PATENT SPECIFICATION (11) 1 282 348

1 282 348

DRAWINGS ATTACHED

(21) Application No. 20847/70 (22) Filed 30 April 1970

(45) Complete Specification published 19 July 1972

(51) International Classification B43L 13/00

(52) Index at acceptance B6P B17

(72) Inventor DAVID ROBERT MABBUTT

(54) DRAWINGS AND DESIGNS MACHINE

(71) We, ROTADRAW LIMITED, a British company of 42 Eldon Way, Paddock Wood, Kent, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention includes a drawing or teaching apparatus including a first member having a reference mark and a plurality of apertures and/or slots hereafter referred to as apertures, each aperture having an alphabetical letter associated therewith, these alphabetical letters together forming the name of an object, a second member having a recess or aperture adapted to receive the first member so that the first member can rotate therein, the second member having at least a plurality of stationary alphabetical letters corresponding to the first said alphabetical letters located at different positions around the periphery of the recess or aperture in the second member so that by rotating the first member in the second member successively into angular positions where the reference mark is adjacent each of the stationary alphabetical letters on the second member which correspond to an alphabetical letter associated with an aperture in the first member and tracing along the contour of the corresponding aperture, a representation of the object is drawn.

The invention also includes a method of drawing an object using the apparatus set forth in the preceding paragraph including the steps of rotating the first member in the second member until the reference mark on the first member is adjacent the first alphabetical letter of the name of the object on the second member, tracing along a slot in the first member associated with that alphabetical letter and repeating these two steps for each alphabetical letter of the name of the object.

The machine can be used as a teaching machine or a toy for children. An embodiment is shown in the accompanying drawing, figure 1 shows a hinged frame having an upper panel 1 hingedly connected along one side to a lower panel (not shown) and having a circular aperture having the letters of the alphabet spaced around near the periphery. A sheet of paper can be located between the upper and lower panels and several disc members 2 are provided. Figure 2 shows one of these members 2 capable of being inserted in the aperture in panel 1. This member 2 has a series of slots of different shapes and lengths and each slot has an alphabetical letter associated therewith. The member 2 can have a depression for the finger of the operator to rotate the disc 2 if found necessary so that a reference mark 3 on member 2 can be brought adjacent each letter of the alphabet provided on panel 1 around the periphery of the aperture.

Each disc member is designed to draw one particular object, for example a bear. The operator turns the disc 2 until mark 3 is adjacent "B" on panel 1 and then traces with a pen and pencil along the slot associated with "B" on disc 2. The operator then turns mark 4 to "R_1" and traces along the slot "R_1". Since there are two "R"s in "BRUIN BEAR" they are distinguished as "R_1" AND "R_2". When all the letters of the word BRUIN BEAR have been accounted for the disc 2 is removed and a picture of a bear is shown on the paper below. Clearly a spelling error by the operator will be revealed as an error in the drawings.

It has been considered most suitable if the slots or cut outs are designed so that a correct complete drawing will be achieved if the operator traces or draws each slot when the mark 3 is correctly aligned with the associated alphabetical letter on the surrounding panel 1 whatever sequence the operator performs the various letters of the constituent name.

This device could be usefuly called a "ROTAWARD" device.

WHAT WE CLAIM IS:—

1. A drawing or teaching apparatus including a first member having a reference mark and a plurality of apertures and/or slots hereafter referred to as apertures, each aperture having an alphabetical letter associated therewith, these alphabetical letters together forming the name of an object, a second member

[*Price 25p*]

* C L M S *

PATENT SPECIFICATION (11) 1 282 348

1282348

DRAWINGS ATTACHED

(21) Application No. 20847/70 (22) Filed 30 April 1970
(45) Complete Specification published 19 July 1972
(51) International Classification B43L 13/00
(52) Index at acceptance B6P B17
(72) Inventor DAVID ROBERT MABBUTT

(54) DRAWINGS AND DESIGNS MACHINE

(71) We, ROTADRAW LIMITED, a British company of 42 Eldon Way, Paddock Wood, Kent, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention includes a drawing or teaching apparatus including a first member having a reference mark and a plurality of apertures and/or slots hereafter referred to as apertures, each aperture having an alphabetical letter associated therewith, these alphabetical letters together forming the name of an object, a second member having a recess or aperture adapted to receive the first member so that the first member can rotate therein, the second member having at least a plurality of stationary alphabetical letters corresponding to the first said alphabetical letters located at different positions around the periphery of the recess or aperture in the second member so that by rotating the first member in the second member successively into angular positions where the reference mark is adjacent each of the stationary alphabetical letters on the second member which correspond to an alphabetical letter associated with an aperture in the first member and tracing along the contour of the corresponding aperture, a representation of the object is drawn.

