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- (72) Inventor; and
- (71) Applicant : VAN VOGELPOEL, Peter [NL/NL]; Kat-  
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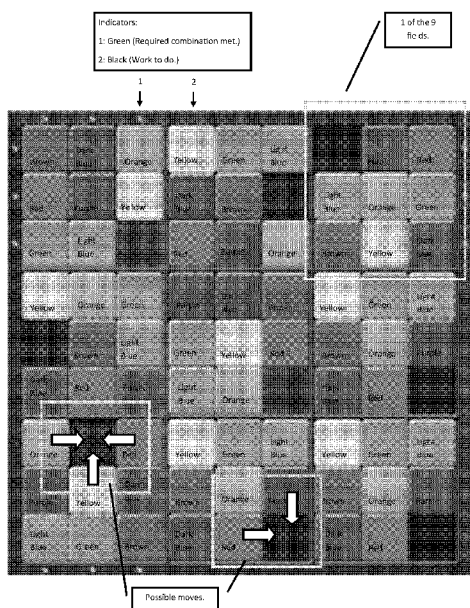
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,  
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,  
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SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM,  
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EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,  
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(54) Title: PUZZLE BOARD GAME, SUDRUBI

Figure 1 - Sudrubi playing board (sample layout)



(57) Abstract: Sudrubi is a puzzle board game that can be produced and played both physically and digitally. The square board consists of 9 fields each with one empty space and 8 differently coloured tiles that can be moved around within their own field. The goal of the game is to slide the tiles in such a way that finally each row and each column consists of 8 different colours plus one open space. At start the tiles will be distributed seemingly ad random, but there are three different kind of patterns that can form an underlying structure. This relates to the three different levels of difficulty.

WO 2015/087113 A1

## PUZZLE BOARD GAME, SUDRUBI

Sudrubi is a puzzle board game that can be produced and played both physically and digitally.

The square board consists of 9 fields each with one empty space and 8 differently coloured tiles that can be moved around within their own field.

The goal of the game is to slide the tiles in such a way that finally each row and each column consists of 8 different colours plus one open space.

At start the tiles will be distributed seemingly ad random, but there are three different kind of patterns that can form an underlying structure. This relates to the three different levels of difficulty. (See later.)

In a physical form the player has to randomize the board himself or someone has to do that for him.

SEE FIGURE 1.

In a digital or mechanical/electronic version of the game indicators can be used to show the player which rows and columns are already meeting the required combination of all 8 colours plus one open space.

Also then the time and number of moves needed to find a solution can be counted and registered.

The game can also be made for example from solid wood or plastic, but then it will lack the indicators, the time/moves registration, and the possibility to play different levels with the same board. However, then different boards with different levels of difficulty can be produced .

## LEVELS

The game can have three different levels of difficulty.

This is related to a specific characteristic of a sliding puzzle with 8 tiles:

It is impossible to just exchange two tiles and leave the rest of the tiles/colours in place.

In the example in figure 2 field A can never become field B.

SEE FIGURE 2.

## Levels of difficulty.

### Level 1

If all 9 fields are of the same kind (all are the A-kind or all are the B-kind) then the puzzle can be solved by a regular pattern.

SEE FIGURES 3 & 3a

When the board consists of both fields of the A-kind and the B-kind then the puzzle cannot be solved with a regular pattern like in level 1

There are two types of this higher level:

### Level 2a

Each row and column consists of both fields of the A-kind and fields of the B-kind.

SEE FIGURES 4 & 4a

### Level 2b

The board consists of both fields of the A-kind and fields of the B-kind, but one or more rows and/or columns consist only of fields of the A-kind or fields of the B-kind.

