PATENT SPECIFICATION 878,664

DRAWINGS ATTACHED.

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International Classification :—A63h. A41g.

COMPLETE SPECIFICATION.

A Constructional Toy.

We, BRITAINS LIMITED, a British Company, of 184—186 Kings Cross Road, London, W.C.1, 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:—

The present invention relates to a constructional toy.

According to the invention a constructional toy comprises a base member having a surface with a plurality of apertures or recesses therein, and a plurality of objects removably mountable in said apertures or recesses, at least one of said objects comprising a boss capable of being inserted in said apertures or recesses and one or more at least partly flexible limbs joined to the boss and projecting sideways therefrom, whereby when the boss of the object is inserted to a sufficient depth in one of said apertures or recesses the limb or limbs of the object engage the side wall or side walls of the aperture or recess and are bent away from the plane of the base member surrounding said aperture or recess.

Although we prefer to provide the base member with apertures or recesses already formed therein, according to a modified form of the invention the base member may comprise knock-out portions which, when removed, provide suitable apertures for the reception of the object or objects.

The boss of the object is preferably a push fit in the base member apertures or recesses and may be of cylindrical shape, preferably right cylindrical. If desired, however, the boss may have convex or concave sides or it may be conical or frusto-conical. The limb or limbs of the object may radiate from one end of the boss or from the peripheral surface of the boss intermediate its ends. Whilst it is only essential for each limb to be flexible at the point where it is required to bend away from the plane of the base member it is most convenient to make the entire limb of flexible material, for example rubber or a flexible synthetic resin material such as polyethylene. The boss of the object may also be made of the same flexible material and it is most convenient to mould the boss integrally with the limb or limbs.

The simplest example of a base member of the preferred form of constructional toy in accordance with the invention comprises a rectangular base member with a number of apertures or recesses therein, the apertures or recesses being arranged either in a regular pattern, or irregularly, in the base member. This base member, which may be made of wood, rubber or synthetic resin, may have connection means along one or more of its side edges by means of which a number of similar base members may be joined together to form a composite base of any desired shape and size. Preferably the apertures or recesses in the base members are of circular cross-section.

Elements of a model garden constructional toy in accordance with the invention will now be described, by way of example, with reference to the accompanying drawing, in which:—

Figure 1 is a partly sectioned plan of a base member serving as the ground of the model garden;

Figure 2 is a side elevation of the base member of Figure 1;

Figure 3 is an elevation of a model wall:

Figure 4 is an end view of the wall of Figure 3.

[Price 2s. 6d.]

Figure 5 is a plan of a model daffodil plant prior to planting in the garden;

Figure 6 is a side elevation corresponding to Figure 5;

Figure 7 is a side elevation of the model daffodil plant of Figures 5 and 6 after it has been mounted in a base member;

Figure 8 is an elevation of a dibber which may be employed for mounting model plants in the base member;

Figure 9 is a perspective view illustrating the use of the dibber of Figure 8 in the planting of a model hyacinth plant in a base member;

Figure 10 is a plan of a model lupin plant prior to its mounting in a base member;

Figure 11 is a side elevation of the model lupin plant of Figure 10 after mounting in a base member; and

Figure 12 is an elevation of a model hollyhock plant.

Figures 1 and 2 of the drawing show a rectangular base member 1 in the form of a substantially plane sheet having a slightly roughened upper surface 2 to simulate the appearance of the earth in a freshly-dug plot of ground. The base member 1 is moulded from polyethylene and has a thickness of $^{5}/_{32}$ inch. The upper surface 2 has a width of $1\frac{1}{2}$ inches and a length of 3 inches. In the process of moulding the base member 1 a number of circular apertures 3 are formed therein, each aperture having a diameter of $\frac{1}{8}$ inch and passing right through the base member from the upper surface 2 thereof to the lower surface 4 thereof. The apertures 3 are arranged quite irregularly in the base member, as will be seen from Figure 1.

