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(54) A method for the production of numerals and a comprehensive numeral convertible into other numerals.

57 By means of a standard, comprehensive numeral, chosen numerals in the set 1 to 9 and 0 can be prepared therefrom, thus simplifying manufacturing tooling and overcoming the problem of stock shortages resulting from

the greater demand for certain numerals.

The comprehensive numeral can be an 8 of stylised, rectilinear form which is traversed by an array of scores or lines of weakness (b), the lines being aligned with the internal edges defining the two openings in the numeral. By detaching selected portions (a, a<sup>1</sup>, a<sup>2</sup>...d, d<sup>1</sup>, d<sup>2</sup>, d<sup>3</sup>) from the numeral 8, any of the numbers 0 to 7 and 9 can be produced.

The numerals can be used for signs such a house numbers.

# "A METHOD FOR THE PRODUCTION OF NUMERALS AND A COMPREHENSIVE NUMERAL CONVERTIBLE INTO OTHER NUMERALS"

This invention relates to an improved method for the production of numerals and numerals produced in accordance with the method.

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Numerals are used for a multifarious variety of purposes for numbering houses etc. Normally a stock of ten numerals have had to be kept by distributors, wholesalers and retailers. The demand for certain numerals may be greater than for other numerals and hence maintaining adequate stocks of numerals for customers is complicated. An object of the invention is to avoid the above drawbacks by reducing to one the number of numerals to be stocked.

15 According to the invention there is provided a method for the production of numerals characterised by selecting a basic numeral, marking the basic numeral (along b) for severance to produce other numerals within the set 1 to 9 and 0 and severing selected unrequired residue (a, a<sup>1</sup>, a<sup>2</sup> ... d, d<sup>1</sup>, d<sup>2</sup>, d<sup>3</sup>) from the basic numeral to produce a remainder of the basic numeral which constitutes a chosen numeral.

Advantageously, the basic numeral is an 8 from which all the other numerals from 0 to 7 and 9 can be derived. An alternative to the 8 might be chosen but then fewer numerals could be derived by practising the present method.

The invention also provides a basic shape adapted

to be converted into other numerals within the set

1 to 9 and 0, characterised in that the basic shape
comprises the outline of a comprehensive number
which is one numeral of the set, the shape

5 possessing markings or lines (b) of weakness defining
selected portions of the shape which are detachable
selectively therefrom to leave a remnant of the
shape constituting a chosen numeral. Again, the
preferred severable shape has the outline of the
numeral 8.

It will be appreciated that the unrequired residue severed from the basic numeral shape in producing a given numeral would constitute integral portions of other numerals which might instead be produced from the basic numeral shape.

The invention will be described now by way of example with reference to the accompanying drawings:-

Fig. 1 is a plan view of a numeral 8;

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Fig. 2 is a plan view of numeral 0, 1, 2, 3, 4,

5, 6, 7 and 9 formed from the numeral 8 showing the discarded material by dotted lines;

Fig. 3 is a plan view from below of the numeral 8 showing markings or score lines indicating the material to be discarded to create any particular numeral from 0-7 and 9.

Fig. 1 shows a stylised numeral 8 and Fig. 2 shows the numerals produced by severing and discarding

the material not required for any one of the numerals 0 - 7 and 9.

Fig. 3 shows the demarcation lines  $\underline{b}$  on the numerals for the production of a particular number. As will be seen, the lines  $\underline{b}$  traverse the stylised, rectilinear 8 and are aligned with its internal edges which border the upper and lower openings of the numeral.

In forming the numeral 0 the surplus material 10 <u>a</u> is discarded.

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Two numerals 1 are available by discarding the material  $\underline{a}$ ,  $\underline{a}^2$ ,. The numeral 2 is formed by discarding the material  $\underline{c}$ ,  $\underline{c}^1$  and  $\underline{d}^3$  and for the numeral 3 by discarding the material  $\underline{c}^1$  and  $\underline{c}^3$ .

