

SYLLABUS.

	PAGE
LECTURE 1.	7
THE PREPARATION OF YARNS FOR WEAVING.	
<p style="margin-left: 40px;">Winding; Warping; Warping Creel; Warping Woof; Warping Mill; The Heck; The Horizontal Warping Mill; Sectional Warping; Warp Dressing; Beaming and Sizing; The several kinds of Dressing Frame; Warp Balling and Chaining; Warping Fancy Patterns; Drafting and Drawing; Arrangement of Healds; Casting Out; Striped Healds; The Form of Heald; Slaying, &c., &c.</p>	
LECTURE 2.	41
PRINCIPLES OF WEAVING.	
<p style="margin-left: 40px;">The principal movements in Weaving:—Shedding, Picking, and Beating-up; The Take-up and Let-off Motions; Balance Weights and Levers; Balance Regulators; The movement of the going part; The Picking Arrangement; The nature of the several movements; A general review of the Loom and all its details.</p>	
LECTURE 3.	64
BEATING UP THE WEFT.	
<p style="margin-left: 40px;">The conversion of motion in the Loom; Position of Crank; Stroke of Ditto; Eccentricity of Ditto; Motion of going part; Leverage of going part; Position of Sword; Balance of parts and general working.</p>	
LECTURE 4.	83
THE PICKING ARRANGEMENT.	
<p style="margin-left: 40px;">The different forms of Picking Motion; The Lever-Pick and various other forms of Under-Pick Motions; The Cone-Pick and other forms of Over-Pick Motions; The method of Drawing Tappets and Picking Plates; The questions of leverage involved; Proper position of Picking Sticks, Spindles, &c., Picking Straps, Check Straps, Buffers, &c., &c.</p>	
LECTURE 5.	126
SHUTTLE BOXES.	
<p style="margin-left: 40px;">Circular Shuttle Boxes; Rising Shuttle Boxes; The general character of Boxes; The work they have to do; The different methods of actuating; Skipping Boxes, both rising and circular; Positive and Negative Motions; Chain arrangement; Eccentric arrangement; Cutting or arranging Cards for, &c., &c.</p>	
LECTURE 6.	174
SHEDDING MOTIONS.	
<p style="margin-left: 40px;">Tappet Shedding; Inside and outside Tappets; Treadles; Leverage; Position of; Connection with Healds; Form of Tappets; Methods of Drawing; Calculation of Leverage; Depth of Shed, &c.; Influence of Shedding upon Cloth; Calculations of Speed, &c.; Sectional and Chain Tappets; Under-Motions; Stocks and Bowls; Drawing and Leverage of Ditto, &c., &c.</p>	

SYLLABUS.

	PAGE
LECTURE 7.	213
DOBBIES AND PATTERN SHEDDING MOTIONS.	
The different forms of Dobby; Open Shed; Centre Shed; Bottom Shed; The Mechanical arrangements; Under Motions; Positive Machines; Card Cutting or Pegging Lags for Ditto; The advantages and disadvantages of the several systems.	
LECTURE 8.	269
TAKE-UP AND LETTING-OFF MOTIONS.	
The several forms of Take-up and Let-off Motions, Positive, Negative, &c.; The advantages and disadvantages of each; The relation of one to the other; Calculations referring to them; The influence upon the cloth; Faults caused by, &c., &c.	
LECTURE 9.	304
JACQUARDS AND HARNESESSES.	
The different systems of Jacquards; Single Lift; Double Lift; Border Machines, &c.; The methods of tying up Harnesses; Straight Harnesses; Centre-figure Ditto; Border Ditto; Pressure or Compound Ditto; Gauze Ditto; Special Damask Ditto, &c., &c.	
LECTURE 10.	398
JACQUARD CARD CUTTING AND PATTERN ARRANGEMENT.	
Arrangement of patterns on paper for the different systems of Jacquard harnesses; Cutting Cards, &c.; Casting out and all the calculations connected therewith; The use of Design Paper, and all questions connected with the production of patterns on the above-named machines.	
LECTURE 11.	429
ADJUNCTS TO THE LOOM.	
The various Stop-Motions; Fast and Loose Reeds; Weft Forks; Shuttles; Tension of Yarn; Temples; Shuttle Guards; Selvage Motions, &c., &c.	
LECTURE 12.	484
LOOMS FOR SPECIAL PURPOSES.	
Swivel; Dhootie, or Border Swivels; Lappet; Lappet Wheel Cutting; Ribbon and Tape Looms; Tubing; Webbing; Circular Band Weaving; Double Plush, &c., &c.	
LECTURE 13.	525
General Summary of all the various Looms; Adjuncts and methods of Weaving.	
LECTURE 14.	538
CLOTH DISSECTING.	
How to dissect Cloths; Ascertaining Counts; Twist; Take-up in Twist; Strength; Quality; Making design from given cloth; Tests for Wool, Cotton, Jute, Silk, &c.; Proportions of any material in a cloth; Tests for Size, Foreign Matter, &c.; Faults which occur in fabrics, their cause and prevention.	