The upper surface 2 is larger than the lower surface 4 so that projecting edge portions 5 are formed on all sides of the base member. These edge portions 5 serve for the mounting of other elements, such as walls, along the sides of the base member. Figures 3 and 4 illustrate a model stone wall 6 moulded from polyethylene which can be removably mounted on the base member 1. The wall 6 has a groove 7 formed therein to receive an edge portion 5 of the base member (as shown in Figure 9). It will of course, be appreciated that the base member 1 may be detachably joined to other model garden elements, such as paths, rockeries, sheds and fences, in a similar way.

If desired, the wall 6 can be made in interlinking sections which are individually mountable on the edge portions 5. These interlinking sections may be made to simulate the appearance of the courses of a brick wall.

Figures 5 and 6 show a model daffodil plant moulded from polyethylene. This plant comprises a cylindrical boss 8 of circular cross-section which is provided with a rounded end 9 and has a coaxially disposed blind hole 10 in its end remote from the end 9. The boss 8 has an external diameter of $\frac{1}{8}$ inch and a length of $\frac{1}{8}$ inch, whilst the diameter of the hole 10 is $^{1}/_{16}$ inch. Moulded integrally with the boss 8 are a number of leaves 11 and two stalks 12. These leaves and stalks radiate from the peripheral surface of the boss 8 close to the end of the latter remote from end 9. One of the stalks 12 has a fully-open flower 13 at its free end, whilst the other stalk 12 has a bud 14 at its free end.

If the rounded end 9 of the boss 8 of the model daffodil plant is entered into one of the apertures 3 in the base member 1, and then the boss forced down into the aperture, the leaves 11 and stalks 12 will be brought to bear against the upper surface 2 of the base member. If the boss 8 is then pushed further into the aperture 3 until its rounded end 9 is flush with the lower surface 4 of the base member, the leaves and stalks will be forced upwardly so that they adopt the positions shown in Figure 7 and simulate the appearance of a growing daffodil plant.

Figure 8 shows a model dibber made of synthetic resin material, for example polyethylene, which facilitates the setting of model plants in the base member 1. The dibber illustrated comprises a shank 15 of circular cross-section with a handle 16 at one end. At its end remote from the handle 16 the shaft 15 has a portion of reduced diameter to form a pin 17. The diameter of the pin 17 is such that it is an easy push fit in the blind holes 10 of the plants it is desired to plant in the base member.

Figure 9 shows a model hyacinth plant, comprising a flower 18 and leaves 19, in the process of being planted in the base member 1 using the dibber illustrated in Figure 8. From Figure 9 is will be seen that the pin 17 is inserted into the blind hole in the boss 8 of the model plant after which the boss 8 is forced by the dibber into one of the apertures 3 in the base member. When the plant has been satisfactorily set in the base member the dibber is removed from the boss 8 and the plant remains in the base member 1 as shown at 20 in Figure 9.

Whilst Figures 7 and 9 illustrate relatively simple model plants, it will be appreciated that models of practically any plant may be moulded according to the same principle. Figure 10, for example, shows a model lupin plant prior to planting in the model garden, which plant comprises three flower heads 21 and a plurality of leaves 22. Figure 11 shows the appearance of the lupin plant of Figure 10 after it has been mounted in the base member 1.

The model garden constructional toy described above with reference to Figures 1 to

11 may comprise other model garden elements which are moulded in their final shape and which undergo no change of shape when they are mounted in the base member 1. Such elements include, for example, lengths of fencing, trellis work, archways, walls, pergolas, summer houses, sheds and sundials, and are provided at their lower ends with one or more bosses adapted to be engaged in apertures in the base member. It may also be convenient to form some of the plants according to this principle, especially tall plants, and trees, and Figure 12 illustrates such a model hollyhock plant comprising a stem 23, leaves 24 and flowers 25. At the lower end of its stalk, the plant is provided with a solid boss 26 of circular cross-section which is a push fit in the apertures 3 of the base member.

