Sheet No. 6

Box No. VIII (iii) DECLARATION: ENTITLEMENT TO CLAIM PRIORITY

The declaration must conform to the standardized wording provided for in Section 213; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51*bis*.1(a)(iii)):

Applicant Srinivas S. Devathi declares that as sole original inventor of the invention claimed in the priority application as well as applicant for the prior application, he is entitled to claim priority to the earlier application.

☐ This declaration is continued on the following sheet, "Continuation of Box No. VIII (iii)".

Sheet No. 7

Box No. IX CHECK LIST for EFS-Web filings - this sheet is only to be used when filing an international application with RO/US via **EFS-Web**

This international application **contains** the following:	Number of sheets
(a) request form PCT/RO/101 (including any declarations and supplemental sheets)	7
(b) description (excluding any sequence listing part of the description, see (f), below)	24
(c) claims	5
(d) abstract	1
(e) drawings (if any)	4
(f) sequence listing part of the description in the form of an **image file** (e.g. PDF)	
Total number of sheets (including the sequence listing part of the description if **filed as an image file**)	41

(g) sequence listing part of the description

- ☐ filed in the form of an **Annex C/ST.25 text file**
- ☐ WILL BE filed separately on physical data carrier(s), on the same day and in the form of an **Annex C/ST.25 text file**

Indicate type and number of physical data carrier(s)

This international application is **accompanied by** the following item(s) *(mark the applicable check-boxes below and indicate in right column the number of each item):*	Number of items
1. ☒ fee calculation sheet	
2. ☐ original separate power of attorney	
3. ☐ original general power of attorney	
4. ☐ copy of general power of attorney; reference number:	
5. ☐ priority document(s) identified in Box No. VI as item(s)	
6. ☐ Translation of international application into *(language)*:	
7. ☐ separate indications concerning deposited microorganism or other biological material	
8. ☐ *(only where item (f) is marked in the left column)* copy of the sequence listing in electronic form (Annex C/ST.25 text file) not forming part of the international application but **furnished only for the purposes of international search** under Rule 13*ter*	
9. ☐ *(only where item (f) is marked in the left column)* a statement confirming that "the information recorded in electronic form submitted under Rule 13*ter* is identical to the sequence listing as contained in the international application" as filed via EFS-Web:	
10. ☐ copy of results of earlier search(es) (Rule 12*bis*.1(a))	
11. ☐ other *(specify)*:	

Figure of the drawings which should accompany the abstract:	**Language of filing** of the international application:

Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

/Jacob Mattis/ - Jacob Mattis - Attorney at Law

For receiving Office use only

1. Date of actual receipt of the purported international application:	2. Drawings: ☐ received: ☐ not received:
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	
4. Date of timely receipt of the required corrections under PCT Article 11(2):	
5. International Searching Authority (if two or more are competent): ISA /	6. ☐ Transmittal of search copy delayed until search fee is paid

For International Bureau use only

Date of receipt of the record copy by the International Bureau:

Electronic Patent Application Fee Transmittal	
Application Number:	
Filing Date:	
Title of Invention:	SYSTEMS AND METHODS FOR ALTERING THE COLOR, APPEARANCE, OR FEEL OF A VEHICLE SURFACE
First Named Inventor/Applicant Name:	SRINIVAS S. DEVATHI
Filer:	William N. Hulsey/ADRIAN METZGER
Attorney Docket Number:	DEVA001WO
Filed as Micro Entity	

International Application for filing in the US receiving office Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Transmittal Fee	3601	1	60	60
PCT Search Fee- No Prior US Appl Filed	3602	1	520	520
Intl Filing Fee (1st-30 Pgs.) PCT Easy	1701	1	1360	1360
Suppl. Intl Filing Fee (each page > 30)	1703	11	17	187
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	2127

Electronic Acknowledgement Receipt	
EFS ID:	19582295
Application Number:	
International Application Number:	PCT/US14/46619
Confirmation Number:	1024
Title of Invention:	SYSTEMS AND METHODS FOR ALTERING THE COLOR, APPEARANCE, OR FEEL OF A VEHICLE SURFACE
First Named Inventor/Applicant Name:	SRINIVAS S. DEVATHI
Customer Number:	48746
Correspondence Address:	HULSEY CALHOUN, PC 919 CONGRESS AVENUE AUSTIN TX 78701 US 512.478-9190 orders@hulseyiplaw.com
Filer:	William N. Hulsey/ADRIAN METZGER
Filer Authorized By:	William N. Hulsey
Attorney Docket Number:	DEVA001WO
Receipt Date:	15-JUL-2014
Filing Date:	
Time Stamp:	13:33:02
Application Type:	International Application for filing in the US receiving office
Patent Number:	

Payment information:

Submitted with Payment	yes
Payment Type	Electronic Funds Transfer
Payment was successfully received in RAM	$2127
RAM confirmation Number	11682
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (If appl.)
1		Deva001ApplicationAsFiled_BZ_A4.pdf	134531 fc6aea9e2d69c17152c54044adf535443a770cb7	yes	30

Multipart Description/PDF files in .zip description

Document Description	Start	End
Specification	1	24
Claims	25	29
Abstract	30	30

Warnings:					
Information:					
2	Drawings-other than black and white line drawings	Deva001FiguresSheet1.pdf	112437 5c524cfbab2c377888aa2cdb2880b3f7c0ba03ca	no	1
Warnings:					
Information:					
3	Drawings-other than black and white line drawings	Deva001FiguresSheet2.pdf	29513 58de185ca7863c3b3ca00554444e5e01de8f6952	no	1
Warnings:					
Information:					
4	Drawings-other than black and white line drawings	Deva001FiguresSheet3.pdf	31882 349562e3b727598bb31c823cbe7293e25c97e55a	no	1
Warnings:					
Information:					
5	Drawings-other than black and white line drawings	Deva001FiguresSheet4.pdf	37483 87373bf5fc946d56ec8b3bd8eeefb46fe151c5cc	no	1
Warnings:					
Information:					

6	Certification of Micro Entity (Gross Income Basis)	DEVA001US0_EXECUTED_Certification.pdf	177120 a693fa2d4f9a6ac94529a0b885f34a4859e3c1dd	no	1
Warnings:					
Information:					
7	RO/101 - Request form for new IA - Conventional	DEVA001WO_PCT_Request_BZ.pdf	199865 5bdfa9c883b92e54dca51f65570e526c7e821aa4	no	7
Warnings:					
Information:					
8	Fee Worksheet (SB06)	fee-info.pdf	36401 0b82d28bbbbe06001677b54a307dbfbbba3aa395	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	759232		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PATENT COOPERATION TREATY PCT/US2014/046619

ADVANCE E-MAIL

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF RECEIPT OF RECORD COPY

(PCT Rule 24.2(a))

To:

MATTIS, Jacob
Attorney At Law
919 Congress Ave. #919
Austin, TX 78701
ETATS-UNIS D'AMERIQUE

Date of mailing *(day/month/year)*	**IMPORTANT NOTIFICATION**
14 August 2014 (14.08.2014)	
Applicant's or agent's file reference	International application No.
DEVA001WO	PCT/US2014/046619

The applicant is hereby **notified** that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and State(s) for which they are applicants:

DEVATHI, Srinivas, S. (all designated States)

International filing date:	15 July 2014 (15.07.2014)
Priority date(s) claimed:	27 March 2014 (27.03.2014)
Date of receipt of the record copy by the International Bureau:	08 August 2014 (08.08.2014)
List of designated Offices:	

AP: BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW
EA: AM, AZ, BY, KG, KZ, RU, TJ, TM
EP: AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR
OA: BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG
National: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

ATTENTION: The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau. **In addition, the applicant's attention is drawn to:**

- time limits for entry into the national phase (see www.wipo.int/pct/en/texts/time_limits.htmland *PCT Applicant's Guide*, National Phase, especially Chapters 3 and 4)
- requirements regarding priority documents (if applicable) (see *PCT Applicant's Guide*, International Phase, paragraph 5.070)

A copy of this notification is being sent to the receiving Office and to the International Searching Authority.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No. +41 22 338 70 80

Authorized officer
Ratsimba Landry-Andosoa
e-mail pt03.pct@wipo.int
Telephone No. +41 22 338 74 03

Name of the invention: Systems and methods for altering the color, appearance, or feel of a vehicle surface.			
Inventor to Vehicle Color Change Technology: Srinivas S. DEVATHI			**Citizenship: INDIAN**
Priority application #	14/227,859	Filed with a USA rented virtual office address. Regus paid correspondence address. 111, Congress Ave, Suite 400, Austin, TX - 78701, USA.	**Other Sector PCT Applications**
Filing date	27th March 2014		App # PCT/IB2016/050993
Patent grant #	**8,910,998**		App # PCT/IB2016/050994
Grant date	**16th December 2014**		App # PCT/IB2016/050995
USPTO Continuation app #	14/535,867		All Three applications
Continuation app filing date	7th November 2014		Filed on 24th February 2016
			With Inventor's India
PCT app #	**PCT/US2014/046619**		permanent residential address.
PCT app filing date	**15th July 2014**		**With International Bureau**
Chosen ISA / RO	**USPTO**		**as Receiving Office. Indian PTO as ISA.**

National stage applications				
Country	**Application #**	**Filing date**	**Status**	**LOST/GRANT date**
New Zealand	725679	October 27, 2016	LOST	May 24, 2018
Eurasia (8 Countries)	201691898	October 20, 2016	LOST	November 21, 2018
Korea	10-2016-7026408	September 23, 2016	LOST	February 18, 2019
Japan	100099759 2017502572	September 26, 2016	LOST	March 13, 2019
Australia	2014388300	October 27, 2016	LOST	March 28, 2019
Brazil	BR 11 2016 022393 4	September 27, 2016	LOST	April 15, 2019
South Africa	2016/07380	October 26,2016	LOST	Grant on March 28, 2018 and Lost on July 15, 2019
Canada	2,944,200	September 27, 2016	LOST	July 15, 2019
China	201480079105.9	November 18, 2016	LOST	July 28, 2019
Europe (38 Countries)	14886695.7 2014886695	October 27, 2016	LOST	July 31, 2019
India	6623/CHE/2014	December 26 2014	LOST	Sep 14, 2019
Philippines	PH/1/2016/5022134	October 26,2016	LOST	Oct 21, 2019
Malaysia	PL 2016703531	September 27, 2016	LOST	Jan 23, 2020
Indonesia	P00201607230	October 25, 2016	LOST	Mar 28, 2020
Mexico	MX/A/2016/012570	September 27, 2016	LOST	Jan 8, 2021
Thailand	1601005662	September 26, 2016	ACTIVE	My response due Sep 20,2022
Nigeria	F/P/2016/328	September 26, 2016	GRANT	September 26, 2016
The other 91 PCT countries	PCT/US2014/046619	July 15, 2014	ABANDONED	On the respective national stage entry date deadlines

In summary, it is full liability claim from the defendants in USA.

A PCT international application when filed will have the same effect as filing applications in all the PCT contracting states on the same day of filing the PCT international application. In the countries where you do not enter the national stage within the national stage filing deadline, it is considered abandoned on the deadline for filing date.

This is the current status of all the national and regional stage applications that I filed by using my PCT international application. I filed a total of 17 applications covering 61 non-usa countries. EPO application provides coverage to 38 countries. EAPO application provides coverage to 8 countries.

Because of the uspto (defendant 1) fraud, the costs of repeat office actions became unsustainable causing loss of applications and causing liability. Uspto is liable for loss of full value by conservative estimate, 93 trillion Earthlings / $.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: JACOB MATTIS
ATTORNEY AT LAW
919 CONGRESS AVE. #919
AUSTIN, TX 78701

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

	Date of mailing *(day/month/year)* 04 NOV 2014
Applicant's or agent's file reference DEVA001WO	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/US2014/046619	International filing date *(day/month/year)* 15 July 2014
Applicant DEVATHI, SRINIVAS S.	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

   How? Directly to the International Bureau of WIPO preferably through ePCT or on paper to, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 – 9.011.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
   ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.
   ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may **submit comments on an informal basis on the written opinion of the International Searching Authority** to the International Bureau. These comments will be made available to the public after international publication. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established.

   Shortly after the expiration of **18 months from the priority date, the international application will be published** by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the **prescribed acts for entry into the national phase** before those designated Offices. In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months. For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

   Within 19 months from the priority date, the applicant may request that a supplementary international search be carried out by a different International Searching Authority that offers this service (Rule 45*bis*.1). The procedure for requesting supplementary international search is described in the *PCT Applicant's Guide*, International Phase, paragraphs 8.006-8.032.

Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450	Authorized officer Blaine R. Copenheaver
Facsimile No. 571-273-3201	Telephone No. PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/220 (July 2014)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference DEVA001WO	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/US2014/046619	International filing date *(day/month/year)* 15 July 2014	(Earliest) Priority Date *(day/month/year)* 27 March 2014
Applicant DEVATHI, SRINIVAS S.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the language, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b ☐ This international search report has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (see Box No. II).

3. ☐ Unity of invention is lacking (see Box No. III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2014/046619

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - B60R 13/00 (2014.01)
CPC - B60R 13/00 (2014.09)
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - B60R 13/00, 13/04; B65B 1/04, 1/28; G09F 19/00, 21/00, 21/04 (2014.01)
CPC - B60R 13/00, 13/04; B65B 1/04, 1/28; G09F 19/00, 21/00, 21/04 (2014.09)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC - 40/406; 141/100, 104; 296/21, 181.1; 434/81, 84, 105

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Orbit, Google Patents, Google Scholar.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 7,516,764 B1 (COBB) 14 April 2009 (14.04.2009) entire document	1-3, 7, 16, 18 --- 4-6, 8-15, 17, 19-23
Y	US 4,144,663 A (SAENGER et al) 20 March 1979 (20.03.1979) entire document	4-6, 9, 11, 12, 17, 20-23
Y	US 5,636,869 A (PRICE) 10 June 1997 (10.06.1997) entire document	8, 10, 15, 19
Y	US 3,709,770 A (HALE) 09 January 1973 (09.01.1973) entire document	13, 14

☐ Further documents are listed in the continuation of Box C. ☐

* 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
26 September 2014	04 NOV 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: JACOB MATTIS
ATTORNEY AT LAW
919 CONGRESS AVE. #919
AUSTIN, TX 78701

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)*	04 NOV 2014
Applicant's or agent's file reference: DEVA001WO	FOR FURTHER ACTION: See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2014/046619	15 July 2014	27 March 2014

International Patent Classification (IPC) or both national classification and IPC
IPC(8) - B60R 13/00 (2014.01)
CPC - B60R 13/00 (2014.09)

Applicant: DEVATHI, SRINIVAS S.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I — Basis of the opinion
- ☐ Box No. II — Priority
- ☐ Box No. III — Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV — Lack of unity of invention
- ☒ Box No. V — Reasoned statement under Rule 43*bis*.1(a)(*i*) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI — Certain documents cited
- ☐ Box No. VII — Certain defects in the international application
- ☐ Box No. VIII — Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to th IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Fom PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US	Date of completion of this opinion	Authorized officer:
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	26 September 2014	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/237 (cover sheet) (July 2011)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2014/046619

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:
   - ☒ the international application in the language in which it was filed.
   - ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:
   a. (means)
      - ☐ on paper
      - ☐ in electronic form
   b. (time)
      - ☐ in the international application as filed
      - ☐ together with the international application in electronic form
      - ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2014/046619

Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	4-6, 8-15, 17, 19-23	YES
	Claims	1-3, 7, 16, 18	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-23	NO
Industrial applicability (IA)	Claims	1-23	YES
	Claims	None	NO

2. Citations and explanations:

Claims 1-3, 7, 16, and 18 lack novelty under PCT Article 33(2) as being anticipated by Cobb.
Regarding claim 1, Cobb discloses a system for altering the appearance of a vehicle surface (abstract), the system comprising: a vest (shell 6; col. 2, lines 56-59) comprising an edge (as shown in figs. 1 and 2) secured to the vehicle surface (col. 2, lines 55-56) and an exterior side (outer surface of either panel 8 or 10 that is facing away from vehicle as shown in figs. 1-3) spaced from the vehicle surface to define a fluid-tight space (12) between the exterior side of the vest and the vehicle surface (col. 2, lines 59-62), wherein the exterior side is at least partially transparent (col. 2, lines 56-59), at least partially translucent, or combinations thereof for enabling visualization of visible media (paint 14) in the fluid-tight space through the exterior side (abstract); and at least one port (port allowing paint to be pumped straight into the body panel shell 6) communicating between the fluid-tight space (col. 3, lines 24-27) and a region (16) exterior to the fluid-tight space for receiving visible media into the fluid-tight space, removing visible media from the fluid-tight space, or combinations thereof (col. 2, line 66 to col. 3, line 3; fig. 4).

Regarding claim 2, Cobb discloses the system of claim 1, and Cobb discloses of wherein the vest further comprises an interior side (either panel 8 or 10) adjacent to the vehicle surface and spaced from the exterior side (col. 2, lines 55-56; figs. 1 and 2), and wherein the fluid-tight space is defined between the exterior side and the interior side (col. 2, lines 59-62).

Regarding claim 3, Cobb discloses the system of claim 2, and Cobb discloses of further comprising a sealant (11) between the interior side of the vest and the vehicle surface for preventing passage of materials between the interior side of the vest and the vehicle surface (col. 2, lines 56-59; fig. 3).

Regarding claim 7, Cobb disclose the system of claim 1, and Cobb discloses of wherein the vehicle surface comprises a body portion of a vehicle (abstract; figs. 1 and 2), and wherein the vest comprises a shape that matches that of the body portion of the vehicle (as shown in figs. 1 and 2).

Regarding claim 16, Cobb discloses a method for altering the appearance of a vehicle surface (abstract), the method comprising: providing a vest (shell 6; col. 2, lines 56-59) in association with a vehicle surface (col. 2, lines 55-56; figs. 1 and 2), wherein the vest comprises an exterior side (either panel 8 or 10 that is facing away from vehicle as shown in figs. 1 and 2) spaced from the vehicle surface to define a fluid-tight space (12) between the exterior side of the vest and the vehicle surface (col. 2, lines 59-62), and wherein the exterior side is at least partially transparent (col. 2, lines 56-59), at least partially translucent, or combinations thereof; and providing a first visible medium into the fluid-tight space through at least one port (port allowing paint to be pumped straight into the body panel shell 6) communicating between the fluid-tight space and a region exterior to the fluid-tight space (col. 3, lines 24-27).

Regarding claim 18, Cobb discloses the method of claim 16, and Cobb discloses of wherein the step of providing the vest into association with the vehicle surface comprises positioning an interior side of the vest (either panel 8 or 10) adjacent to the vehicle surface and spaced from the exterior side (col. 2, lines 55-56; figs. 1 and 2), and wherein the fluid-tight space is defined between the exterior side and the interior side (col. 2, lines 59-62).

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2014/046619

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Claims 4-6, 9, 11, 12, 17, and 20-23 lack an inventive step under PCT Article 33(3) as being obvious over Cobb in view of Saenger et al. (hereinafter referred to as Saenger).
Regarding claim 4, Cobb discloses the system of claim 1, but Cobb fails to disclose of further comprising a visible medium within the fluid-tight space, wherein the visible medium comprises a fluid adapted to remain flowable at temperatures ranging from negative 37 degrees Fahrenheit to 150 degrees Fahrenheit.
Saenger discloses a system for altering the appearance of a surface (abstract) and Saenger discloses of further comprising a visible medium (liquid petrolatum with dye) within the fluid-tight space (col. 4, lines 51-54), wherein the visible medium comprises a fluid adapted to remain flowable at temperatures ranging from negative 37 degrees Fahrenheit (col. 4, lines 51-54) to 150 degrees Fahrenheit (liquid petrolatum remains a liquid up to 150 degrees Fahrenheit) and further discloses that liquid petrolatum with dye completely and rapidly empties out of the cavity between the two rigid transparent plates (col. 4, lines 41-46).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use as the visible medium of Cobb the liquid petrolatum with dye as taught by Saenger in order that the flow into and out of the fluid-tight space rapidly and completely over a wide range of temperatures.

Regarding claim 5, the modified Cobb discloses the system of claim 4, but Cobb fails to disclose of wherein the visible medium comprises a quantity of visible solid or viscous components sufficient to remain flowable in the visible medium and through said at least one port.
Saenger discloses of wherein the visible medium comprises a quantity of visible solid or viscous components (liquid petrolatum with dye) sufficient to remain flowable in the visible medium and through said at least one port (col. 4, lines 51-54) and further discloses that liquid petrolatum with dye completely and rapidly empties out of the cavity between the two rigid transparent plates (col. 4, lines 41-46).
It would have been obvious to one of ordinary skill in the art at the time of the invention to use as the visible medium of Cobb the liquid petrolatum with dye as taught by Saenger in order that the flow into and out of the fluid-tight space rapidly and completely over a wide range of temperatures.

Regarding claim 6, Cobb discloses the system of claim 1, but Cobb fails to disclose of wherein said at least one port comprises a bidirectional valve, a multidirectional valve, at least two one-way valves, or combinations thereof.
Saenger discloses of wherein at least one port (7) comprises a bidirectional valve, a multidirectional valve, at least two one-way valves (15 and 16; col. 4, lines 6-21), or combinations thereof and further discloses that the two one way valves are used to control flow during filling and emptying cycles (col. 4, lines 6-21).
It would have been obvious to one of ordinary skill in the art at the time of the invention to include in the system of Cobb two one way valves as taught by Saenger in order to control the flow of visible medium during filling and emptying cycles.

Regarding claim 9, Cobb discloses the system of claim 1, but Cobb fails to disclose of wherein the fluid-tight space comprises a thickness ranging from 1 micron to 5 millimeters.
Saenger discloses of wherein a fluid-tight space (4) comprises a thickness of about 6 millimeters (col. 5, lines 5-7) and further discloses that sun light will not penetrate the liquid when it fills the cavity having a width of about 6 mm (col. 5, lines 5-7).
Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the fluid-tight space of Cobb to comprises a thickness ranging from 1 micron to 5 millimeters, since where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and the fluid in the fluid tight space must be thick enough to prevent light reflected of the vehicle surface from showing through the fluid in the fluid-tight space.

Regarding claim 11, Cobb discloses the system of claim 1, and Cobb discloses of wherein the vest comprises an interior (side of panels 8 and 10 facing interior 12) adjacent to the fluid-tight space, but Cobb fails to disclose of wherein the interior comprises a hydrophobic coating adapted to facilitate removal of visible media from the fluid-tight space.
Saenger discloses of wherein a vest (plates 2 and 3 and cavity 4 there-between) comprises an interior (inner surfaces of plates 2 and 3) adjacent to a fluid-tight space (4), and wherein the interior must avoid any residual adhesion to facilitate removal of visible media (liquid petrolatum with dye) from the fluid-tight space (col. 4, lines 46-48) and further discloses that it is essential that the cavity between the two rigid transparent plates be completely and rapidly emptied of liquid (col. 4, lines 41-46).
Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the vest interior of Cobb hydrophobic coating adapted to facilitate removal of visible media from the fluid-tight space, since it was within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use and by facilitating the removal of the visible media the cavity between the two rigid transparent plates can be completely and rapidly emptied of liquid.

Regarding claim 12, Cobb discloses the system of claim 1, but Cobb fails to disclose of wherein the vest comprises at least one interior barrier, protrusion, or recession on an interior thereof adapted to provide the vest with a plurality of regions, spaces, or combinations thereof, each having at least one port associated therewith and adapted to receive media therein, remove media therefrom, or combinations thereof.
Saenger discloses of wherein a vest (sign comprising panels A-F; col. 5, lines 21-42; figs. 4 and 5) comprises at least one interior barrier (unnumbered barriers between panels as shown in fig. 4) on an interior thereof (as shown in fig. 4) adapted to provide the vest with a plurality of regions, spaces, or combinations thereof (A-F; col. 5, lines 21-53; figs. 4 and 5), each having at least one port associated therewith and adapted to receive media therein, remove media therefrom, or combinations thereof (col. 5, lines 49-53; figs. 4 and 5) and further discloses that this allows different coloring for different sections of the vest (col. 5, lines 31-33).
It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the vest interior of Cobb the barriers in order to provide the vest with a plurality of regions, spaces, or combinations thereof as taught by Saenger in order to allow different coloring for different sections of the vest.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2014/046619

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Regarding claim 17, Cobb discloses the method of claim 16, but Cobb fails to disclose of further comprising: removing the first visible medium from the fluid-tight space through said at least one port; and providing a second visible medium into the fluid-tight space through said at least one port.
Saenger discloses of removing a first visible medium (liquid) from a fluid-tight space (4) through a port (port of second conduit; col. 2, lines 6-9); and providing a second visible medium (liquid from reservoir) into the fluid-tight space through a port (port of second conduit; col. 1, line 66 to col. 2, line 12).
It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the method of Cobb the step of removing and providing visible medium as taught by Saenger in order to present a variety of colors to the vest.

Regarding claim 20, Cobb discloses the method of claim 16, but Cobb fails to disclose of wherein the step of providing the vest into association with the vehicle surface comprises spacing the exterior side of the vest from 1 micron to 5 millimeters from the vehicle surface.
Saenger discloses of a step (fig. 2) of providing a vest (plate 2) into association with a surface (3) comprises spacing an exterior side (side of plate 2 facing away from plate 3 as shown in fig. 2) of the vest about 16 millimeters from the surface (col. 5, lines 5-7 and 14-15) and further discloses that sun light will not penetrate the liquid when it fills the cavity having a width of about 6 mm (col. 5, lines 5-7).
Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the fluid-tight space of Cobb to comprises a thickness ranging from 1 micron to 5 millimeters, since where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only
routine skill in the art and the fluid in the fluid tight space must be thick enough to prevent light reflected of the vehicle surface from showing through the fluid in the fluid-tight space.

Regarding claim 21, the modified Cobb discloses the method of claim 17, and Cobb discloses of a wash fluid (cleaning solution 27; col. 3, line 9), but Cobb fails to disclose of wherein the step of removing the first visible medium from the fluid-tight space comprises flowing a wash fluid through said at least one port into the fluid-tight space to displace the first visible medium, alter the first visible medium, or combinations thereof, and removing the wash fluid from the fluid-tight space through said at least one port.
Saenger discloses of wherein a step of removing a first visible medium (liquid) from a fluid-tight space (4) comprises flowing a wash fluid (air) through a port (port of first conduit) into the fluid-tight space to displace the first visible medium (col. 2, lines 6-9), alter the first visible medium, or combinations thereof, and removing the wash fluid from the fluid-tight space through a port (port of first conduit; col. 2, lines 2-6) and further discloses that in this manner the cavity is rapidly and completely filled and emptied with the liquid (col. 2, lines 9-13).
It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the method of Cobb the step of removing the first visible medium from the fluid-tight space as taught by Saenger so that the cavity is rapidly and completely filled and emptied of the visible medium.

Regarding claim 22, the modified Cobb discloses the method of claim 17, but Cobb fails to disclose of further comprising the step of drying the fluid-tight space after removing the first visible medium therefrom by flowing a gas into the fluid-tight space.
Saenger discloses of a step of drying (cavity is completely emptied of liquid; col. 2, lines 9-13) a fluid-tight space (4) after removing a first visible medium (liquid) therefrom by flowing a gas (air) into the fluid-tight space (col. 2, lines 6-9).
It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the method of Cobb the step of drying the fluid-tight space after removing a first visible medium therefrom by flowing a gas into the fluid-tight space as taught by Saenger in order to remove residue of the first visible medium from the fluid tight space.