SEE FIGURES 5 & 5a

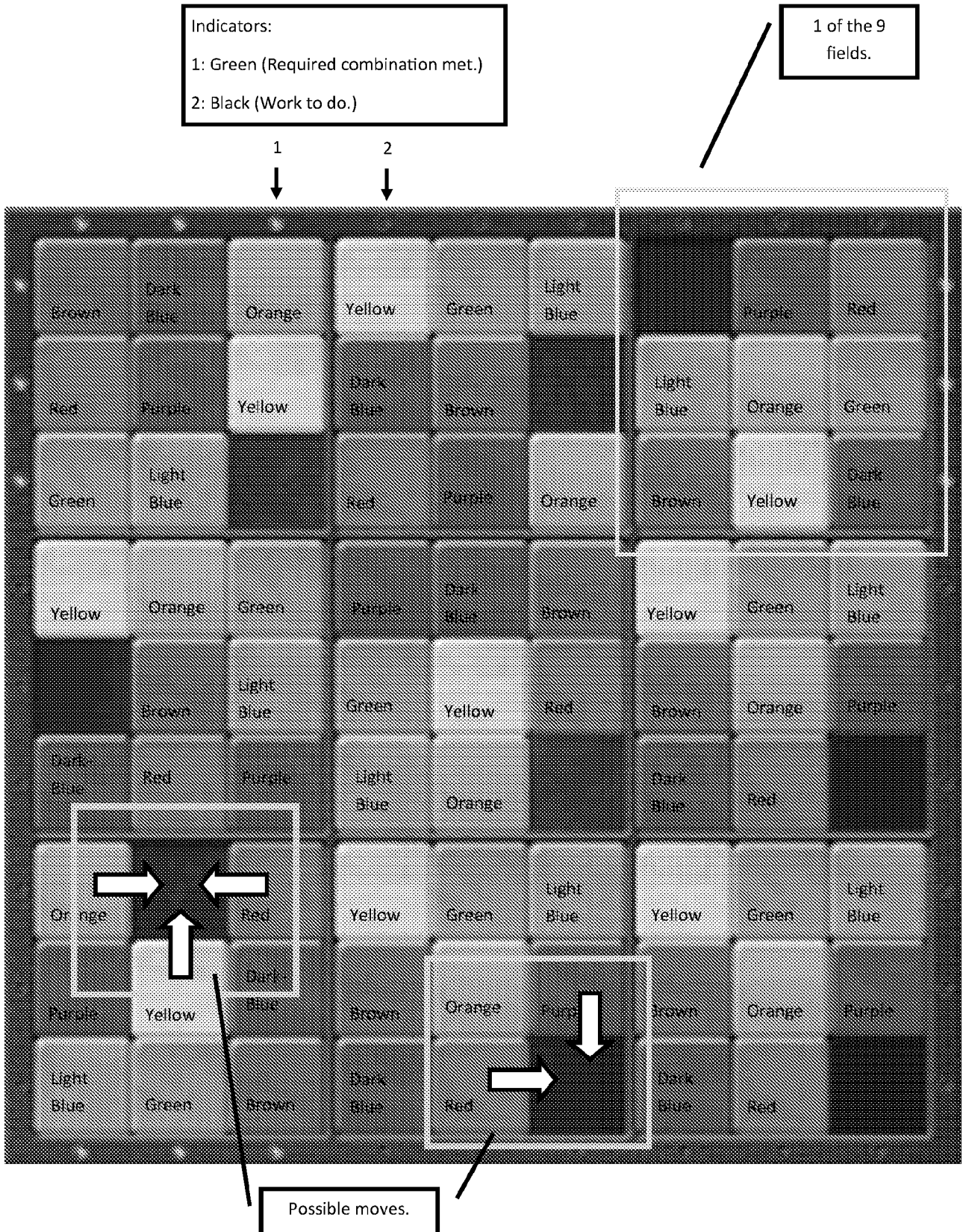
The examples in the figures show that there are solutions to all levels.

## Claims

The concept of the 9 (3 x 3) fields with the 8 sliding coloured tiles each, with the goal to reach a board on which each row and each column consists of exactly the 8 different tiles/colours and one empty space is new, unique and original.

This combined with the different levels of difficulty, based on impossibility to exchange only two tiles/colours within a field, makes a gameplay that does not exist yet.

