

D. R. P. COATS.
EDUCATIONAL APPLIANCE.
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1,286,232.

Patented Dec. 3, 1918.

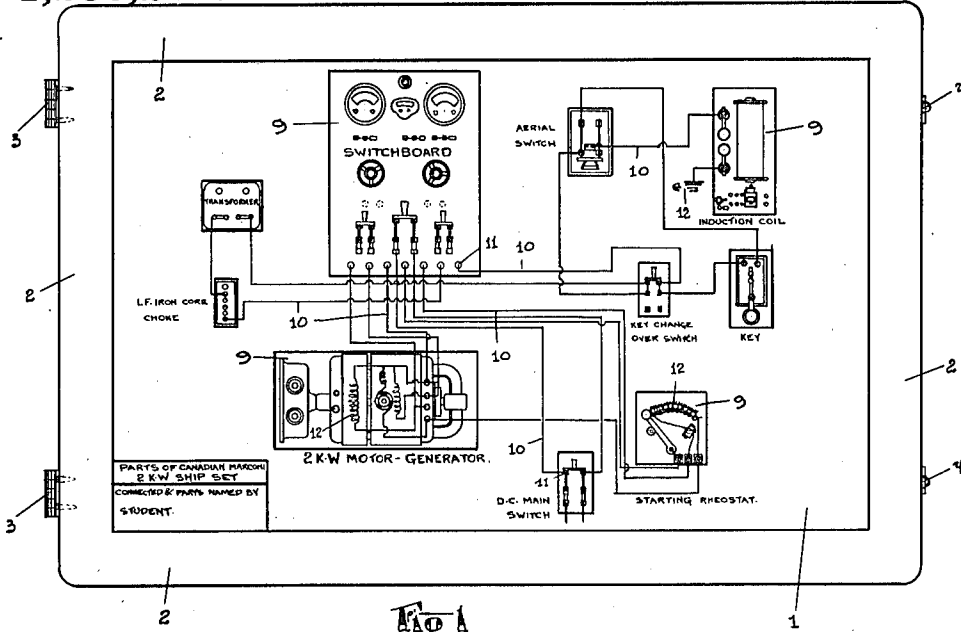


Fig. 1

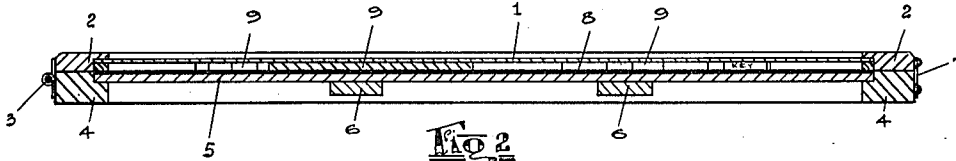


Fig. 2

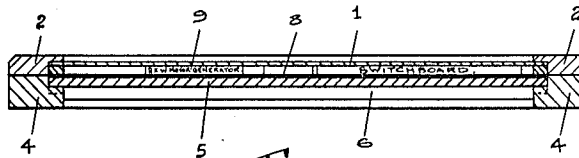


Fig. 3

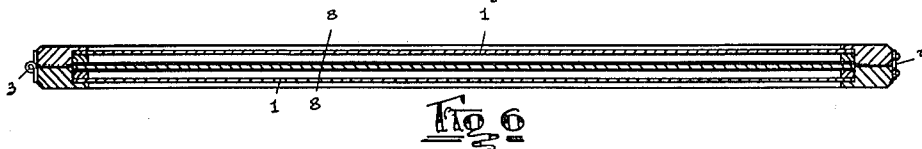


Fig. 4

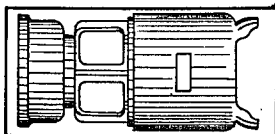


Fig. 5

STARTING RHEOSTAT.

Fig. 6

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EDUCATIONAL APPLIANCE.

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To all whom it may concern:

Be it known that I, DOUGLAS RICHARD PROCTOR COATS, a subject of the King of Great Britain, and resident of 173 William street, in the city and District of Montreal, in the Province of Quebec, in the Dominion of Canada, have invented certain new and useful Improvements in Educational Appliances, of which the following is the specification.

The invention relates to improvements in educational appliances as described in the present specification and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially of the novel employment of adjustable symbolical pieces to illustrate a plan of coöperation in the system represented.

The objects of the invention are to devise an appliance that will readily lend itself to the indication by markings of the connection of the various parts belonging to a system and in that way emphasize to scholars and others the form such connections take, to enable pupils to quickly master the art of planning the wiring in electric plants of all kinds, to insure proficiency in the students at wireless and other schools or classes devoted to electricity, chemistry astronomy or other studies and generally to provide an efficient aid to both teachers and pupils, that will considerably shorten the road to certain branches of knowledge.