Regarding claim 23, Cobb discloses a method for altering the appearance of a vehicle surface (abstract), the method comprising: providing a vest (shell 6; col. 2, lines 56-59) into association with a vehicle surface (col. 2, lines 55-56; figs. 1 and 2), wherein the vest comprises an exterior side (outer surface of either panel 8 or 10 that is facing away from vehicle as shown in figs. 1 and 2) spaced from the vehicle surface to define a fluid-tight space (12) between the exterior side of the vest and the vehicle surface (col. 2, lines 59-62), wherein the exterior side is at least partially transparent (col. 2, lines 56-59), at least partially translucent, or combinations thereof, and wherein a first medium (paint 14) is disposed within the fluid-tight space and visible through the exterior side (abstract); engaging at least one conduit (36) to at least one port (port allowing paint to pass from conduit 36 into the gap 12) associated with the vest (col. 3, lines 10-21).
Cobb fails to disclose of generating a suction pressure via said at least one conduit to draw the first medium through said at least one port to remove the first medium from the fluid-tight space; injecting an intermediate medium via said at least one conduit through said at least one port and into the fluid-tight space to displace the first medium, alter the first medium, clean an interior of the vest, or combinations thereof; generating a suction pressure via said at least one conduit to draw the intermediate medium through said at least one port to remove the intermediate medium from the fluid-tight space; injecting a gas via said at least one conduit through said at least one port and into the fluid-tight space to dry the interior of the vest; and injecting a second medium via said at least one conduit through said at least one port and into the fluid-tight space to at least partially fill the fluid-tight space, wherein the second medium is visible through the exterior side.
Saenger discloses of generating a suction pressure (via pump 10) via a conduit (conduit branch 7b) to draw a first medium (liquid) through a port (conduit branch 7b port into cavity 4 as shown in fig. 3) to remove the first medium from a fluid-tight space (4; col. 4, lines 15-21); injecting an intermediate medium (air) via a conduit (conduit branch 7a) through said at least one port and into the fluid-tight space to displace the first medium, alter the first medium, clean an interior of the vest, or combinations thereof (col. 4, lines 21-23); generating a suction pressure via said at least one conduit to draw the intermediate medium through said at least one port to remove the intermediate medium from the fluid-tight space (col. 4, lines 10-13); injecting a gas (air) via said at least one conduit through said at least one port and into the fluid-tight space to dry the interior of the vest (col. 4, lines 10-13); and injecting a second medium (liquid) via said at least one conduit through said at least one port and into the fluid-tight space to at least partially fill the fluid-tight space (col. 4, lines 6-9), wherein the second medium is visible through an exterior side (col. 4, lines 2-4).
It would have been obvious to include in the method of Cobb the steps of generating suction pressure, removing a first medium, injecting an intermediate medium, removing the intermediate medium, injecting a drying gas, and injecting a second medium as taught by Saenger in order to change the visible medium in the vest.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2014/046619

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Claims 8, 10, 15, and 19 lack an inventive step under PCT Article 33(3) as being obvious over Cobb in view of Price.
Regarding claim 8, Cobb discloses the system of claim 1, but Cobb fails to disclose of wherein edge comprises an extension associated therewith, and wherein the extension is adapted for securing the vest to the vehicle surface by welding, laser welding, ultrasonic welding, heat sealing, heat fusion, crimping, soldering, brazing, adhesives, pressure-sensitive adhesives, contact adhesives, hot adhesives, hot gas welding, infrared welding, receiving at least one fastener, compressively retaining an extension extending from the edge of the vest between the vehicle surface and an adjacent object, or combinations thereof.
Price discloses a system for altering the appearance of a vehicle surface (abstract and col. 3, lines 51-52) and discloses of wherein an edge (24) comprises an extension (56) associated therewith (col. 3, lines 29-32; figs. 4 and 5), and wherein the extension is adapted for securing the vest to the vehicle by receiving at least one fastener (62; col. 3, lines 34-36).
It would have been obvious to one of ordinary skill in the art at the time of the invention to include in the in the vest of Cobb an extension and fastener as taught by Price in order to easily attach and remove the vest.

Regarding claim 10, Cobb discloses the system of claim 1, but Cobb fails to disclose of wherein the vest is at least partially formed from polyester, acrylic, fiberglass, polyethylene, plastic, silicone, polypropylene, polystyrene, polyester, glass, fiber, thermoplastic, thermoset, latex, polymer fibers, polyvinyl chloride, polyethylene terephthalate, nylon, vinyl, thermoplastic materials, thermoset materials, phenolics, furane resins, amino resins, epoxy, alkyds, allyl plastics, aminos, polyamides, polyethylene resins, polycarbonate, acrylic resin, cellulose acetate, cellulose nitrate, cellulose acetate butyrate, cellulose propionate, rubber, neoprene, Thiokol, nitrile, butyl rubber, silicone rubber, acetals, cellulosics, fluoroplastics, ionomers, polyimide, polyolefins, polysulfone, composites, polythene, epoxides, polyurethane, synthetic rubber, synthetic plastic, synthetic resin, or combinations thereof.
Price discloses of wherein the vest is at least partially formed from plastic (col. 2, lines 66-67).
It would have been obvious to one of ordinary skill in the art at the time of the invention to form the vest of Cobb from plastic as taught by Price since plastic is easily formed into complex shapes.

Regarding claim 15, Cobb discloses the system of claim 1, but Cobb fails to disclose of wherein the exterior side of the vest and the fluid-tight space comprise an integral portion of the vehicle surface.
Price discloses of wherein the exterior side of the vest and the fluid-tight space comprise an integral portion of the vehicle surface (col. 3, lines 52-62; fig. 1).
It would have been obvious to one of ordinary skill in the art at the time of the invention to configure the vest and the fluid-tight space of Cobb to be an integral portion of the vehicle surface as taught by Price in order that the alteration to the vehicle appearance by the vest can be made permanent.

Regarding claim 19, Cobb discloses the method of claim 16, but Cobb fails to disclose of wherein the step of providing the vest into association with the vehicle surface comprises seeming an extension extending from an edge of the vest to the vehicle surface by welding, laser welding, ultrasonic welding, heat sealing, heat fusion, crimping, soldering, brazing, adhesives, pressure-sensitive adhesives, contact adhesives, hot adhesives, hot gas welding, infrared welding, receiving at least one fastener, compressively retaining an extension extending from an edge of the vest between the vehicle surface and an adjacent object, or combinations thereof.
Price discloses of wherein the step of providing a vest (12) into association with the vehicle comprises seeming an extension (58) extending from an edge (24) of the vest to the vehicle surface by receiving at least one fastener (62; col. 3, lines 34-36).
It would have been obvious to one of ordinary skill in the art at the time of the invention to include in the in the vest of Cobb an extension and fastener as taught by Price in order to easily attach and remove the vest.

Claims 13 and 14 lack an inventive step under PCT Article 33(3) as being obvious over Cobb in view of Hale.
Regarding claim 13, Cobb discloses the system of claim 1, but Cobb fails to disclose of wherein the vest comprises an exterior having a material, a coating, a treatment, or combinations thereof adapted to provide the vest, and thereby the vehicle surface, with a glossy texture, a rubbery texture, a silky texture, a smooth texture, a metallic texture, a matte texture, a stringy texture, a bubbled texture, a flakey texture, a thorny texture, a rough texture, a geometrically patterned texture, a pebble-like texture, a fur-like texture, a leather-like texture, or combinations thereof.
Hale discloses of a system for altering the appearance of a vehicle surface (abstract) and discloses of wherein a vest (24; col. 4, lines 56-57) comprises an exterior having a material (molded thermoplastic) adapted to provide the vest, and thereby the vehicle surface, with a rough texture (grained outer surface; col. 2, lines 55-63).
It would have been obvious to one of ordinary skill in the art at the time of the invention to include in the vest of Cobb an exterior having a material adapted to provide the vest with a rough texture as taught by Hale in order to increase the aesthetic appeal of the vehicle.

Regarding claim 14, the modified Cobb discloses the system of claim 13, but Cobb fails to disclose of wherein the vest is removably associated with the vehicle surface for enabling changing of the vest to alter the texture of the vehicle surface, the appearance of the vehicle surface, or combinations thereof.
Hale discloses of wherein a vest (24) is removably associated with the vehicle surface (col. 2, lines 28-32) for enabling changing of the vest to alter the texture of the vehicle surface, the appearance of the vehicle surface, or combinations thereof (abstract).
It would have been obvious to one of ordinary skill in the art at the time of the invention to include in the vest of Cobb a removable vest as taught by Hale in order to provide a variety of options.

Claims 1-23 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

US007516764B1

(12) **United States Patent**
Cobb

(10) **Patent No.: US 7,516,764 B1**
(45) **Date of Patent: Apr. 14, 2009**

(54) **COLOR CHANGING SYSTEM FOR VEHICLE**

(76) Inventor: **Kendel P. Cobb**, 2100 Country Club Rd., Apt. #303, Jacksonville, NC (US) 28546

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **11/861,554**

(22) Filed: **Sep. 26, 2007**

(51) **Int. Cl.**

B67C 3/00	(2006.01)
G09F 19/20	(2006.01)
B62D 33/08	(2006.01)
B05D 1/00	(2006.01)

(52) **U.S. Cl.** **141/104**; 141/98; 141/325; 40/406; 40/591; 296/181.1; 427/401

(58) **Field of Classification Search** 141/98, 141/100, 104, 105, 325; 40/406, 591; 296/181.1; 427/401

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,709,770	A *	1/1973	Hale	296/1.08
4,144,663	A	3/1979	Saenger et al.	
4,917,643	A *	4/1990	Hippely et al.	428/913
5,075,992	A *	12/1991	Kahn	40/406
5,340,623	A *	8/1994	Menjo et al.	40/591
D373,982	S	9/1996	Rodrigues	
5,617,657	A	4/1997	Kahn	
5,636,669	A	6/1997	Price	
D384,674	S	10/1997	Grolle et al.	

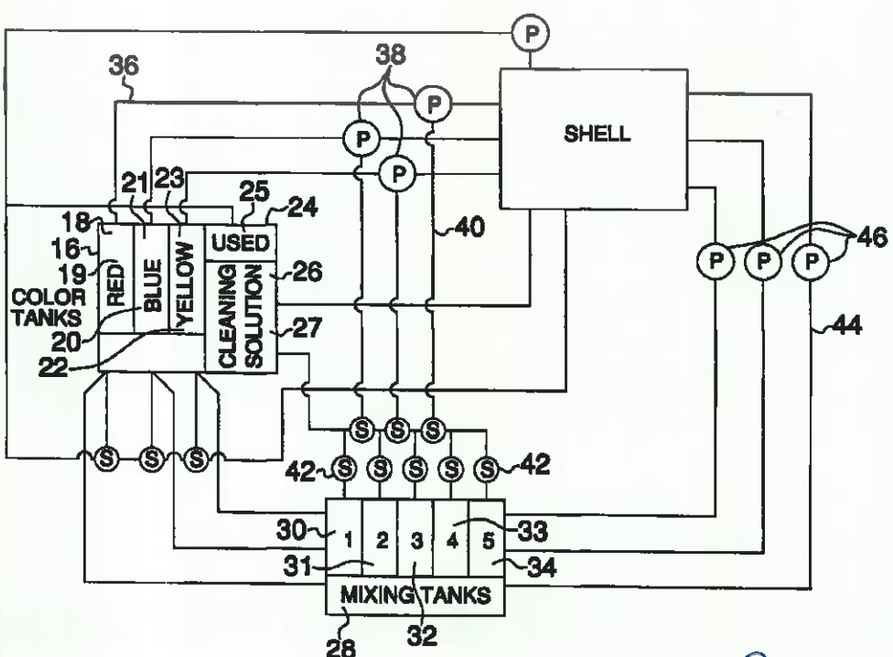
* cited by examiner

Primary Examiner—Timothy L Maust
Assistant Examiner—Nicolas A Arnett
(74) *Attorney, Agent, or Firm*—Crossley Patent Law; Mark A. Crossley

(57) **ABSTRACT**

A color changing system for a vehicle that allows an individual to change the visible color of a vehicle by using a plurality of paints inserted in between a pair of transparent layers that are attached to multiple portions of the vehicles. The paints are located within a reservoir unit that has a number of holding tanks, with the holding tanks including holding tanks for the primary colors red, blue, and yellow. In addition, a mixing tank unit includes a series of mixing tanks in which paints are transferred to after leaving the holding tanks but before entering a gap area located in between the pair of transparent layers. The mixing areas hold either primary colors, unmixed, or the primary colors after they have been mixed. A series of mixing tank pumps then pump the resulting mixtures into the gap area in between the pair of transparent layers.

7 Claims, 4 Drawing Sheets



-126-

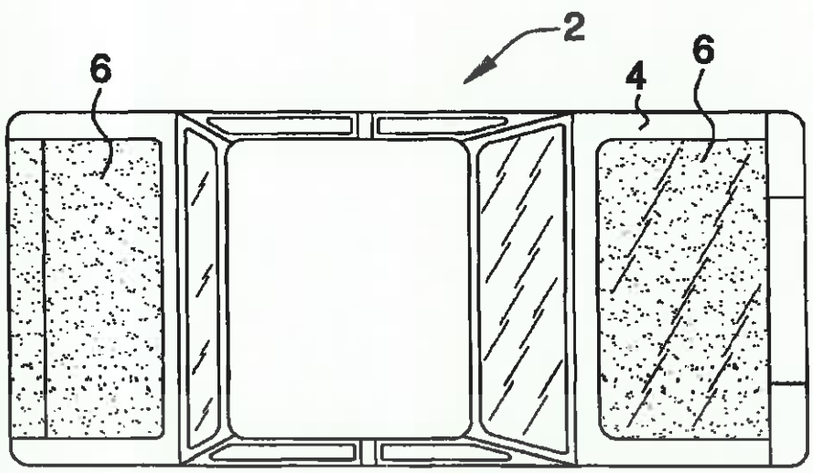


FIG. 1

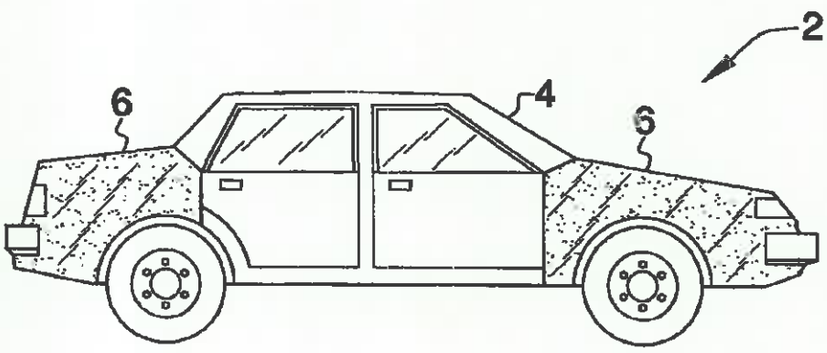


FIG. 2

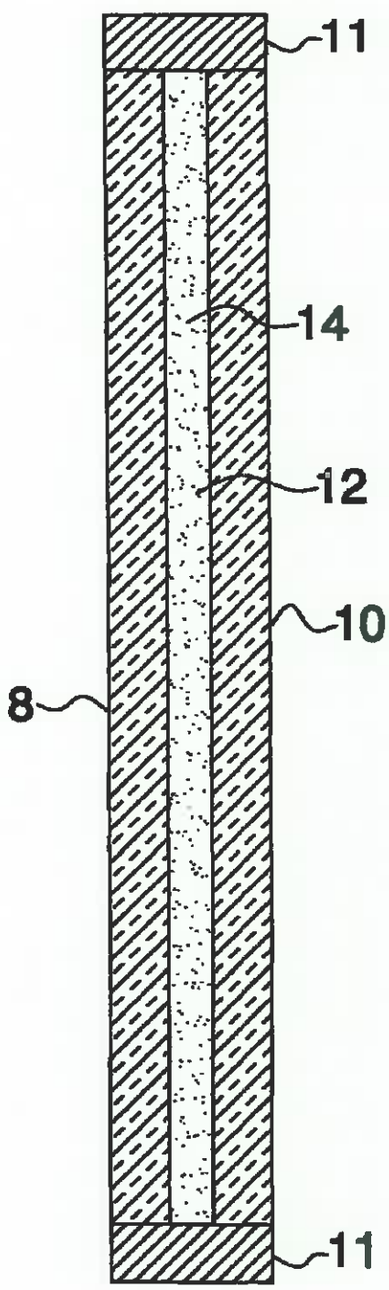


FIG. 3

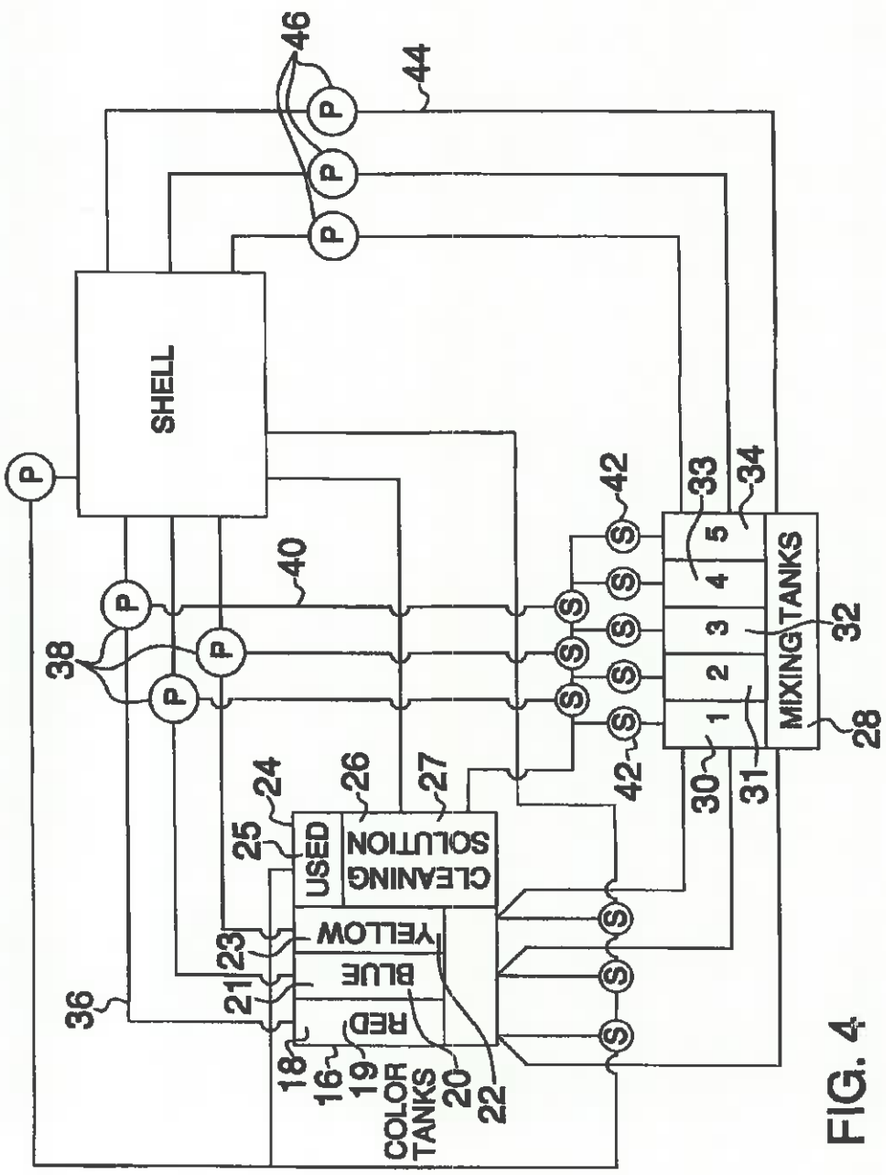

46
44
P
SHELL
40
38
42
33
34
MIXING TANKS
5
4
3
2
1
32
28
30
31
24
26
27
25
USED
CLEANING SOLUTION
YELLOW
BLUE
RED
23
21
36
18
16
19
20
22
COLOR TANKS

FIG. 4

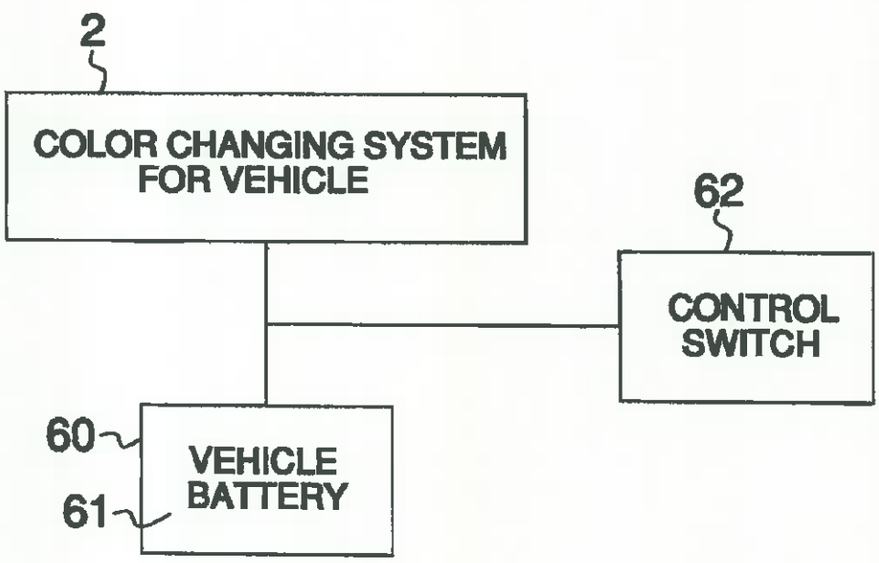

2
COLOR CHANGING SYSTEM FOR VEHICLE
62
CONTROL SWITCH
60
61
VEHICLE BATTERY

FIG. 5

US 7,516,764 B1

COLOR CHANGING SYSTEM FOR VEHICLE

TO ALL WHOM IT MAY CONCERN

Be it known that I, Kendel P. Cobb, citizen of the United States, have invented new and useful improvements in a color changing system for a vehicle as described in this specification.

BACKGROUND OF THE INVENTION

The present invention concerns that of a new and improved color changing system for a vehicle that allows an individual to change the visible color of a vehicle by using a plurality of paints inserted in between a pair of transparent layers that are attached to multiple portions of the vehicles.

DESCRIPTION OF THE PRIOR ART

U.S. Pat. No. 5,636,669, issued to Price, discloses a selective coloring system which comprises a hollow transparent panel and plurality of separate different colored materials.

U.S. Pat. No. 4,144,663, issued to Saenger et al., discloses a sign which is changeable by selectively delivering and removing an opaque liquid from a reservoir into a transparent cavity.

U.S. Pat. No. 5,617,657, issued to Kahn, discloses a multi-liquid display system which comprises a transparent conduit and system for sequentially circulating liquids of different color

U.S. Pat. No. D384,674, issued to Grolle et al., discloses a design for a pump.

U.S. Pat. No. D373,982, issued to Rodrigues, discloses a design for a hollow panel with means to introduce and remove colored material.

SUMMARY OF THE INVENTION

The present invention concerns that of a new and improved color changing system for a vehicle that allows an individual to change the visible color of a vehicle by using a plurality of paints inserted in between a pair of transparent layers that are attached to multiple portions of the vehicles. The paints are located within a reservoir unit that has a number of holding tanks, with the holding tanks including holding tanks for the primary colors red, blue, and yellow. In addition, a mixing tank unit includes a series of mixing tanks in which paints are transferred to after leaving the holding tanks but before entering a gap area located in between the pair of transparent layers. The mixing areas hold either primary colors, unmixed, or the primary colors after they have been mixed. A series of mixing tank pumps then pump the resulting mixtures into the gap area in between the pair of transparent layers.

There has thus been outlined, rather broadly, the more important features of a color changing system for a vehicle that the detailed description thereof that follows may be better understood and in order that the present contribution to the art may be better appreciated. There are, of course, additional features of the color changing system for a vehicle that will be described hereinafter and which will form the subject matter of the claims appended hereto.

In this respect, before explaining at least one embodiment of the color changing system for a vehicle in detail, it is to be understood that the color changing system for a vehicle is not limited in its application to the details of construction and to the arrangements of the components set forth in the following description or illustrated in the drawings. The color changing system for a vehicle is capable of other embodiments and being practiced and carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of descriptions and should not be regarded as limiting

As such, those skilled in the art will appreciate that the conception, upon which this disclosure is based, may readily be utilized as a basis for the designing of other structures, methods and systems for carrying out the several purposes of the present color changing system for a vehicle. It is important, therefore, that the claims be regarded as including such equivalent constructions insofar as they do not depart from the spirit and scope of the present invention.

It is therefore an object of the present invention to provide a color changing system for a vehicle which has all of the advantages of the prior art and none of the disadvantages.

It is another object of the present invention to provide a color changing system for a vehicle which may be easily and efficiently manufactured and marketed.

It is another object of the present invention to provide a color changing system for a vehicle which is of durable and reliable construction.

It is yet another object of the present invention to provide a color changing system for a vehicle which is economically affordable and available for relevant market segment of the purchasing public.

Other objects, features and advantages of the present invention will become more readily apparent from the following detailed description of the preferred embodiment when considered with the attached drawings and appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** shows a top view of a vehicle with an incorporated color changing system.

FIG. **2** shows a side view of a vehicle with an incorporated color changing system.

FIG. **3** shows a side view of the two transparent layers and the gap area in between the two transparent layers.

FIG. **4** shows a schematic of the various components of the color changing system for a vehicle.

FIG. **5** shows a schematic highlighting the connectivity of the power means and the control switch in relation to the color changing system for a vehicle.

DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference now to the drawings, and in particular to FIGS. **1** through **5** thereof, a new color changing system for a vehicle embodying the principles and concepts of the present invention and generally designated by the reference numeral **2** will be described.

As best illustrated in FIGS. **1** through **5**, the color changing system for a vehicle **2** is connected to a vehicle **4**. The system **2** comprises a plurality of body panel shells **6**, with each shell **6** comprising a pair of transparent panels **8** and **10** that have their ends connected to one another by a connector **11**. In between the panels **8** and **10** is a thin gap **12** that is normally filled with air. However, once an individual has chosen a particular paint color or paint color combination, a volume of paint **14** will be forced into each of the gaps **12** on each of the shells **6** attached to the vehicle **4**.

The system **2**, as can be seen in FIG. **4**, has many interconnected components. One important component is the reservoir unit **16**, which comprises multiple holding tanks includ-

ing a red paint holding tank **18**, a blue paint holding tank **20**, a yellow paint holding tank **22**, a used paint holding tank **24**, and a cleaning solution holding tank **26**. The red paint holding tank **18** includes a volume of red paint **19**, while the blue paint holding tank **20** includes a volume of blue paint **21**. Furthermore, the yellow paint holding tank **22** includes a volume of yellow paint **23**. The used paint holding tank **24** includes a volume of used paint **25**, while the cleaning solution holding tank **26** includes a volume of cleaning solution **27**.

