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(74) Gemachtigde:
Geen.

(54) **System for practising alphabetical skills and the like.**

(57) System for practising alphabetical skills comprising a flat base unit and at least one letter member, wherein the base unit comprises slots or fixing elements, preferably approximately arranged in (a grid of) at least three approximately equidistant rows and at least three equidistant columns, for at least partly receiving one or more letter members, such that a child can walk e.g. the letters of the word which is the answer to a question or riddle posed.

NL C 1036327

System for practising alphabetical skills and the like

FIELD OF THE INVENTION

The invention relates to a system for practising alphabetical skills and/or applying letter use in a playful manner.

BACKGROUND TO THE INVENTION

Various systems are known for, in particular children, practising, alphabetical skills. For example known are numerous board games involving the letters of the alphabet whereby a picture of e.g. an apple is shown on a card and a child has to make up the word 'apple' from chips, similar to those Scrabble® is played with, with each one a letter printed on them. Also known are toy computers with names like 'My first PC laptop computer'. These come with learning activities to teach a child a.o. letters and words. A picture of an apple would be shown on the screen and the child would type the word 'apple' to move on to the next picture. A drawback of these systems is that the child who is using them for practising its alphabetical skills is normally seated and fairly static.

DISCLOSURE OF THE INVENTION

The invention provides for an novel system for practising alphabetical skills in which the above drawbacks may be obviated, while providing the desired training in an active setting. Thereto the invention provides a system for practising alphabetical skills comprising a flat base unit of preferably about one and a half meter wide and two meter long which comprises a number of slots or fixing elements, comprising e.g. magnets or hook and loops fasteners, preferably approximately arranged in (a grid of) at

least three approximately equidistant rows and at least three equidistant columns, for cooperation with preferably at least nine letter members, each flat and preferably measuring approximately twenty centimetres wide and thirty centimetres long .Such dimensions allow the foot of a child to fit within the boundary of one letter mat), with each a letter of the alphabet printed on at least an upper side. Preferably the letter members cover the whole alphabet from A - Z (of any preferred language) and cover the more popular letters, such as 'E', double.

Below, the base unit and letter members are also referred to as play mat and letter mat respectively. All distinctable features are meant to be disclosed distinctly, even when described in conjunction with other features for briefness of the description. Distinctable features are meant to be features that may be taken out of the direct context in order to be used separately from features those are described with.

By providing a play mat and letter mats that form together a system for practising alphabetical skills, practising alphabetical skills may be done indoors in a physical manner with an easily varied configuration of the positions of the letter mats on the play mat.

In a second embodiment the play mat is provided with means to be able to 'recognize' the letter mats and preferably a processor means for processing signals received from the letter mats. Said signals could stem from RFID antennae embedded in a, e.g. 4x5, grid in the play mat. With the reading means wireless identifiable RFID tags provided in the letter mats may be read.

Furthermore in this embodiment the slots or fixing elements areas on the play mat are provided with means to sense the presence of a person at the specific location or tile, or specifically as an example that a child is

standing with at least one foot on aforementioned RFID letter mat. Said sensing means could comprise proximity sensors, pressure sensors or simply foil switches which make contact when stood on. The latter consists of two sheets of foil with there between a thin (approximately five millimetres thick) layer of non-conductive foam. The sides of said sheets that face each other have a mesh pattern, similar to the strings on a tennis racket, printed thereon with conductive ink. The foam has openings of approximately two centimetre diameter. If an object is placed on the foil switch the upper sheet is pushed downwards and the openings allow the print of the upper sheet to connect with the print of the bottom sheet, creating an electrical connection.

The foil switches and RFID antennae are connected to the processing means of a computer and a child or number of children would not need guidance from a teacher or parent to use this embodiment of the system for practising alphabetical skills.

The computer would preferably be integrated in, or alternatively connected by plug and socket to, the play mat outside the letter mat areas. Because the toy computer could instruct the child(ren) which letter mat to position where on the play mat and subsequently ask the child(ren) questions to which the answer has to be provided by stepping on appropriate letter mats in the right order. The RFID components would recognize which letter mat is placed where on the play mat and the proximity sensors would sense which letter mat is stepped on by the child.

Furthermore by providing said computer with connection means to an 'adult' computer or the internet directly, in any suitable way like e.g. via a USB socket or Wifi, the flash memory, or other suitable non-volatile memory means, of the toy computer could be updated with new sounds, clues, riddles, accompanying letter mat-configurations and/or answers and/or e.g. an

alphabet of another language like Greek or Russian for example (for which the user would buy a new set of letter mats with the characters of that alphabet). A removable memory cartridge would be an option too for adding variety to the clues, riddles, etcetera.

