATIONS,	283
TABLES OF RELATIVE MEASURES FOR LENGTH, WEIGHT AND CAPACITY BETWEEN THE METRIC DENOMINATIONS AND THOSE USED IN THE UNITED STATES,	
	285
INDEX AND GLOSSARY,	287