The paint **14** within each of the holding tanks exits each respective holding tank through an attached reservoir unit exit line **36**, with the movement of the paint **14** through each reservoir unit exit line **26** being powered by a primary pump **38**. One reservoir unit exit line **36** is associated with each holding tank within the reservoir unit **16**, with one primary pump **38** being associated with each reservoir unit exit line **36**. If the color desired within the gap **12** is one of the three primary colors (red, blue, or yellow), the requested paint **14** passes through the entire length of the appropriate reservoir unit exit line **36** all the way to the body panel shell **6**, where it enters the gap **12**.

If an individual chooses a color that is not exactly one of the primary colors, then the system **2** will intermix two or three of the primary colors to arrive at the desired color. In such a situation, the paint will be pumped by the primary pumps **38** through a series of transfer lines **40** rather than onward straight into the body panel shell **6**. The paint, after running through the transfer lines **40**, will pass through a series of switches **42** into the mixing tank unit **28**. The mixing tank unit **28** preferably comprises at least five separate mixing tanks **30-34**, with each mixing tank holding one particular "mixture" of paints (desired color) that is chosen by an individual within the vehicle **4**.

After the paints are mixed within the mixing tank unit **28**, a series of mixing tank pumps **46** will pump the resulting paint mixture through one of a plurality of mixing tank exit lines **44**, which is connected to the body panel shell **6**. One mixing tank exit line **44** is attached to each mixing tank **30-34**. The mixture will then enter into the gap **12** within the body panel shell **6**.

FIG. **5** shows the system **2** as it is powered by power means **60**, which is preferably a vehicle battery **61**. Each pump within the system **2** would receive power through the vehicle battery **61**. A control switch **62**, located within the vehicle **4**, acts as a circuit in between the power means **60** and the system **2** and allows a user to both turn the system **2** on and off and also to allow the individual to choose a particular paint color that will get pumped into the gap **12** within the body panel shell **6**.

With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention

What I claim as my invention is:

1. A color changing system for a vehicle in combination with a vehicle, the color changing system for a vehicle comprising

at least one body panel shell, the body panel shell being attached to the vehicle,

a volume of paint,

means for inserting the paint into the body panel shell,

wherein the body panel shell further comprises

a first transparent shell,

a second transparent shell, the second transparent shell being attached to the first transparent shell,

a gap in between the first transparent shell and the second transparent shell,

wherein the volume of paint further comprises

a volume of red paint contained within the system,

a volume of blue paint contained within the system,

a volume of yellow paint contained within the system,

wherein the means for inserting the paint into the body panel shell further comprises

a reservoir unit located within the system,

a mixing tank unit located within the system,

means for connecting the reservoir unit to the mixing tank unit,

means for connecting the reservoir unit to the body panel shell,

means for connecting the mixing tank unit to the body panel shell,

wherein the reservoir unit further comprises

a red paint holding tank for holding the volume of red paint,

a blue paint holding tank for holding the volume of blue paint,

a yellow paint holding tank for holding the volume of yellow paint,

a used paint holding tank,

a volume of used paint located within the used paint holding tank,

a cleaning solution holding tank, and

a volume of cleaning solution located within the cleaning solution holding tank.

2. A color changing system for a vehicle according to claim **1** wherein the mixing tank unit further comprises

(a) a plurality of mixing tank units,

(b) wherein each mixing tank unit is used to mix a separate mixture of paints from two or more of the group consisting of the volume of red paint, the volume of blue paint, and the volume of yellow paint.

3. A color changing system for a vehicle according to claim **2** wherein the means for connecting the reservoir unit to the body panel shell further comprises

(a) a plurality of reservoir unit exit lines, wherein each reservoir unit exit line is connected to the reservoir unit,

(b) a plurality of primary pumps, wherein one pump is associated with each reservoir unit exit line,

(c) power means for providing power to each of the primary pumps,

(d) wherein each reservoir unit exit line is connected to the body panel shell.

4. A color changing system for a vehicle according to claim **3** wherein the means for connecting the reservoir unit to the mixing tank unit further comprises

(a) a plurality of reservoir unit exit lines, wherein each reservoir unit exit line is connected to the reservoir unit,

(b) a plurality of primary pumps, wherein one pump is associated with each reservoir unit exit line,

(c) a plurality of transfer lines, wherein each transfer line is connected to a primary pump, further wherein each transfer line is connected to a mixing tank within the mixing tank unit.

5. A color changing system for a vehicle according to claim **4** wherein the means for connecting the mixing tank unit to the body panel shell further comprises

(a) a plurality of mixing tank exit lines, wherein one mixing tank exit line is attached to each mixing tank,

(b) a plurality of mixing tanks pumps, wherein one mixing tank pump is associated with each mixing tank exit line,

(c) power means for providing power to each mixing tank pump,

(d) wherein each reservoir unit exit line is connected to the body panel shell.

6. A color changing system according to claim **5** wherein the power means for providing power to the primary pumps and the power means for providing power to the mixing tank pumps further comprises a vehicle battery, the vehicle battery located within the vehicle.

7. A color changing system according to claim **6** wherein the system further comprises

(a) a control switch, the control switch being located within the vehicle,

(b) wherein the control switch acts as a circuit in between the vehicle battery and the pumps within the system, and

(c) further wherein an individual can choose a particular paint color to be mixed and subsequently inserted into the gap located within the body panel shell.

* * * * *

US005636669A

United States Patent [19]

Price

[11] Patent Number: 5,636,669

[45] Date of Patent: Jun. 10, 1997

[54] **SELECTIVE COLORING SYSTEM**

[76] Inventor: Kevin A. Price, 800 Park Ridge Rd., apt A1, Durham, N.C. 27713

[21] Appl. No.: 514,262

[22] Filed: Aug. 11, 1995

[51] Int. Cl.[6] B65B 1/04

[52] U.S. Cl. 141/104; 40/406; 40/591

[58] Field of Search 141/100, 104, 141/105, 65, 98, 9; 296/194; 40/406, 591, 409

[56] References Cited

U.S. PATENT DOCUMENTS

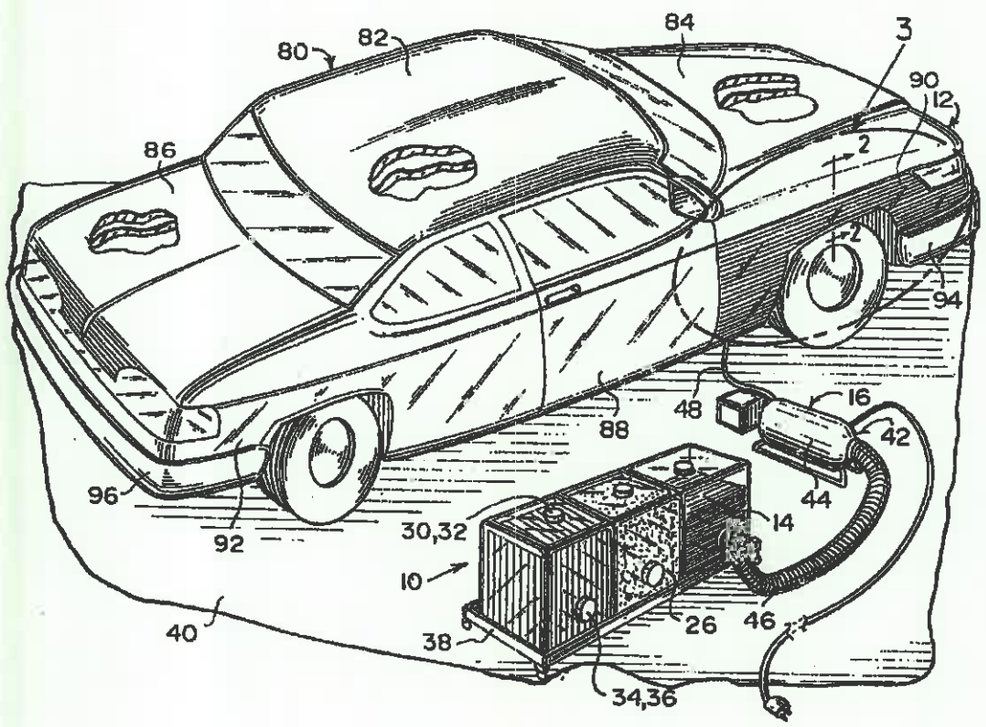
3,349,815	10/1967	Baets	141/104
3,440,129	4/1969	Anselm	161/5
3,461,584	8/1969	Wilson	40/591
3,638,342	2/1972	Winslow et al.	40/406
3,709,770	1/1973	Hale	161/44
3,935,353	1/1976	Doerfling et al.	296/137 R
4,033,619	7/1977	Cox	296/21
4,144,663	3/1979	Saenger et al.	40/406
5,340,623	8/1994	Menjo et al.	40/591

Primary Examiner—Henry J. Recla
Assistant Examiner—Steven O. Douglas
Attorney, Agent, or Firm—Michael I. Kroll

[57] **ABSTRACT**

A selective coloring system comprising a hollow transparent panel. A plurality of separate different colored materials are provided. A facility is for forcing one of the separate different colored materials into and ut of the hollow transparent panel, so as to change the appearance of the hollow transparent panel for aesthetic reasons when the need arises.

17 Claims, 3 Drawing Sheets



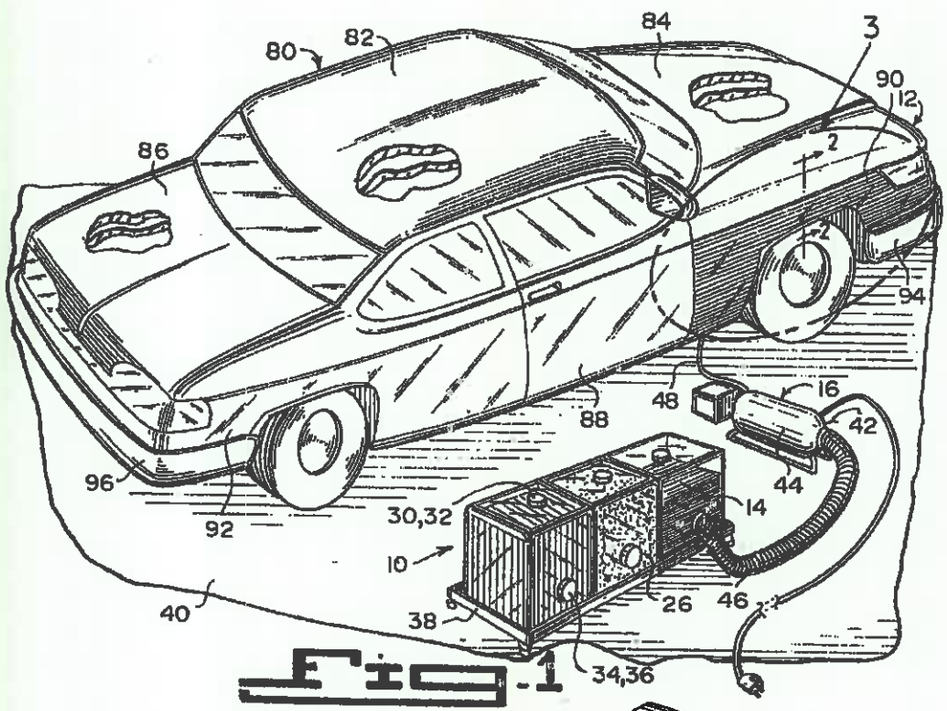


Fig. 1

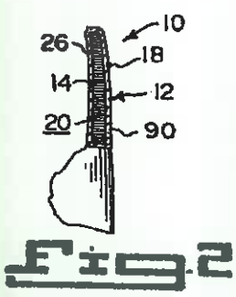


Fig. 2

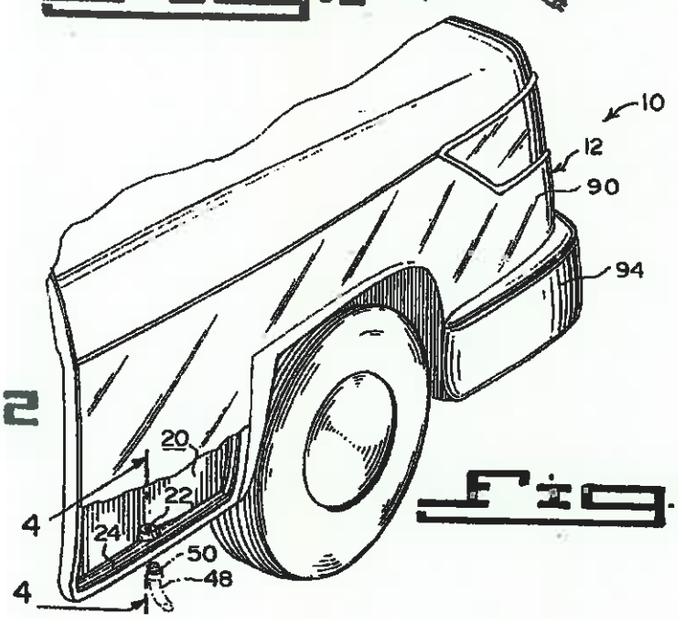


Fig. 3

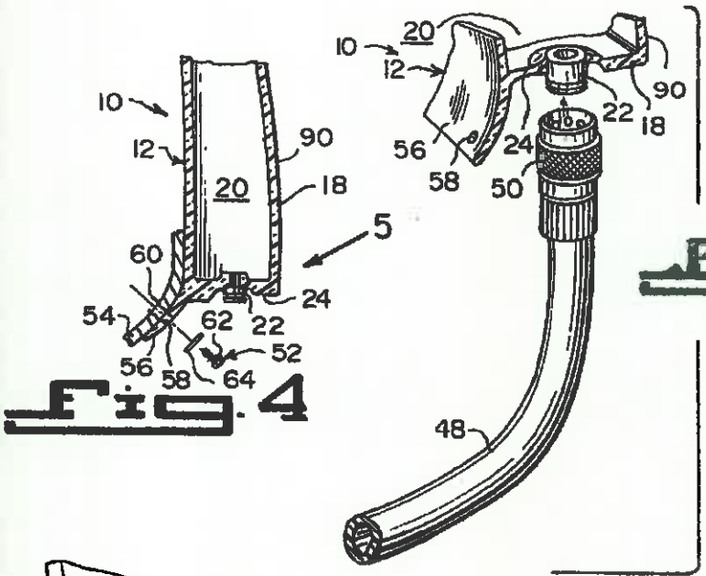


Fig. 4

Fig. 5

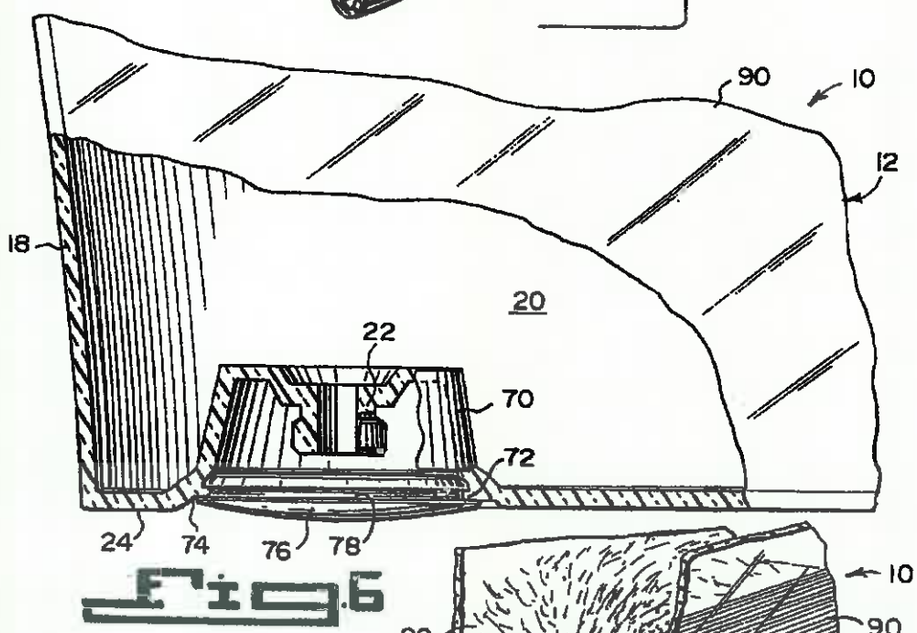


Fig. 6

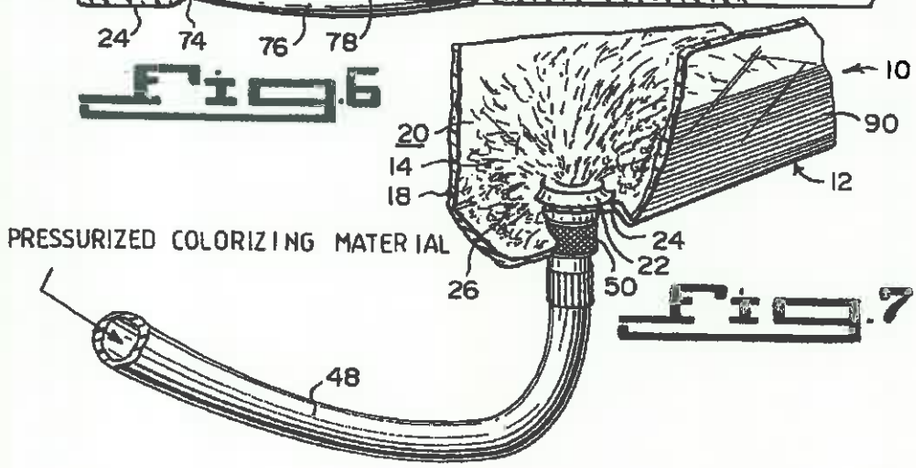


Fig. 7

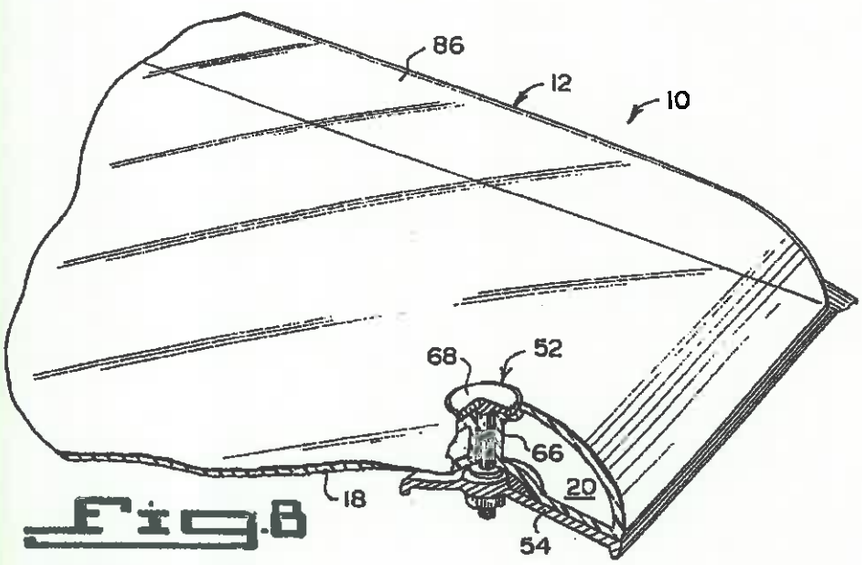


Fig.8

COLORIZATION PROCESS

(INITIAL APPLICATION)

1 — CONNECT VACUUM / PRESSURIZATION SOURCE TO RESERVOIR CONTAINING DESIRED COLORIZING MATERIAL.

2 — CONNECT APPLICATION HOSE TO PANEL CAVITY

3 — PRESSURIZE COLORIZATION MATERIAL AND INTRODUCE INTO PANEL UNTIL PANEL CAVITY IS FILLED WITH COLORIZING MATERIAL.

4 — DEACTIVATE PRESSURIZATION AND DISSCONNECT APPLICATION HOSE.

5 — REPEAT STEPS FOR ADDITIONAL PANELS AS REQUIRED

SUBSEQUENT APPLICATIONS TO CHANGE COLOR

1A — FOLLOW STEPS 1 AND 2 ABOVE

2A — ACTIVATE VACUUM SOURCE TO EXTRACT COLORIZING MATERIAL FROM PANEL CAVITY AND WHEN EXTRACTION IS COMPLETED PROCEED WITH STEPS 3,4 AND 5 AS REQUIRED.

Fig.9

SELECTIVE COLORING SYSTEM

BACKGROUND OF THE INVENTION

1. Field of The Invention

The instant invention relates generally to decorative covering materials and more specifically it relates to a selective coloring system.

2. Description of the Prior Art

Numerous decorative covering materials have been provided in prior art. For example, U.S. Pat. No. 3,440,129 to Anselm; U.S. Pat. No. 3,709,770 to Hale and U.S. Pat. No. 4,033,619 to Cox all are illustrative of such prior art. While these units may be suitable for the particular purpose to which they address, they would not be as suitable for the purposes of the present invention as heretofore described.

Anselm, Anthony Cesar

Decorative Plastic Extrusions

U.S. Pat. No. 3,440,129

A decorative plastic extrusion comprising an extruded plastic core. A metal-plastic foil laminate is bonded to the surface of the core. The core with the foil laminate bonded thereto forms an insert in an extrusion of transparent or translucent plastic material which forms a protective layer over the foil laminate which is seen through the front face of the decorative plastic extrusion.

Hale, Clifford R.

Decorative Exterior Panel System For Automobiles

U.S. Pat. No. 3,709,770

Trim panel structures are disclosed of the character adapted to be mounted on the exterior surfaces of vehicle panels such as fender, door, quarter and tailgate panels of a station wagon, to provide the vehicle exterior with a wood panel and border appearance. Each trim panel is defined by a sheet of thermoplastic material formed to define internal panel and border portions having decorable outer surfaces. The outer periphery of the trim panel corresponds in contour generally to the outer periphery of the vehicle panel to which it is to be attached. A decorative means is applied to the decorable outer surfaces of the panel and border portions, to provide for the panel portion to have a wood panel appearance and to provide for the border portion to have a wood grained appearance contrasting in color with the panel portion.

Cox, Diane M.

Transparent Tailgate For Station Wagons and Pickup Trucks

U.S. Pat. No. 4,033,619

A transparent panel with the manufacturer's name embedded therein in a tailgate to improve the rear vision of the driver and for safety. The transparent panel may be one-way glass.

SUMMARY OF THE INVENTION

A primary object of the present invention is to provide a selective coloring system that will overcome the shortcomings of the prior art devices.

Another object is to provide a selective coloring system, in which hollow transparent panels are utilized to be injected and extracted with various colored materials by a vacuum source, so as to change the appearances of the panels when the need arises.

An additional object is to provide a selective coloring system, in which the colored materials are lightweight powdered or shredded substances and since no paint is used, there will be no fading, chipping and waste removal, thereby being environmentally safe.

A further object is to provide a selective coloring system that is simple and easy to use.

A still further object is to provide a selective coloring system that is economical in cost to manufacture.

Further objects of the invention will appear as the description proceeds.

To the accomplishment of the above and related objects, this invention may be embodied in the form illustrated in the accompanying drawings, attention being called to the fact, however, that the drawings are illustrative only, and that changes may be made in the specific construction illustrated and described within the scope of the appended claims.

BRIEF DESCRIPTION OF THE DRAWING

Various other objects, features and attendant advantages of the present invention will become more fully appreciated as the same becomes better understood when considered in conjunction with the accompanying drawings, in which like reference characters designate the same or similar parts throughout the several views, and wherein:

FIG. 1 is a perspective view with parts broken away and in section of the instant invention built into an automobile.

FIG. 2 is a cross sectional view taken along line 2–2 in FIG. 1.

FIG. 3 is an enlarged perspective view with parts broken away as indicated by arrow 3 in FIG. 1.

FIG. 4 is a cross sectional view taken along line 4–4 in FIG. 3.

FIG. 5 is a cross sectional perspective view taken in the direction of arrow 5 in FIG. 4, showing the connector of the application hose ready to be connected to the fitting.

FIG. 6 is an enlarged front view with parts broken away and in section as indicated by arrow 6 in FIG. 3, showing a recessed fitting and cover plug therein.

FIG. 7 is a perspective view with parts broken away and in section, showing the connector connected to the fitting with the pressurized colorizing material being forced within the hollow transparent panel.

FIG. 8 is a perspective view with parts broken away and in section, showing a clamp assembly for retaining the hollow transparent panel to the chassis of the automobile.

FIG. 9 is a chart showing the colorization process and subsequent applications to change color.

Similar reference characters denote corresponding features consistently throughout the attached drawings.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Turning now descriptively to the drawings, in which similar reference characters denote similar elements throughout the several views, FIGS. 1 through 8 illustrate a selective coloring system 10, comprising a hollow transparent panel 12. A plurality of separate different colored materials 14 are provided. A facility 16 is for forcing one of the separate different colored materials 14 into and out of the hollow transparent panel 12, so as to change the appearance of the hollow transparent panel 12, for aesthetic reasons when the need arises.

The hollow transparent panel 12 is fabricated out of plastic 18. The hollow transparent panel 12 has an enclosed

cavity 20, to receive the colored materials 14 from the forcing facility 16. A fitting 22 is on a bottom end 24 of the hollow transparent panel 12 thereof, for connection to the forcing facility 16. The colored materials 14 are made out of lightweight powdered or shredded substances 26.

The selective coloring system 10, as shown in FIG. 1, further includes a plurality of containers 28, in which each container 28 will hold one of the different colored materials 14. Each container 28 contains a filler neck 30, so that the colored materials 14 can be placed into the container 28. A first cap 32 fits onto the filler neck 30, so as to seal closed the filler neck 30 when not in use.

Each container 28 also includes an extractor neck 34, so that the colored materials 14 can be removed from the container 28 by the forcing facility 16. A second cap 36 fits onto the extractor neck 34, so as to seal closed the extractor neck 34 when not in use. A cart 38 is provided for the containers 28 to sit into. The container 28 can be transported by the cart 38 along a flat horizontal surface 40, from place to place.

The forcing facility 16 is a pressurization source 42. The pressurization source 42 is a reversible vacuum unit 44. The reversible vacuum unit 44 contains a flexible tube 46 connected to the extractor neck 34 on one container 28. An application hose 48 is provided. A coupler 50, as best seen in FIGS. 5 and 7, is affixed to a distal end of the application hose 48. The coupler 50 can engage with the fitting 22 on the bottom end 24 of the hollow transparent panel 12.

Components 52 are for attaching the hollow transparent panel 12 to a chassis 54. The attaching components 52, as shown in FIG. 4, consists of a flange 56 extending from the bottom end 24 of the hollow transparent panel 12. The flange 56 has a hole 58 therethrough in alignment with an aperture 60 in the chassis 54. A mounting screw 62 threads into the hole 58 in the flange 56 and into the aperture 60 in the chassis 54. A washer 64 fits between the flange 56 and the mounting screw 62.

The attaching components 52 in FIG. 8, consists of the hollow transparent panel 12 having a sealed opening 66 therethrough. A clamp assembly 68 is for retaining the hollow transparent panel 12 to the chassis 54, via the sealed opening 66.

As shown in FIG. 6, the bottom end 24 of the hollow transparent panel 12 has a recessed truncated conical cup 70 about the fitting 22. An annular bead 72 is formed about a mouth 74 of the cup 70. A flexible plug 76 is provided, having an annular groove 78 to engage with the annular bead 72. The flexible plug 76 will seal off the mouth 74 of the cup 70, to prevent dirt and debris from entering the fitting 22, when the fitting 22 is not being used.

