

CONTENTS.

CHAPTER I.—SHEDDING.

	PAGE
Altering the size of the shed	15
Beating up the weft with a crossed shed	12
Breaker wires for fibrous warps	15 and 49
Cards getting off cylinder pegs	27
Catches jumping off draw knives	33
Causes of stitching in dobbies and jacquards	25
Compound mountings	28
Cracky places	17
Curled and fringed edges	14
Curls in corkscrews and satins	12
Eccentricity of motion necessary in shedding	9
Eccentricity produced by elliptical wheels	13
Effects of uneven shedding	16
Friction bowl in relation to the tappet	12
Length of dwell given to the shed	10
Object of shedding	7
Patterns for which stocks and bowls are suitable	21
Position of the warp line	17
Positive shedding (tappets and dobbies)	23
Principles of shedding	8
Reducing the swinging action of jacquard lingoos	21
Reducing the breakage of doobby pegs	26
Reducing the breakage of needles in jacquards	33
Relation of ground and figuring healds and harness	29
Relative merits of springs, and stocks and bowls	21
Reversing motions for negative shedding	20
Size of the shed	14
Tappet driving calculations	31

	PAGE
Timing of cylinder to lifting knives	27
Timing of the shedding in relation to the picking, etc.	13
Troughing the shed	19
Use of lease rods	19
Varying the pattern in tappet looms	30
Wear and tear in shedding motions	32
Woodcroft tappets	31

CHAPTER II.—PICKING.

Badly timed picking	44
Character of the pick	42
Condition of the shuttles	55
Different types of picking motions	36
Effects of harsh and weak picking	49
Effect of the shuttleboxes on the pick	44
Effect of the shuttle on the pick	52
Effect of tight picking straps	47
Flat places on the picking cone	47
Flying shuttles	47
Length of tappet nose	42
Method of connecting picking straps	46
Operation of picking	35
Position of the buffers	47
Position of the cone stud	43
Position of the shuttle tips	54
Position of the spindle stud, box front, and reed	48
Re-dressing the tappet nose	52
Regulating the strength and time of the pick	50
Relation of the drag to the weight of the shuttle	54
Taking the pressure off the swell during picking	45
Timing the pick to the shedding, etc.	43
Uniformity in size and weight of shuttles	54
Use of the check-strap	45
Wear and tear in the picking motion	45
Weft slipping off the pirns or shuttle tongues	44

	PAGE
Revolving box motions	72
Revolving skip box motions	82
Safety of action in skip boxes	84
Selecting the boxes (Hattersley's rising box)	94
Shuttle boxes dipping at one end	100
Tensioning the swell spring (Knowles' loom)	92
Timing the circle box to the picking motion, etc.	74
Timing the pattern cylinder and gears to the locking knife (Knowles' loom)	90
Timing the locking lever (Hattersley's rising box)	94
To prevent pegs dropping out of pattern chain	94
Use of rising boxes	85
When it is necessary to introduce two shuttles of the same colour	81

CHAPTER VI.—WEFT STOP MOTIONS.

Accuracy of adjustment necessary	103
Centre weft fork (method of working)	104
Fork cutting weft yarns	103
Length of prongs for centre weft fork	106
Letting back the take-up motion	104
Necessity for weft stop motions	101
Prongs rubbing against bottom of groove	104
Prongs touching side of grid	103
Repairing grids	103
Side weft forks (method of working)	101
Stopping the loom on right side	104
Tensioning weft yarns to prevent stoppages	106
Timing the lifting tappet	103
Weft catching on prongs	104

CHAPTER VII.—LET-OFF AND TAKE-UP MOTIONS.

Advantages and disadvantages of negative take-up motions	114
Advantages of chains over ropes	108
Advantages of intermittent motions for extra weft cloths	115

	PAGE
Best time for actuating take-up motion	116
Briggs' let-off motion	110
Calculations for gauge point and change wheel	118
Causes of thick, thin, and shady places	117
Changing the tension of the warp	109
Continuous positive take-up motions	115
Defects of rope let-off motions	107
Effect of uneven shedding and lease rods on let-off motion	107
Grip of warp on back bearer	108
How to prevent cracky places	107
Influence of the smoother on the taking up	118
Laps of rope on ruffle	109
Negative take-up motion (description)	113
Object of take-up motions	113
Positive let-off motions	111
Regular delivery of warp essential	107
Relative positions of bearer and warp beam	108
Sensitive back-bearer let-off motion	112

CHAPTER VIII.—SELVAGES.

Breakages of selvage yarns and leashes	129
Catch ends for double picks	125
Centre selvages	127
Centre selvage motion for double lift machines	132
" " " single " " 	130
Chains to replace leashes of worsted yarn	132
Construction of centre selvage motion for plain cloths	128
Construction of edge "boat"	123
Edges of different counts, colour, or weave	119
Faults caused by temples	127
Fringed and unequal edges	119
How the temples should be supported	126
Importance of good selvages	119
Plain and semi-plain selvages on satin cloths, etc.	121