The numeral 4 is formed by discarding the material  $\underline{a}^1$ ,  $\underline{a}^2$ ,  $\underline{c}^3$  and  $\underline{c}^4$  and the numeral 5 by discarding the material  $\underline{c}^3$  and  $\underline{d}^1$ , or alternatively  $\underline{c}^3$ ,  $\underline{d}$  and  $\underline{d}^1$ .

The numerals 6 and 9 are formed by discarding the material  $\underline{d}$  and  $\underline{d}^1$  or alternatively only the material  $\underline{d}^3$  and the numeral 7 by discarding the material  $\underline{a}$ ,  $\underline{a}^2$ ,  $\underline{c}^2$ ,  $\underline{c}^3$ ,  $\underline{c}^4$  and optionally the material  $\underline{c}^1$ .

The numerals may be produced by injection moulding
from plastics material or by cutting from sheet
plastics material formed of less thickness along the
demarcation lines <u>b</u> to facilitate cutting or breaking

along the lines for the required numeral.

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Alternatively the numeral 8 may be of metal with grooves or partial shear, to form the demarcation lines <u>b</u> and which may be visible on the front or back of the numeral 8.

An impact adhesive with closed cell foam is applied to the back of the numeral, with a protective cover or liner for stripping off prior to applying the chosen numeral to a door or other surface or anchorage.

Attachment of the numeral to a substrate can be made by pins or screws instead of by means of an adhesive.

Alternatively other numerals than 8 may be selected as the basic number, but then it will not be possible to derive all the numbers from 1 to 9 and 0. For example, if the chosen basic numeral were 6 or 9, only the numerals other than 0, 2, 3 and 8 could be obtained.

It is envisaged that the comprehensive numerals convertible into other numerals could be educationally useful, and for use as an educational toy could be supplied without any anchoring means such as adhesive, pins or screws.

As will be recognised, adoption of a single comprehensive numeral, ready weakened, represents a significant advantage to the user, as well as simplifying

manufacture and keeping expensive tooling costs to the very minimum.

#### Claims:

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- 1. A method for the production of numerals characterised by selecting a basic numeral, marking the basic numeral (along <u>b</u>) for severance to produce other numerals within the set 1 to 9 and 0 and severing selected unrequired residue (a,  $a^1$ ,  $a^2$  ... d,  $d^1$ ,  $d^2$ ,  $d^3$ ) from the basic numeral to produce a remainder of the basic numeral which constitutes a chosen numeral.
- 2. A method according to claim 1, characterised by selecting 8 as the basic numeral, marking the numeral 8 along lines (b) which traverse the 8 for severance to produce numerals from 0 7 and 9 and then severing the unrequired residue to leave a remnant constituting the chosen numeral.
- 3. A method according to claim 2, characterised in that the 8 is severable along lines crossing the 8 which are aligned with internal borders defining the upper and lower openings of the 8.
- 4. A method according to claim 1, 2 or 3,

  20 characterised in that anchoring means is applied to
  a surface of the basic numeral for use in securing
  the chosen numerals prepared therefrom to a substrate.
- 5. A basic shape adapted to be converted into other numerals within the set 1 to 9 and 0, characterised in that the basic shape comprises the outline of a comprehensive number which is one numeral of the set, the shape possessing markings or lines (b) of weakness

defining selected portions of the shape which are detachable selectively therefrom to leave a remnant of the shape constituting a chosen numeral.

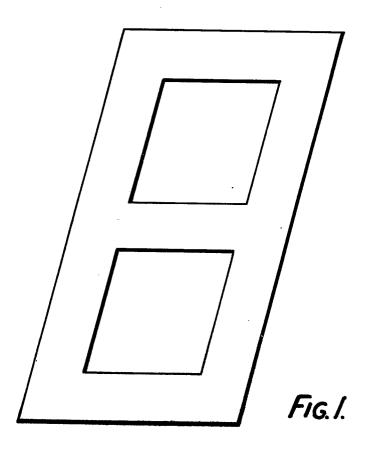
6. A basic shape according to claim 5, characterised by being in the form of the number 8, the shape possessing markings or lines of weakness (b) defining selected portions of the shape detachable selectively therefrom to leave a remnant of the shape, the form of remnants producible from the shape being 10 representative of all the numbers from 1 to 9 and 0.