The selective coloring system 10, as shown in FIGS. 1 through 8, is applied to an automobile 80. Typically, the hollow transparent panel 12, which receives the colored materials 14 can be a:

a) roof 82,

b) hood 84,

c) trunk lid 86,

d) door 88,

e) front fender 90,

f) rear fender 92,

g) front bumper 94 and

h) rear bumper 96.

The selective coloring system 10 can also be used in home appliances and household furniture, not sown in the drawings. Typically, the hollow transparent panel 12, which receives the colored materials 14 can be in a:

a) refrigerator,

b) stove,

c) dishwasher,

d) freezer,

e) washing machine,

f) clothes dryer,

g) table top and

h) cabinet.

LIST OF REFERENCE NUMBERS

10 selective coloring system
12 hollow transparent panel
14 colored materials
16 forcing facility
18 plastic for 12
20 enclosed cavity in 12
22 fitting on 24
24 bottom end of 12
26 lightweight powdered or shredded substances for 14
28 container
30 filler neck on 28
32 first cap on 30
34 extractor neck on 28
36 second cap on 34
38 cart
40 flat horizontal surface
42 pressurization source for 16
44 reversible vacuum unit for 42
46 flexible tube of 44
48 application hose
50 coupler on 48
52 attaching components
54 chassis
56 flange on 24
58 hole in 56
60 aperture in 54
62 mounting screw
64 washer
66 sealed opening in 12
68 clamp assembly
70 recessed truncated conical cup on 24 about 22
72 annular bead on 74
74 mouth of 70
76 flexible plug
78 annular groove in 76
80 automobile
82 roof of 80
84 hood of 80
86 trunk lid of 80
88 door of 80
90 front fender of 80
92 rear fender of 80
94 front bumper of 80
96 rear bumper of 80

It will be understood that each of the elements described above, or two or more together may also find a useful application in other types of methods differing from the type described above.

While certain novel features of this invention have been shown and described and are pointed out in the annexed claims, it is not intended to be limited to the details above, since it will be understood that various omissions, modifications, substitutions and changes in the forms and

details of the device illustrated and in its operation can be made by those skilled in the art without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention.

What is claimed is new and desired to be protected by Letters Patent is set forth in the appended claims:

1. A selective coloring system comprising:

a) a hollow transparent panel;

b) a plurality of separate different colored materials;

c) means for forcing one of said separate different colored materials into and out of said hollow transparent panel, so as to change the appearance of said hollow transparent panel for aesthetic reasons when the need arises and

d) means for attaching said hollow transparent panel to a vehicle chassis.

2. A selective coloring system comprising:

a) a hollow transparent panel;

b) a plurality of separate different colored materials;

c) means for forcing one of said separate different colored materials into and out of said hollow transparent panel, so as to change the appearance of said hollow transparent panel for aesthetic reasons when the need arises;

d) a plurality of containers, in which each said container will hold one of said different colored materials; and

e) a cart for said containers to sit into, so that said containers can be transported along a flat horizontal surface from place to place.

3. A selective coloring system as recited in claim 2, wherein said pressurization source is a reversible vacuum unit.

4. A selective coloring system as recited in claim 3, wherein said reversible vacuum unit includes:

a) a flexible tube connected to said extractor neck on one said container;

b) an application hose; and

c) a coupler affixed to a distal end of said application hose, so that said coupler can engage with a fitting on a bottom end of said hollow transparent panel.

5. A selective coloring system as recited in claim 1, further including means for attaching said hollow transparent panel to a chassis.

6. A selective coloring system as recited in claim 1, wherein said attaching means includes:

a) a flange extending from a bottom end of said hollow transparent panel, said flange having a hole therethrough in alignment with an aperture in the chassis;

b) a mounting screw to thread into said hole in said flange and into the aperture in said chassis; and

c) a washer to fit between said flange and said mounting screw.

7. A selective coloring system as recited in claim 1, wherein said attaching means includes:

a) said hollow transparent panel having a sealed opening therethrough; and

b) a clamp assembly for retaining said hollow transparent panel to said chassis via said sealed opening.

8. A selective coloring system as recited in claim 1, further including:

a) said bottom end of said hollow transparent panel having a recessed truncated conical cup about said fitting;

b) an annular bead formed about a mouth of said cup;

c) a flexible plug having an annular groove to engage with said annular bead, so that said flexible plug will seal off said mouth of said cup, to prevent dirt and debris from entering said fitting when said fitting is not being used.

9. A selective coloring system comprising:

a) a hollow transparent panel fabricated out of plastic and having an enclosed cavity and a fitting on a bottom end thereof;

b) a plurality of separate different colored materials made out of lightweight powdered/shredded substances;

c) means for forcing one of said separate different colored materials into and out of said cavity in said hollow transparent panel, so as to change the appearance of said hollow transparent panel for aesthetic reasons when the need arises, said forcing means connected to said fitting; and

d) a plurality of containers, in which each said container will hold one of said different colored materials, each said container including:

i) a filler neck, so that said colored materials can be placed into said container;

ii) a first cap to fit onto said filler neck, so as to seal closed said filler neck when not in use;

iii) an extractor neck, so that said colored materials can be removed from said container by said forcing means; and

iv) a second cap to fit onto said extractor neck, so as to seal closed said extractor neck when not in use.

10. A selective coloring system as recited in claim 9, further including a cart for said containers to sit into, so that said containers can be transported along a flat horizontal surface from place to place.

11. A selective coloring system as recited in claim 10, wherein said forcing means is a pressurization source.

12. A selective coloring system as recited in claim 11, wherein said pressurization source is a reversible vacuum unit.

13. A selective coloring system as recited in claim 12, wherein said reversible vacuum unit includes:

a) a flexible tube connected to said extractor neck on one said container;

b) an application hose; and

c) a coupler affixed to said distal end of said application hose, so that said coupler can engage with said fitting on said bottom end of said hollow transparent panel.

14. A selective coloring system as recited in claim 13, further including means for attaching said hollow transparent panel to a chassis.

15. A selective coloring system as recited in claim 14, wherein said attaching means includes:

a) a flange extending from said bottom end of said hollow transparent panel, said flange having a hole therethrough in alignment with an aperture in the chassis;

b) a mounting screw to thread into said hole in said flange and into the aperture in said chassis; and

c) a washer to fit between said flange and said mounting screw.

16. A selective coloring system as recited in claim 15, wherein said attaching means includes:

a) said hollow transparent panel having a sealed opening therethrough; and

b) a clamp assembly for retaining said hollow transparent panel to said chassis via said sealed opening.

17. A selective coloring system as recited in claim 16, further including:

a) said bottom end of said hollow transparent panel having a recessed truncated conical cup about said fitting;

b) an annular bead formed about a mouth of said cup;

c) a flexible plug having an annular groove to engage with said annular bead, so that said flexible plug will seal off said mouth of said cup, to prevent dirt and debris from entering said fitting when said fitting is not being used.

* * * * *

United States Patent [19]

Saenger et al.

[11] **4,144,663**

[45] **Mar. 20, 1979**

[54] **SWITCHABLE SIGN**

[75] Inventors: **Leif H. Saenger; Per R. Danielsen, both of Halden, Norway**

[73] Assignee: **Norlax A/S, Halden, Norway**

[21] Appl. No.: **786,360**

[22] Filed: **Apr. 11, 1977**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 629,068, Nov. 5, 1975, abandoned.

[30] **Foreign Application Priority Data**

Nov. 6, 1974 [NO] Norway 743993

[51] Int. Cl.[2] G09F 13/24

[52] U.S. Cl. 40/406

[58] Field of Search 40/106.21, 106.22, 37, 40/406, 407

[56] **References Cited**

U.S. PATENT DOCUMENTS

913,022	2/1909	Marsh	40/106.21
1,782,328	11/1930	Wearham	40/106.21 X
1,887,285	11/1932	Burrell et al.	40/106.21
3,388,490	6/1968	Stechemesser	40/106.21
3,638,342	2/1972	Winslow et al.	40/106.21

FOREIGN PATENT DOCUMENTS

312105 5/1929 United Kingdom 40/106.22

OTHER PUBLICATIONS

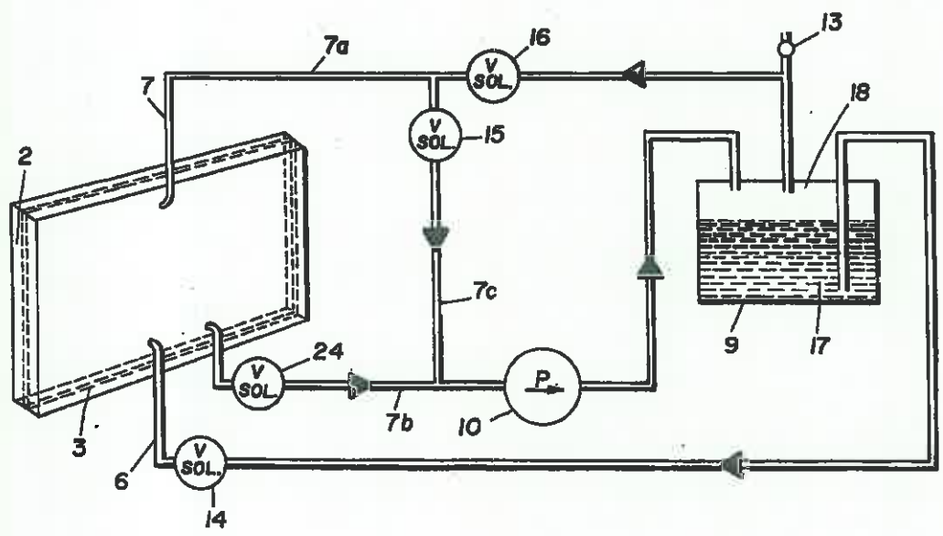
IBM Technical Disclosure Bulletin, Young, Display Device, 8-1963, vol. 6, No. 3.

Primary Examiner—John F. Pitrelli
Attorney, Agent, or Firm—Kurt Kelman

[57] **ABSTRACT**

A traffic sign selectively displays and obscures information arranged permanently on the outer surface of a rear plate of a pair of rigid, transparent plates defining a closed cavity therebetween by displacing out of and into the cavity an opaque liquid contained in a closed reservoir which has an air-filled space over the liquid. A closed fluid conduit system connects the cavity with the reservoir and includes a first valved conduit connecting the air-filled space to the cavity, a second valved conduit connecting the liquid to the reservoir, a pressure release valve in the first conduit, and a control for selectively delivering liquid from the reservoir into the cavity through the second conduit while concomitantly withdrawing air from the cavity through the first conduit, and vice versa, whereby the cavity is rapidly and completely filled with the liquid to obscure the information and emptied of the liquid to display the information. The information is illuminated from the rear.

6 Claims, 5 Drawing Figures



U.S. Patent Mar. 20, 1979 Sheet 1 of 2 4,144,663

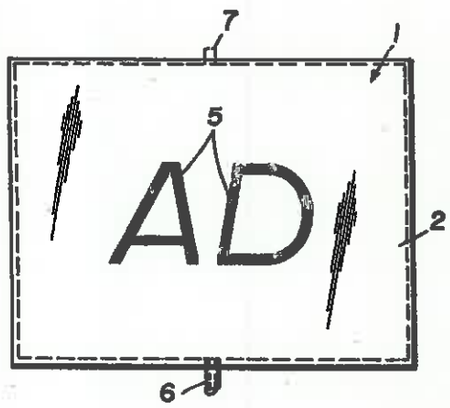


FIG. 1

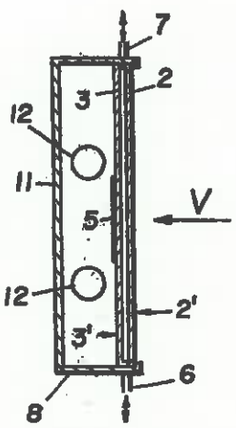


FIG. 2

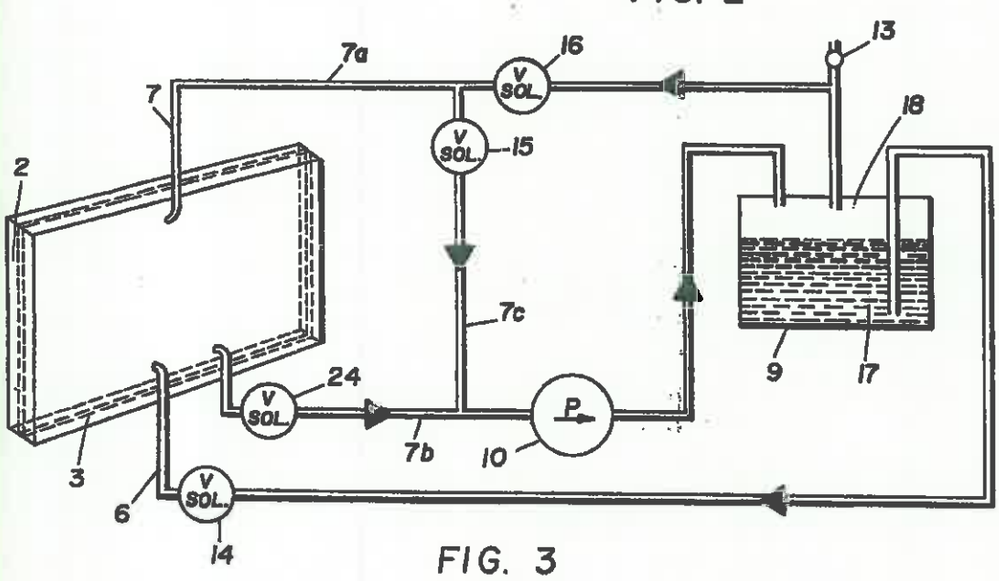


FIG. 3

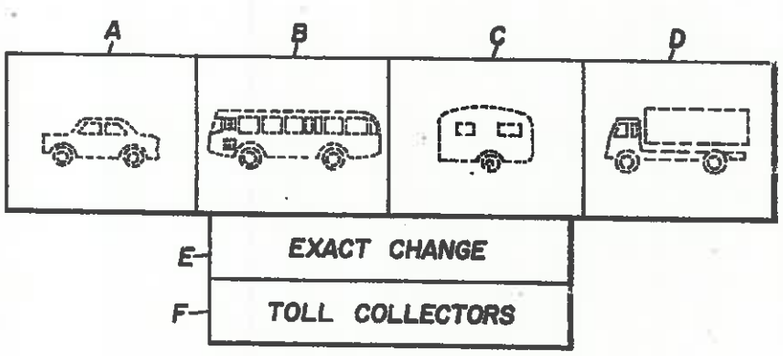


FIG. 5

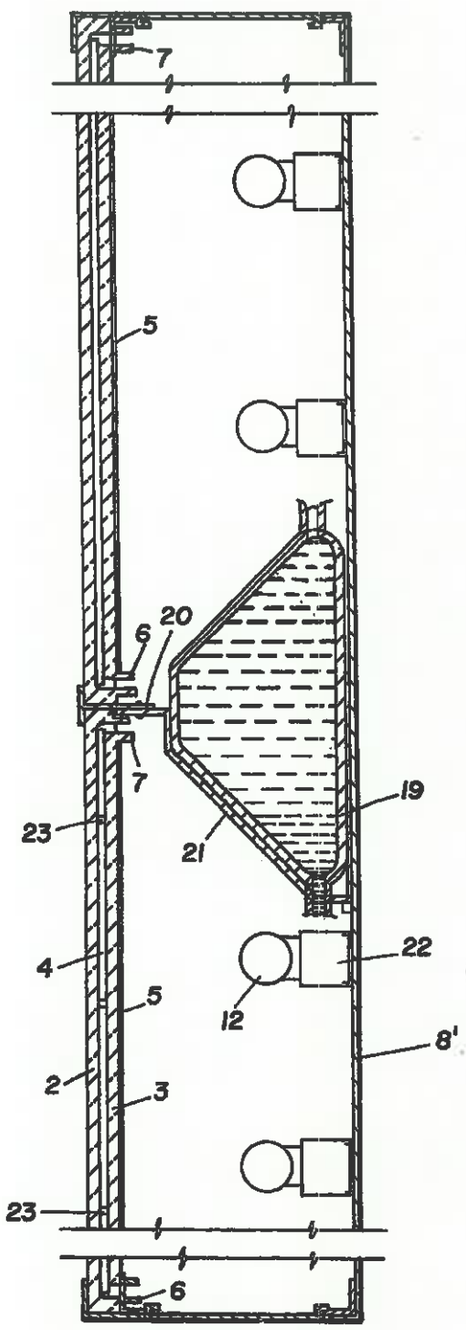


FIG. 4

SWITCHABLE SIGN

This is a continuation-in-part of our application Serial No. 629,068, filed Nov. 5, 1975, now abandoned.

The present invention relates to improvements in a sign for selectively displaying information to a viewer and obscuring the information from the viewer looking at the sign from one direction. The information may consist of an advertising message, a traffic message and any other type of intelligence, for instance in the form of symbols, letters or numbers.

In the use of signs, for example for directing traffic along certain lanes, i.e. at a toll barrier, conditions may require the display and dazzling of the sign at different times.

U.S. Pat. No. 1,782,328 discloses a sign display wherein a flexible diaphragm is mounted behind a window and defines a closed space therewith. Information is affixed to the front face of the diaphragm to be displayed through the window when the diaphragm is in contact therewith. A liquid may be pumped into the closed space to flex the diaphragm and fill the space with varying amounts of liquid to constitute a liquid screen through which the information is seen either in different colors, depending on the color of the liquid, different shapes, due to the flexing of the diaphragm, or even made invisible, if the liquid is opaque. Such a display sign would not be effective for the purpose of clearly displaying symbols such as traffic signs which must be sharply visible to the motorist without distortion or must be completely obscured. The flexible diaphragm carrying the information will create distortions of the displayed information when it is visible, clear visibility being difficult to accomplish because it requires the diaphragm to be pressed into contact with the window, which requires a high vacuum.

British Pat. No. 312,105 discloses a complex system controlled by a four-way tap selectively producing pressure and vacuum to fill and empty a chamber between two glass plates with a colored or opaque liquid for screening an illuminated object placed behind the chamber.

It is a primary object of this invention to provide a readily switchable sign capable of selectively sharply and clearly legibly displaying information applied to the rear face of the sign and to obscure this information from a viewer looking at the sign from the front.

It is a further object of the invention to provide such a sign with a simple and dependable operating mechanism for the effective display and dazzling of the information.

The above and other objects and advantages are accomplished in accordance with the present invention with a sign which comprises a pair of rigid and light-transmitting plates arranged parallel to each other and interconnected at respective edges thereof to define a closed cavity of constant volume between the inner, facing surfaces of the plates. The outer surface of the front plate faces the viewer and the outer surface of the rear plate faces in a direction opposite to the direction from which the viewer looks at the sign. The information is arranged permanently on the outer surface of the rear plate. A closed reservoir containing a liquid substantially impervious to the transmission of light and an air-filled space over the liquid is connected to the closed cavity by a closed fluid conduit system. This system includes a first valved conduit connecting the air-filled space to the cavity, a second valved conduit connecting the liquid to the cavity, a pressure release valve in the first conduit, and control means for selectively delivering liquid from the reservoir into the cavity through the second conduit while concomitantly withdrawing air from the cavity into the air-filled space through the first conduit, and delivering air from the space into the cavity through the first conduit while concomitantly withdrawing liquid from the cavity into the reservoir through the second conduit. In this manner, the cavity is rapidly and completely filled with the liquid to obscure the information and emptied of the liquid to display the information. A light source is mounted behind the rear plate for illuminating the information.

The closed, pressure-relieved conduit system assures perfect pressure balance in the closed cavity at all times so as to avoid undue pressure on the rigid plates, which could lead to distortions in viewing the information if the plates were deformed. This would make the sign useless for many purposes, such as traffic signs, where the information must be displayed sharply and clearly.

In this connection, it is also important that the liquid remain fluid under prevailing weather conditions and be displaceable readily into and out of the cavity without staining the transparent plates. According to a specific feature of this invention, this object is obtained with liquid petrolatum having a freezing point of −54° C. and having a fast and light-impervious dye homogeneously dissolved therein, an anti-static agent being preferably dispersed therethrough and the plates being of an acrylic resin. In such a system, the liquid can be rapidly pumped out of the cavity without leaving any stains.

The above and other objects, advantages and features of the present invention will become more apparent from the following detailed description of certain now preferred embodiments thereof, taken in conjunction with the accompanying drawing wherein

FIG. 1 is a schematic front elevational view of a sign according to this invention, the sign having been switched on to display the information;

FIG. 2 shows a vertical section of the sign of FIG. 1;

FIG. 3 schematically shows the liquid reservoir and the closed fluid conduit system for the sign of FIGS. 1 and 2;

FIG. 4 shows a vertical section of another embodiment of a sign according to the invention; and

FIG. 5 is a schematic front elevational view of a traffic sign with a plurality of panels according to the embodiment of FIG. 4.

Referring now to the drawing and first to FIGS. 1 and 2, the illustrated sign panel 1 comprises a pair of rigid and transparent or light-transmitting plates 2 and 3 arranged parallel to each other and interconnected by end walls at respective edges thereof to define closed cavity 4 of constant volume between the inner, facing surface of the plates. The outer surface 2' of front plate 2 faces a viewer looking at the sign from one direction indicated by arrow V and the outer surface 3' of rear plate 3 faces in the opposite direction. Information 5 is arranged permanently on outer surface 3' of rear plate 3.

Information 5 may consist of any desired symbol, design and/or text conveying intelligence to the viewer, such as an advertising message or a traffic directing message. It is suitably applied to surface 3' in a selected dark color which is preferably translucent and of a color which provides contrast to a surrounding translucent contrast color applied to the transparent plates, and

may be clearly legible, particularly when illuminated from behind.

While the rigid plates may be made of any suitable light-transmitting sheet material, we prefer transparent rigid sheets of acrylic resin, such as the well known "Plexiglas".

As shown in FIG. 2, a casing 8 may be attached to the pair of plates 2, 3 to form panel 1, casing 8 defining a chamber with rear plate 3. A light source comprised of a desired plurality of lamps 12 is mounted behind the rear plate in the chamber for illuminating information 5.

According to the present invention, information 5 is selectively displayed to a viewer (as shown in FIG. 1) and obscured from the viewer looking at the sign from the direction indicated by arrow V, the information being displayed when cavity 4 is empty, i.e. filled with air, and obscured when cavity 4 is filled with a liquid substantially impervious to the transmission of light, i.e. opaque. The liquid is of a dark color making the information totally invisible when the liquid fills cavity 4 and thus covers information 5 from the viewer.

A preferred embodiment of means for filling and emptying cavity 4 is illustrated schematically in FIG. 3. As shown therein, opaque liquid 17 is contained in closed reservoir 9 and air-filled space 18 is defined in the reservoir above the liquid level. A closed fluid conduit system connects closed cavity 4 defined by plates 2 and 3 with closed reservoir 9. This conduit system includes first valved conduit 7 connecting air-filled space 18 to cavity 4, second valved conduit 6 connecting liquid 17 to the cavity, and pressure release valve 13 in conduit 7 for adjusting the fluid pressure in the closed system in accordance with the prevailing atmospheric pressure. The pressure release valve has a very small air escape port so that it has no instantaneous effect but only operates over a long time period. A filter is mounted over the pressure relief valve to prevent dirt and dust from entering the closed conduit system from the surrounding atmosphere.

The invention provides control means for selectively delivering liquid 17 from reservoir 9 into cavity 4 through second conduit 6 while concomitantly withdrawing air from the cavity through first conduit 7 into air-filled space 18, and delivering air from the space into cavity 4 through the first conduit while concomitantly withdrawing liquid from the cavity into reservoir 9 through the second conduit. In this manner, the cavity is rapidly and completely filled with the liquid to obscure information 5 and emptied of the liquid to display the information.

The specifically illustrated control means comprises pump 10 in the fluid conduit system and the pump is reversible for selectively pumping liquid 17 into cavity 4 while concomitantly pumping air out of the cavity and pumping air into the cavity while concomitantly pumping liquid out of the cavity. Solenoid valve means in the conduit system is operable to open and close a respective one of the conduits for permitting the air and liquid to pass or to be retained.

The illustrated valve means consists of four solenoid valves 14, 15, 16 and 24. First valve 14 is mounted in second conduit 6. First conduit 7 includes first branch 7*a*, second branch 7*b* and by-pass 7*c* interconnecting branches 7*a* and 7*b*. Pump 10 is mounted in second branch 7*b* between by-pass 7*c* and air-filled space 18, second valve 24 is mounted in second branch 7*b* between the by-pass and cavity 4, third valve 15 is mounted in the by-pass, and fourth valve 16 is mounted in first branch 7*a* between by-pass 7*c* and air-filled space 18. The four solenoid valves are operable to be closed in a rest position wherein the cavity of the sign is filled with liquid, i.e. the information is obscured, or with air, i.e. when the cavity is empty to display information 5. As shown by the arrows, first valve 14 and third valve 15 are opened and pump 10 is started in a filling position wherein cavity 4 is to be filled with liquid and emptied of air while the second and fourth valves remain closed. In this filling cycle designed to obscure information 5, air is sucked out of the cavity by pump 10 through conduit branch 7*a* and by-pass 7*c* with valve 15 open, and pumped into space 18 through conduit branch 7*b*. The pumping will force liquid 17 to enter cavity 4 through conduit 6, with valve 14 open. In the emptying cycle designed to display the information, second valve 24 and fourth valve 16 are opened and, with the pump going and first and third valves remaining closed, liquid is pumped out of cavity 4 by pump 10 through conduit branch 7*b*, with valve 24 open, and delivered through space 18 into reservoir 9. Concomitantly, the pump will force air from the space to enter the cavity through conduit branch 7*a*, with valve 16 open. In this closed, pressure-relieved conduit system, pressure balance is assured in cavity 4 at all times, i.e. when the system is at rest as well as during the filling and emptying cycles. This perfect pressure balance avoids any undue pressure on plates 2 and 3 which could lead to distortions in viewing information 5 and thus make the sign useless for many purposes where the information must be displayed sharply and clearly.

The duration of both operating cycles is controlled in a well known manner by time relays connected in the control circuit for the solenoid valves and for actuation of the pump to provide for preset time cycles. Starting and stopping may be remotely controlled from an operating station by push-button controls. Such electric control systems are well known and form no part of the invention. Being readily available in commerce, they have not been described herein.

In many usages, such as in traffic signs, it is essential for the proper display and dazzling of the information that the cavity between the two rigid transparent plates be completely and rapidly emptied of liquid so as to show clearly or obscure fully the information on the sign. Thus, any residual adhesion between the opaque liquid and the inner surfaces of the plates 2 and 3 must be avoided. We have found that, with the use of acrylic resin plates, a thin liquid with a low freezing point will be released readily from the inner surfaces upon emptying of the cavity. A preferred liquid for this purpose has been found to be liquid petrolatum having a freezing point of −54° C. and having a fast and light-impervious dye homogeneously dissolved therein. Adherence of the liquid from the inner plate surfaces will be enhanced by the use of an anti-static agent, such as the commercially available anti-static agent "Norilon".