The computer referred to would comprise the usual components known to the person skilled in the art, like a; processor, memory, loudspeaker, aforementioned connectivity components like USB socket or Wifi, but preferably not a screen nor a keyboard.

In a third embodiment, which is an extension on the second embodiment, the slots or fixing element areas of the play mat comprise also an identification means for each slot or fixing mat area itself. This implies that each slot or fixing element area comprises identification means to identify which letter mat is placed thereon and furthermore means to sense that a child is standing with at least one foot on said letter mat and hence slot.

A suitable material for a play mat or letter mat might be carpet-like or a top sheet of plastic like PVC, or woven polyester or soft and durable polyester/cotton, which could be provided with an anti-slip surface on top, combined with a bottom sheet with a e.g. rubber or a waterproof vinyl material at the ground facing surface, preferably with non-skid properties. Letter mats could comprise thin plastic inserts between a top and bottom sheet for rigidity.

Depending on the fabric or material a playmate is made of, it could be stored easily after rolling it into a cylindrical shape or even folding the playmate around a pile of letter mats which preferably would make the system fit in a box of e.g. thirty centimeter wide, forty centimeter long and thirty centimeter high.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be explained in more detail on the basis of exemplary embodiments shown in the drawing. In the drawings:

FIG. 1 shows a schematic top view of a play mat with on it positioned a number of letter mats of the system according to the invention;

FIG. 2 shows a cross-sectional schematic view of the device according to the invention along the lines 2-2 of FIG. 1;

FIG. 3 shows a schematic overhead view of a part of a first embodiment of a wiring diagram of the system according to the invention;

FIG. 4 zooms in on the detail encircled in FIG 3;

FIG. 5 shows a schematic overhead view of a part of a second embodiment of a wiring diagram of the system according to the invention;

FIG. 6 zooms in on the detail encircled in FIG 5;

The figures are only schematic representations of preferred embodiments of the invention. In the figures, similar or corresponding parts are indicated by the same reference numerals.

DETAILED DESCRIPTION

FIG. 1 shows a top view of a first embodiment of a system for practicing alphabetical skills 1. The system 1 comprises play mat 2 and letter mats 7. Play mat 2 comprises rectangular slots 3 that are cut out from the top surface of the play mat 2. The slots 3 form in plan view approximately at least 3 rows and at least 3 columns. The slots 3 can accommodate letter mats 7 which, preferably each, carry indicia 8.

Play mat 2 can be made of any suitable material floor mats are generally made of, like e.g. foam, carpet and plastics including PVC.

The thickness of play mat 2 could be typically 8 millimeters and it may preferably be not rigid so as to allow for rolling the mat into a cylindrical shape or even for folding the mat for storage purposes.

The rectangular slots 3 are in plan view preferably about 20 centimeters wide and 25 centimeters long for to accommodate one or both of the feet of a child to stand thereon without crossing the boundary formed by perimeter 4 of slot 3. The depth of each rectangular slot 3 may be e.g. four millimeter. Instead of rectangular the plan view shape of the slots 3 could be oval, round or irregular like the plan view of non-rounded natural stones or any other suitable shape.

The indicia 8 may depict letters the 26 letters of the Latin alphabet or any other alphabet like e.g. the 22 letters of Hebrew. The indicia 8 on one letter mat may also depict a combination of letters with their individual sound like e.g. 'ou' in English or 'ui' in Dutch.

The play mat 2 may also comprise a START slot 5 where a child can stand on before crossing the imaginary bridge the play mat resembles and a FINISH slot 6.

In FIG. 1 between the slots 3 and the sides of play mat 2 an area 9 is indicated which could be decorated with print.

By providing a play mat 2 and letter mats 7 (with indicia 8) that fit in slots 3, a teacher or parent may practise alphabetical skills with a child indoors in a physical manner with an easily varied configuration of the positions of the letter mats 7 on the play mat 2.

FIG. 2 shows a cross-sectional schematic view of the play mat 2 comprising a bottom layer 2B and an upper layer 2A which has an opening which forms slot 3. In said slot 3 letter mat 7 fits.

FIG. 3 shows in ghost view a plan view of part of a play mat 2. In this second embodiment of a play mat 2 the perimeter 4 of positions for the letter mats (not shown) are preferably printed, by any suitable means, on the top surface of the play mat 2. The play mat 2 has no physical slots to cooperate with the letter mats, instead fixing means (not shown) are envisaged per letter mat position 3 to keep the letter mats, which are placed on top of the play mat 2, in place. The fixing means may be elements (not shown) comprising e.g. approximately centrally positioned flat magnetic elements or hook and loop fasteners (e.g. disc shaped of about 1 inch diameter and 1 mm thickness and would be located centrally within the perimeter 4. Obviously the letter mats would also comprise means to cooperate with aforementioned fixing means such that the letter mats can be removably fixed in place and their positions can be changed.

