

# CONTENTS.

## SHEDDING MECHANISMS.

	PAGE
Harness Chain Multiplier for Knowles Looms, . . . . .	1
The Crompton Harness Leveling Device for Dobbies, . . . . .	2
Improved Harness Lever for Knowles Looms, . . . . .	3
Improvement to the Knowles Shedding Mechanism, . . . . .	4
Top Rigging for Cam Looms, . . . . .	5
Crompton and Knowles Leno Motion, . . . . .	6
Stafford's Indicating Device for Dobbies, . . . . .	7
The Crompton Two Weave Shedding Mechanism for Dobby Cotton Looms, . . . . .	8
Stafford's Improvement to Dobbies, . . . . .	8
Ingraham's Shedding Mechanism, . . . . .	9
Draper's Selvage Motion for Cotton Looms, . . . . .	10
Northrop's Shedding Mechanism for Cotton Looms, . . . . .	12
Goodyear's Shedding Motion, . . . . .	13
Oldham's Shedding Motion, . . . . .	14
Cook's Dobby, . . . . .	15
Connecting Box and Shedding Motion of Dobby Cotton Looms, . . . . .	16
Jacey's Harness Operating Device for Cotton Looms, . . . . .	17
Arnta's Shedding Mechanism, . . . . .	18
Hilton's Harness Motion, . . . . .	19
White's Dobby, . . . . .	19
Schaum's Head Motion for Narrow Ware Looms, . . . . .	20
Brindle and Steere's Narrow Ware Loom, . . . . .	21
Steere's Shedding Motion for Narrow Ware Looms, . . . . .	22
Adjustable Harness Motion Regulators for Narrow Ware Looms, . . . . .	23

## BOX MOTIONS AND SHUTTLE BOXES.

The Crompton Shuttle Changer, . . . . .	24
Shuttle Box Operating Mechanism for Crompton Looms, . . . . .	27
Shuttle Box Guide for Crompton Looms, . . . . .	28
The Mason Shuttle Box Multiplying Mechanism, . . . . .	29
The Whitin Box Mechanism, . . . . .	29
The Thomas Shuttle Changing Mechanism for Cotton Looms, . . . . .	30
Birchall's Shuttle Box Operating Mechanism, . . . . .	31
Filling Changing Mechanism for Northrop Looms, . . . . .	32
Northrop's Shuttle Box, . . . . .	32
Fitz and Reilly's Device for Positioning Shuttles, . . . . .	33
Device for Guiding Ejected Bobbins from Shuttle in Northrop Looms, . . . . .	33
Improvement to the Filling Supplying Mechanism for Northrop Looms, . . . . .	34
Filling End Holder for Northrop Looms, . . . . .	35
Mason's Filling End Supplying Device for Northrop Looms, . . . . .	35
Shuttle Detector for Northrop Looms, . . . . .	36
Improved Shuttle Detector for Northrop Looms, . . . . .	37
Back Box Plate for Cotton Looms, . . . . .	38
Gordon's Shuttle Binder Spring, . . . . .	38
Talk's Shuttle Binder, . . . . .	39
Talk's Improved Shuttle Binder, . . . . .	40
The Knowles Swivel Loom, . . . . .	40
Widmer's Shuttle Driving Mechanism for Narrow Ware Looms, . . . . .	42
Oldfield's Shuttle Driving Motion for Narrow Ware Looms, . . . . .	43
Stadler's Method of Operating Shuttles in Narrow Ware Looms, . . . . .	44
Batten, Shuttle Block and Shuttle for Narrow Ware Looms, . . . . .	44
Securing Shuttle Blocks to Battens for Narrow Ware Looms, . . . . .	45
Wollenberg's Batten for Narrow Ware Looms, . . . . .	46
Supporting Mechanism for Shuttles for Narrow Ware Looms, . . . . .	47
Oblique Shuttle Drive for Narrow Ware Looms, . . . . .	47