The dye used in the liquid must be completely and homogeneously soluble in the liquid, it must not settle in the liquid at low temperatures, and it must not color the inner surfaces of the plates, i.e. it must not migrate out of the liquid but remain fully dissolved therein under all operating conditions. The dyestuffs sold by the German company BASF under the trademark "Sudan" have been found very useful for this purpose. As much as 100 parts by weight of this dyestuff may be completely and homogeneously dissolved in 250 parts by weight of liquid petrolatum, our preferred liquid being a solution

of about 60 grams of the dyestuff and 0.25 grams of "Norilon" per 30 liters of the petrolatum. A blue dyestuff designated "Sudan blue" has been successfully used in traffic signs and makes an opaque liquid which is, however, not entirely impervious to light. Sun light will not penetrate this liquid when it fills a cavity having a width of about 6 mm. Furthermore, the light source behind the information is preferably extinguished when the cavity is filled with liquid, the light source being controlled by the same control circuit which operates the pump and control valves in the manner described hereinabove, thus simultaneously turning on the lamps 12 when the pump is operated to deliver liquid to cavity 4. The thickness of the acrylic resin plates may be of the order of 10 mm.

Information 5 may be applied to the outer surface of rear plate 3 by a silk-screen process to etch the information into the plate surface and thus to achieve a very uniform quality of the print. Any desired color and/or symbol may be applied in this manner.

FIGS. 4 and 5 illustrate switchable traffic signs embodying the principles of the present invention described hereinabove and useful, for example, at bridge or other road toll barriers. A respective traffic sign, such as shown in FIG. 5, is placed over each lane of the toll to control traffic through the various lanes by operation of the signs in any desired manner. As shown in FIG. 5, every lane sign has six panels, each being constituted by a sign such as shown in FIGS. 1 and 2, and operable in accordance with the diagram of FIG. 3. Thus, each panel A, B, C, D, E and F is switchable to display either a bright, clear legend or a complete blank which is illegible under any lighting conditions. The four upper panels, A, B, C and D may have information symbolizing private cars in sign A, busses in sign B, trailers in sign C and trucks in sign D, for example, a respective one or respective ones of these signs being displayed or obscured to indicate whether the lane is open or closed to traffic by the respective types of vehicles. The lower panels may have information symbolizing whether the lane is an "exact change" lane or whether "toll collectors" are on duty.

A preferred structure of such a multiple-panel sign is shown in the sectional view of FIG. 4 which, in substance, simply duplicates the sign of FIG. 2, providing a common reservoir for all panels. This sign provides as many sets of pairs of rigid and light-transmitting plates 2, 3 as there are panels, the sets of plates being coplanar. Each of the sets or panels has a respective one of the closed conduit systems, as indicated by conduits 6 and 7, and light sources, as shown by light tubes 12. Common reservoir 19 is connected to closed cavity 4 of each set through the respective conduit systems.

As shown in FIG. 4, the sign panels are mounted in an aluminum casing 8' of which the panels form the front wall. A T-shaped aluminum profile 20 is inserted between the upper and lower panels and serves as support not only for the panels but also for aluminum bracket 21 which is affixed to profile 20 and to the rear wall of casing 8' to support reservoir 19 thereon. This locates the reservoir in the casing chamber. Armatures 22 of light tubes 12 are also mounted on the rear wall of the casing and located in the casing chamber.

If the surface area of the sign panel is large, possible distortion of rigid plates 2 and 3 under the liquid pressure in cavity 4 may be avoided by interconnecting the plates by a plurality of rigid pins 23. These pins are also of a light-transmitting material, preferably the same material as the plates. For instance, if the plates are of acrylic resin, registering holes are drilled through the rear plate and preferably only some distance into the front plate, and acrylic resin pins are inserted into the holes and fused to the plates to provide an integral double-walled structure reinforced by a plurality of connecting pins. To avoid stresses in the material as a result of fusing, the plates are heated to a temperature of about 75° C. to 76° C. and kept at this elevated temperature for at least about a day after fusing pins to the plates.

What we claim is:

1. A sign for selectively displaying information to a viewer and obscuring the information from the viewer looking at the sign from one direction, which comprises

a. a pair of rigid and light-transmitting plates of an acrylic resin arranged parallel to each other and interconnected at respective edges thereof to define a closed cavity of constant volume between the inner, facing surfaces of the plates, the outer surface of a front one of the plates facing the viewer and the outer surface of a rear one of the plates facing in a direction opposite to the one direction,

1. the information being arranged permanently on the outer surface of the rear plate,

b. a plurality of rigid pins interconnecting the facing surfaces of the plates, the pins being of light-transmitting material and supporting the plates against deformation,

c. a closed reservoir containing a liquid substantially impervious to the transmission of light, the liquid being liquid petrolatum having a freezing point of −54° C., a fast and light-impervious dye homogeneously dissolved therein and an anti-static agent dispersed therethrough, and an air-filled space over the liquid,

d. a closed fluid conduit system connecting the closed cavity and closed reservoir, the conduit system including

1. a first valved conduit connecting the air-filled space to the cavity,

2. a second valved conduit connecting the liquid to the cavity,

3. a pressure release valve in the first conduit, and

4. control means for selectively delivering liquid from the reservoir into the cavity through the second conduit while concomitantly withdrawing air from the cavity into the air-filled spaced through the first conduit, and delivering air from the space into the cavity through the first conduit while concomitantly withdrawing liquid from the cavity into the reservoir through the second conduit, whereby the cavity is rapidly and completely filled with the liquid to obscure the information and emptied of the liquid to display the information, and

e. a light source mounted behind the rear plate in said one direction for illuminating the information.

2. The sign of claim 1, wherein the control means comprises a pump in the fluid conduit system, the pump being reversible for selectively pumping liquid into the cavity while concomitantly pumping air out of the cavity and pumping air into the cavity while concomitantly pumping liquid out of the cavity, and solenoid valve means in the fluid conduit system, the valve means being operable selectively to open and close a respec-

tive one of the conduits for permitting the air and liquid to pass or to be retained.

3. The sign of claim 2, wherein the valve means consists of four solenoid valves, a first one of the valves being mounted in the second conduit, the first conduit including a first branch, a second branch and a by-pass interconnecting the first and second branches, the pump is mounted in the second branch between the by-pass and the air-filled space, a second one of the valves is mounted in the second branch between the by-pass and the cavity, a third one of the valves is mounted in the by-pass, and a fourth one of the valves is mounted in the first branch between the by-pass and the air-filled space, the four valves being operable to be closed in a rest position wherein the cavity is filled with the liquid or with air, the first and third valves to be opened and the pump started in a filling position wherein the cavity is to be filled with liquid and emptied of air, while the second and fourth valves remain closed, and the second and fourth valves to be opened and the pump started in an emptying position wherein the cavity is to be filled with air and emptied of liquid, while the first and third valves remain closed.

4. The sign of claim 1, further comprising a casing attached to the pair of rigid plates and defining a chamber with the rear plate, means for mounting the reservoir in the casing chamber, and the conduit system and light source being arranged in the casing chamber.

5. The sign of claim 1, comprising more than one set of pairs of rigid plates, the sets being coplanar, each of the sets having a respective one of the conduit systems and light sources, and the reservoir being connected to the closed cavity of each set through the respective conduit systems.

6. The sign of claim 1, wherein the rigid pins are of the same acrylic resin as the plates, the plates and pins forming an integral double-walled structure reinforced by the pins.

* * * * *

Jan. 9, 1973 C. E. HALE 3,709,770

DECORATIVE EXTERIOR PANEL SYSTEM FOR AUTOMOBILES

Filed June 16, 1971 5 Sheets-Sheet 1

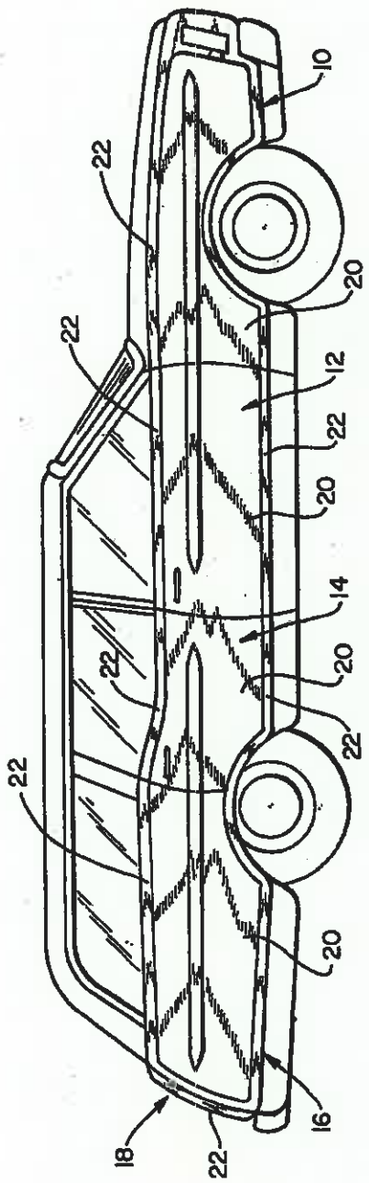


Fig. 1.

INVENTOR.
CLIFFORD E. HALE

BY
Meyer, Tilberry & Body
ATTORNEYS.

Jan. 9, 1973 C. E. HALE 3,709,770

DECORATIVE EXTERIOR PANEL SYSTEM FOR AUTOMOBILES

Filed June 16, 1971 5 Sheets-Sheet 2

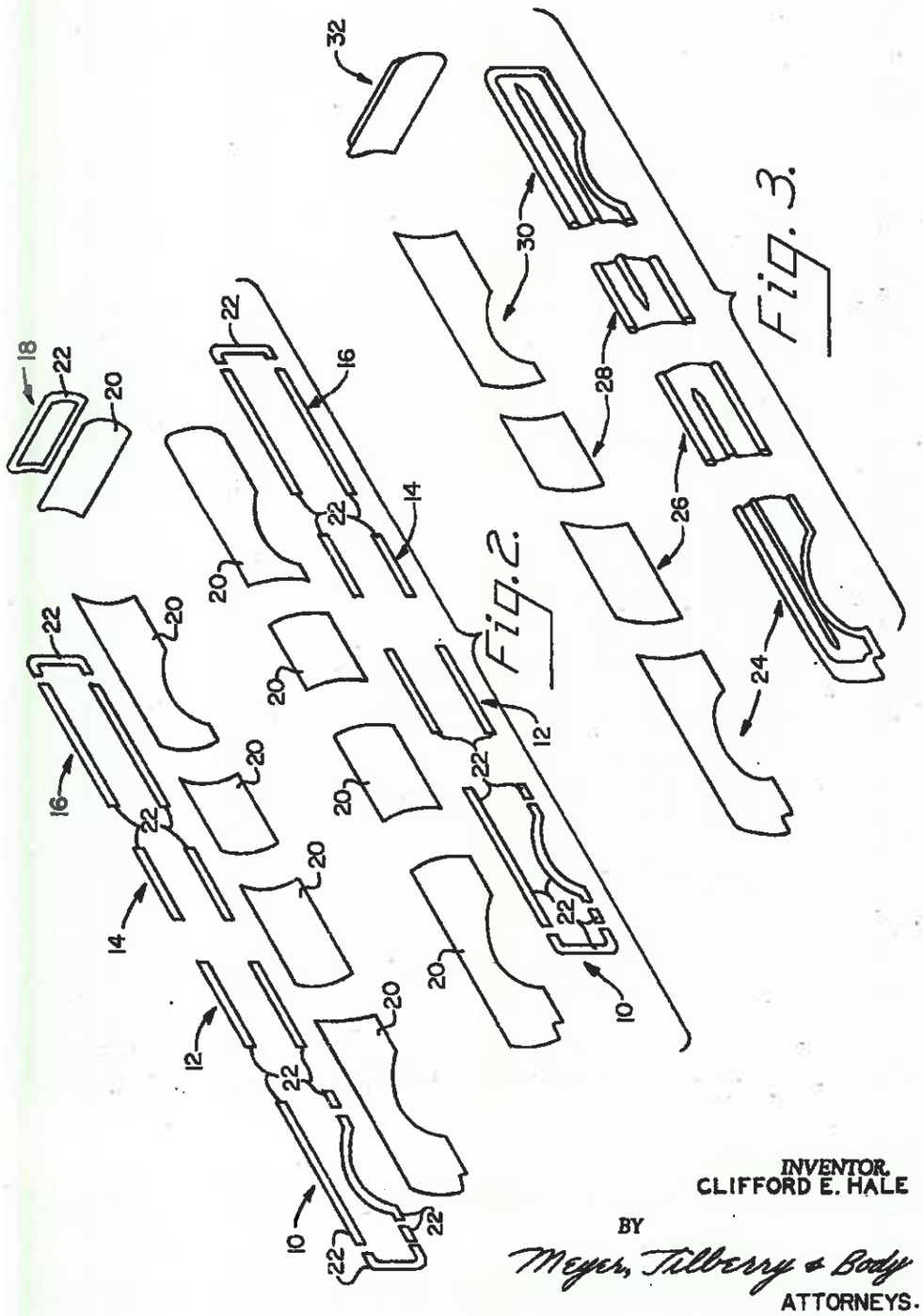


Fig. 2.

Fig. 3.

INVENTOR.
CLIFFORD E. HALE

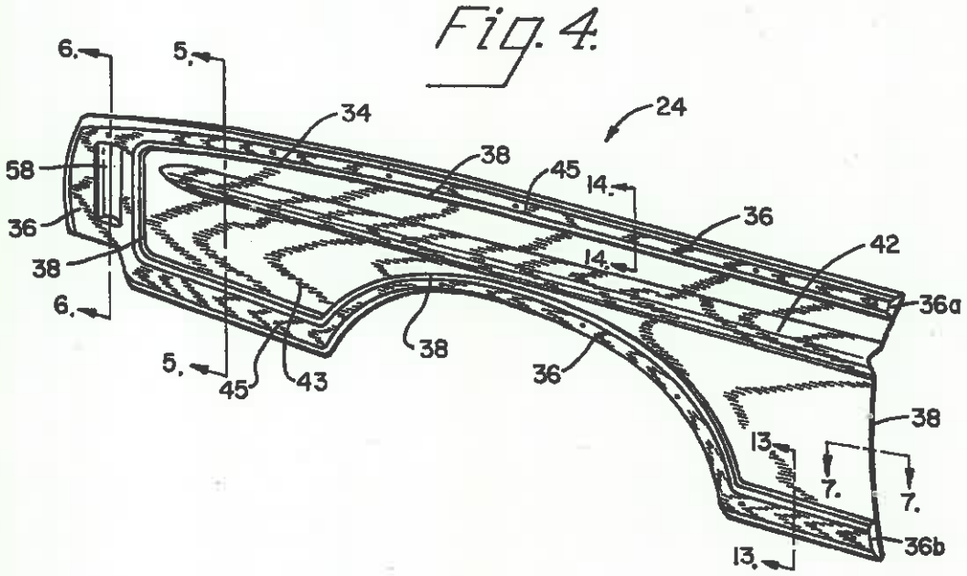
BY
Meyer, Tilberry & Body
ATTORNEYS.

Jan. 9, 1973 C. E. HALE 3,709,770

DECORATIVE EXTERIOR PANEL SYSTEM FOR AUTOMOBILES

Filed June 16, 1971 5 Sheets-Sheet 3

Fig. 4.



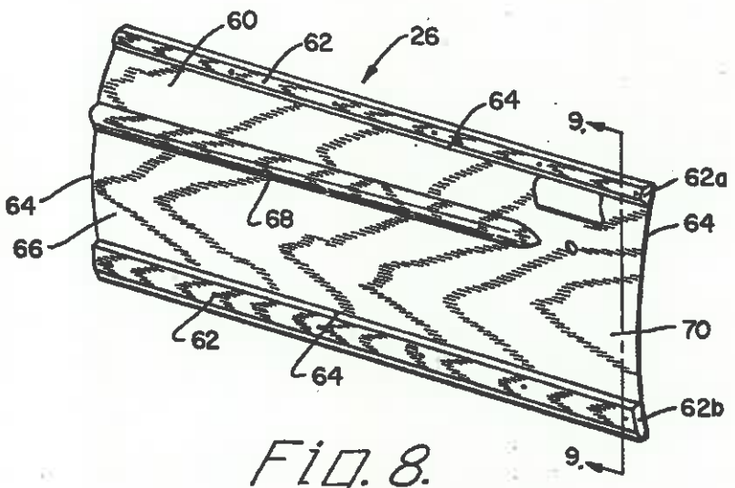


Fig. 8.

INVENTOR.
CLIFFORD E. HALE

BY
Meyer, Tilberry & Body
ATTORNEYS.

Jan. 9, 1973 C. E. HALE 3,709,770

DECORATIVE EXTERIOR PANEL SYSTEM FOR AUTOMOBILES

Filed June 16, 1971 5 Sheets-Sheet 4

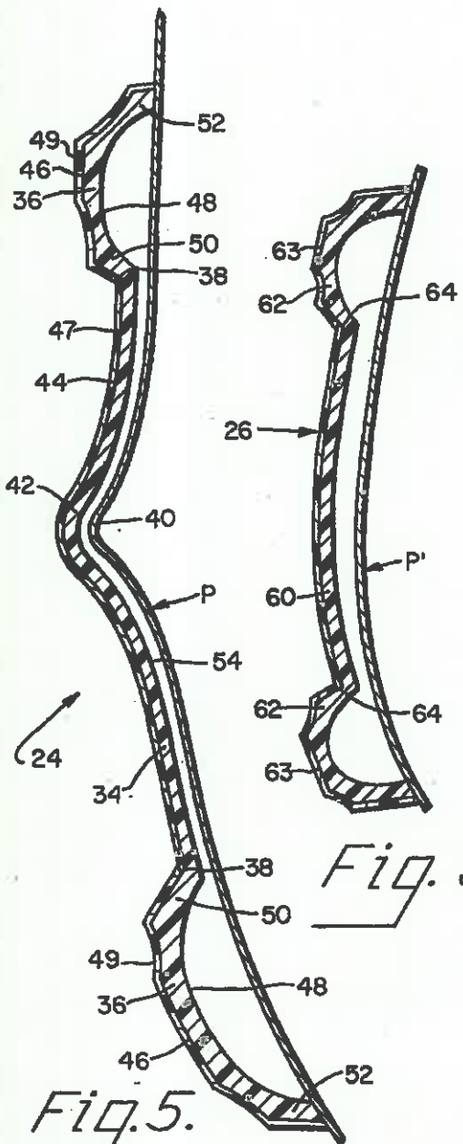


Fig. 5.

Fig. 9.

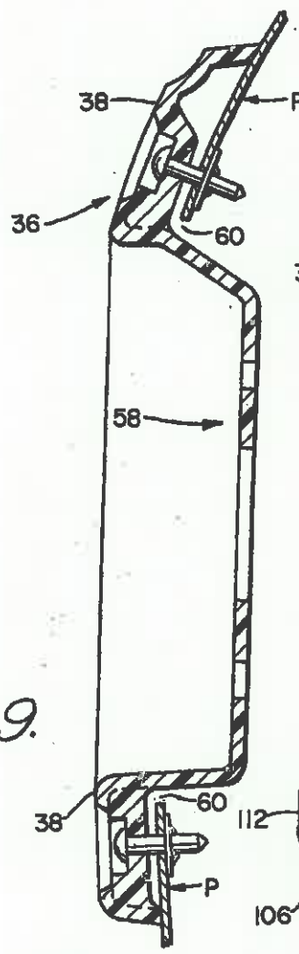


Fig. 6.

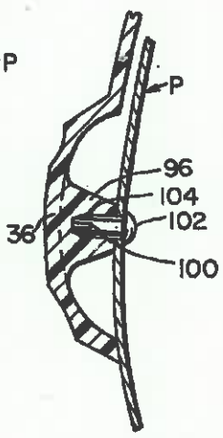


Fig. 13.

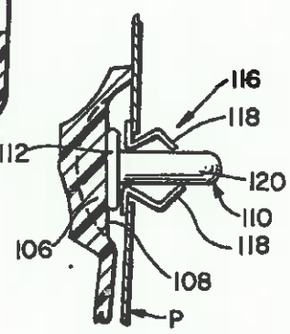


Fig. 14.

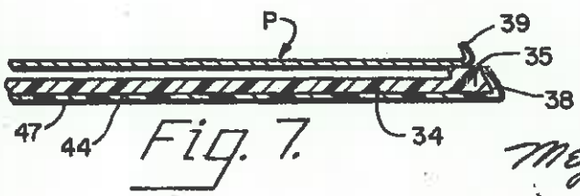


Fig. 7.

INVENTOR.
CLIFFORD E. HALE

BY
Meyer, Tilberry & Body
ATTORNEYS.

Jan. 9, 1973 C. E. HALE 3,709,770

DECORATIVE EXTERIOR PANEL SYSTEM FOR AUTOMOBILES

Filed June 16, 1971 5 Sheets-Sheet 5

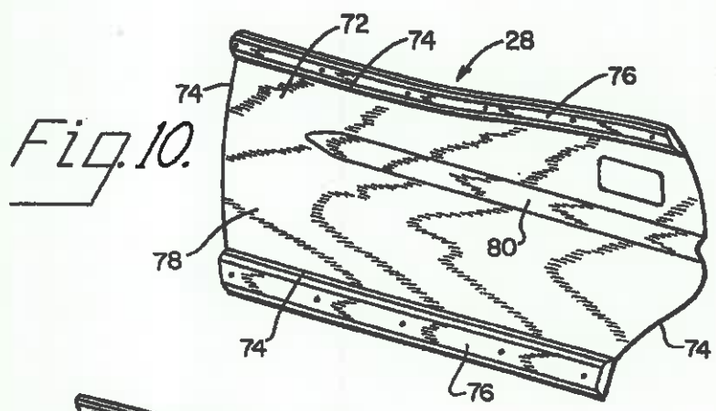


Fig. 10.

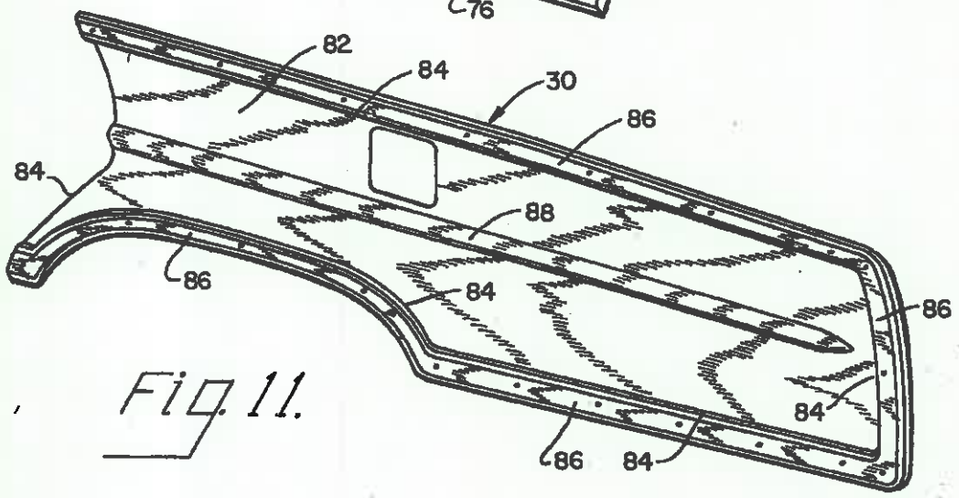


Fig. 11.

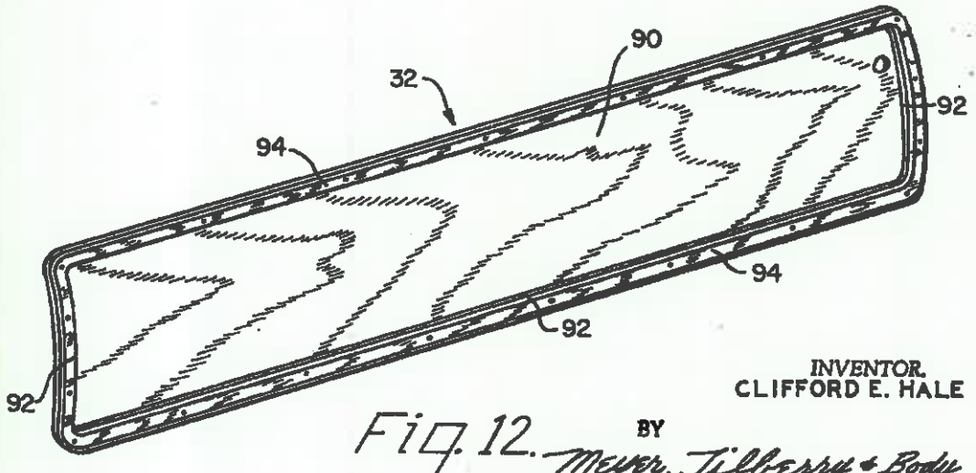


Fig. 12.

INVENTOR.
CLIFFORD E. HALE

BY
Meyer, Tilberry & Body
ATTORNEYS.

United States Patent Office

3,709,770
Patented Jan. 9, 1973

3,709,770

DECORATIVE EXTERIOR PANEL SYSTEM FOR AUTOMOBILES

Clifford E. Hale, Ann Arbor, Mich., assignor to Gulf + Western Industrial Products Company, Grand Rapids, Mich.

Filed June 16, 1971, Ser. No. 153,894
Int. Cl. B32b 1/04, 3/02
U.S. Cl. 161—44 23 Claims

ABSTRACT OF THE DISCLOSURE

Trim panel structures are disclosed of the character adapted to be mounted on the exterior surfaces of vehicle panels such as fender, door, quarter and tailgate panels of a station wagon to provide the vehicle exterior with a wood panel and border appearance. Each trim panel is defined by a sheet of thermoplastic material formed to define integral panel and border portions having decorable outer surfaces. The outer periphery of the trim panel corresponds in contour generally to the outer periphery of the vehicle panel to which it is to be attached, and decorative means is applied to the decorable outer surfaces of the panel and border portions to provide for the panel portion to have a wood panel appearance and to provide for the border portion to have a wood grained appearance contrasting in color with the panel portion.

The present invention relates to trim structures and, more particularly to trim panels adapted to be mounted in overlying relationship with the exterior surface of a vehicle panel to provide the vehicle panel with a desired decorative appearance.

Certain vehicles have been provided heretofore with decorative exterior surface means which provides for the corresponding portion of the vehicle to appear to be constructed from thin wooden panels bordered peripherally by wood strips which contrast in color to the color of the wood of the panel. The most prominent of such vehicles is the class known generaly as station wagons. The term station wagon defines a class of passenger type vehicles having a body design which includes, generally, front fender, front door, rear door and rear quarter panels on each side of the vehicle and a tailgate panel extending across the rear of the body and which is generally interconnected therewith to define a rear opening into the vehicle. Certain station wagons have been provided in the past wherein the fender, door, quarter and tailgate panels are provided with means to give these panels the appearance of being constructed of or covered with thin sheets of wood of one color, such as walnut or teak, bounded peripherally by wood strips of a contrasting color such as that of maple wood. Years ago such a decorative appearance was achieved by applying wood veneer and wood border strips to the vehicle panels. More recently, such decorative appearance had been achieved by use of materials simulating wood grain in appearance. More particularly, the wood panel effect had been provided by adhering a thin film of plastic material to the vehicle panel and the wood border strip effect has been provided by attaching separate molding strips of plastic or metal around the periphery of the panel films. Such molding strips are made by compression molding or stamping the material thereof, and the outer surfaces of the moldings are covered with a preprinted film to provide the desired wood grain appearance.