In a third embodiment of the system the play mat 2 may house electronic wiring 10 and modules 11.

The electronic wiring 10 may connect the modules 11 such that the modules 11 form cross points of a matrix and such that the modules 11 are positioned in columns A – D and rows 1 – 7. Whereby row 1 has only one cross point with column B. The position of module B – 1 would coincide with START slot 5, the position of the other modules 11 with the other remaining slots 3, i.e. fixing element areas, and the position of module B – 7 (not shown) with FINISH slot 6.

The electronic wiring 10 may extend on one side outside the matrix along the lines of the columns and the rows. The computer (not shown) would be connected to said lines and interrogate sequentially the lines of columns A – D and rows 1 – 7 to establish whether there is a connection between a column line and a row line.

FIG. 4 shows a schematic wiring diagram of a module 11 wich comprises switch module 12 and antenna module 13. In this embodiment switch module 12 is connected to line B and connected to antenna module 13. Antenna module 13 is furthermore connected to line 3. In this way, if the switch module 12 is activated (by a child standing on the letter mat above it) line B and line 3 are connected via the antenna module 13 and the latter is activated and ready to read e.g. an RFID tag.

FIG. 5 is similar to FIG. 3 but shows an alternative wiring diagram for connecting alternative electronic modules 11 (see FIG. 6). Whereby all modules 11 are connected in series with a double wire in a meandering pattern over the columns and rows (no references given).

FIG. 6 shows a schematic wiring diagram of alternative module 11 which comprises switch module 12, antenna module 13 and position identification module 14. In this embodiment position identification module 14 may be similar to decoders used for digital command control model trains. The decoder (not shown) has an address and can also switch the antenna module 13 on or off. In this way the toy computer, which is connected to the In Out lines, can interrogate the decoders one by one, and switch on the antennae one by one to read the RFID tags of the letter mats. When a switch module 12 is pressed (by a child standing on the letter mat above it) the computer will not be able to establish contact with one of the decoders and can conclude which letter mat the child stands on.

When using the system of the invention proposed, the rules of how it is used would normally be tuned to the level of the alphabetical ability of the child that tries to cross over the play mat with the letter mats positioned. These rules would be agreed with/conveyed to the child beforehand. For example a teacher or parent could e.g. make a sound and the child should step on the letter mat which resembles the sound in the first row. The same is repeated for the second row and so on. Alternatively the child should step on the letter which comes after or before the letter that the teacher or parent mentions. Alternatively the child could be given clues about a friend, like:" He has blond hair and blue eyes". Subsequently the child should find a possible name of e.g. 4 letters amongst the letter mats laid out (see e.g. Fig.1) , with a letter in each row (if there are four rows). Because the letter mats lay on the play mat their configuration is easily changed for a next name to be guessed. Normally the child would be supposed to only move forwards over the rows or also sideways in a row. Many ways of using the system proposed are imaginable.

Many variants will be clear to the person skilled in the art. It is for example also possible to have screens and proximity sensors fixed in the slots instead of placing the letter mats. The computer would control which letter is displayed on which screen. It is also possible that the position identification modules comprise each (just simply) a resistor and that the resistance values of all resistors are different such that the computer can 'recognize' each position of which the switch module is activated by measuring said resistance value. The variants are understood to fall within the scope of the invention as set forth in the appended claims.

CONCLUSIES

1. Systeem voor het oefenen van alfabetische vaardigheden bevattende een basisdeel en ten minste één letterdrager, waarbij het basisdeel posities bevat voor het ten minste gedeeltelijk ontvangen van één of meer letterdragers.

2. Systeem volgens conclusie 1, bevattende één of meer van de duidelijk te onderscheiden kenmerken volgens bovenstaande beschrijving.

