

AN ROINN OIDEACHAIS

(Department of Education).

BRAINSE AN MHEADHON-OIDEACHAIS

Secondary Education Branch).

LEAVING CERTIFICATE EXAMINATION, 1925

HONOURS

Mechanical Drawing and Design.—Boys and Girls.

TUESDAY, 23rd JUNE.—AFTERNOON, 4 to 6 P.M.

BOYS ONLY.

NOTE.—The use of mathematical instruments, protractors, scales, T and set squares, and drawing-board is allowed.

ALL questions to be attempted.

All construction lines must be clearly shown.

The number of the question must be distinctly marked by the side of each answer. Both sides of the paper may be used.

Questions marked (*) have accompanying diagrams.

*1. Make a drawing of the spanner (full size) to the dimensions shown. The centres of the circles C and D are in an interior tangent (construction for which must be shown) to the circles A and B. Circle C is half an inch radius, and circle D is quarter of an inch radius.

*2. Given the plan of a hexagonal pyramid two inches high resting on its apex, draw its plan and elevation (full size), showing the section made by a vertical plane indicated by the line E F in plan.

*3. The plan and elevation of a four-inch butt hinge is given. Draw its plan and elevation when the flanges of the hinge are open at an angle of 60°.

4. Draw a diagonal scale of one and a half inch to one foot, to show feet, inches, and tenths of inches, and read three feet.

*5. The plan and two part-elevations of a geographical globe and supporting table are given. The globe is surrounded by a brass ring (thickness omitted) shown by the line L M in plan and the circle L' M' in elevation T. Draw the plan and elevation S to a scale of one and a half inch to one foot. The complete elevation of the line representing the brass ring is required, and the rest as shown.

DESIGN.

6. Within a rectangle 12" × 9" outside measurements, design a brass cover for a letter-box opening. The word 'letters' or 'litreacha' to form an important feature of the design. The outside frame may be plain and not necessarily rectangular.

Or,

Design a name plate for a house gate. Any name you please may be used. The plate may be any ornamental shape not exceeding 96 square inches in area, and the lettering should be an important feature of the design. State the material in which the design could be suitably carried out.

GIRLS ONLY.

NOTE.—The use of mathematical instruments, protractors, scales, T and set squares, and drawing-boards is allowed.

ALL questions to be attempted.

All construction lines must be clearly shown.

The number of the question must be distinctly marked by the side of each answer. Both sides of the paper may be used.

Questions marked (*) have accompanying diagrams.

*1. A border from a damask table-cloth composed of geometric and freely-drawn forms is given. Draw full size according to the dimensions shown.

*2. Draw the given figure full size according to the dimension shown. The circle in the centre is $\frac{1}{2}$ inch diameter, and the five smaller arcs are $\frac{1}{2}$ inch radius.

*3. An ornamental motif composed of braid one quarter of an inch wide is given. Draw full size according to the dimensions indicated. It will be sufficient to finish one quarter of the pattern.

*4. Draw full size according to the dimensions shown, the portion of the given pattern enclosed by chain lines.

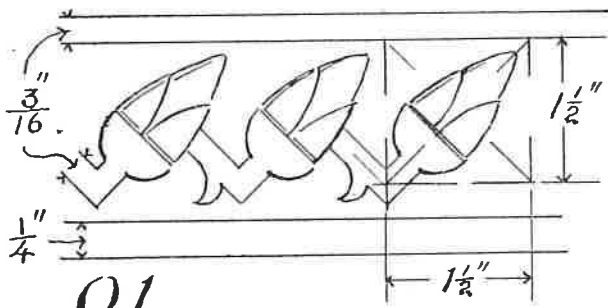
*5. The plan and elevation of a lamp shade are given. Draw full size according to the dimensions shown, the plan, and a new elevation on X' Y', showing one unit of the ornament.

DESIGN.

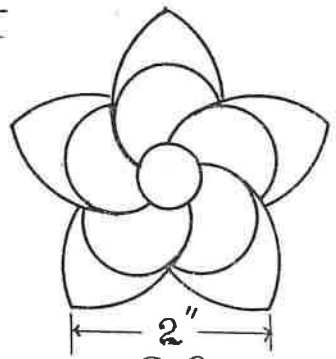
6. Make a design for a calendar. The lettering of the word and figures 'Calendar, 1925,' or 'Périphe, 1925,' to be an important feature of the design.

Or,

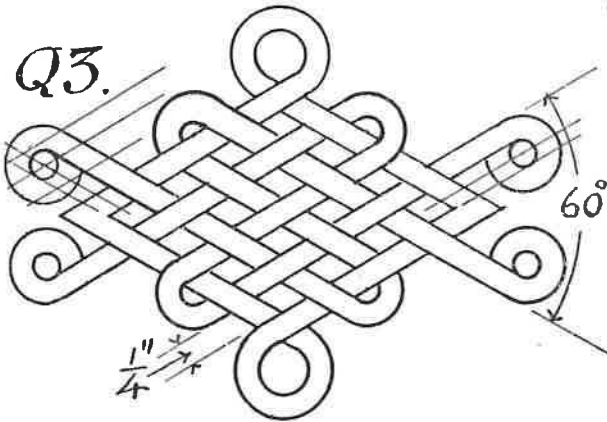
Make a design for a lace, crochet, or embroidery trimming for ladies' wear, such as: a motif to be used on a vest, belt, sash, pocket, etc. An initial letter or monogram to form an important feature of the design.