## LET OFF MECHANISMS.

The Mason Warp Slackening Mechanism and Take Up Roll, . . . . .	48
Robinson's Selvage Slackner for Cotton Looms, . . . . .	48
Perham's Let Off for Cotton Looms, . . . . .	49
Northrop's Let Off Mechanism, . . . . .	50
Arrangement for Regulating the Tension of the Whip Roll, . . . . .	50
Peckham's Conditional Let Off for Cotton Looms, . . . . .	51
Cockerill's Positive Let Off for Cotton Looms, . . . . .	51
Schaum's Let off Mechanism for Narrow Ware Looms, . . . . .	52
Fischer's Automatic Warp Tension for Narrow Ware Looms, . . . . .	53
Friction Warp Rack for Narrow Ware Looms, . . . . .	54
Regulating the Tension of the Pile Warps for Double Plush, . . . . .	55
Tension Regulator for Warp Beams for Narrow Ware Looms, . . . . .	55

## TAKE UP MECHANISMS.

Clement's Take Up Mechanism, . . . . .	56
The Crompton Take Up Mechanism for Silk Looms, . . . . .	56
The Mason Take Up for Cotton Looms, . . . . .	58
Owen's Take Up Mechanism, . . . . .	58
Owen's Arrangement for Operating Cloth Roll in Connection with the Take Up for Cotton Looms, . . . . .	59
Peltier's Take Up Attachment for Cotton Looms, . . . . .	60
Cloth Take Up Roll for Looms, . . . . .	60

## STOP MOTIONS.

	PAGE
The Fairmount Clutch and Brake Mechanism, - - - - -	61
Connecting the Dwell Stand to the Lay Sword, - - - - -	62
Bardsley's Warp Stop Motion for Cotton Looms, - - - - -	62
Arthur's Warp Stop Motion for Cotton Looms, - - - - -	63
Stop Mechanism for Draper Cotton Looms, - - - - -	64
Filling Stop Motion for Northrop Looms, - - - - -	65
Stop Motion for Northrop Looms for Weaving Blankets, etc., - - - - -	67
Draper's Warp Stop Motion for Cotton Looms, - - - - -	68
Draper's Detector for Warp Stop Motions, - - - - -	69
Allen's Feeler for Warp Stop Motions, - - - - -	69
Northrop's Warp Stop Motion, - - - - -	69
Edward's Detector for Warp Stop Motions, - - - - -	70
Draper's Warp Stop Motion, Using Two Series of Detectors, - - - - -	71
Another Warp Stop Motion for Draper Looms, - - - - -	71
Movable Warp Stop Motion, - - - - -	72
Locating the Detectors of the Warp Stop Motion Nearer to the Harnesses, - - - - -	73
Northrop's Warp Stop Motion in Which the Heddles are Used to Act as Detectors, - - - - -	73
Device for Securing the Proper Acting of Detector Heddles, - - - - -	74
Supporting Rod for Detector Heddles, - - - - -	75
Removable Detector Heddle, - - - - -	76
Allen's Detector Mechanism for Cotton Looms, - - - - -	76
Northrop's Warp Stop Motion, Acting Directly on the Shipper Handle, - - - - -	77
Stop Indicator for Looms, - - - - -	78
Device for Indicating the Reason for the Stopping of Loom, - - - - -	78
Brake Mechanism for Northrop Looms, - - - - -	79
Protector Mechanism for Draper Looms, - - - - -	80
Catterall's Loom Fork, - - - - -	81
Schaefer and Hinkel's Stop Motion for Cotton Looms, - - - - -	81
Lahue's Protector Stop Mechanism, - - - - -	82
Harriman's Slack Alarm and Stop Motion, - - - - -	83