While the use of simulated wood panel and border trim has received acceptance from the automotive industry and consumers, there are several disadvantages attendant to the production and installation of such trim structures heretofore known. In this respect, the panel film must be

adhesively applied to the vehicle body panel and heat cured. Such heat curing requires the provision of curing ovens along the vehicle assembly line for curing the adhesive film. Further, the separate border or molding define a plurality of variously contoured strip segments which increases the number of component parts to be fabricated, handled and installed. It will be appreciated, therefore, that installation time is considerably long in that these molding parts have to be individually attached to the vehicle panel. A panel and molding assembly of the foregoing character may, for example, involve the use of as many as 34 individual pieces in providing one station wagon with trim assemblies on two front fenders, two front doors, two rear doors, two quarter panels and a tailgate.

The present invention advantageously overcomes the disadvantages of such trim structures heretofore known including those disadvantages specifically pointed out hereinabove. In this respect, in accordance with the present invention a trim panel structure is provided for mounting on the exterior surface of a vehicle panel as a unitary panel component including a panel portion and a border portion. The trim panel is fabricated to completion including the provision of the outer surfaces of the panel portion and border portion with decorative surface means simulating a desired wood grain. The completed panel has a peripheral contour corresponding to that of the vehicle panel on which it is to be mounted. Accordingly, the completed panel is ready for installation and installation is quickly achieved by positioning the trim panel relative to the vehicle panel and interconnecting the two panels such as by the use of cooperable fastener means therebetween.

Further, in accordance with the present invention, an entire trim panel assembly for a station wagon is defined by nine parts in the form of nine trim panel components corresponding to the nine panels of the vehicle to be covered, namely the two front fenders, two front doors, two rear doors, two quarter panels and tailgate. It will be appreciated, therefore, that a considerable reduction is realized with regard to the number of parts to be tooled, handled and installed and with regard to the time required to achieve installation. Further, the reduction in installation steps provides for shortening the assembly line in a body assembly plant, as does the elimination of body line curing ovens for curing adhesive films heretofore applied to the vehicle panels.

In accordance with a narrower aspect of the present invention, the trim panel unit is in the form of a one piece plastic structure which is sheet or plate-like in cross sectional thickness and which is contoured so as to define a panel portion and integral border or molding portions. The trim panel may be formed in any suitable manner and from any suitable material and may, for example, be formed of a thermoplastic material formed under heat and pressure to achieve the desired configuration thereof. The wood grain appearance for the trim panel may be applied or provided in any suitable manner. For example, the outer surfaces of the panel and border portions can be provided with a grain configuration by impression during the molding thereof under heat and pressure. Such graining effect can be achieved, for example, by fabricating the trim panel in a mold having an electro-formed nickel surface for graining the thermoplastic material. The wood grained outer surfaces of the panel portion and border portion are then finished by painting and ink-wiping to achieve the wood color and to accent the grain appearance. The wood finish may also be provided by applying preprinted plastic film to the outer surfaces of the panel portion and border portion. Still further, the wood finish can be provided by employing distortion printed extruded panel blanks which are formed under heat and pressure to the desired contour to define a completely finished

-154-

panel ready for installation. It will be appreciated that the provision of a one piece trim panel component provides for a more efficient fabrication of parts necessary to provide a vehicle such as a station wagon with a decorative wood panel effect.

An outstanding object of the present invention is the provision of a unitary trim panel particularly suited for mounting on an exterior surface of a vehicle panel.

Another object of the present invention is the provision of a panel of the above character which includes unitary panel and border portions, whereby the panel is mountable as a unit on a vehicle panel.

Another object of the present invention is the provision of a trim panel of the above character wherein the outer surfaces of the panel portion and border portion are decorable, whereby the panel, when mounted, is adapted to provide the vehicle with a desired decorative appearance.

Still another object of the present invention is the provision of a trim panel of the above character wherein the outer surfaces of the panel portion and border portion are provided with decorative means simulating wood grain, whereby said trim panel provides said vehicle with a wood paneling and wood border appearance.

A further object of the present invention is the provision of a trim panel of the above character which is more efficient and economical to fabricate and install than trim assemblies heretofore known.

The foregoing objects, and others, will in part be obvious and in part more fully pointed out hereinafter in conjunction with the description of the drawing of preferred embodiments of the present invention and in which:

FIG. 1 is a side elevational view of a station wagon vehicle having decorative wood grain trim thereon;

FIG. 2 is an exploded perspective view illustrating the components heretofore required to provide a station wagon type vehicle with a wood paneling effect;

FIG. 3 is an exploded perspective view illustrating the components required to provide a station wagon vehicle with a wood paneling and border effect in accordance with the present invention;

FIG. 4 is a perspective view of a front fender trim panel in accordance with the present invention;

FIG. 5 is a sectional view of the front fender trim panel taken along 5—5 in FIG. 4 and illustrating the disposition of the trim panel relative to an underlying vehicle panel;

FIG. 6 is a cross-sectional view of the front fender panel taken along line 6—6 in FIG. 4;

FIG. 7 is a cross-sectional view of the front fender trim panel taken along line 7—7 in FIG. 4;

FIG. 8 is a perspective view of a front door trim panel in accordance with the present invention;

FIG. 9 is a cross-sectional elevation view of the front door trim panel taken along line 9—9 in FIG. 8, and illustrating the relationship of the trim panel to an underlying vehicle door panel;

FIG. 10 is a perspective view of a rear door trim panel in accordance with the present invention;

FIG. 11 is a perspective view of a rear quarter trim panel in accordance with the present invention;

FIG. 12 is a perspective view of a tailgate trim panel in accordance with the present invention;

FIG. 13 is a view in cross section of a lower border portion of the front fender trim panel taken along line 13—13 in FIG. 4 and illustrating fastening means between the border portion and the underlying vehicle panel; and

FIG. 14 is a cross-sectional view of an upper border portion of the front door trim panel taken along line 14—14 in FIG. 4 and illustrating another form of fastening means between the border portion and underlying vehicle panel.

Referring now to the drawings in greater detail wherein the showings are for the purpose of illustrating the preferred embodiments of the invention only and not for

the purpose of limiting the same, a station wagon type vehicle is illustrated in FIG. 1. The vehicle includes, on opposite sides thereof, simulated wood paneling trim assembly means including front fender trim means 10, front door trim means 12, rear door trim means 14 and and rear quarter trim means 16. Further, the vehicle includes tailgate trim means 18. Each trim assembly includes a simulated wood panel portion 20 and corresponding simulated wood border or molding components 22. On the vehicle sides, border components 22 together define a peripheral border or molding extending about the several panel portion 20. A border component 22 similarly defines a peripheral border extending about the panel portion associated with the tailgate, which panel portion is not illustrated. The panel portion and border components defining, for example, front fender trim means 10 has a peripheral contour corresponding substantially to the vehicle panel on which it is mounted, namely the front fender panel of the vehicle. Trim means 12, 14, 16 and 18 similarly have the peripheral contour conforming substantially to that of the corresponding underlying vehicle panel.

Heretoforce, the provision of a vehicle such as that illustrated in FIG. 1 with decorative trim to give the vehicle a wood panelled effect involved the application of as many as 34 separate component parts to the vehicle panels. For example, with reference to FIG. 2 of the drawing, a front fender trim assembly 10 included a sheet of plastic defining the corresponding panel portion 20 and five separate molding pieces 22 which together define the corresponding border portion. Similarly, front and rear door trim means 12 and 14 required application of corresponding panel films defining portions 20 and two molding components 22, and rear quarter panel trim means 16 required the application of a corresponding panel film and three separate molding pieces. Tailgate trim means 18 required the application to the vehicle tailgate panel of a corresponding panel film and a separate molding piece.

In accordance with the present invention, the desired wood panel trim effect is achieved by application of but nine trim panel units to the vehicle panels. More particularly, with reference to FIG. 3 of the drawing, the complete trim panel assembly for a station wagon vehicle is defined by a pair of trim panels 24 for the front fender panels of the vehicle, a pair of trim panels 26 for the front door panels of the vehicle, a pair of trim panels 28 for the rear door panels of the vehicle, a pair of trim panels 30 for the rear quarter panel of the vehicle, and a trim panel 32 for the tailgate of the vehicle. In addition to the reduction of the number of parts which have to be produced, it will be appreciated that the present invention provides for a reduction in assembly time by reducing the number of individual components which have to be attached to the several vehicle panels.

The structure of a front fender trim panel 24 is illustrated in FIGS. 4–7 of the drawing. More particularly, a left front fender trim panel is illustrated in FIG. 4 and it will be appreciated that the corresponding right front fender trim component will be of a mating structural configuration. Trim panel 24 is in the form of unitary panel and border means including panel means 34 and border means 36. Panel means 34 has a peripheral edge 38 contoured to correspond generally to the peripheral contour of the front fender panel of the vehicle, and border means 36 extends along at least a portion of peripheral edge 38 and has an outer peripheral edge corresponding in contour generally with that of the vehicle panel. With regard to the front fender trim panel, border means 36 extends along the upper and lower portions of peripheral edge 38 and along the front portion of peripheral edge 38.

As will be seen in FIG. 5 panel portion 34 has a cross-sectional contour which corresponds substantially to that of the underlying vehicle panel P which in this instance, of

course, is the front fender panel of the vehicle. In the particular embodiment illustrated, vehicle panel P has a longitudinally extending raised portion 40 and a panel portion 34 has a corresponding longitudinally extending raised portion 42. The cross-sectional contour of vehicle panel P may, of course, be of any desired form, the longitudinal rib contour defined by raised portion 40 merely being illustrative of one such form. Panel portion 34 has a decorable outer surface 44 within peripheral edge 38 thereof and which surface is adapted to receive decorative means as set forth more fully hereinafter.

Border means 36 is adapted to provide panel means 34 with a border or molding having the appearance of wood extending about the panel portion and extending outwardly from the underlying vehicle panel a distance greater than that of the panel portion. In the particular embodiment illustrated, border means 36 has a generally convex configuration in cross-section relative to panel means 34 and includes a decorable outer surface 46 which extends upwardly from outer surface 44 along peripheral edge 38 and thence outwardly of panel portion 34 and rearwardly toward vehicle panel P. Outer surface 46 may be given any desired cross-sectional contour and, like decorable surface 44, is adapted to be provided with decorative meanse in the manner set forth more fully hereinafter.

Preferably panel means 34 and border means 36 are of sheet-like material having a generally uniform thickness in cross-section. A material thickness of about 0.090 inch has been found to be satisfactory, but it will be appreciated that other thicknesses can be employed. Thus, border means 36 is provided with a concave inner surface 48 providing the border means with a channel shaped cross-sectional contour defined by leg portion 50 integral with panel portion 34 along peripheral edge 38 and outer leg portion 52 which engages the vehicle panel P. Preferably, leg portion 52 is of a length which provides for the inner surface 54 of panel means 34 to be spaced from the outer surface 56 of vehicle panel P. The space or clearance between surfaces 54 and 56 prevents the existence of an area between the trim panel and vehicle panel in which moisture or liquid can collect and cause rusting of the vehicle panel. The space also provides for accommodating variance from manufacturing tolerances with respect to the vehicle panel which might otherwise make mounting of the trim panel difficult. The clearance dimension preferably is about 0.09 inch, but it will be understood that this dimension is variable. Moreover, it will be appreciated that trim panels can be made in accordance with the present invention without providing for such spacing.

As mentioned hereinabove, panel means 34 and border means 36 define unitary panel and border means for the trim panel component. The trim panel may be produced from any suitable material and, preferably, is produced from a plastic material. The plastic material may be a thermosetting plastic or a thermosplastic material. A preferable thermoplastic material is a glass fiber reinforced polypropylene, but it will be appreciated that unreinforced polypropylene can be used as well as other plastic materials such as ABS or vinyl, for example. Further, the trim panel preferably is produced by molding the plastic material under heat and pressure to define the peripheral edge of the panel portion. The use of a plastic material in producing the trim panel and the forming thereof by the use of suitable mold means provides for the trim panel component to be in a form, after molding, wherein it is only necessary to provide the decorative means on the outer surfaces of the panel portion and border portion to complete the panel unit for installation. Moreover, by molding the trim panel component, the panel can be provided with integral components such as cavity means 58 in the front portion of trim means 36, which cavity means defines a recess for a front fender sidelight, or the like, for the vehicle. As illustrated in FIG. 6, vehicle panel P is provided with an opening 60 adapted to receive recess means 58. Thus, the provision of the vehicle with a sidelight merely requires the mounting of the light fixture within the recess and the provision of the recess with suitable cover means.

FIG. 7 illustrates the structural configuration of panel means 34 along the vertical rear portion of peripheral edge 38 of the panel means. The corresponding vertical edge of the underlying vehicle panel P is defined at this point by an inturned flange 39 and the inner surface of panel means 34 is provided with projection means 35 which engages the outer surface of vehicle panel P so as to support peripheral edge 38 of panel means 34 in spaced relationship from vehicle panel P along this portion of peripheral edge 38. Preferably, projection means 35 extends continuously between the upper and lower portions of border means 36 so as to provide the rear portion of the trim panel with a neat appearance along this edge. Further in this regard, the rear portions of the upper and lower portions of channel shaped trim means 36 preferably are closed by integral wall means 36*a* and 36*b*, respectively, to add to the panel appearance.

As mentioned hereinabove, outer surfaces 44 and 46 of panel means 34 and border means 36, respectively, are decorable surfaces adapted to receive decorative means to provide the panel portion and border portion with wood grain patterns 43 and 45, respectively, simulating a panel of wood bordered by a wood strip. Generally, the panel portion has a dark appearance such as that of walnut or teak wood and the border portion has a light appearance such as that of maple wood. The desired wood grain appearance can be provided on outer surfaces 44 and 46 in a number of different ways. For example, the outer surfaces of the panel portion and border portion may be impressed during forming of the trim panel unit to provide a wood grain pattern in the outer surface of the plastic material. After the trim panel unit has been formed, a base color coat or coats of paint are applied to the panel portion and border portions having a color corresponding to the color of the wod which they are to simulate. An ink darker than the particular base paint is then applied to the panel portion and border portions to fill the grain impressions, and the excess ink is wiped off leaving ink in the depressions, thus to accentuate the grain pattern. Thereafter, a sealing or barrier coat may be applied to the outer surfaces of the panel portion and border portion to protect the decorated surface.

The wood grain effect may also be achieved by applying preprinted film to the panel portion and border portions, such as is illustrated by films 47 and 49, respectively, in FIG. 5. Preprinted plastic film having a wood grain appearance is, of course, well known and application thereof to surfaces 44 and 46 can be achieved in any suitable manner such as by adhesive bonding. Such films may be of any suitable material such as ABS or vinyl.

Yet another method of providing the wood grain appearance would be to produce the trim panel blanks in the form of extruded sheets. An outer surface of such sheets would then be distortion printed to provide a distorted wood grain pattern thereon. The blanks would then be shaped or formed to the trim panel configuration under heat and pressure, which forming would displace the distorted pattern to the desired configuration to complete the trim panel component to a form ready for installation on the vehicle panel. It will be appreciated that other methods may be employed to provide the wood grain appearance desired for the trim panel components.

The trim panel component 26 for the left front door panel of the vehicle is illustrated in FIGS. 8 and 9 of the drawing. Trim panel 26 is similar to trim panel 24 and in this respect includes unitary panel and trim means including panel means 60 and trim means 62. Panel means 60 has a peripheral edge 64 and trim means 62 extends along a portion of peripheral edge 64, in this instance along the upper and lower portions of the peripheral edge. The cross-sectional configuration of trim panel 26 ad-

jacent the front end 66 thereof corresponds to the cross-sectional configuration of the rear portion of trim panel 24. In this respect, trim panel 26 includes a longitudinally extending rib portion 68 similar in cross-section to rib portion 42 of trim panel 24. Rib portion 68 terminates short of the rear edge of trim panel 26, whereby the rear portion 70 of trim panel 26 has the cross-sectional configuration illustrated in FIG. 9. Thus, rear portion 70 of panel means 60 of trim panel 26 has an arcuate contour corresponding to the contour of underlying vehicle door P'.

In all other respects, trim panel 26 corresponds to trim panel 24. In this regard, panel means 60 has a decorable outer surface 61 and border means 62 has a convex decorable outer surface 63. Surface 63 corresponds in contour to outer surface 46 of border means 36 of trim panel 24 and border means 62 has a concave inner surface which provides the border means with a channel shaped cross-section. Still further, the outer legs of the border channels extend towards vehicle panel P' to the extent that the inner surface of panel portion 60 is spaced from the outer surface of vehicle panel P'. In a manner similar to border means 36 of trim panel 24, border means 62 is closed at the opposite ends thereof such as by integral end wall means 62*a* and 62*b*. The decorable outer surfaces of the panel means and border means will, of course, be provided with decorative means to provide the trim panel with a wood grain effect corresponding to that of the panel portion and border portion of trim panel 24.

The left rear door trim panel 28 is illustrated in FIG. 19. Trim panel 28, in a manner similar to trim panels 24 and 26, includes panel means 72 having a peripheral edge 74 which corresponds substantially to the peripheral contour of the underlying vehicle panel, in this instance the rear door panel of the vehicle. Trim panel 28 further includes border means 76 extending along a portion of peripheral edge 74 and, in this instance, along the upper and lower portions of peripheral edge 74. Further, front portion 78 of trim panel 28 has a cross-sectional configuration corresponding with that of rear portion 70 of trim panel 26 and, in the embodiment illustrated, trim panel 28 is provided with a longitudinally extending raised portion 80 similar to raised portions 42 and 68 of trim panels 24 and 26, respectively. Panel means 72 and border means 76, of course, have decorable outer surfaces of the character hereinabove described with regard to trim panel 24 and these outer surfaces are provided with decorative means, whereby trim panel 28 has a wood grain appearance corresponding with that of panels 24 and 26.

The left rear quarter trim panel 30 for the vehicle is illustrated in FIG. 11 of the drawings. In a manner similar to the trim panels described hereinabove, trim panel 30 includes panel means 82 having a peripheral edge 84 which corresponds in contour generally to the peripheral contour of the underlying vehicle panel, in this instance the left rear quarter panel of the vehicle. Trim panel 30 further includes border means 86 extending along a portion of peripheral edge 84 and, in this instance, along the upper, lower and rear portions of peripheral edge 84. The front portion of peripheral edge 84 corresponds with the rear portion of peripheral edge 74 of rear door trim panel 28 and panel means 82 is provided with a raised longitudinally extending rib portion 88 which extends from the front portion of peripheral edge 84 towards the rear portion of the peripheral edge. It will be appreciated that the cross-sectional configuration of trim panel 30 adjacent the front portion of peripheral edge 84 corresponds to the cross-sectional configuration of the rear door trim panel 28 adjacent the rear portion of peripheral edge 74 of panel means 72. The outer surfaces of panel means 82 and border means 86 in a manner similar to the corresponding portions of trim panels 24, 26 and 28, are decorable surfaces which are provided with decorative means so that trim panel 30 has a wood grain effect corresponding with that of panels 24, 26 and 28.

Tailgate trim panel 32 is illustrated in FIG. 12 of the drawing. Trim panel 32 includes panel means 90 having a peripheral edge 92 corresponding in contour generally to the contour of the tailgate panel of the vehicle. Further, the trim panel includes border means 94 which, in this instance, extends along peripheral edge 92 around the entire periphery of panel means 90. The cross-sectional configuration of tailgate trim panel 32 is not illustrated, but it will be appreciated that the cross-sectional structure thereof is such that panel means 90 conforms generally to the contour of the outer surface of the underlying tailgate panel of the vehicle and is spaced therefrom by providing for the outer legs of border means 94 to be of an extent to assure such spacing when the outer legs of the border means engage the outer surface of the vehicle tailgate panel. Further, it will be appreciated that the outer surfaces of panel means 90 and border means 94 define decorable surfaces in a manner similar to that hereinabove described, and that these outer surfaces are provided with decorative means so that the tailgate panel has a wood grain effect corresponding to that of trim panels 24, 26, 28 and 30.

Trim panels 24, 26, 28, 30 and 32 may be mounted on the corresponding underlying vehicle panel in any suitable manner such as by the use of cooperable fastener means. For example, with reference to FIG. 13 of the drawing, the inner surface of the lower border portion of border means 36 of trim panel 24 is illustrated as being provided at a point along the length thereof with an integral boss 96 extending toward the underlying vehicle panel P. Boss 96 is provided with a recess 100 adapted to receive the shank portion of a headed fastener element 102. The shank portion of fastener 102 may be provided with barb means 104 adapted to engage the surface of recess 100 in a manner whereby withdrawal of the fastener is restrained. It will be appreciated too that the shank portion of fastener 102 could be provided with thread means adapted to cooperate with the inner surface of recess 100 to hold the trim panel in place relative to vehicle panel 98.

A further example of fastener means is illustrated in FIG. 14. In this instance, the inner surface of the upper border portion of border means 36 of trim panel 24 is provided at a point along its length with boss means 106 having a flat surface 108. A plastic fastener element 110 is suitably secured to surface 108 of boss means 106 such as by spin welding head 112 of the fastener to surface 108. The underlying vehicle panel P is provided with an opening which carries a resilient steel clip 116 having a pair of opposed legs 118 adapted to receive and frictionally engage shank portion 120 of fastener element 110 therebetween.

It will be appreciated that several fastener elements will be employed about each trim panel and that the same or different forms of fasteners may be employed along the top and bottom portions of the border means. Further, many types of fastener elements may be employed to achieve mounting of the trim panels to an underlying vehicle panel and, moreover, it will be appreciated that means other than separable fasteners can be employed to achieve mounting.

While considerable emphasis has been placed herein on the fact that the panel means and border means of the trim panel components are of one piece sheet-like construction wherein the panel means and border means are integral along a portion of the peripheral edge of the panel means and wherein the border means are of channel shape in cross-section, it will be appreciated that the panel means and border means may be otherwise constructed and interrelated in a manner to define unitary panel and border means. For example, the border means of the trim panel components could be of solid construction in cross-section as opposed to having a hollow shaped configuration and, further, the panel portions and border portions could be separately produced and suitably joined

such as by adhesive means or under heat and pressure to define a trim panel of unitary structure ready for installation. Moreover, it will be appreciated that the trim panels may have any outer surface configuration which is desired. For example, the outer surface of the border means might well be defined by flat surfaces extending outwardly from the panel means then laterally of the panel means and thence inwardly towards the underlying vehicle panel, as opposed to having a contour defined by arcuate surface portions between the inner and outer legs thereof.

As many possible embodiments of the present invention may be made and as many possible changes may be made in the embodiments herein described, it is to be distinctly understood that the foregoing descriptive matter is to be interpreted simply as illustrative of the present invention and not as a limitation.

I claim:

1. A trim panel adapted to be mounted on the exterior surface of a vehicle panel, said trim panel comprising unitary panel and border means including panel means having a decorable outer surface and a peripheral edge contoured to correspond generally to the peripheral contour of the vehicle panel and border means extending along at least a portion of said peripheral edge and having a decorable outer surface extending from said portion of said peripheral edge toward said vehicle panel when said trim panel is mounted thereon.

2. The trim panel as defined in claim 1, wherein the material of said unitary panel and border means is a plastic.

3. The trim panel as defined in claim 2, wherein said panel means and said border means are integrally united along said portion of said peripheral edge.

4. The trim panel as defined in claim 1, wherein said panel means is in the form of a sheet of substantially uniform thickness and has a cross-sectional contour corresponding substantially to the contour of the exterior surface of said vehicle.

5. The trim panel as defined in claim 1, wherein said panel means includes an inner surface spaced from said exterior surface of the vehicle panel when said trim panel is mounted thereon.

6. The trim panel as defined in claim 4, wherein said border means includes wall means extending from said portion of said peripheral edge and terminating inwardly of the inner surface of said panel means sheet, whereby said inner surface is spaced from said exterior surface of said vehicle panel.

7. The trim panel as defined in claim 6, wherein the material of said panel means and border means is a plastic.

8. The trim panel as defined in claim 7, wherein said panel means and border means are integrally united along said portion of said peripheral edge.

9. The trim panel as defined in claim 1, and decorative means on said outer surfaces of said panel means and border means providing said trim panel with a wood panel and wood border appearance.

10. The trim panel as defined in claim 6, and decorative means on said panel means and border means providing said trim panel with a wood panel and wood border appearance.

11. The trim panel as defined in claim 8, and decorative means on said outer surfaces of said panel means and border means providing said trim panel with a wood panel and wood border appearance.

12. The trim panel as defined in claim 9, wherein said panel and border means is provided with means to facilitate the mounting of said trim panel.

13. The trim panel as defined in claim 8, wherein said panel and border means is provided with means to facilitate the mounting of said trim panel.

14. The trim panel as defined in claim 10, wherein said border means is provided with means to facilitate the mounting of said trim panel.

15. The trim panel as defined in claim 11 wherein said border means is provided with means to facilitate the mounting of said trim panel.

16. A trim panel adapted to be mounted on an exterior surface of a vehicle panel, said trim panel comprising panel and border means of thermoplastic material having an outer peripheral contour corresponding generally to the peripheral contour of said vehicle panel, said panel and border means including a thin panel portion having a decorable outer surface and a peripheral edge and border means integral with said panel portion and extending along at least a portion of said peripheral edge, said border means having a decorable outer surface convexly contoured with respect to said outer surface of said panel portion.

17. A trim panel as defined in claim 16, wherein said border means is channel shaped in cross-section and includes an inner leg portion integral with said panel portion and an outer leg portion adapted to engage the exterior surface of a vehicle panel when said trim panel is mounted thereon.

18. A trim panel as defined in claim 17, wherein said panel portion has a cross-sectional contour corresponding generally to the contour of the underlying exterior surface of the vehicle panel.

19. A trim panel as defined in claim 18, wherein said outer leg portion of said channel is of a length in the direction of said vehicle panel such that said panel portion is spaced from said underlying external surface of the vehicle panel.

20. A trim panel as defined in claim 16, and means on said decorable surfaces of said panel portion and border means providing said trim panel with a wood panel and wood border appearance.

21. A trim panel as defined in claim 19, and means on said decorable surfaces of said panel portion and border means providing said trim panel with a wood panel and wood border appearance.

22. A trim panel as defined in claim 20, wherein said panel and border means is provided with means to facilitate mounting said trim panel.

23. A trim panel as defined in claim 21, wherein said border means is provided with means to facilitate mounting said trim panel.

References Cited

UNITED STATES PATENTS

2,387,317	10/1945	Cunnington	52—312 X
3,419,458	12/1968	Brooks et al.	161—121
3,436,297	4/1969	Brooks et al.	161—119
3,452,861	7/1969	Erwin	161—413 X
3,458,386	7/1969	Shanok et al.	161—121
3,471,355	10/1969	Truesdell et al.	161—106 X
3,654,062	4/1972	Loew	161—119

FOREIGN PATENTS

1,163,735	9/1969	Great Britain	161—123

WILLIAM A. POWELL, Primary Examiner

U.S. Cl. X.R.

161—48, 54, 118, 119, 413

Document 12 – Page 1

– 158 –

IN THE COURT OF THE CITY CIVIL JUDGE AT

BENGALURU

BETWEEN:

Srinivas S. Devathi **...Plaintiff**

AND:

United States Patent & Trademark Office (USPTO), Hulsey P.C., World Intellectual Property Organization (WIPO), and Intellectual Property India **...Defendants**

FABRICATED PRIOR ART COBB AND PRICE AND OTHER SPECIFIC LEGAL ARGUMENTS

LAW ACCORDING TO PATENT COOPERATION TREATY, A LEGAL AGREEMENT SIGNED BY 153 COUNTRIES.

