

AN ROINN OIDEACHAIS
(Department of Education).

BRAINSE AN MHEAN-OIDEACHAIS
(Secondary Education Branch).

LEAVING CERTIFICATE EXAMINATION, 1928.

HONOURS
MECHANICAL DRAWING AND DESIGN
BOYS AND GIRLS.

TUESDAY, 19th JUNE.—AFTERNOON, 4 to 6 P.M.

BOYS ONLY.

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

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.

*Q. 1. Make a drawing of the electric light bulb (full size) to the dimensions given.

Show clearly the construction by which you would determine the tangents.

*Q. 2. Construct a scale for a drawing on which 110 feet are represented by $3\frac{1}{2}$ inches, and show single feet diagonally. By means of this scale draw the given elevation of a church.

*Q. 3. Given the plan of a right prism, the ends of which are squares. One diagonal in each of the squares is parallel to the H.P. Draw the elevation and also elevation of section made by the plane E.F.

*Q. 4. A plan and elevation of a desk are shown in diagram. Draw a new elevation of the desk on a vertical plane making 30° with X.Y. Scale $\frac{3}{4}$ -inches to 1 foot.

*Q. 5. The diagram shows the plan and elevation of a hanging lantern. Draw a new elevation on the line X^1Y^1 . Scale $\frac{1}{4}$ full size.

Q. 6. Make a design in black and white for a tail-piece to fill an equilateral triangle of 7 inches side, standing upon its point. The design must include “**AN CRÍÓC**” or “**THE END**” and may be based on Celtic ornament or natural forms ornamentally treated. State the process by which your design could be reproduced.

Or,

Draw a design for a tablet to be let into the wall of a school building.

The design may be circular or rectangular in shape not exceeding 84 square inches in area, and should be adapted to reproduction in wood, stone, marble, cast bronze or repoussé metal. The word “**SCOLL**” or “**SCHOOL**” in bold lettering to form an important feature of the design.

State the material for which your design is intended.

GIRLS ONLY.

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

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.

*Q. 1. Set out geometrically the construction lines required in drawing the book-cover shown in diagram. Increase the breadth by one inch and the height in proportion.

You need only complete one quarter of the design.

*Q. 2. Draw four repeats of the given tile-pattern to the dimensions indicated.

*Q. 3. An ornamental motif composed of braid, one-eighth of an inch wide, is given. Draw full size to the dimensions shown.

*Q. 4. Copy the given figure which represents an inlaid table-centre, making the diameter of outer circle $3\frac{1}{2}$ inches. It will suffice to complete half of the pattern.

*Q. 5. The elevation of a circular vase is given. Draw its plan and elevation and show how you would project the ornamental border shown (full size) in diagram on to the band A.

Q. 6. Draw a design for a table runner or scarf 16 inches wide by 40 inches long.

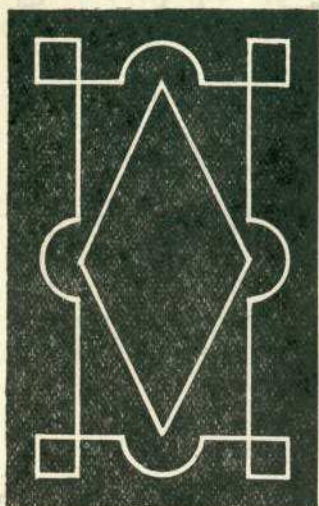
The design may be based on Celtic ornament or on natural forms ornamentally treated and should be adapted to lace embroidery or stencilling. State by what method and in what material your design could be suitably carried out.

Scale $\frac{1}{4}$ full size.

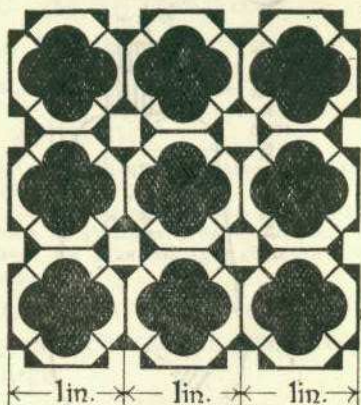
Or,

Design the enrichment of an initial letter Gaelic or Roman, 5 inches high, and execute it in black and white, or in two tones of one colour. State the process by which your design could be reproduced.

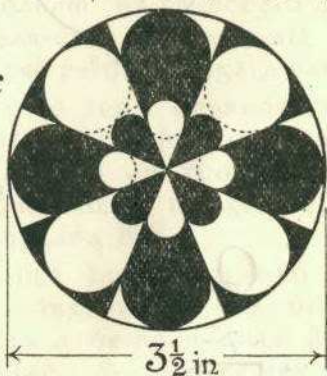
Q1.