It will, of course, be appreciated that only a few examples of the possible elements of a model garden constructional toy have been illustrated in the drawing. Thus, for example, the base members may take many different forms. Apart from the base member illustrated in Figures 1 and 2, there may be provided base members which simulate the appearance of other basic features of a garden, such as paths, lawns, flower-beds and ponds. The base members need not be rectangular, as shown in the drawing, but can have any other regular or irregular shape (for example, square, triangular or round). Any number of base members may be placed side by side on any suitable support (for example a sheet of hardboard, or a table top) to form a model garden of any desired size and shape. If desired, some or all of the base members may be provided along their edges with means for connecting them to other base members in a readily disconnectible manner. For example small projections along the edge of one base member may be a push fit in suitable recesses in an edge of another base member. In an alternative form of construction of base member the latter comprises a thin sheet of synthetic resin material the edges of which are preferably flanged so that when the sheet is placed on a table or other supporting surface the underside of the sheet is spaced a short distance from the supporting surface. Each base member has a plurality of circular apertures passing through the sheet, the underside of the sheet preferably being reinforced by webs at least in the vicinity of these apertures.

Again, although the only form of plants illustrated in the drawing are relatively small flowering plants, it will be appreciated that other parts of the constructional toy which, like the plant shown in Figures 5 and 10, undergo change of shape during mounting in the base member, may be made to simulate the appearance of grass, bushes, flowering shrubs, weeds and vegetables. In the case of root crop vegetables, such as carrots, beetroot, turnips and the like, the root of the vegetable forms the boss of the model plant.

Although the invention has been described in detail above with reference to a model garden toy, it will be appreciated that the invention is not limited to this particular form of constructional toy. Thus, for example, the constructional toy may comprise the necessary parts to produce a model jungle, forest, farm or other features of the landscape.

In the Specification of our co-pending Application No. 17745/61 (Serial No. 878,665) we have described and claimed a constructional toy comprising at least one object provided with a boss adapted to be removably mounted in an aperture or recess in any convenient base member, and one or more at least partly flexible limbs joined to the boss and projecting sideways therefrom, said boss comprising a blind hole for the reception of a tool serving for the mounting of the object in said aperture or recess, whereby when the boss of the object is inserted to a sufficient depth in said aperture or recess the limb or limbs of the object engage the side wall or side walls of the aperture or recess and are bent away from the plane of the base member surrounding said aperture or recess.

WHAT WE CLAIM IS:—

1. A constructional toy comprising a base member having a surface with a plurality of apertures or recesses therein, and a plurality of objects removably mountable in said apertures or recesses, at least one of said objects comprising a boss capable of being inserted in said apertures or recesses and one or more at least partly flexible limbs joined to the boss and projecting sideways therefrom, whereby when the boss of the object is inserted to a sufficient depth in one of said apertures or recesses the limb or limbs of the object engage the side wall or side walls of the aperture or recess and are bent away from the plane of the base member surrounding said aperture or recess.

2. A constructional toy as claimed in Claim 1, in which said base member is a substantially plane sheet.

3. A constructional toy as claimed in Claim 1 or Claim 2, in which each of said apertures or recesses is of circular cross-section.

4. A constructional toy as claimed in any of Claims 1 to 3, in which said base member comprises connection means along an edge thereof whereby the base member may be detachably connected to another base member or some other part of the constructional toy.

5. A constructional toy as claimed in any of Claims 1 to 4, in which said boss is of cylindrical shape, preferably right cylindrical.

6. A constructional toy as claimed in Claim 5, in which said limb or limbs radiate from one end of the boss.

7. A constructional toy as claimed in Claim 5, in which said limb or limbs radiate from the peripheral surface of the boss intermediate its ends.

8. A constructional toy as claimed in any of Claims 1 to 7, in which said boss comprises a blind hole for the reception of a tool serving for the mounting of the object in said aperture or recess.