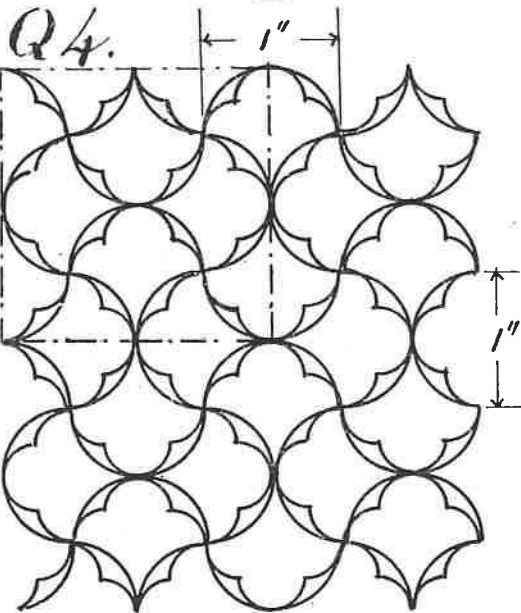
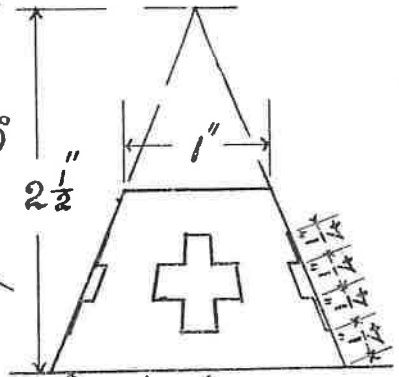
Q1.



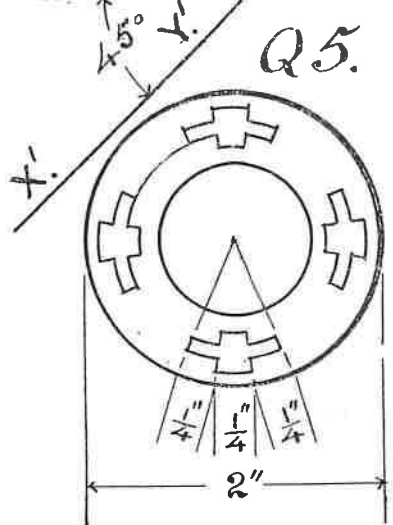
Q2.



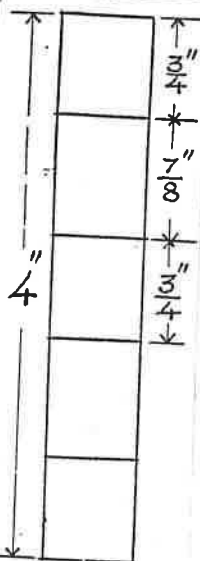
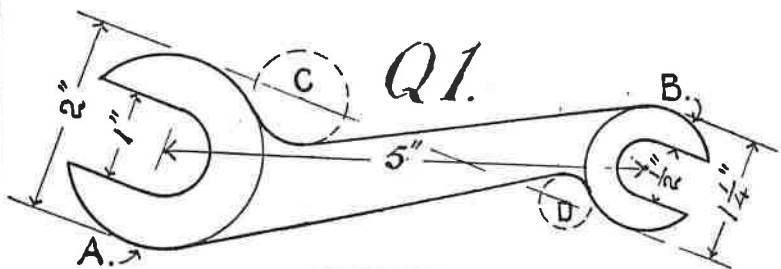
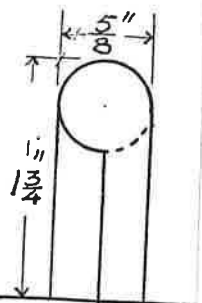
Q3.



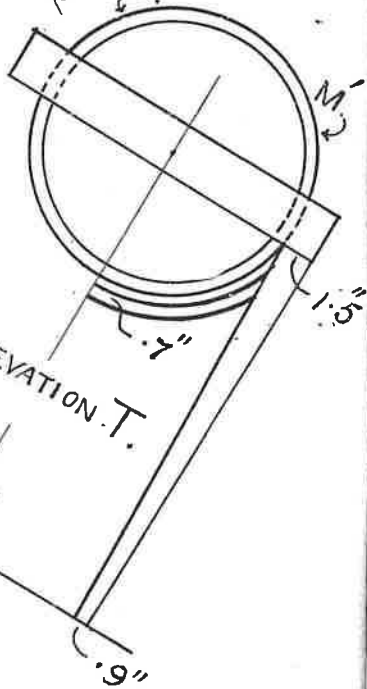
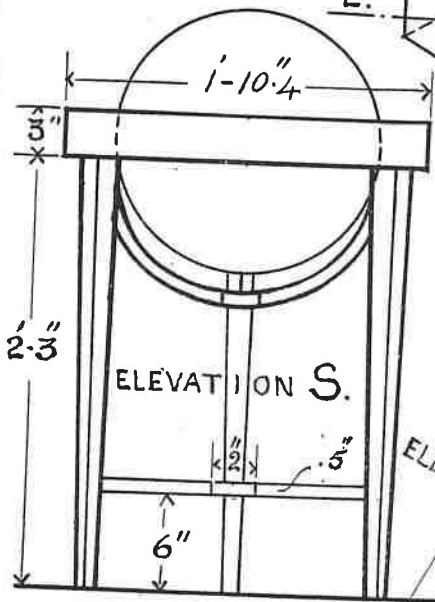
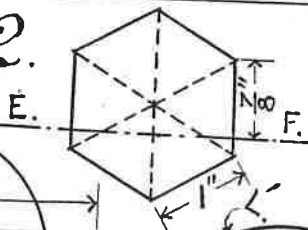
Q4.



Q5.



Q2.



Q3.

Q5.