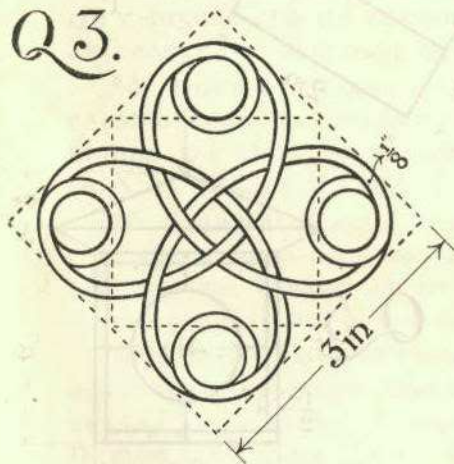
Q2.



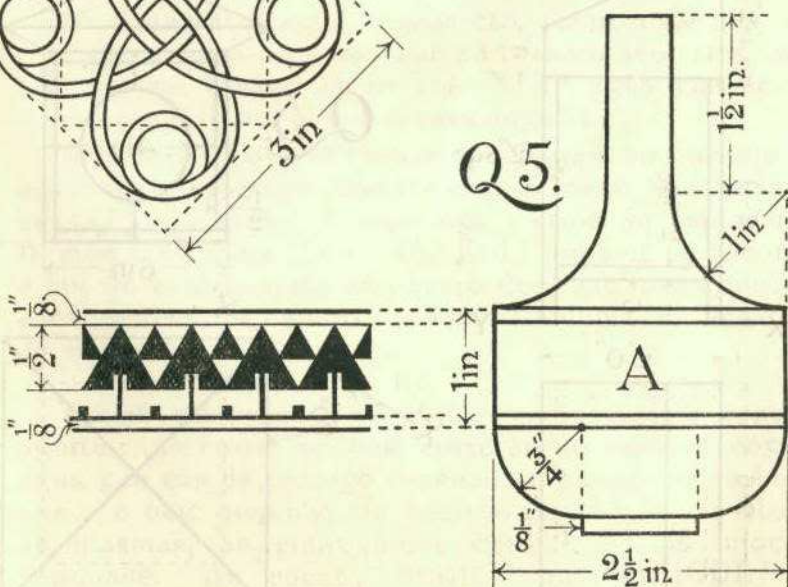
Q4.



Q3.

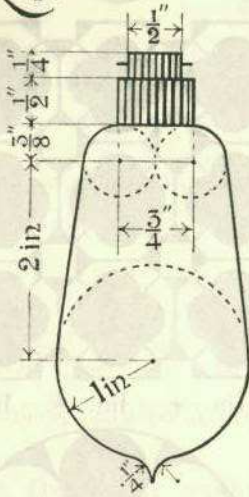


Q5.

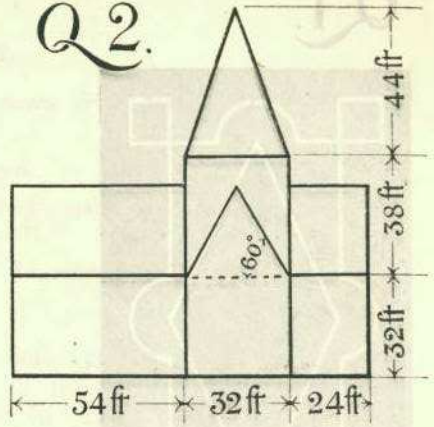


BOYS ONLY.

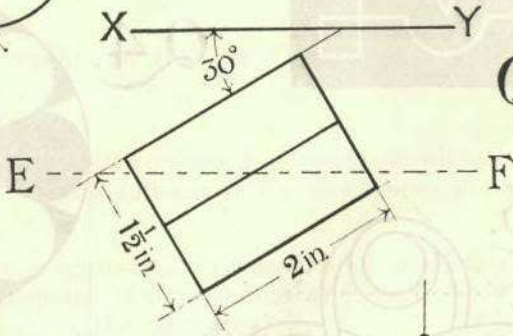
Q1.



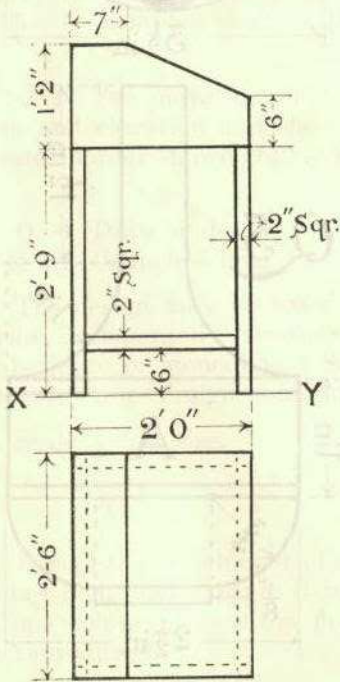
Q2.



Q3.



Q4.



Q5.