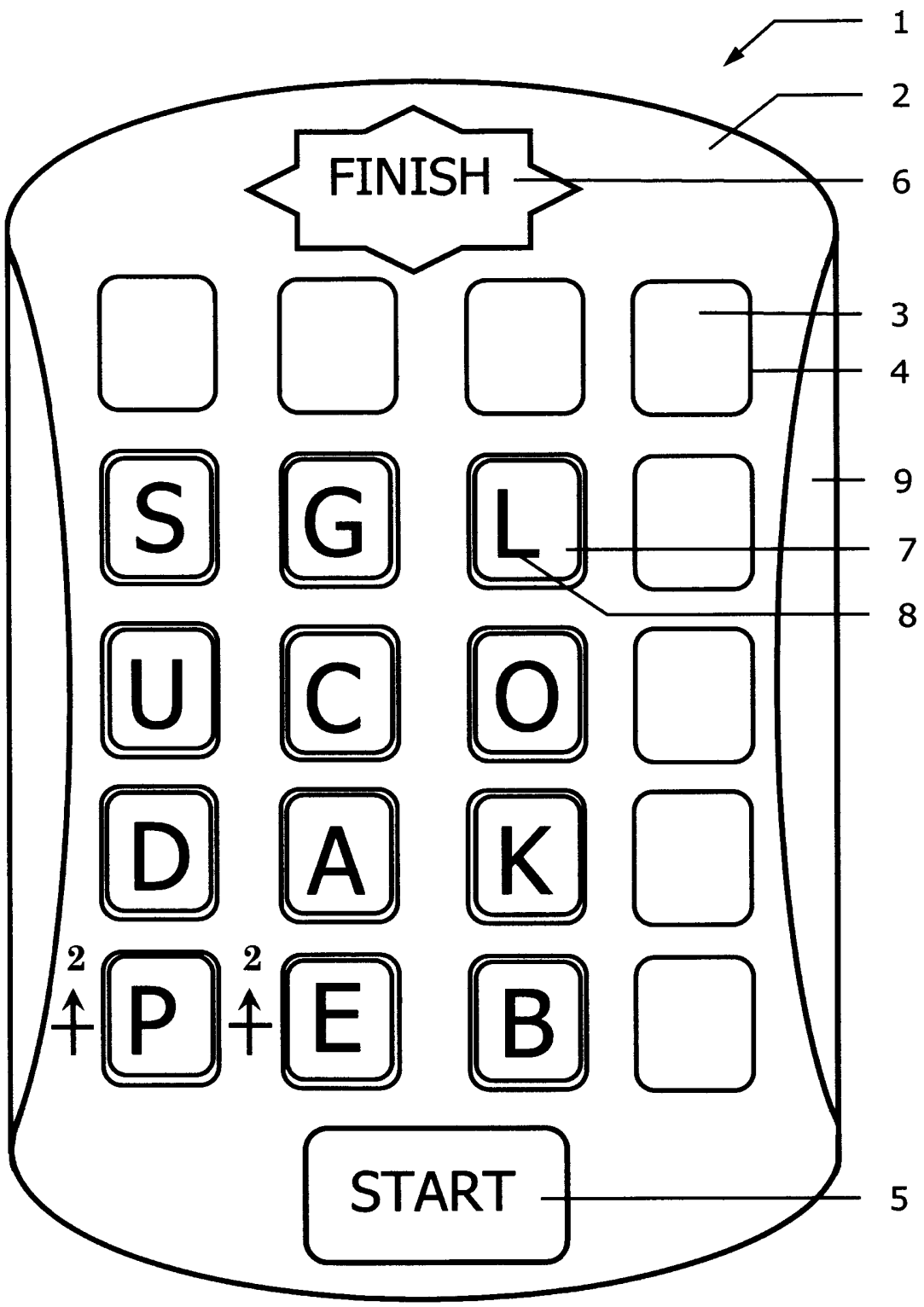

FIG. 1

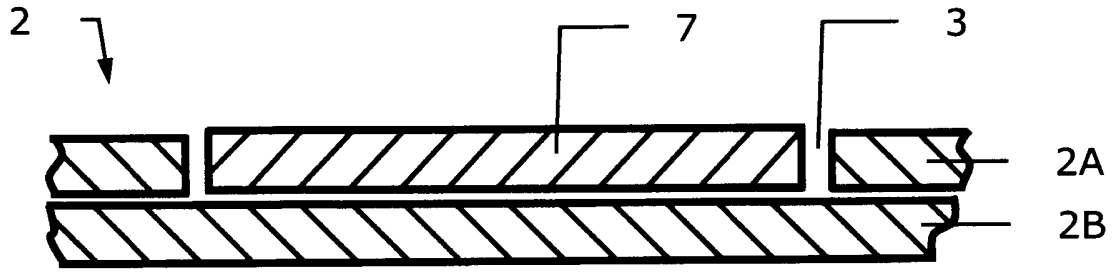

FIG. 2

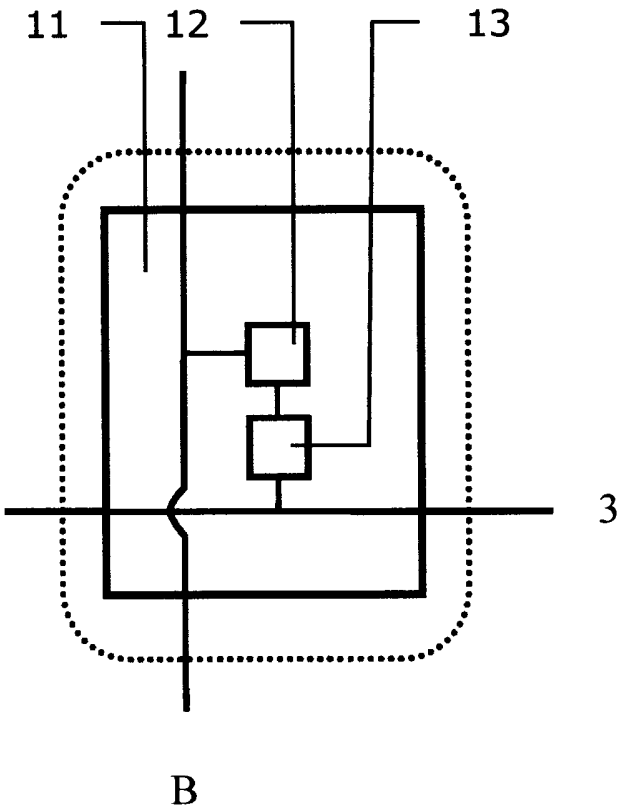

FIG. 4

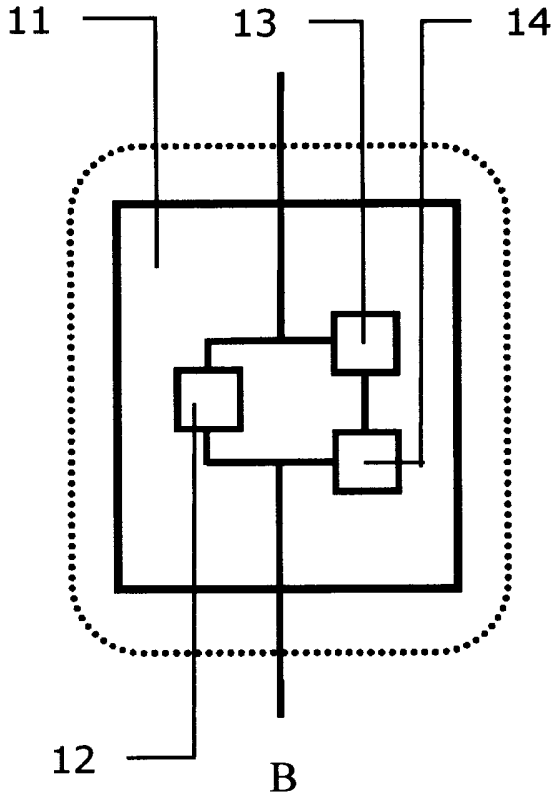

FIG. 6

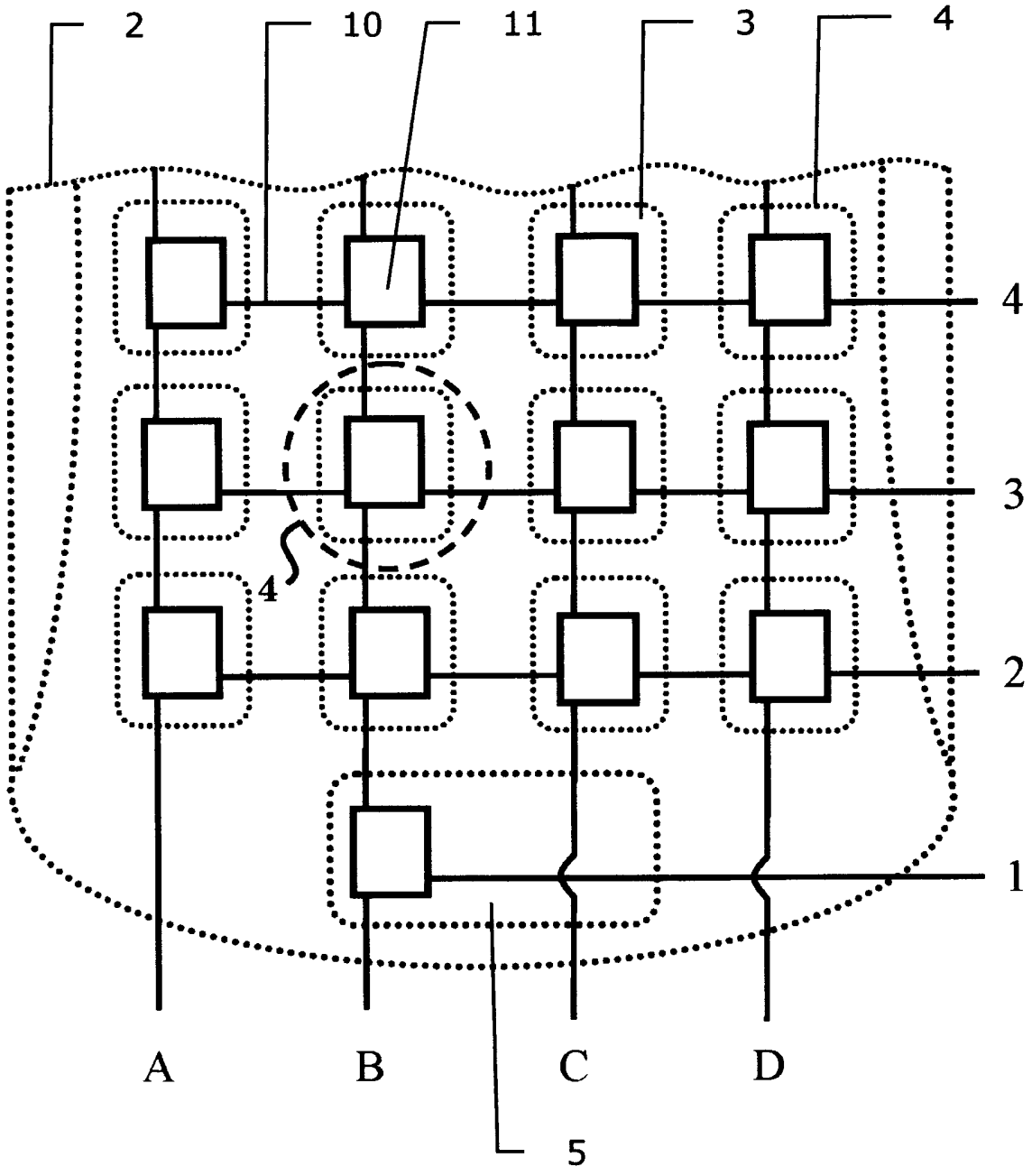

FIG. 3

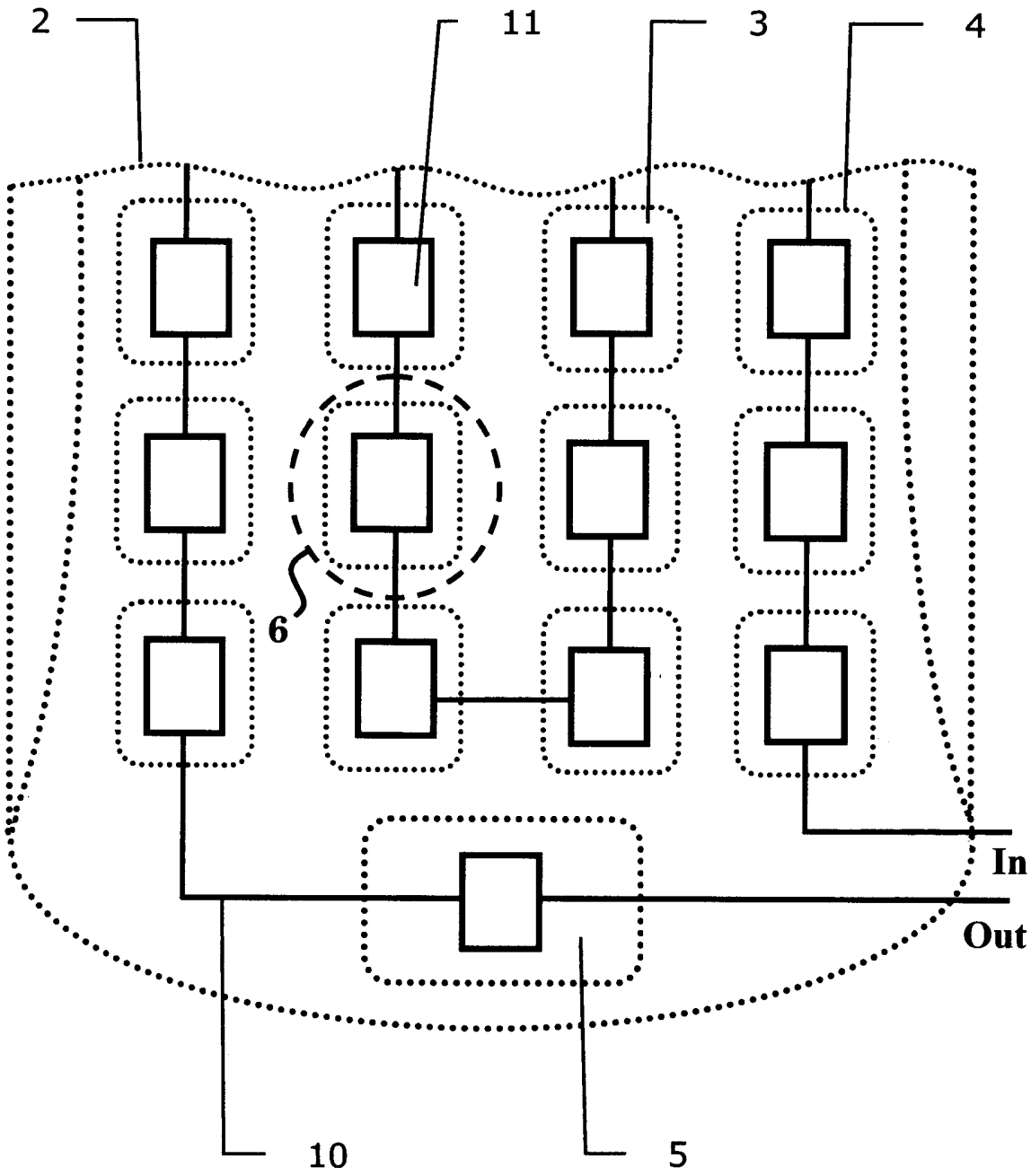

FIG. 5

OCTROOICENTRUM NEDERLAND

OCTROOIAANVRAAG NR.:
NO 136993
NL 1036327

ONDERZOEKSRAPPORT

BETREFFENDE HET RESULTAAT VAN HET ONDERZOEK NAAR DE STAND VAN DE TECHNIEK

RELEVANTE LITERATUUR

Categorie[1]	Literatuur met, voor zover nodig, aanduiding van speciaal van belang zijnde tekstgedeelten of figuren.	Van belang voor conclusie(s) nr:	Classificatie (IPC)