The invention also includes a method of drawing an object using the apparatus set forth in the preceding paragraph including the steps of rotating the first member in the second member until the reference mark on the first member is adjacent the first alphabetical letter of the name of the object on the second member, tracing along a slot in the first member associated with that alphabetical letter and repeating these two steps for each alphabetical letter of the name of the object.

The machine can be used as a teaching machine or a toy for children. An embodiment is shown in the accompanying drawing, figure 1 shows a hinged frame having an upper panel 1 hingedly connected along one side to a lower panel (not shown) and having a circular aperture having the letters of the alphabet spaced around near the periphery. A sheet of paper can be located between the upper and lower panels and several disc members 2 are provided. Figure 2 shows one of these members 2 capable of being inserted in the aperture in panel 1. This member 2 has a series of slots of different shapes and lengths and each slot has an alphabetical letter associated therewith. The member 2 can have a depression for the finger of the operator to rotate the disc 2 if found necessary so that a reference mark 3 on member 2 can be brought adjacent each letter of the alphabet provided on panel 1 around the periphery of the aperture.

Each disc member is designed to draw one particular object, for example a bear. The operator turns the disc 2 until mark 3 is adjacent "B" on panel 1 and then traces with a pen and pencil along the slot associated with "B" on disc 2. The operator then turns mark 4 to "R_1" and traces along the slot "R_1". Since there are two "R"s in "BRUIN BEAR" they are distinguished as "R_1" AND "R_2". When all the letters of the word BRUIN BEAR have been accounted for the disc 2 is removed and a picture of a bear is shown on the paper below. Clearly a spelling error by the operator will be revealed as an error in the drawings.

It has been considered most suitable if the slots or cut outs are designed so that a correct complete drawing will be achieved if the operator traces or draws each slot when the mark 3 is correctly aligned with the associated alphabetical letter on the surrounding panel 1 whatever sequence the operator performs the various letters of the constituent name.

This device could be usefuly called a "ROTAWARD" device.

WHAT WE CLAIM IS:—

1. A drawing or teaching apparatus including a first member having a reference mark and a plurality of apertures and/or slots hereafter referred to as apertures, each aperture having an alphabetical letter associated therewith, these alphabetical letters together forming the name of an object, a second member

having a recess or aperture adapted to receive the first member so that the first member can rotate therein, the second member having at least a plurality of stationary alphabetical letters corresponding to the first said alphabetical letters located at different positions around the periphery of the recess or aperture in the second member so that by rotating the first member in the second member successively into angular positions where the reference mark is adjacent each of the stationary alphabetical letters on the second member which correspond to an alphabetical letter associated with an aperture in the first member and tracing along the contour of the corresponding aperture, a representation of the object is drawn.

2. Apparatus as claimed in claim 1 wherein some of the apertures or slots in the first member have the same alphabetical letter associated therewith, these same alphabetical letters having a different reference numeral associated therewith to indicate the plurality of occurrences of that letter occurring in the name of the object.

3. Apparatus as claimed in claim 1 or claim 2 wherein the second member includes a first part having an aperture and a second part pivotally connected to the first part and arranged to provide a flat support surface for supporting paper directly below the aperture.

4. Apparatus as claimed in any of the preceding claims wherein the first member has engagement means for the operator to engage and move the first member.

5. A method of drawing an object using the apparatus claimed in claim 1, including the steps of rotating the first member in the second member until the reference mark on the first member is adjacent the first alphabetical letter of the name of the object on the second member, tracing a slot in the first member associated with that alphabetical letter and repeating these two steps for each alphabetical letter of the name of the object.

6. A drawing machine substantially as described referring to the accompanying drawing.

MARKS & CLERK
Chartered Patent Agents
Agents for the Applicants

Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1972.
Published by the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.