Figure 1 - Sudrubi playing board (sample layout)



## Figure 2

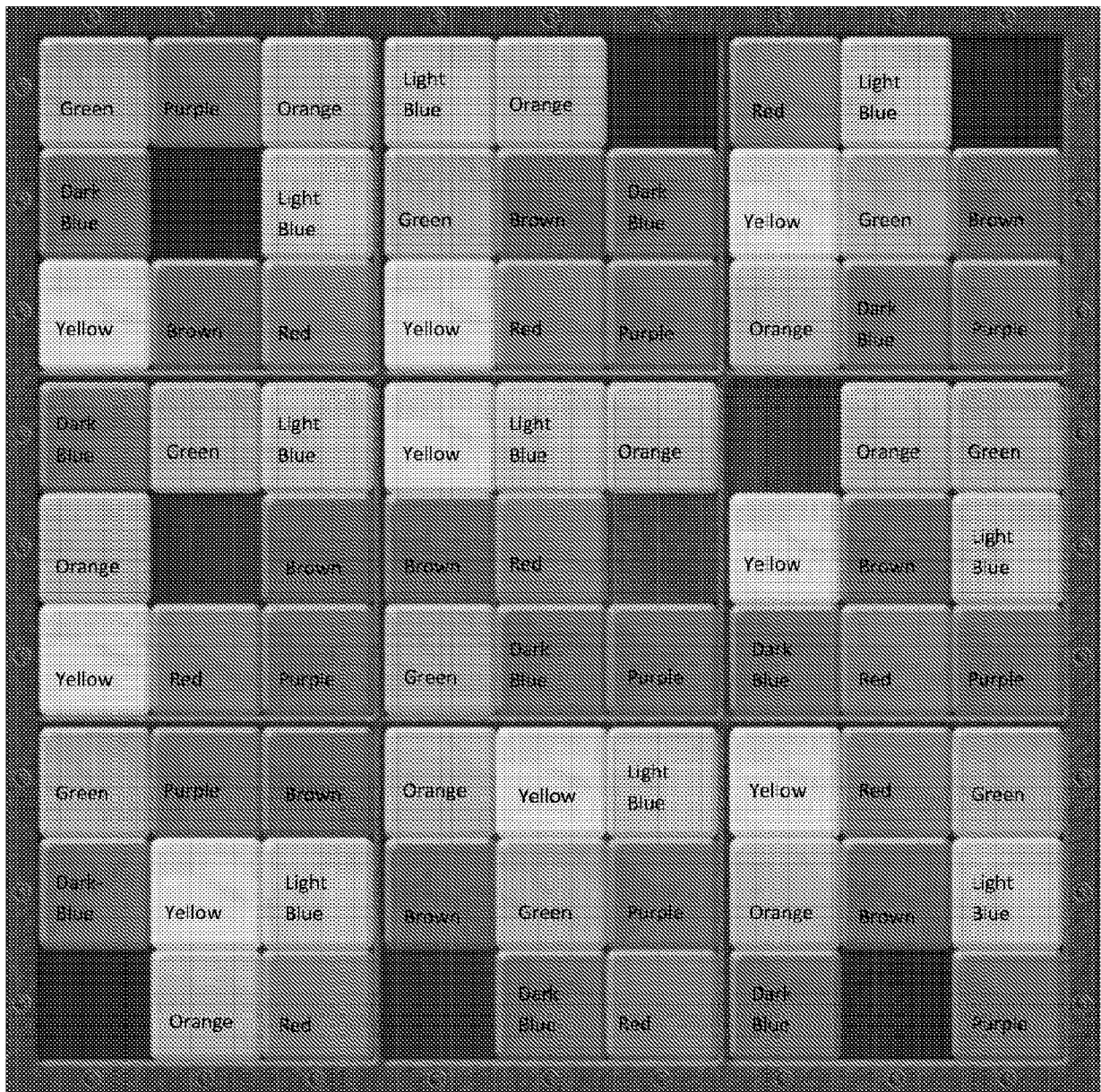
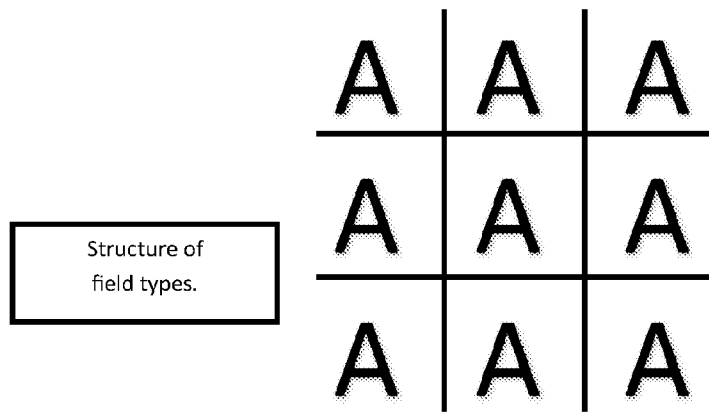
Field type A can never become field type B.