## PICKING MECHANISMS.

Goodline and Clark's Picking Mechanism, - - - - -	85
The Knowles Single Box Picking Motion, - - - - -	86
Picker Cam Point for Crompton Cotton Looms, - - - - -	87
McMichael's Picking Motion, - - - - -	88
Ainley's Picking Mechanism, - - - - -	88
Pick Finding Mechanism for Northrop Cam Looms, - - - - -	89
Syme's Picker Stick Motion, - - - - -	90
Picker Stick Check for Single Box Cotton Looms, - - - - -	90
Andrews' Picker Check, - - - - -	91
Adjustable Picker Staff Check, - - - - -	92
Thackeray's Picker Check, - - - - -	93
Begins Picker Stick, - - - - -	94
A Metallic Picker Stick, - - - - -	94
Wardwell's Pickers, - - - - -	95
Picker Rod Clamp for Plain Looms - - - - -	96
Jacques and Painchaud's Lug Stick, - - - - -	97
Houghton's Lug Strap, - - - - -	97
Bearing Strap for the Lug Strap, - - - - -	97
Picker Stick Attachment, - - - - -	98
Durham's Stirrup for Picker Sticks, - - - - -	98

## SHUTTLES.

Sergeson's Thread Tension Device, - - - - -	99
Morin's Spring for Shuttle Spindles, - - - - -	99
The Crompton and Knowles Shuttle for Magazine Looms, - - - - -	100
Draper's Self Threading Shuttle, - - - - -	100
Northrop's Self Threading Shuttle, - - - - -	101
Northrop's Improved Self Threading Shuttle, - - - - -	101
Aube's Self Threading Shuttle for Northrop Looms, - - - - -	102
Stimpson's Self Threading Shuttle for Draper Looms, - - - - -	102
Improved Bobbin Holder for Shuttles for Northrop Looms, - - - - -	103
Cunniff's Cop Holder for Shuttles for Northrop Looms, - - - - -	103
Beardsell's Filling Detector for Northrop Looms, - - - - -	103
Littlefield's Cop Skewer for Northrop Looms, - - - - -	104
Cop Skewer for the Use of Worsted Yarn Bobbins in Northrop Looms, - - - - -	104
Cunniff's Holder for Cop Skewers, - - - - -	105
Hamblin's Bobbin Holding Device, - - - - -	106
Another Bobbin Holding Device, - - - - -	106
Hamblin's Self Threading Shuttle, - - - - -	107
Reinforcement Ring for Shuttles, - - - - -	107
Nason's Self Threading Shuttle, - - - - -	107
Ashby's Shuttle, - - - - -	107
Isherwood's Shuttle, - - - - -	108
Leveille's Threading Device for Shuttles, - - - - -	109
Ryon's Threading Device for Shuttles, - - - - -	109
Burgess' Threading Device for Shuttles, - - - - -	110
Donovan's Tension Device for Shuttles, - - - - -	110
Hall's Tension Device for Shuttles for Silk Looms, - - - - -	111
Huster's Shuttle for Narrow Ware and Broad Looms, - - - - -	111
Schaum's Shuttle for Narrow Ware Looms, - - - - -	111
Hamalian's Shuttle for Narrow Ware Looms, - - - - -	112
Tension Device for Shuttles for Narrow Ware Looms, - - - - -	112
Tension Device for Shuttles for Silk Looms, - - - - -	113
Lamothe's Shuttle Threader, - - - - -	113
Melvin's Shuttle Guard, - - - - -	114
Newell's Shuttle Guard, - - - - -	114

## TEMPLES.

Hutchins' Temple Motion, - - - - -	115
Held and Poebner's Temple, - - - - -	115
Sykes' Temple, - - - - -	116
Painchaud's Temple, - - - - -	116
Pearson's Temple, - - - - -	117
Cunniff and Kerrigan's Temple, - - - - -	117
Allen's Temple, - - - - -	118
Stimpson's Attachment to Temples, - - - - -	119
Thread Cutting Attachment for Temples, - - - - -	119
Thread Cutting Temple for Northrop Looms, - - - - -	120
Duffy's Temple, - - - - -	120
Willemain's Temple, - - - - -	121

## REEDS, HEDDLES, HARNESES AND SUPPLIES.

	PAGE
The Excelsior Reed, . . . . .	123
Wood's Reed, . . . . .	123
Reed for Producing Figured Effects, . . . . .	123
Reed Pliers, . . . . .	124
Device for Adjusting Reed and Box Plate, . . . . .	124
Patterson's Doup Heddle, . . . . .	124
Wharton's Doup Heddle, . . . . .	125
Shinn's Switch Heddle, . . . . .	126
Clamp for Heddle Bars for Northrop Looms, . . . . .	126
A Rotating Lease Rod, . . . . .	127
Movable Lease Rod, . . . . .	127
Device to Prevent Warp Threads from Adhering, . . . . .	128
Ogden's Pick Out Comb, . . . . .	128
Carr's Pick Out Comb, . . . . .	128