9. A constructional toy as claimed in any of Claims 1 to 8, in which said object is made of rubber or a flexible synthetic resin material, such as polyethylene.

10. A constructional toy as claimed in any of Claims 1 to 9, in which said base member is made of a rubber or a flexible synthetic resin material, such as polyethylene.

11. A modified form of the constructional toy claimed in any one of Claims 1 to 10, in which said base member comprises knock-out portions which, when removed, provide said apertures or recesses in the base member for the reception of the boss of said object.

12. A constructional toy as claimed in Claim 1 constructed and arranged substantially as herein described and as illustrated in the accompanying drawing.

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PROVISIONAL SPECIFICATION.

A Constructional Toy.

We, BRITAINS LIMITED, a British Company, of 184—186 Kings Cross Road, London, W.C.1, do hereby declare this invention to be described in the following statement:—

The present invention relates to a constructional toy.

According to the invention a construction toy comprises a base member having a surface with at least one aperture or recess therein, and at least one object removably mountable in said aperture or recess, said object comprising a boss capable of being inserted in said aperture and one or more at least partly flexible limbs joined to the boss and projecting sideways therefrom, whereby the boss of the object is inserted to a sufficient depth in said aperture or recess the limb or limbs of the object engage the side wall or side walls of the aperture or recess and are bent away from the plane of the base member surrounding said aperture.

The boss of the object is preferably a push fit in the base member aperture and may be of cylindrical shape, preferably right cylindrical. If desired, however, the boss may have convex or concave sides or it may be conical or frusto-conical. The limb or limbs of the object may radiate from one end of the boss or from the peripheral surface of the boss intermediate its ends.

Preferably the base member and the object are both made entirely of resilient material, for example polyethylene. If desired, however, the base member may be made of wood, or metal, or a hard synthetic resin.

In its simplest form a constructional toy in accordance with the invention comprises a rectangular base member with a single aperture or recess therein. This base member may have connection means along one or more of its side edges by means of which a number of similar base members may be joined together to form a composite base of any desired shape and size. Alternatively, the base member may have any number of apertures or recesses therein, the apertures or recesses being arranged either in a regular pattern, or irregularly, in the base member. A base member of this nature, having a plurality of apertures or recesses therein, may also comprise connection means along one or more side edges thereof so that a number of base members may be connected together to form a composite base.

One form of constructional toy in accordance with the invention comprises a plurality of base members which are made to simulate the appearance of parts of the ground of a model garden. Thus some of the base members may simulate the appearance of plots of freshly dug soil, whilst others may simulate the appearance of other basic features of a garden, such as, for example, paths, rockeries, lawns borders, and ponds. These base members may consist of sheets of polyethylene of any suitable regular or irregular shape (for example, square, rectangular, triangular, round or the like), the edges of which are preferably flanged so that when the sheet is placed on a table or other supporting surface the underside of the sheet is spaced a short distance from

the supporting surface. Each base member has a number of circular apertures passing through the sheet, the underside of the sheet preferably being reinforced by webs at least in the vicinity of these apertures. Along at least a part of the peripheral edge of each base member means are provided for connecting the base member to another base member in a readily disconnectible manner. For example, small projections along the edge of one base member may be a push fit in suitable recesses in the edge of another base member. By assembling suitable base members together a composite base can be formed which simulates the appearance of the basic features of a garden.

With the base members there is supplied a number of objects which can be removably mounted in the apertures of the composite base described above. Each object is made of polyethylene and comprises a cylindrical boss which is a push fit in the apertures of the base. Formed integrally with the boss is a number of flexible limbs which project radially outwards from the boss at one end thereof in a direction substantially at right angles to the axis of the boss. Each limb forms a component part of a model plant; for example, one of the limbs may consist of an artificial flower on the end of a stalk and the other limbs may be artificial leaves. When the boss of such an object is forced into an aperture in the base, at that end of the boss remote from the limbs being entered into the aperture first, the limbs of the object will be forced upwardly by the wall of the aperture so that the object simulates the appearance of a flowering plant. Other objects of the constructional toy may be made to simulate the appearance of grass, bushes, flowering bulbs and vegetables. In the case of bulbs and vegetables such as beetroot, carrots, turnips and the like root crops, the bulb or root forms the boss of the object. By planting such objects all over the base it is possible to construct an entire model garden.