(In this example the Dark Blue and the Orange tiles are exchanged.)

A			B		
Brown	Light Blue	Red	Brown	Light Blue	Red
Yellow	Green	Purple	Yellow	Green	Purple
Dark Blue	Orange		Orange	Dark Blue	

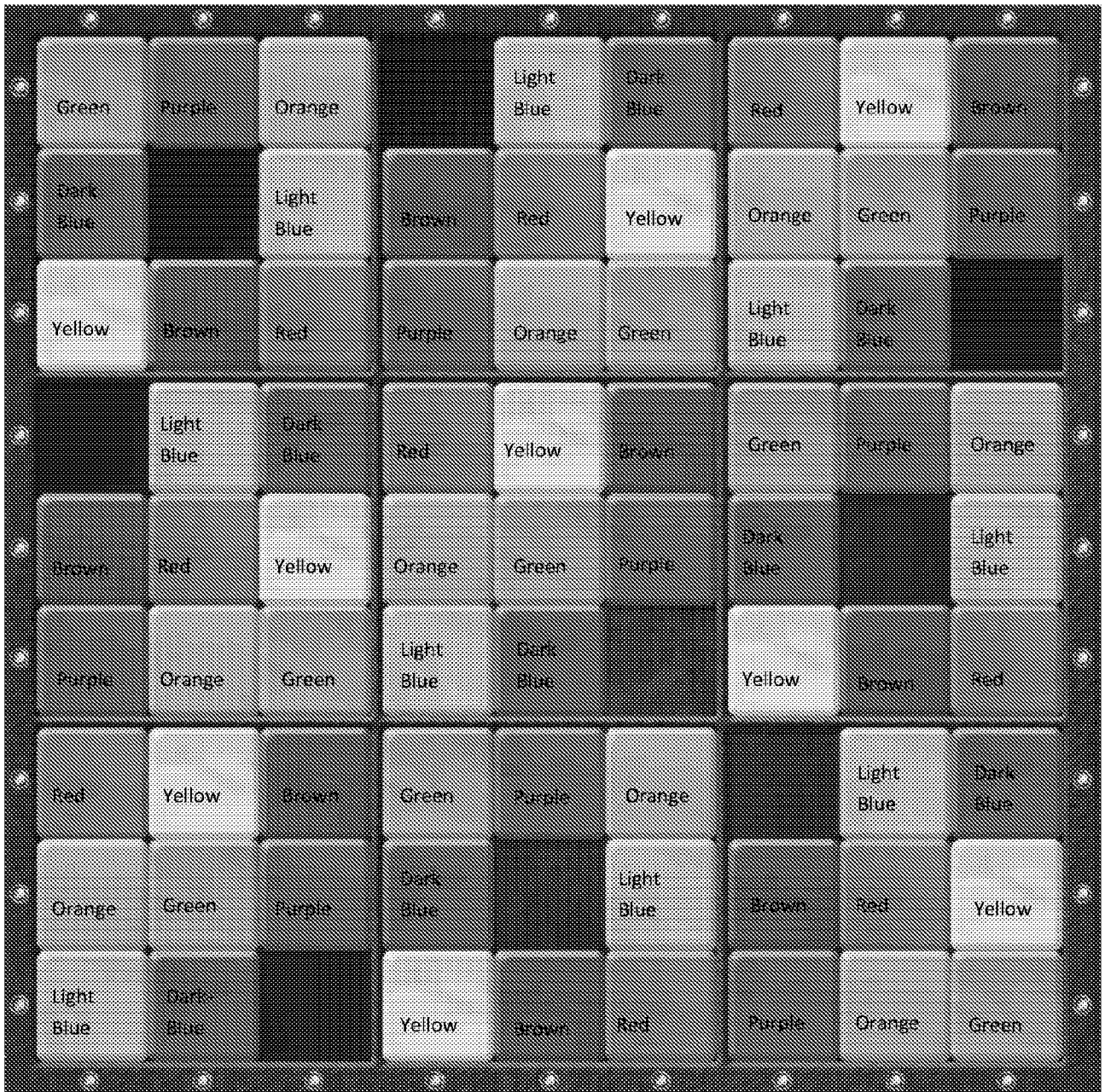
Figure 3

Example of level 1



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Figure 3a  
 Solution of Example of level 1  
 (a regular pattern)



All indicators green, indicating that the board meets the requirements of a valid solution.

Figure 4

Example of level 2a

Structure of field types.