## JACQUARDS AND CARD CUTTING MACHINERY.

The Knowles Full Open Shed Jacquard, . . . . .	129
The Crompton and Knowles Double Action Jacquard Machine, . . . . .	129
Bottom Board for Jacquard Machines, . . . . .	132
Method of Operating the Griffs in Jacquard Machines, . . . . .	132
Dean's Driving Mechanism for Rise and Fall Jacquards, . . . . .	133
Sheldon's Rise and Fall Jacquard, . . . . .	133
Halton's Lingo for Wire Heddles, . . . . .	134
Rigby's Lingo, . . . . .	135
Royle's Foot Power Piano Card Stamping Machine, . . . . .	135
The Royal Power Piano Machine, . . . . .	139
Royle's Card Lacing Frame, . . . . .	140

## SPOOLING, WINDING, WARPING AND BEAMING MACHINERY.

Check Motion for the Furbush Spooler, . . . . .	141
Stop Motion for the Altemus Spooler, . . . . .	141
McTaggart's Spooler, . . . . .	142
The Altemus Upright Hosiery Bobbin Winding Machine, . . . . .	142
Huse's Bobbin Winding Machine, . . . . .	143
Thread Tension Device for Bobbin Winders, . . . . .	144
McCausland's Cop Winder, . . . . .	144
A Combined Twister and Cop Winder, . . . . .	145
Atherton's Winder and Quiller, . . . . .	146
Ashley's Quilling Machine, . . . . .	147
Raistrick's Spooling Machine, . . . . .	148
Kink Preventer and Signal for Silk Twisters, . . . . .	148
The Smith Warp Dresser, . . . . .	149
Eastwood's Self Building Warping Reel, . . . . .	151
The Denn Section Beam Warper, . . . . .	151
Draper's Warping Machine, . . . . .	153
Atherton's Warping Machine, . . . . .	154
Indicator for Warpers, . . . . .	155
Bentley's Horizontal Warper, . . . . .	155
Automatic Tension Governor for Warp Beaming Machines, . . . . .	156
Beaming Mechanism for Warping Machines, . . . . .	158
Registering Mechanism for Warping Machines, . . . . .	159
The Fairmount Cut Marker, . . . . .	159
Sectional Drum for Beam Warping Machines, . . . . .	161
Automatic Tension Wire and Bobbin Brake for Warpers, . . . . .	161
Warper Comb, . . . . .	162
Reed for Warping Machines, . . . . .	162
Creel Frame, . . . . .	162

## MISCELLANEOUS.

Eastwood's Broad Silk Loom, . . . . .	164
Beating up Motion for Ribbon Looms, . . . . .	164
Beating up the Filling by Means of a Movable Reed, . . . . .	165
Pitman for Cotton Looms, . . . . .	165
Clement's Filling Cutter for Northrop Looms, . . . . .	166
Joy's Thread Cutter for Northrop Looms, . . . . .	167
Mason's Thread Cutter for Northrop Looms, . . . . .	168
Locating Shipper Handle and Belt Pulleys in Cotton Looms, . . . . .	169
Device for Removing Waste Yarn from Filling Carriers, . . . . .	169
Supplemental Mechanism for Knowles Duck Looms, . . . . .	170
Glass Beam Bracket for Ribbon Looms, . . . . .	171
Bentley's Measuring Device for Looms, . . . . .	171
Jensen and Comar's Measuring Device for Looms, . . . . .	172
Fischer's Needle Loom, . . . . .	172
Bobbin Holding Device for Shuttles, . . . . .	174
Improvement to the Take up for Crompton Silk Looms, . . . . .	174
A Novel Method of Operating Lease Rod, . . . . .	174