No. 646,582. Patented Apr. 3, 1900.

V. T. MURCHÉ.

APPARATUS FOR TEACHING THE ELEMENTS OF GEOGRAPHY.

(Application filed June 19, 1899.)

(No Model.)

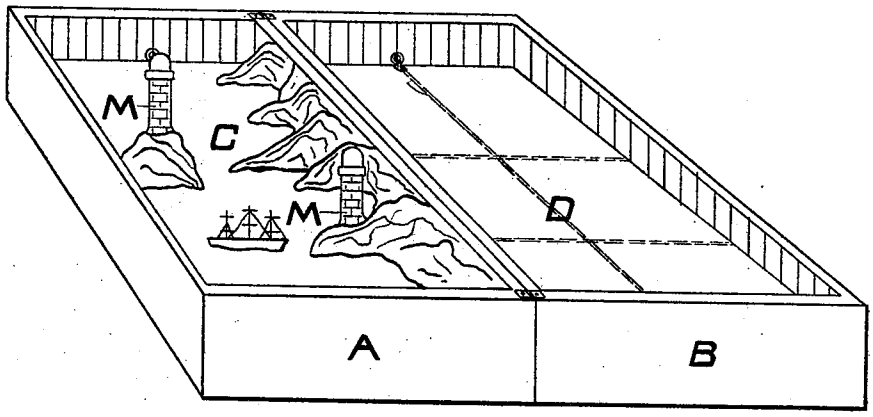


FIG. 1.

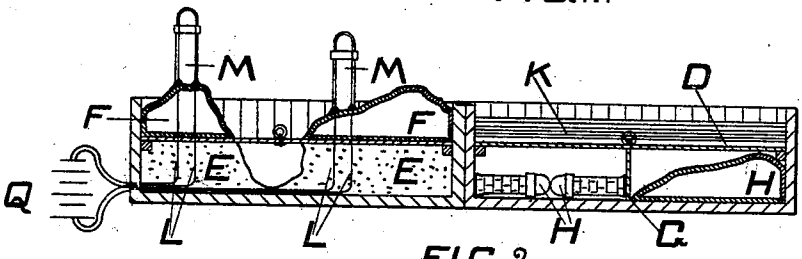


FIG. 2.

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VINCENT THOMAS MURCHÉ, OF LONDON, ENGLAND.

APPARATUS FOR TEACHING THE ELEMENTS OF GEOGRAPHY.

SPECIFICATION forming part of Letters Patent No. 646,582, dated April 3, 1900.

Application filed June 19, 1899. Serial No. 721,077. (No model.)

To all whom it may concern:

Be it known that I, VINCENT THOMAS MURCHÉ, a subject of the Queen of Great Britain and Ireland, residing at Denmark Hill, London, England, have invented a new and useful Improvement in Apparatus for Teaching the Elements of Geography, (for which I have made application for Letters Patent in Great Britain under No. 1,507, bearing date January 23, 1899,) of which the following is a specification.

This invention relates to the object-teaching of the elements of geography; and it consists in a receptacle conveniently in the form of a double tray hinged together so as to form a box when closed and out of use, such trays or parts of the receptacle or box being adapted to represent surfaces upon and under which models in relief can be constructed or which can act as a blackboard, with receptacles below for models, such models, in conjunction with explanatory charts, being also adapted to admit of any required disposition to show details of geography or to exemplify the operation of natural phenomena.

In order that my invention may be the better understood, I now proceed to describe the same with reference to the drawings hereto annexed and to the letters marked thereon.

Figure 1 is a perspective view of my receptacle or box-trays laid open for exemplification of the elements of geography. Fig. 2 is a transverse vertical section through the same.

For convenience as to portability and security of contents when not in use I provide a box of convenient size, of which the two parts A and B are hinged together, so that when open they afford two shallow receptacles alongside one another. In each of these receptacles is fitted a removable diaphragm or tray C D, of which one, C, may be of polished metal, so as to represent the surface of water or a sea. The other, D, may be a blackboard or slate, upon which the teacher may place diagrams to simultaneously illustrate in a flat projection that which he is illustrating in relief upon the adjoining tray. The lower part of the box A, under the sea-diaphragm C, may be utilized for building up in sand E or other convenient modeling material the contour of submarine valleys to show coast promontory or island formations. The upper portions F F of the contour-models, above the sea-diaphragm, are formed of hollow felted material, papier-mâché, or other suitable material, and are placed as desired on the upper surface of the sea-diaphragm C, the modeling below being built up to meet them and continue the same below sea-level. The sea-diaphragm C may be withdrawn with the upper models after the surface characteristics have been explained, and the submarine contour, with the upper models F F replaced on the lower built-up contour E, will then be exposed, so as to show the entire submarine and terrestrial formation after the sea-diaphragm C has been removed. The lower part of the other portion of the box B may be utilized by partitions G to contain the various models H—such as hills, houses, churches, lighthouses, ships, &c.—required for the more realistic laying out of the surface-models on the other half of the box or tray.

Charts drawn to illustrate and to direct the teacher as to the contour-models that may be set up in the tray or trays are used in conjunction with the model-tray and may be packed, as at K, under or upon the blackboard D.

To give a more perfect realization of the purpose of lighthouses M and the like, they may be illuminated by an incandescent lamp connected by wires L L to a dry or any convenient battery Q, by which the said incandescent lamps may be illuminated.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An apparatus for teaching elementary geography consisting of, in combination, a shallow box and lid, hinges connecting the same, adapted to permit the box and lid when open to lie in the same horizontal plane, a removable metal tray in one side of box representing sea-surface, and a removable blackboard in the other side or lid of box, both set so as to lie in one plane when the box is open, to permit delineation of plan or map on blackboard in the same plane with geographical features set out in models above and below the sea-surface.

2. In combination, a box and lid, hinged and adapted, when open to lie in the same horizontal plane, a metal and blackboard removable tray in each open part of box respectively, in same plane, contour-models on and under the metal tray, and insulated electrical connections from an external battery, under and through said tray to illuminate by incandescent lamps, said contour-models, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

VINCENT THOMAS MURCHÉ.

Witnesses:

RICHARD A. HOFFMANN,

CHARLES CARTER.