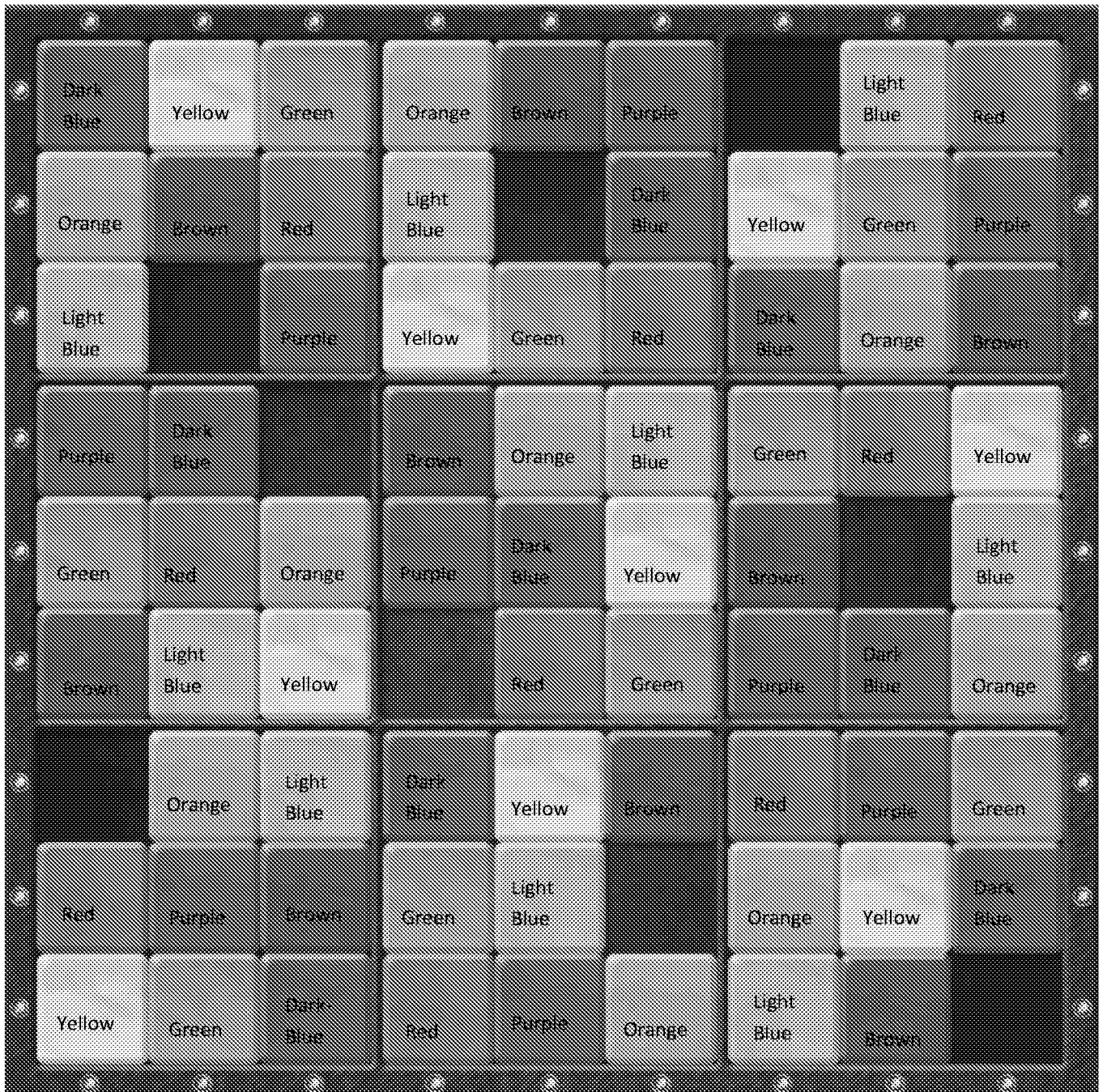
B	A	B
B	B	A
A	B	A



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Figure 4a

Solution of Example of level 2a