The constructional toy may comprise other model features, such as, for example, lengths of fencing, trellis work, archways, walls, pergolas, summer houses and sundials, provided at their lower ends with one or more bosses adapted to be engaged in apertures in the base.

According to a further feature of the invention each of said objects has an axially disposed hole or recess in the boss of the article into which the end of a small mounting tool can be inserted. This tool may consist simply of a short rod having a diameter equal to the diameter of the hole or recess in the boss. By means of this tool the process of inserting the boss into an aperture in the base member is facilitated. In the case of the model garden toy described above this mounting tool may be a model dibber having a small handle at one end thereof.

Although the invention has been described in detail above with reference to a model garden toy, it will be appreciated that the invention is not limited to this particular form of constructional toy. Thus, for example, the constructional toy may comprise the necessary parts to produce a model jungle, forest, farm or other feature of the landscape.

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from which copies may be obtained.

878,664 COMPLETE SPECIFICATION
1 SHEET

This drawing is a reproduction of the Original on a reduced scale.

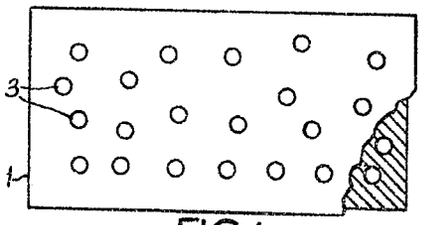

FIG.1

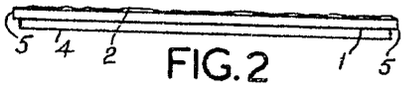

FIG.2

FIG. 3

FIG. 4

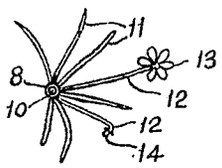

FIG.5

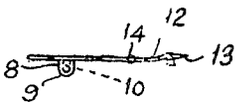

FIG.6

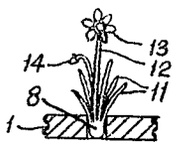

FIG.7

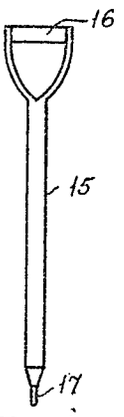

FIG.8

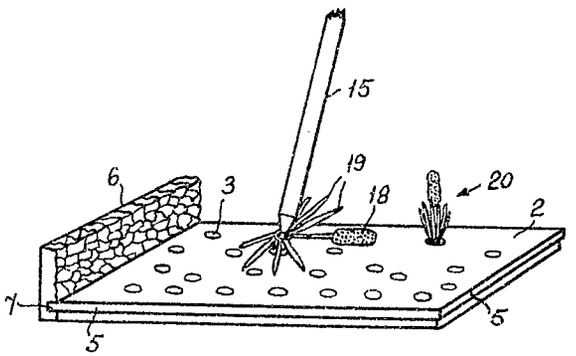

FIG.9

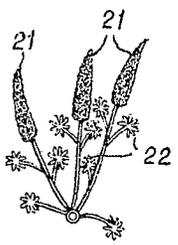

FIG.10

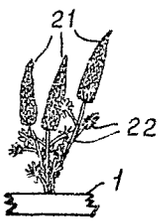

FIG.11

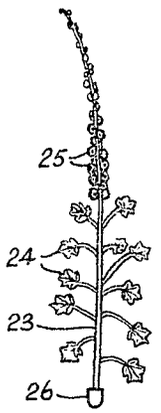

FIG.12