1. The USA national stage application resulted in a patent grant on 16-12-2014 with a patent # US 8,910,998, issued by defendant 1. The patent is attached as part of Document 6 with this plaint. I would like to bring the attention of the Honorable court to the fact that defendant 1 issued a patent to my priority patent application as there was no prior art which was like my invention. **There was no prior art disclosing the attachment of a thin fluid tight space to the outside of vehicle surface and hence the patent application was issued a grant. My invention was ingenious and there was nothing even remotely close to my invention. Thus, I received the patent grant.**
2. I would draw the attention of the Honorable court to another procedural fact of PCT application process which is attached as part of Document 13 along with this plaint. As per PCT application process, an ISR (International search report) is established around 16th month timeframe from the priority date of 27-3-2014, which would be around end of July 2015. The fabricated date on fabricated ISR of 4-11-2014 is clearly deviating from this procedural standard that could be observed and corroborated across 1000's of past PCT applications. The date of 4-11-2014 is within 7.5 months from priority date of 27-3-2014? Further, is within 4 months of filing the PCT application date 15-7-2014? This is a striking procedural anomaly very clearly indicating the defendant 1 fraud and indicates that the ISR was fabricated and was issued with a fabricated date and fabricated prior art.
3. It is crystal clear to the entire World that this deliberate fraud to block my PCT global rights to my invention was done in the months of April, May, June, July of

2015. These are months that followed March 2015, when I abandoned the Green Card, and was going to live in India with Indian citizenship, thus attracting the full wealth from all PCT countries into India, making India a very wealthy country.

4. I refer the Honorable court to article 11 of Patent cooperation treaty, document 26 attached with this submission, which is titled 'Filing Date and Effects of the International Application'; which clearly states that as of the filing date of the PCT international application which in this case is 15-7-2014; according to the treaty agreed to and bound by 153 countries in the world, it is same as filing 153 national stage applications in all countries that are bound by the Treaty. According to this, the India national stage application is considered filed on 15-7-2014. The other 16 national stage (regional stage) applications are effectively considered filed on the PCT international application filing date which is 15-7-2014. By law, as established by a legal agreement signed by 153 countries, though I have entered India national stage by filing India national stage application on 26-12-2014 which is given an application number 6623/CHE/2014, it is only a logical step of entering national stage in India, while the effective date of India national stage application was already considered filed on 15-7-2014.
5. By the description of law in above paragraph, according to the Treaty, a legal agreement signed by 153 countries, including India, and by virtue of my Indian citizenship (documents 1 and 2 attached with this plaint), Bangalore city civil court has the full applicable jurisdiction to take in this proceeding, and dispose the lawsuit according to law. Bangalore city civil court is my jurisdiction since the date 15-7-2014 when I filed the PCT international application, as India national stage application is considered filed on the same date 15-7-2014 (along with other 16 national stage (regional stage) applications that I entered according to permissible deadlines established by PTO'S bound by PCT Treaty, to enter national stage. My legal submission to the court is that Bangalore city civil court is the right, correct jurisdiction for this lawsuit and this suit is maintainable in Bangalore city civil court to conduct the proceeding and dispose it according to the law; since the cause of action 'wholly' arises in the courts jurisdiction.

93 TRILLION WEALTH COMING TO ME AND INDIA; AND NOT GOING TO USA

6. I once again draw the attention of the Honorable court to the fact that one of the most important factors that made defendant 1 commit this worldwide fraud, **'BREACH OF PATENT COOPERATION TREATY, A TREATY SIGNED BY 153 COUNTRIES'**, is my abandonment of USCIS issued 'Green card' by allowing it to lapse by staying outside USA for over six months (180 days). As inventors earn royalties on inventions, the wealth would by law follow me to the country of my citizenship and permanent residence, which is India. This was

unbearable for the defendant 1 as it would mean a Hindu country India would become the richest by treasury holdings and go well above USA.

7. Such a thing was unacceptable to the Christians, Muslims, NRI-ABCD living in USA, corporations in USA, richest people on Forbes list from USA, and they wanted to block the wealth of 93 Trillion from coming to India, all of which culminated into this fraud committed by defendant 1 at the international stage of PCT application process, by fabricating the prior art of Cobb, Price, Saenger and Hale; and issuing a fabricated ISR with a fabricated date. The motive and greed of stealing this wealth (or denying this wealth) is very clearly visible to the entire world, all 193 countries. And the breach of Patent Cooperation Treaty is visible in a documented way to all the 153 PCT contracting states.

CONSISTENCY OF SEARCH RESULTS IN FEB 2014 AND DEC 2014

8. At this point, I would like to draw the attention of Honorable court to the patent search report issued by defendant 2 dated 25-2-2014 (Document 5 attached with plaint). The report clearly states there was no prior art that is like the disclosed invention and that the patent protection was available. The patent search was done over one week by the lawyers at defendant 2 to search all prior art (patents, publications) and applications, before a conclusive resulting report was issued. They never found Cobb, Price, Saenger, or Hale in their thorough searches, as they did not exist.
9. I also would draw the attention of the Honorable court to my patent grant for USA national territory on my priority patent application issued on date 16-12-2014 with patent number US 8,910,998 (Document 6 attached with this plaint). I request the Honorable court to review the full list of 'Citations' in pages 1 and 2 of my patent grant document and you would observe that there is no mention of Cobb, Price, Saenger, or Hale. This is obvious because the patent was issued as a grant, because Cobb, Price, Saenger, and Hale did not exist. If they existed, this patent would have never been issued as a grant. This patent grant corroborates that there was no existence of prior art Cobb, Price, Saenger or Hale; before 16-12-2014. **That is the very reason for issuing this patent grant.**
10. I draw the attention of Honorable court to the above two points, stating that the search results delivered to me by defendant 2 dated 25-2-2014 and the Patent grant citations dated 16-12-2014 are very consistent and real. They do not have the citations of Cobb, Price, Saenger, or Hale. **This point must be very clearly recorded by the Honorable court.** Additionally, all seven citations discussed in the search report issued by defendant 2 on 25-2-2014 (Spain et al – US 6,551,432, Sawatsky – CA 2,236,759, CN 102671884, GMC – EP 0261815, Ohgane et al – US 7,320,824, Colvin et al – US 5,804,297, and Matsui et al – US 6,030,702); could be found in the listed citations on pages 1 and 2 of the patent number US 8,910,998. This very clearly corroborates that the search results in Feb 2014 given

by defendant 2 and patent citations in Dec 2014 (issued by defendant 1) are fully consistent, true, and real. I request the Honorable court to make a note of this. I would like to point to the Honorable court that in the patent numbers of the seven citations, CA states it is Canadian patent, CN states it is Chinese patent, EP states it is European, and GMC stands for General Motors Corporation.

11. Now I would clearly explain what caused this global fraud. What changed or happened between Dec 16, 2014 and Aug 5, 2015; when I received this shocking fraudulent ISR issued with fabricated prior art and a fabricated date. The event that caused this fraud is the passing of 180 days after I left USA and let my green card be lapsed or abandoned by 20-3-2015. The event that caused this fraud is the abandonment of USA 'permanent residence green card' (and hence USA citizenship prospects) and retention and confirmation of Indian citizenship by me. **The event that caused this global fraud is the rejection / abandonment of Green card (and hence USA citizenship) and thus making it clear to USA that I would bring all the wealth from 153 PCT contracting states into India.**

12. This abandonment of Green card by me meant bringing 93 Trillion wealth (estimated conservative worldwide IP rights sale price) into India, which otherwise would have gone into USA, if I had chosen US citizenship. Losing 93 Trillion wealth to India is a huge loss for USA as a country. Defendant 1 committed the fraud to block this wealth from coming into India, in a deliberate fraud, visible to the entire World.

13. I would like to draw the attention of Honorable court to the above few points, which threaten the 'National security' of India. This fraud by the defendant 1 is a breach of 'Patent cooperation Treaty', its provisions to deliver 'progress & development' to countries via the inventions and discoveries of their citizens. This fraud of the defendant 1 is directly blocking India's wealth and thus the benefits to its 1.32 billion citizens. **This fraud of the defendant 1 is blocking the progress & development of India and 'Hindus living in India' directly.**

14. Further, I would like to point to the Honorable court that the fraud of the defendant 1 is blocking 60 other non-USA countries from adopting my invention / technology and thus drive their own country's economic growth and progress.

15. I would like to explain the defendant 1 and 2 fraud and draw the attention of Honorable court to this fact set. The defendant 2 search results and search report were real and accurate in Feb 2014. There was no prior art like my invention. And further there were no Cobb, Price, Saenger, or Hale at this point; as I had my 'Green Card' active and was using it, indicating to the defendant 1 and USA that I could possibly take up USA citizenship. The priority patent grant issued by defendant 1 - USPTO on 16-12-2014 was also real and accurate. My invention was ingenious and there was no similar prior art. So, defendant 1 very own searches did not cite Cobb, Price, Saenger, or Hale in the citations mentioned in the patent grant pages 1 and 2, which is why it was declared a patent grant. It must be understood by the Honorable court that at this point (16-12-2014); I had

not yet abandoned my 'Green card' thus still indicating to the defendant 1 that I could possibly go on to maintain my Green card and take USA citizenship. Then, contrary to their expectation I abandon the Green card by 20-3-2015 when 180 days ended after I left USA on 19-9-2014. This conclusively communicated to defendant 1 and USA that I would stay in India and attract all wealth into India through my invention. Defendant 1 could not tolerate such huge amounts of wealth coming into India which was otherwise going into USA. In the months of April, May, June and July of 2015, defendant 1 – USPTO created / fabricated the prior art of Cobb, Price, Saenger, and Hale; which were non-existent before (at least until 16-12-2014; in a globally documented way), inserted it into USPTO database and fabricated an 'International Search Report' citing the fabricated prior art, with a fabricated past date of 4-11-2014, with a fabricated deadline to respond to IB (International Bureau) of 4-1-2015 which was ensured to be expired. I would like to draw the attention of Honorable court to the fact that all four prior art citations in the fabricated ISR are local USA applications which clearly indicates the conveniently committed fraud with no interface or point to prove to global other country national PTO databases. I would like to draw the attention of Honorable court to the choosing of the fabricated date in the fabricated ISR, the date of 4-11-2014. The fraudulent defendant 1 was looking for a date which was before 16-12-2014 (when the priority patent grant was issued) and a date that was before the filing date of a USA continuation application that I filed with defendant 1 - USPTO on 7-11-2014. The fabricated date of 4-11-2014 is unmistakably chosen to be few days before the filing date of continuation application # 14/535,867 (filed on 7-11-2014) and the patent grant (US 8,910,998) issue date of 16-12-2014. I attach the filing acknowledgement for the continuation application # 14/535,867 as document 17 with this plaint. Despite their efforts, all their fraud has been caught as all of this occurred after the PCT international application filing date of 15-7-2014, which effectively is same as filing 153 national stage applications in 153 PCT contracting states as of 15-7-2014. Their fraud is 'Breach of Patent cooperation Treaty, a legal agreement agreed to by 153 countries', and jurisdiction prevails in Bangalore city civil court to resolve this global fraud committed by defendant 1 USPTO.

16. I have attached few schematic visuals, timeline drawings for easy understanding of this global fraud committed by defendant 1; as part of document 13 along with this plaint. These visuals enable people all over the World, all PCT contracting states to clearly understand the fraud committed by defendant 1. I have also attached a visual document as part of Document 6, which illustrates the three used silver cars I had bought and owned, and further indicate how and when the invention happened.

Powerful combination key searches used by IPR lawyers and certainly PTO'S.

17. Combination key search is a powerful way to pinpoint search 'prior art' relevant to any invention. When my invention was presented to defendant 2 and they finished their search and confirmed that there is 'absolutely no prior art similar to my invention', they had run through few thousand search results by multiple 'combination key searches relevant to my invention'. For example, you do a combination search on key words 'car' and 'vehicle' and 'color' and 'change'; the results displayed are only for any publication or applications or patent with the presence of all these words. If Cobb or Price existed in Feb 2014, they would have been the first to show up (or at least at the top of the list) in the search results.
18. It is impossible for such powerful combination searches to miss similar prior art if it existed. Thus, corroborating that Cobb and Price did not exist in Feb 2014.
19. The PTO'S go through very rigorous search procedure by using powerful combination key searches as explained above, before granting a patent to an invention. It is impossible for a PTO to miss similar prior art if it existed. USPTO issuing the patent in Dec 2014 was real, as Cobb and Price never existed in Dec 2014.
20. TWICE, not once; Cobb and Price were never found in powerful combination search results; confirms with 100% certainty that Cobb and Price never existed before 5, August 2015 when I was given the fabricated ISR with fabricated prior art, with a fabricated date by defendant 2.
21. This corroborates that Cobb and Price were fabricated using one of the designs I disclose in my patent US 8,910,998 in the months of April, May, June, and July of 2015; after I abandoned my Green card on 20-03-2015.
22. Defendant 1 gives a real outcome on the priority national USA application with a patent grant US 8,910,998; and commits this worldwide fraud, breach of Patent Cooperation Treaty, in the capacity of ISA – International Search Authority (chosen by me), for the PCT international application PCT/US2014/046619 filed on 15-7-2014, with a very intentional, very deliberate, well planned, fabrication of prior art using one of my designs, to deny me an Indian citizen, my inventions protection in 152 non-usa PCT contracting states.
23. Defendant 1 in the capacity of ISA - International Search Authority, did not want the wealth from 152 PCT contracting states to come to me and through me into India, thus making India the richest country in the world, and Hindus living in India a prosperous religion, contrary to their liking.

Fabricated prior art Cobb and Price

24. Trying to get a status on the filed PCT application, I send communication to defendant 2. I draw the attention of the Honorable court to the e-mail communications sent by me to defendant 2 on dates 15-7-2015; 29-7-2015 and

31-7-2015; asking for the PCT application status and 'International Search Report' that was due around that timeframe (generally 16th month from priority date of 27-3-2014, which would be end of July 2015). These communications are attached as part of Document 4 with this plaint. I also request the Honorable court to make a clear note that these dates when reminders were sent by me to defendant 2 were after 20-3-2015, when I had decisively abandoned my Green Card and made it clear to defendant 1 in USA that I shall remain an Indian citizen for the rest of my life which in turn meant that I would bring wealth from my PCT international patent application into India, making India that much wealthier.

25. I receive a response from defendant 2 on 5-8-2015 with an attachment with title 'DEVA001WO_ISR.PDF'. This e-mail communication is attached as part of Document 4 along with the plaint. When I opened the attachment in the e-mail, it gave me the shock of my life, disclosing the global fraud committed by defendant 1.

26. The attachment was a 'International Search Report' (ISR) issued by defendant 1 (the chosen 'International Search Authority' on the PCT application) which was dated 4-11-2014 with a 'Check-box' marked which stated that there was two-month time to file a response to IB (International Bureau) regarding the ISR issued. This ISR is attached as Document 9 with this plaint. As per the date in the report, the two-month window deadline to respond to the PTO was 4-1-2015, which was long gone in the past, as the defendant 2 delivers this report to me (after repeated asking) on 5-8-2015. **The Search report cited four prior art applications of Cobb, Price, Saenger, and Hale which were non-existent before 5-8-2015.** The Honorable court must make a clear note that all these four citations are local USA applications. This prior art was fabricated, deliberately inserted into USPTO database and a fabricated ISR was issued with a fabricated date, in a fraud which is very clearly and globally visible. I would point the Honorable court to the e-mails sent by me to defendant 2 on 5-8-2015 and 7-8-2015 questioning this global fraud; and why an ISR dated 4-11-2014 with a two-month deadline (4-1-2015) to respond was not delivered in the month of Nov 2014 and being sent to me in August 2015. These e-mails are attached as part of Document 4 along with this plaint.

27. I would like to point out to the Honorable court that the fabricated prior art of Cobb (US 7,516,764) and Price (US 5,636,669) have been attached as Document 10 with this plaint. They were accessed by me after receiving the fabricated ISR, via USPTO public pair system by searching on the numbers given. **They are fabricated prior art created by taking one of the designs (shell design) that I disclose in my patent US 8,910,998 (Document 6 attached with plaint).**

28. I would like to point out specific reasons, facts and factors which clearly indicate that the prior art of Cobb and Price were fabricated by defendant 1. Further, they used one of the five designs disclosed by me in my patent application (patent grant US 8,910,998), to fabricate Cobb and Price prior art.

a. I would like to bring the attention of Honorable court to the fact that Automotive Industry is highly evolved with 30 truly large (by revenue) global OEM'S (original equipment manufacturers and in this case automobile manufacturers) and another 15 or more smaller (by revenue) players in the space.

b. The larger OEM'S have bigger allocation of budgets for annual 'Research & Development' spend, and hence large R&D teams to constantly work on introducing new technologies and make their products better, of higher quality / technology, and offer more features to the consumers. Some of the larger OEM'S annual budget allocation is in the range of 0.5 to 2 Billion $ per year. Their R&D team sizes range from 2000 to 5000 people. With such budgets and staffing, they are fully abreast of everything that is happening in the Industry. The R&D team keeps an eye on what other OEM'S are doing, constantly (at least once a month) screen all the new technology patent publications and will never miss a publication pertaining to cars or automobiles. When such is the case, how could have the entire automotive industry miss the publications of Price (that is claimed to have happened 24 years ago) and Cobb (that is claimed to have happened 12 years ago).

c. It is as if the entire automotive industry and in fact the entire World closed their eyes for the last 24 years, because there is no other explanation to how these publications were missed / not considered for purchase / not considered for investments by anyone in the World. The only logical explanation is that they have been fabricated in months of April, May, June, July of 2015, after I abandoned my Green card on 20-3-2015; only as a means to block the global IP rights to my invention. This is the only truth as the logical explanation suggests.

d. Further I would like to draw the attention of Honorable court that automotive OEM'S are very regular with their interactions with patent offices. They regularly screen all technology patent publications, automotive related patent publications and one way of saying it is they will not miss a patent publication that has an image of a car in it. This is standard work for their R&D teams to keep an eye on what other OEM'S are doing, and what new ideas are coming up. The fabricated prior art of Cobb and Price have drawings of car in them. No OEM would have missed screening these publications and certainly not for a prolonged period of 24 years.

e. If Price was indeed published 24 years ago and Cobb 12 years ago, would the OEM'S not have found it on their regular searches? And further, if they had found these two publications, would they have not known that the 'fluid-tight space' could have been created by polymer resin? OEM'S use a lot of polymers in their field. They interact with many suppliers who

are masterbatch builders by integrating polymers and additives, to deliver desired properties.

f. Given this, how come no global OEM'S (automotive manufacturer) found these publications and built on it to take up the full market share. I would like to bring the attention of Honorable court to the fact that large OEM'S when they find a technology, pay out the Inventor and buy the patent (or application) and then top it off with their added technology addition or content and take the invention worldwide to get global coverage. Especially, when you factor in the economic potential of 'Vehicle color change technology', going into Trillions of $ (93 Trillion is the conservative estimate sale price as per my estimate), it is inexplicable as to why no OEM went onto procure a Cobb or Price and capitalize the full market and take up the entire World (all PCT country IP rights) by filing and getting patents.

g. In the case of fabricated prior art Cobb and Price, the fabricated local USA applications, how come a Ford or General Motors or Chrysler did not buy this patent and further add 'polymer resin' to it and go global with IP rights and eat the entire global market share? It seems strange that no global OEM has acted on Cobb or Price and not seem to have made attempts to roll out the color change technology in the last 24 years. This proves that Cobb and Price were fabricated in the months of April, May, June, and July of 2015, after I abandoned my Green Card on March 20, 2015 (180-days after I left USA).

h. I would like to bring the attention of Honorable court to the revenue and income potential of 'Vehicle color change technology' globally. The global rights sale price is at 125 Trillion to 150 Trillion $. Given such potential, can anyone comprehend how the publications of Cobb and Price were not picked up by Ford or GM or Chrysler if they claim these publications really happened in those years. Further, how come no other global (European, Japanese, Korean, or other) OEM found Cobb or Price or acted in the direction of adopting that technology?

i. I would point out that the turmoil, attacks, threats, harassment I was met with since my Invention in Quarter one of 2007 was unbelievable. Entire cities were taken over to target me. Defendant 1 and their allies poured Billions of $ to target me and my work. While such events occurred after my invention was done in Quarter one 2007, Cobb and Price just lose their patents by not paying the patent maintenance fees? No corporation bought their patents. They could not raise loans to pay for the fee, by showing their patent.

j. The above points very clearly prove that Cobb and Price were fabricated to block my inventions global IP rights after I abandoned my Green Card and made it clear that I shall remain an Indian citizen. Cobb and Price

have money to file the patent applications, which is expensive, and after a patent grant do not have the money to pay maintenance fee to maintain the patent grant. It is absurd. If Cobb and Price were real, and had any mechanical engineering background, how could they have not realized the polymer resin solution? Most importantly, if Price was indeed published 24 years ago, how come no OEM picked up the technology, bought it from Price, add the polymer resin to it and go global by filing PCT applications to dominate and take over the entire global IP rights to the technology?

k. It is crystal clear that Cobb and Price were taken from one of my designs (shell design) and fabricated and inserted into the USPTO database, as a means to block my inventions global IP rights.

l. Review of individuals named Kendall Cobb and Kevin Price. Consider the following facts about both the patents which are highly questionable, and they very clearly indicate that they are fabricated. All this information is presented by accessing the fabricated patents of Cobb and Price via public pair system of USPTO.gov website.

    i. Fabricated inventor Kevin Price has filed a fabricated patent application on 11-08-1995, which converts to a fabricated patent grant on 10-06-1997 and given a fabricated patent number 5,636,669. This person (an American citizen) had money to pay an IP attorney to file a patent application, which generally costs anywhere in the range of 10,000 to 12,000 $. However, after the patent is granted, this person does not have 400$ to pay the patent maintenance fee at 3.5 years after patent grant. This in itself is inexplicable. Especially when you realize that the vehicle color change technology is valued in Trillions, this inventor could not maintain a granted patent by paying 400$?

    ii. In USA, inventors, or people in creative space, who file for patents are well integrated with how to take a new idea live. They know and have access to venture capitalists to raise funds. They have access to banks that give loans to new ideas. They have access to multiple other platforms to raise money based on an idea. They could get a loan.

    iii. The fabricated Kevin Price (an American citizen) does not approach venture capitalists in USA, does not take a loan to pay for the maintenance fee when credit availability is abundant (maximum in the World) in USA. Credit cards are given to people across all bands. The fabricated Kevin Price does not think of paying the maintenance fee on a credit card.

    iv. The fabricated Kevin Price who did not have the money to pay for the maintenance fee on granted patent, did not even approach

American OEM'S (Ford, GM, or Chrysler) to sell the patent for whatever offer he could get.

v. No USA technology company and most importantly Ford or GM or Chrysler do not buy out the fabricated Kevin Price.

vi. While patent publications are accessible globally, what about the non-American automotive manufacturers (OEM'S that are European, Japanese, Korean, Russian, Chinese, Indian, or other)? How come none of them found Kevin Price and made an offer to buy his patent out and take it global?

vii. All the points above Mutatis Mutandis to the fabricated Kendall Cobb with fabricated application filed on 26-9-2007 and with fabricated patent 7,516,764. However, this one by date is filed after my invention was done and an entry was made in my laptop. Exact same non-payment of 400$ patent maintenance fee on a patent grant after investing 10,000 or 12,000 $ to file the patent application. Thus, concluding both Kendall Cobb and Kevin Price are fully fabricated and inserted into USPTO database in the months of April, May, June, July of 2015 after I abandoned my Green Card on 20-3-2015, only as a means to block my inventions global IP rights.

viii. The above points explain the global fraud and fabrication conclusively, as nothing about Kendall Cobb and Kevin Price makes sense whether you think of them as inventors, have mechanical engineering background, they invested in filing and procuring a patent, do not pay maintenance fee and let patents expire, do not take loans, do not approach venture capitalists, or sell them to OEM's.

ix. If Price and Cobb were unfabricated in April, May, June, July of 2015, why a Ford, GM, or Chrysler did not buy them out and go global taking over the entire market is also equally inexplicable. I am sure people all over the World, citizens of 61 non-USA countries where I have sought IP rights protection, all OEM'S in the World, all PTO'S in the World will have the exact same questions about Cobb and Price, which have no answers. Thus, conclusively corroborating that Cobb and Price are nothing but fabricated prior art to block my inventions global IP rights.

m. Commercialization of a technology that did not happen in 24 years. No one can explain this fact, as to how there were no attempts of commercializing the technology in 24 years. I bring the attention of Honorable court to the highly competitive automotive sector. Nothing explains the fact that no OEM or venture capitalist (in USA) has made efforts to commercialize the technology. How could this have not

happened, given the economic potential, income potential, revenue related to this invention and technology? Based on all these events, facts, it is crystal clear that Cobb and Price prior art were fabricated in the months of April, May, June, and July of 2015, and further by using one of the designs that I propose in my patent application (patent grant US 8,910,998).

MY REMARKS ABOUT PRIOR ART SAENGER AND HALE REFERRED IN FABRICATED ISR, AND RELATED LEGAL POINTS.

29. Photocopies of documents Saenger and Hale have been attached as document 11 with this submission to the Honorable court. I would like to state what has been legally established by attached documents and my comments in sections above to the Honorable Court.
30. All the documents attached with the plaint with special reference to documents 24, 25 and 26, I have very clearly and legally established the following facts beyond any reasonable doubt:
    a. Defendant 1 fabricated prior art of Cobb and Price (attached as document 10) cited in the fabricated ISR – International search report (attached as document 9).
    b. Defendant 1 issued a fabricated ISR – International Search Report with a fabricated date to my PCT international application PCT/US2014/046619, in a deliberate attempt to block my inventions worldwide IP rights and its related wealth (93 Trillion by a conservative estimate) from coming to me and into India, after I abandoned USCIS (United States Citizenship and Immigration Services) issued 'Green Card' on March 20, 2015 and thus abandoned any of their wishful thoughts of me taking up American citizenship and thus attracting the worldwide wealth from my invention into USA.
    c. Further, the fabricated ISR, attached as document 9, in page 3 indicates the fabricated prior art Cobb marked with 'X' (a document of particular relevance when the document is taken alone). And the fabricated prior art of Price is marked as 'Y' (a document of particular relevance in the form of combination prior art, when taken in combination with fabricated prior art Cobb). The fabricated prior art Price is taken as combination prior art for claims 8, 10, 15, and 19.
    d. The prior art citations of Saenger and Hale in the fabricated ISR issued with a fabricated date are marked as 'Y' - a document of particular relevance in the form of combination prior art, when taken in combination with fabricated prior art Cobb. Hale is used as combination prior art for claims 13, and 14. Saenger is used as combination prior art for claims 4-6, 9, 11, 12, 17, 20-23. In my PCT international application

PCT/US2014/046619 (same as patent grant US 8,910,998), claims 1-15 are system claims and claims 16-23 are method claims.

e. By the documented proof submitted to the court about fabricated prior art Cobb and Price, and my legal arguments in sections above, my system claims 1-23 are novel and have inventive step. This is because the document marked as X – document of particular relevance when taken alone and referring to all claims 1 to 23 is the fabricated prior art Cobb. Once the fabricated prior art Cobb is deleted and eliminated by defendant 1, the combination prior art cited becomes irrelevant.