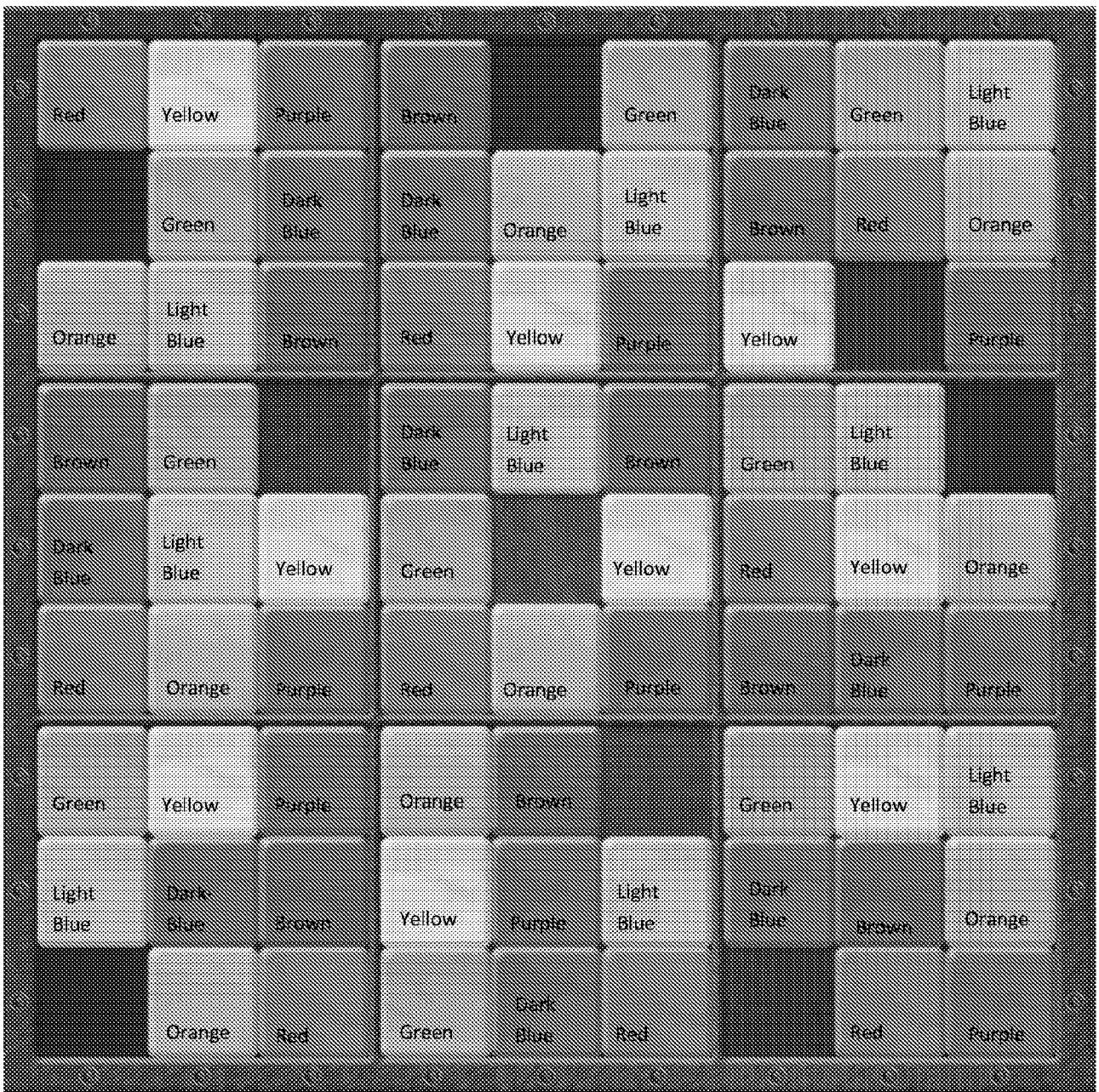
All indicators green, indicating that the board meets the requirements of a valid solution.