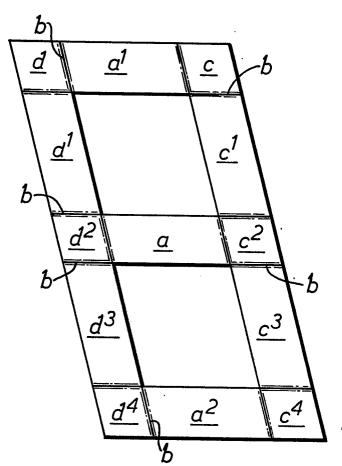
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7. A basic shape according to claim 6 which comprises the form of a stylised rectilinear numeral 8, characterised by the lines of weakness (b) traversing the shape in alignment with internal borders defining the upper and lower openings of the 8.







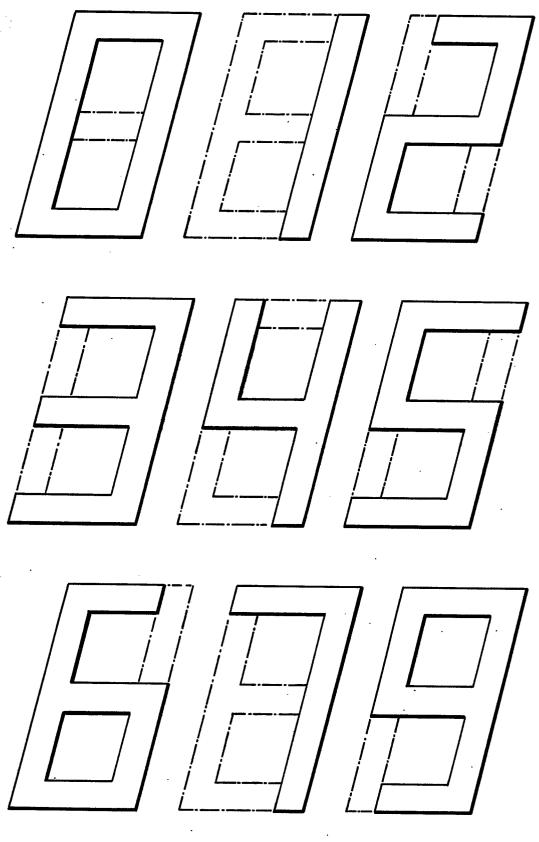


FIG. 2.

# European Patent Office

## **EUROPEAN SEARCH REPORT**

EP 80 30 1556

	DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
Category	Citation of document with indic passages	ation, where appropriate, of relevant	Relevant to claim	,
х	US - A - 2 257 2 FACTURING COMPAN	OO (DENNISON MANU-	1-7	G 09 F 7/14 7/02
	* Claims 1-2; pa column, lines column, lines	ge 1, left-hand 1-51; right-hand 5-21; figures 1-3 *		
	KOSSO BUDSKI)	.D. 1910 (Z.J.	1,5	
	* Claims 1-2 *			
				TECHNICAL FIELDS SEARCHED (Int.Cl. 3)
				G 09 F 7/02 7/14 7/16
				CATEGORY OF CITED DOCUMENTS
				X: particularly relevant
		·		A: technological background O: non-written disclosure
				P: intermediate document T: theory or principle underlying
				the invention  E: conflicting application
			•	D: document cited in the
	·			application  L: citation for other reasons
				&: member of the same patent
0	The present search report has been drawn up for all claims			family, corresponding document
Place of s	<sub>earch</sub> The Hague	Date of completion of the search 22.08.1980	Examiner FRA	NSEN
EPO Form 1503.1 06.78				