X	US 6 702 581 B1 (WALKER WINONA P [US]) 9 maart 2004 (2004-03-09) * samenvatting; figuur 2 *	1,2	INV. G09B7/00 G09B1/06
X	US 4 715 608 A (BURT JOHANNA [US]) 29 december 1987 (1987-12-29) * samenvatting; figuren 1,4 *	1,2	
X	US 3 469 325 A (GREENBERG MALVIN) 30 september 1969 (1969-09-30) * figuren 8,9 *	1,2	
A	WO 02/064226 A1 (TOUBKIN WALTER MILTON [GB]) 22 augustus 2002 (2002-08-22) * samenvatting *	1,2	
A	US 5 310 347 A (BRAND CHESTER [US]) 10 mei 1994 (1994-05-10) * het gehele document *	1,2	

Onderzochte gebieden van de techniek

G09B

Indien gewijzigde conclusies zijn ingediend, heeft dit rapport betrekking op de conclusies ingediend op:

Plaats van onderzoek:	Datum waarop het onderzoek werd voltooid:	Bevoegd ambtenaar:
München	4 mei 2011	Kemény, Michael

[1] CATEGORIE VAN DE VERMELDE LITERATUUR

X: de conclusie wordt als niet nieuw of niet inventief beschouwd ten opzichte van deze literatuur
Y: de conclusie wordt als niet inventief beschouwd ten opzichte van de combinatie van deze literatuur met andere geciteerde literatuur van dezelfde categorie, waarbij de combinatie voor de vakman voor de hand liggend wordt geacht
A: niet tot de categorie X of Y behorende literatuur die de stand van de techniek beschrijft
O: niet-schriftelijke stand van de techniek
P: tussen de voorrangsdatum en de indieningsdatum gepubliceerde literatuur
T: na de indieningsdatum of de voorrangsdatum gepubliceerde literatuur die niet bezwarend is voor de octrooiaanvrage, maar wordt vermeld ter verheldering van de theorie of het principe dat ten grondslag ligt aan de uitvinding
E: eerdere octrooi(aanvrage), gepubliceerd op of na de indieningsdatum, waarin dezelfde uitvinding wordt beschreven
D: in de octrooiaanvrage vermeld
L: om andere redenen vermelde literatuur
&: lid van dezelfde octrooifamilie of overeenkomstige octrooipublicatie

EOB FORM 02.83 (P0414B)

AANHANGSEL BEHORENDE BIJ HET RAPPORT BETREFFENDE HET ONDERZOEK NAAR DE STAND VAN DE TECHNIEK, UITGEVOERD IN DE OCTROOIAANVRAGE NR.