Figure 5

Example of level 2b

Structure of field types.

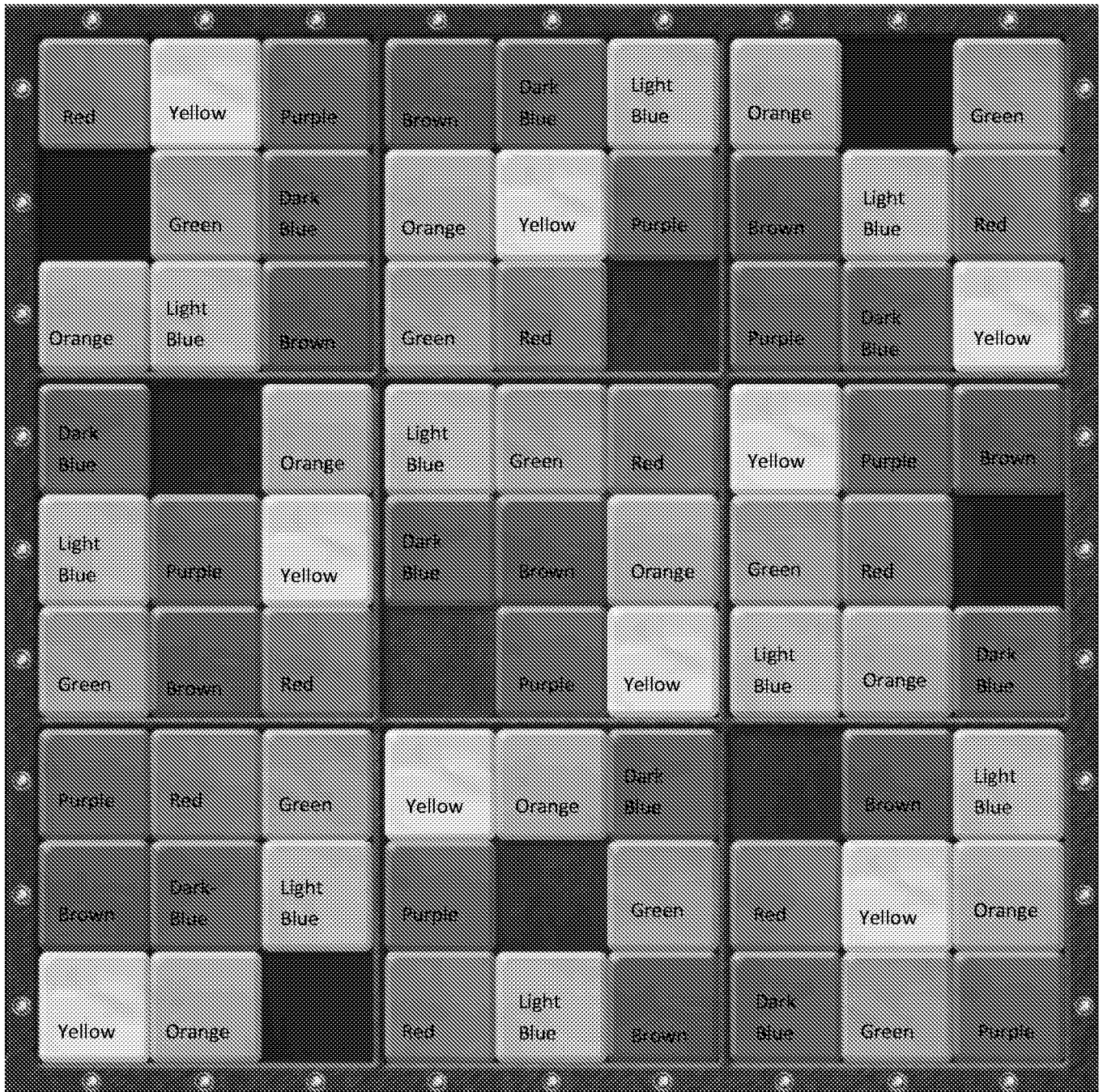
A	B	B
B	B	B
A	A	B



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Figure 5a

Solution of Example of level 2b



All indicators green, indicating that the board meets the requirements of a valid solution.

# INTERNATIONAL SEARCH REPORT

International application No <b>PCT/IB2013/060892</b>
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<b>A. CLASSIFICATION OF SUBJECT MATTER</b> INV. A63F9/08 ADD.				
According to International Patent Classification (IPC) or to both national classification and IPC				
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) A63F				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, WPI Data				
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	US 5 267 732 A (BOWEN WALTER L [US] ET AL) 7 December 1993 (1993-12-07) column 2, line 38 - line 56; figures -----	1		
X	DE 94 04 065 U1 (FELLER ERHARD [DE]) 14 July 1994 (1994-07-14) page 1, line 1 - line 19; figures -----	1		
A	CN 201 179 328 Y (HUSHENG YANG [CN]) 14 January 2009 (2009-01-14) the whole document -----	1		
A	US 2007/210516 A1 (BOHAC GREG I [US]) 13 September 2007 (2007-09-13) paragraph [0001] - paragraph [0005]; figures ----- -/--	1		
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.</td> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> See patent family annex.</td> </tr> </table>			<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.			
* Special categories of cited documents :				
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family			
Date of the actual completion of the international search	Date of mailing of the international search report			
20 August 2014	28/08/2014			
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  Lucas, Peter			

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IB2013/060892