In the drawings, Figure 1 is a plan view of the frame, the translucent sheet and a collection of blocks in one of their many different arrangements and showing the lines indicating the coöperation of the parts.

Fig. 2 is a longitudinal sectional view.

Fig. 3 is a cross sectional view.

Fig. 4 is a side elevation of a block.

Fig. 5 is a view showing the reverse face of a block.

Fig. 6 is a cross sectional view of another form.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, the sheet 1 of translucent glass is shown as closing one side of the folding frame 2, one end of which is joined by the hinges 3. The base section 4 of said folding frame is closed in by the back 5 which is reinforced by the transverse bars 6 and fastened to the front or

glass section by the hooks 7 or in any suitable manner.

The back 5 may be replaced by a second sheet of translucent glass as shown in Fig. 6 thereby forming a double front folding frame, but the frame section closed by the back is the most approved form of this invention.

The back 5 is covered preferably by a white ground piece 8, such as a fabric of comparatively rough flannel, baize or other material, that will temporarily cling to pieces placed in position thereon.

The pieces 9 in block or other form are here shown as having printed or mounted on one face thereof symbols representing the various instruments or parts used in a Marconi wireless equipment and preferably have on the other face true illustrations or reproductions of the machines or parts, as in actual practice, thereby familiarizing the student with the apparatus both theoretically and practically.

The said pieces are also named and particularized on one or more of the sides or ends, thus providing the student with such information, as will enable him to readily place the pieces on the ground piece 8 under the translucent glass sheet 1 with the symbol sides uppermost for the purpose of showing the connections therebetween on the said glass.

These connections are symbolically shown by the lines 10, circles 11 and sketched parts 12, the symbols on the blocks showing through the glass to complete the wiring plan.

In using this invention the frame is opened and the pieces preferably placed by the instructor in certain positions on the ground piece. The frame is then closed and fastened and given to the student to fill in the lines for the wiring and incomplete parts with pencil or crayon to thoroughly illustrate the coöperation of said parts in actual practice.

It must be understood that the pieces may be cut out to the exact shape of the part and shown that way through the glass, or made in any form or size also as aforesaid the back and front may be filled in with translucent sheets and a central piece of semi-opaque material take the place of the solid back, and again a single block may have several different symbols thereon.

The material of the frame is not of essential importance, so long as it is stiff enough to maintain rigidity for the translucent sheet, further said sheet need not necessarily be glass.

Again the color of the ground piece in the frame depends entirely on the markings and on the prominence that said markings will be given by contrast.

Various changes may be made in the construction and uses of this invention, so long as the essential elements remain, which broadly are electrical, chemical, astronomical or other technical symbols and means for erasably illustrating the connections therebetween, and which are contained in the claims for novelty following.

What I claim is:—

1. In a device of the class described, an adjustable collection of symbolical pieces, a translucent covering for said pieces and having erasable lines constituting the standard connections symbolical of the necessary communications between the parts for coöperation.

2. In a device of the class described, an adjustable collection of symbolical pieces, a frame containing said pieces, a translucent sheet of glass covering said pieces and having erasable markings between and above said pieces and constituting illustrations of the necessary coöperating connections.

3. In a device of the class described, an adjustable collection of symbolical pieces, a frame containing said pieces, a translucent sheet of glass covering said pieces and having erasable markings thereon illustrating

the coöperating connections between parts, and a ground piece of contrasting color to said markings and having its surface formed to cling to said pieces in their variously adjusted positions.

4. In a device of the class described, an adjustable collection of printed electrical symbols formed on blocks, a frame containing said symbols, a ground piece having a comparatively rough surface and supporting said blocks in their variously set positions, and a translucent sheet of glass closing in said symbols on said ground piece and adapted to show said symbols there-through and to show on the surface in erasable lines the necessary coöperating connections between said symbols.

5. In a device of the class described, a folding frame, a division of semi-opaque material, a translucent sheet of glass in each section of said frame adapted to receive erasable markings thereon, and a plurality of symbolical pieces in collection in said frame sections and joined by said erasable markings.

6. In a device of the class described, a collection of symbolical pieces, each of said pieces having the technical symbol for a part of a system on the one face and on the other face a true illustration of a practical machine and on the side or edge faces name and technical information in printed letters or figures.

Signed at Montreal, Quebec, Canada, this 12th day of March, 1918.

DOUGLAS RICHARD PROCTOR COATS.