NO 136993
NL 1036327

Het aanhangsel bevat een opgave van elders gepubliceerde octrooiaanvragen of octrooien (zogenaamde leden van dezelfde octrooifamilie), die overeenkomen met octrooischriften genoemd in het rapport.
De opgave is samengesteld aan de hand van gegevens uit het computerbestand van het Europees Octrooibureau per
De juistheid en volledigheid van deze opgave wordt noch door het Europees Octrooibureau, noch door het Bureau voor de Industriële eigendom gegarandeerd; de gegevens worden verstrekt voor informatiedoeleinden.

04-05-2011

In het rapport genoemd octrooigeschrift	Datum van publicatie	Overeenkomend(e) geschrift(en)	Datum van publicatie
US 6702581 B1	09-03-2004	GEEN	
US 4715608 A	29-12-1987	GEEN	
US 3469325 A	30-09-1969	GEEN	
WO 02064226 A1	22-08-2002	CA 2436229 A1	22-08-2002
		GB 2388047 A	05-11-2003
		US 2005073104 A1	07-04-2005
US 5310347 A	10-05-1994	GEEN	

EPO FORM P0466

Algemene informatie over dit aanhangsel is gepubliceerd in de 'Official Journal' van het Europees Octrooibureau nr 12/82 blz 448 ev

OCTROOICENTRUM NEDERLAND

SCHRIFTELIJKE OPINIE

DOSSIER NUMMER	INDIENINGSDATUM	VOORRANGSDATUM	AANVRAAGNUMMER
NO136993	18.12.2008		NL1036327

CLASSIFICATIE
INV. G09B7/00 G09B1/06

AANVRAGER
PATENTCHECK.NL

Deze schriftelijke opinie bevat een toelichting op de volgende onderdelen:

- ☒ Onderdeel I Basis van de schriftelijke opinie
- ☐ Onderdeel II Voorrang
- ☐ Onderdeel III Vaststelling nieuwheid, inventiviteit en industriële toepasbaarheid niet mogelijk
- ☐ Onderdeel IV De aanvraag heeft betrekking op meer dan één uitvinding
- ☒ Onderdeel V Gemotiveerde verklaring ten aanzien van nieuwheid, inventiviteit en industriële toepasbaarheid
- ☐ Onderdeel VI Andere geciteerde documenten
- ☐ Onderdeel VII Overige gebreken
- ☐ Onderdeel VIII Overige opmerkingen

DE BEVOEGDE AMBTENAAR
Kemény, Michael

Aanvraag nr.:

SCHRIFTELIJKE OPINIE

NL1036327

Onderdeel I Basis van de Schriftelijke Opinie

1. Deze schriftelijke opinie is opgesteld op basis van de meest recente conclusies ingediend voor aanvang van het onderzoek.

2. Met betrekking tot **nucleotide en/of aminozuur sequenties** die genoemd worden in de aanvraag en relevant zijn voor de uitvinding zoals beschreven in de conclusies, is dit onderzoek gedaan op basis van:

   a. type materiaal:

   ☐ sequentie opsomming

   ☐ tabel met betrekking tot de sequentie lijst

   b. vorm van het materiaal:

   ☐ op papier

   ☐ in elektronische vorm

   c. moment van indiening/aanlevering:

   ☐ opgenomen in de aanvraag zoals ingediend

   ☐ samen met de aanvraag elektronisch ingediend

   ☐ later aangeleverd voor het onderzoek

3. ☐ In geval er meer dan één versie of kopie van een sequentie opsomming of tabel met betrekking op een sequentie is ingediend of aangeleverd, zijn de benodigde verklaringen ingediend dat de informatie in de latere of additionele kopieën identiek is aan de aanvraag zoals ingediend of niet meer informatie bevatten dan de aanvraag zoals oorspronkelijk werd ingediend.

4. Overige opmerkingen:

Aanvraag nr.:

SCHRIFTELIJKE OPINIE

NL1036327

Onderdeel V Gemotiveerde verklaring ten aanzien van nieuwheid, inventiviteit en industriële toepasbaarheid

1. Verklaring

Nieuwheid	Ja:	Conclusies
	Nee:	Conclusies 1, 2
Inventiviteit	Ja:	Conclusies
	Nee:	Conclusies 1, 2
Industriële toepasbaarheid	Ja:	Conclusies 1, 2
	Nee:	Conclusies

2. Citaties en toelichting:

Zie aparte bladzijde

Novelty

Independent claim 1 is formulated quite broad. As it is presently worded, a small bench used with the game scrabble is actually novelty destroying. No further evidence to prove the existence of the game scrabble is provided since the Applicant has referred to that game himself on page 1 of the description.

Claim 2 does presently not add any features to the existing features of claim 1, since the "één of meer duidelijk the onderscheiden kenmerken" are indeed already present in claim 1, being the "basisdeel".