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: 2  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/IB2013/060892

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>Anonymous: "Sudoku Color : play Sudoku with colors instead of numbers",</p> <p><sup>3</sup> 7 April 2011 (2011-04-07), XP055135637, Retrieved from the Internet: URL:<a href="http://www.bestwp7games.com/sudoku-color-play-sudoku-with-colors-instead-of-numbers.html">http://www.bestwp7games.com/sudoku-color-play-sudoku-with-colors-instead-of-numbers.html</a> [retrieved on 2014-08-20] the whole document</p> <p style="text-align: center;">-----</p>	1
A	<p>Anonymous: "Flat Rubik - 2 Dimentional Rubik's Cube Puzzle",</p> <p><sup>1</sup> 1 January 2010 (2010-01-01), XP055135645, Retrieved from the Internet: URL:<a href="http://www.puzzlemystery.com/FlatRubikPuzzle.aspx">http://www.puzzlemystery.com/FlatRubikPuzzle.aspx</a> [retrieved on 2014-08-20] the whole document</p> <p style="text-align: center;">-----</p>	1

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2013/060892

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5267732	A	07-12-1993	NONE
-----			
DE 9404065	U1	14-07-1994	AT 165246 T 15-05-1998
			DE 9404065 U1 14-07-1994
			EP 0671192 A1 13-09-1995
			US 5529301 A 25-06-1996
-----			
CN 201179328	Y	14-01-2009	NONE
-----			
US 2007210516	A1	13-09-2007	NONE
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**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

Continuation of Box II.2

Claims Nos.: 2

Claim 2 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The claim merely states that there are different levels of difficulty, based on the impossibility to exchange only two tiles/colours within a field. This functional statement does not enable the skilled person to determine which technical features are necessary to perform the stated function. Claim 2 therefore makes no technical sense.