Legal comments on Saenger and Hale used in combination with Cobb

31. With the above section (points 29, and 30a-30e) taken into consideration, I present the following legal points pertaining to Saenger and Hale to the Honorable court:

    a. When the ISR itself is fabricated and fraudulent, its content must be considered fabricated and fraudulent.

    b. Whether or not Saenger and Hale are fabricated prior art (used in combination with fabricated prior art Cobb in the fabricated ISR) is out of scope for discussion in this present lawsuit. I restate, that the ISR issued by defendant 1 is fabricated and fraudulent, issued with a fabricated date, by fabricating prior art Cobb and Price as explained in this document.

Article 19 amendments window ensured to be lost

32. I additionally point to the Honorable court that patent application and all related documents get published at the 18th month point from the priority date. Procedurally, PCT international application ISR is issued in the 16th month with two-month window to respond (from the 16th month issue date on report), to provide Inventor with a final window to file Article 19 amendments at PCT international application level before the publishing happens at the 18th month point and before Inventor starts entering national stage. This ensures Inventor need not repeat or replicate such changes or amendments in each national application individually which will cost him valuable time and money. When you look at this PCT application processing procedural standard, the fraud committed by defendant 1 is glaringly visible in a documented manner to the entire world.

33. I would like to bring the attention of the Honorable court to the purpose of 'Article 19 amendments'. The PCT (Patent Cooperation Treaty) procedure was built in a way to allow Inventors to make amendments (if the Inventor has to) depending on the 'ISR – International Search Report' at the global PCT application level before the publication at the 18th month point. What this does is to publish the final claims (along with article 19 amendments) which the Inventor wants and that have addressed any ISR citations if there were. By doing article 19 amendments based on an ISR, the Inventor eliminates – avoids the need to make

these corrections or amendments in all the national stage applications in front of each PTO. This reduces the costs involved in global patenting of Inventors IP rights by not having to make amendments in multiple national applications. Making amendments in so many national stage applications for a technology which is globally enforceable would be so much of a cost and time overrun. Inventor must put in so much more time and money to make amendments at national stage. In the context of my invention, since defendant 1 delivered a fabricated report months after the fabricated report date 4-11-2014 and the response filing expiration date 4-1-2015; they deliberately ensured the window for article 19 amendments was fully lost or expired. And the fabricated ISR with fabricated prior art resulted in repeat 'pending-reject' office actions for me on all the national stage applications which became very expensive for me to keep these applications active and unabandoned. These national stage application office actions and costs of filing responses to them, became unsustainable despite my loans and caused me to lose most of the national stage applications. This is clearly defendant 1 liability to pay for my losses.

34. I request the Honorable court to question and challenge the defendant 1 with the following questions. By law which IP law firms are bound by, why was an ISR dated 4-11-2014; not delivered to me within two weeks from that date, as there was a response deadline of two months from that date, which was 4-1-2015? The answer to this question is that defendant 2 did not receive the fabricated ISR on 4-11-2014 as it was fabricated months later after I abandoned my Green card on 20-3-2015.

35. I request the Honorable court to question and challenge defendant 2, why the ISR was not delivered on time, when they like any other IP lawyers use a docketing system that keeps track of all communications, exchanges, deadlines, and timelines. **While defendant 2 like any other IP law firm used a docketing system that alerts them on all key dates, upcoming deadlines and ensures assured delivery of communications from PTO; in which case how could they have not delivered a report which by law should have been delivered in days that followed 4-11-2014. The truth is Defendant 2 never received the report on 4-11-2014 and they got it just before 5-8-2015.**

USA Continuation application to priority application. A defendant 1 - USPTO only practice.

36. As it pertains to the USPTO continuation application # 14/535,867, I filed an IDS – Information Disclosure Statement on this continuation application communicating the global fraud committed by defendant 1, and by disclosing the fabricated prior art. In effect this continuation application has only drained my wealth by office actions and responses for the last 6 years. The very first office action issued on this continuation application is linked to this global fraud committed by defendant 1. All the interaction on this continuation application has

been and is futile (waste of time and money), until the source global fraud committed by defendants is eliminated. All the communications on this continuation application are accessible on Public Pair system of USPTO.gov website, by searching on the application number and clicking on the image file wrapper tab. People all over the World will observe that USPTO has made relentless efforts to issue illogical office actions in an attempt to make me abandon this continuation application. The legal framework drafted by USPTO (which could be edited and modified in any which way they want for their benefit) linking a priority application to continuation application is known only to them and unknown to the rest of the World. Given this reason, I made all efforts to keep this continuation application active and unabandoned through these past 6 years.

37. On the continuation application 14/535,867; despite my repeat communications to 'Suspend examination of the application', defendant 1 goes onto issue an 'office action in error' on 20-3-2020. And further go on to mark the continuation application to abandoned status.
38. **Now the onus is on defendant 1 – USPTO to eliminate this global fraud in response to this suit.**

Valuation of defendant 1 fraud and breach of PCT, the treaty. Range of estimates for the sale price of global IP rights to my invention of US 8,910,998. Other countries might come in different range of estimates for the sale price. I have chosen conservative sale price.

39. A table giving my chosen sale price to the global IP rights to my invention US 8,910,998, and four other ranges into which different estimation techniques, different approaches used, by analysts and teams from different countries might come is given here. I want to bring the attention of the Honorable court to the reason behind my choosing of conservative sale price as my final liability claim. I Srinivas S. Devathi, the Inventor am claiming a conservative sale price value of 93 Trillion Earthlings / $s for my invention's global IP rights (covering 62 countries / 18 PTO jurisdictions). This paragraph is analysis of this sale value. The invention US 8,910,998, factoring in the global economic activity created in terms of new products, new services, and new list of supply chain businesses that it creates; and adding the individual sector growth across the world, and inflation caused by economic growth and resulting currency depreciation across the World, create economic activity of 2000 to 2500 Trillion over the next 100-year period. At 10%, this would mean I could claim 200 Trillion or 250 Trillion wealth in 2020 currency terms. However, I have taken very low inflation numbers, very low sector growth rates, taken the worst-case scenario over the next 100 years and set a very reasonable and conservative claim of only 93 Trillion. The realistic claim in itself could easily be anywhere between 125 to 150 Trillion. I and India can

easily justify a claim of 125 or 150 Trillion. However, in order to demonstrate that I and India are being very reasonable, very realistic, and very responsible; I have chosen a conservative claim of 93 Trillion only. Percentage claim analysis: I am claiming only a 10% at 93 Trillion as the global IP rights sale price, as a single buy-out / sale price of the invention across all 62 countries where I have sought protection including USA. At 12%, the global valuation (buy-out / sale price) will be at 111.6 Trillion; and at 15%, the global valuation (buy-out / sale price) will be at 139.5 Trillion. In many prior inventions, Inventors have sought 12% or even 15% as their earnings off the invention, hence those numbers are also listed. However, finally I have chosen to claim 93 Trillion as final sale price, so that no country should have a problem or concern with the global sale value proposed by me and India. So, by this explanation, strategy, and approach of choosing conservative sale price, I would get the acceptance and support of all 192 countries to the proposed conservative sale price, if their opinion were to be considered at United Nations for any reason at all. The explanation in this paragraph will get all 192 countries on board with their approval to 93 Trillion liability claim number. It must be understood by all the world countries and the Honorable court that I could numerically justify a claim up to 150 Trillion for my global IP rights sale price.

Expression of the range	**10% of the 100-year projected economic activity of my invention US 8,910,998 across 62 countries. In Earthlings / $**
Conservative	93 Trillion
Conservative-Realistic	>93 Trillion up to 125 Trillion. I considered 110 Trillion as a final claim in this range.
Realistic	125 Trillion – 150 Trillion. Numerically, I can justify up to 150 Trillion.
Aggressive	150 Trillion – 250 Trillion
Exaggerated	250 Trillion – 300 Trillion

Bengaluru

Date: 8/4/2021

Plaintiff

(Party in Person)

Illustration of USPTO fraud

29 December 2020

Visit www.Srinivasdevathi.com

Elimination of USPTO fraud

In response to documented proof and evidence, legal steps will be taken by USPTO to eliminate their fraud (committed in the capacity of ISA) which includes withdrawal of 'fabricated ISR issued with a fabricated date, and further deletion of the fabricated prior art of Cobb, Price, Saengar, and Hale from USPTO database', thus enabling the 17 national stage (or regional stage) applications to be restored or granted as patents.

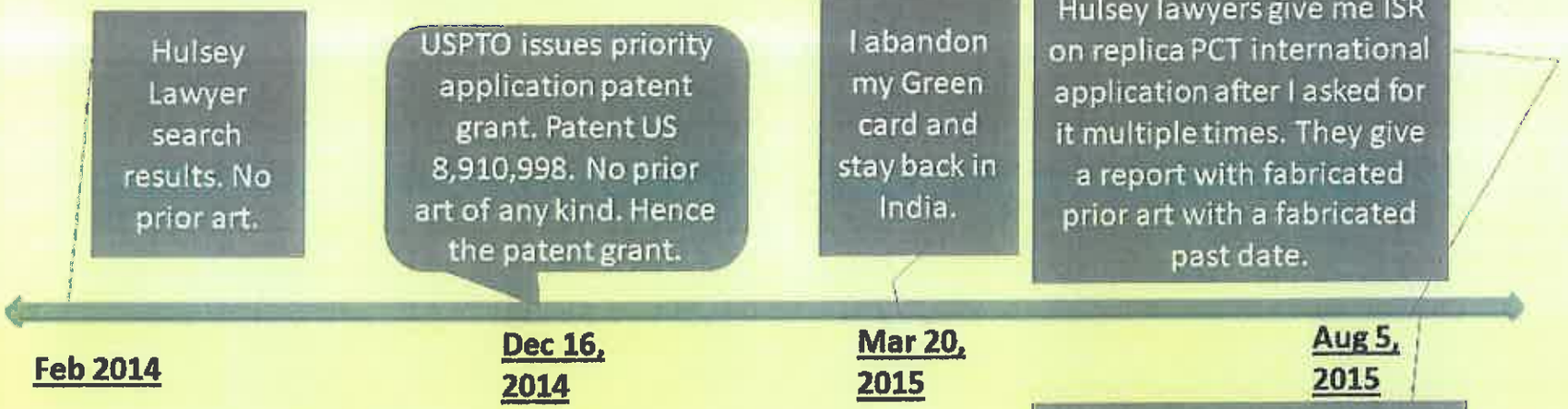
Either the restored application or patent grant will be sold – assigned to each of the 62 countries via 62 sale agreements, as described in detail in document 29 attached with this suit.

25 March 2021

Visit www.Srinivasdevathi.com

-51-

Simple view of the USPTO global fraud.



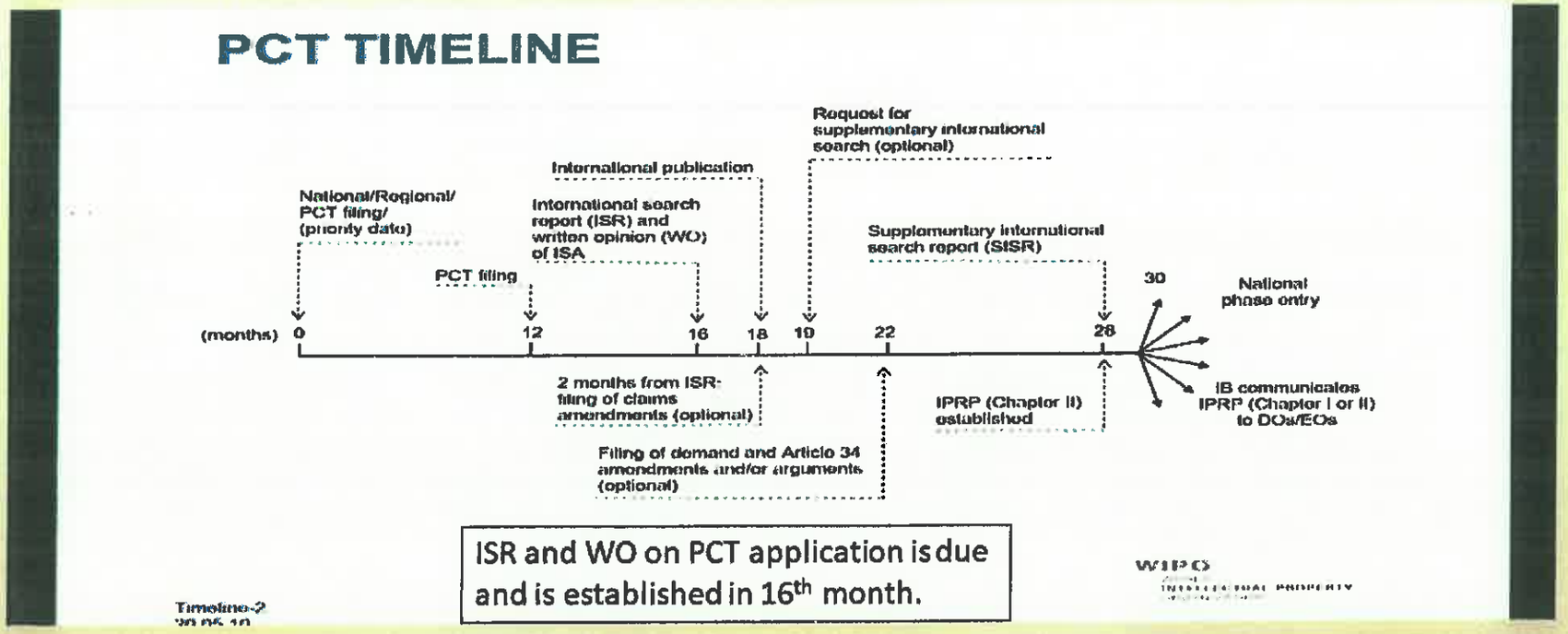
The abandonment of Green card and hence USA citizenship was the turning point that drove USPTO to commit this global fraud in the capacity of ISA. They did not want the wealth from the PCT contracting states to come into India, as I conclusively communicated to them that I would remain an Indian citizen.

The fabricated report issued by USPTO had fabricated date of Nov 4, 2014 with a 2-month window to respond back to IB, which was Jan 4, 2015. Long gone in past as I received it on Aug 5, 2015.

25 March 2021

Timeline of USPTO global fraud

View of PCT application process – Indicates USPTO global fraud.



ISR and WO on PCT application is due and is established in 16th month.

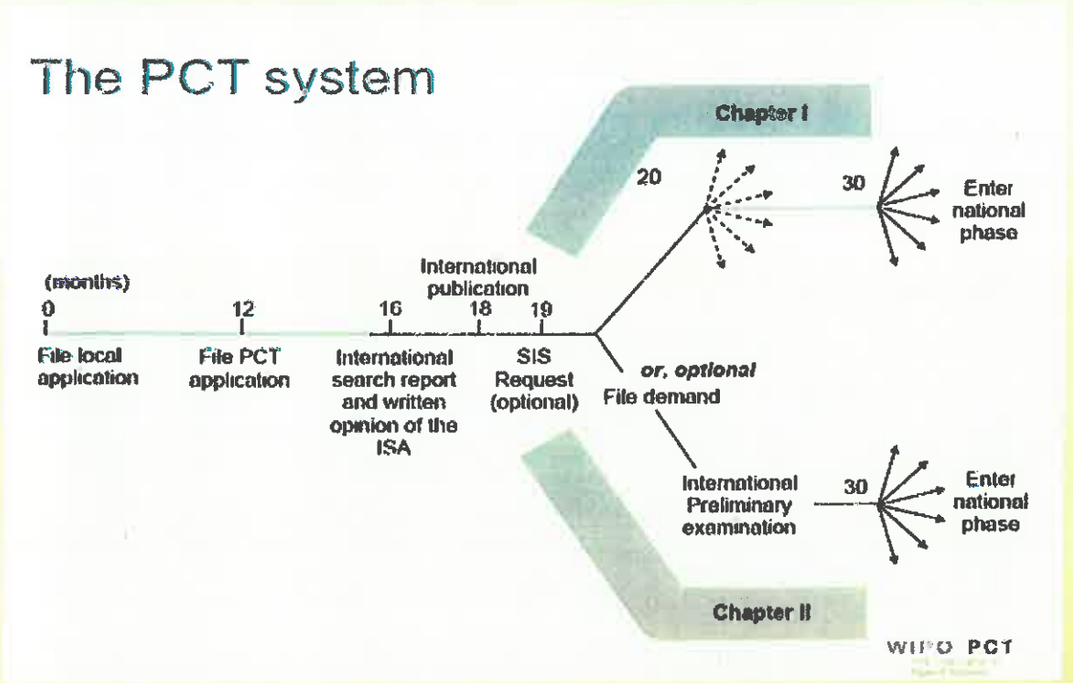
Timeline-2

9 June 2020

PCT Application Process as defined by WIPO

Enabling colorful times

View of PCT application process. PCT – Patent Cooperation Treaty signed by over 150 countries.



- The Patent Cooperation Treaty is signed by over 150 countries in the World.
- India also signed the PCT in the 1990's.
- By virtue of the treaty, an inventor from any of the PCT contracting states (any of the 150 countries which signed the Treaty), is entitled to seek and obtain his invention patent rights and protection across all the PCT contracting states.
- USPTO has no respect to PCT the treaty.
- **<u>USPTO has attempted to breach the global treaty, PCT.</u>**

-178-

9 June 2020

PCT Application Process as defined by WIPO

Enabling colorful times

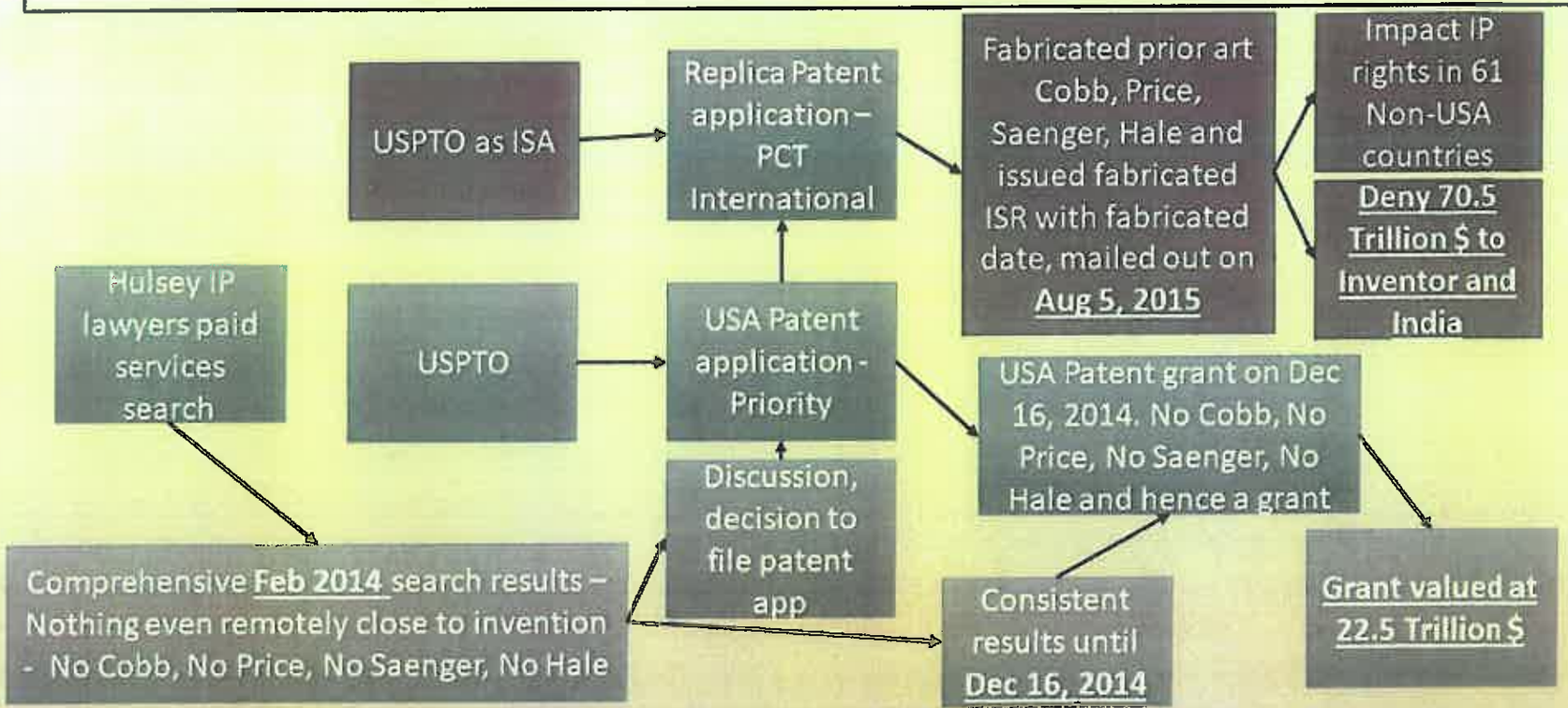
Fact sheet – Timeline of USPTO fraud

DATE	ACTIVITY / COMMENTS
Feb 17, 2014	D2 states Search fee price as $1,000
Feb 18, 2014	Inventor pays the fees by check
Feb 26, 2014	D2 provides search report and closest prior art – 7 citations (No Cobb, No Price, No Saenger, No Hale as they did not exist). Convinced that there is no prior art; Inventor filed the application
Mar 27, 2014	USA Priority application is filed with USPTO
July 15, 2014	D2 files PCT international application (exact replica of USA priority app); with USPTO as RO and ISA. D2 is obligated to report communications from PTO within a week to 10 days, by law.
Dec 16, 2014	USPTO priority patent grant. Patent references include 7 citations mentioned in D2 search report. Search results correct / consistent. (No Cobb, No Price, No Saenger, No Hale in Patent citations, as they did not exist).
March 20, 2015	Inventor abandons 'USA Green Card', thus communicating he would live in India for the rest of his life. They did not want the wealth from PCT countries to come to INDIA. That's when they decided to commit the global fraud in capacity of ISA, to target PCT international application by fabricating prior art and issuing a fabricated ISR with a fabricated date.
July 15, 29, 31; 2015	Inventor sends reminders asking for ISR on PCT international application, as it was procedurally due in 16th month.
Aug 5, 2015	D2 mails fabricated ISR with Nov 4, 2014 date; with a 2-month deadline (long gone in the past) to respond back.
Aug 5, 7; 2015	Inventor questions the foul play of D2 asking why the ISR was not delivered in Nov 2014?
TRUTH	Report was in reality created in Apr/May/June/July of 2015, after Inventor abandoned his Green card. Further, fabricating the prior art Cobb, Price, Saenger, and Hale needed some time. Thus USPTO issues the fabricated ISR.

25 March 2021

Timeline of USPTO global fraud

View of USPTO fraud pertaining to 'Vehicle Color change technology invention'.



25 March 2021

Visual sequence diagram showing USPTO global fraud

Document 13 - Page 7

Name of the invention: Systems and methods for altering the color, appearance, or feel of a vehicle surface.				
Inventor to Vehicle Color Change Technology: Srinivas S. DEVATHI			**Citizenship: INDIAN**	
Priority application #	14/227,859	Filed with a USA rented virtual office address. Regus paid correspondence address. 111, Congress Ave, Suite 400, Austin, TX - 78701, USA.		**Other Sector PCT Applications**
Filing date	27th March 2014			App # PCT/IB2016/050993
Patent grant #	**8,910,998**			App # PCT/IB2016/050994
Grant date	**16th December 2014**			App # PCT/IB2016/050995
USPTO Continuation app #	14/535,867			All Three applications
Continuation app filing date	7th November 2014			Filed on 24th February 2016
				With Inventor's India
PCT app #	**PCT/US2014/046619**			permanent residential address.
PCT app filing date	**15th July 2014**			**With International Bureau**
Chosen ISA / RO	**USPTO**			**as Receiving Office. Indian PTO as ISA.**

National stage applications				
Country	**Application #**	**Filing date**	**Status**	**LOST/GRANT date**
New Zealand	725679	October 27, 2016	LOST	May 24, 2018
Eurasia (8 Countries)	201691898	October 20, 2016	LOST	November 21, 2018
Korea	10-2016-7026408	September 23, 2016	LOST	February 18, 2019
Japan	100099759 2017502572	September 26, 2016	LOST	March 13, 2019
Australia	2014388300	October 27, 2016	LOST	March 28, 2019
Brazil	BR 11 2016 022393 4	September 27, 2016	LOST	April 15, 2019
South Africa	2016/07380	October 26,2016	LOST	Grant on March 28, 2018 and Lost on July 15, 2019
Canada	2,944,200	September 27, 2016	LOST	July 15, 2019
China	201480079105.9	November 18, 2016	LOST	July 28, 2019
Europe (38 Countries)	14886695.7 2014886695	October 27, 2016	LOST	July 31, 2019
India	6623/CHE/2014	December 26 2014	LOST	Sep 14, 2019
Philippines	PH/1/2016/5022134	October 26,2016	LOST	Oct 21, 2019
Malaysia	PL 2016703531	September 27, 2016	LOST	Jan 23, 2020
Indonesia	P00201607230	October 25, 2016	LOST	Mar 28, 2020
Mexico	MX/A/2016/012570	September 27, 2016	LOST	Jan 8, 2021
Thailand	1601005662	September 26, 2016	ACTIVE	My response due Sep 20,2022
Nigeria	F/P/2016/328	September 26, 2016	GRANT	September 26, 2016
The other 91 PCT countries	PCT/US2014/046619	July 15, 2014	ABANDONED	On the respective national stage entry date deadlines

In summary, it is full liability claim from the defendants in USA.
A PCT international application when filed will have the same effect as filing applications in all the PCT contracting states on the same day of filing the PCT international application. In the countries where you do not enter the national stage within the national stage filing deadline, it is considered abandoned on the deadline for filing date.

This is the current status of all the national and regional stage applications that I filed by using my PCT international application. I filed a total of 17 applications covering 61 non-usa countries. EPO application provides coverage to 38 countries. EAPO application provides coverage to 8 countries.

Because of the uspto (defendant 1) fraud, the costs of repeat office actions became unsustainable causing loss of applications and causing liability. Uspto is liable for loss of full value by conservative estimate, 93 trillion Earthlings / $.

Australian Government
IP Australia

Delivering a world leading IP system

Phone: 1300 651 010
International: +61 2 6283 2999

www.ipaustralia.gov.au

ABN: 38 113 072 755

20 December 2016

Direction to request examination for patent application

Phillips Ormonde Fitzpatrick
PO Box 323
Collins Street West VIC 8007
Australia

Application number	2014388300
Applicant name	Srinivas S. Devathi

Request examination by: 20 February 2017.

Dear Phillips Ormonde Fitzpatrick,

Under the provisions of *section 44(2) of the Patents Act 1990* I direct the above named applicant to request examination of this patent application.

I have issued this direction because either progress has been made in the examination of applications filed before the filing date of this application or it is in the public interest. Please note that examination must be requested before **20 February 2017** or this application will lapse.

A request for examination must include the required statement of the applicant(s) entitlement to the grant of the patent and to claim priority from any application(s) listed in the patent request, or in an applicable declaration under *Article 8 of the PCT*. If a request is incomplete it will be deemed not filed. In that case, the application will lapse unless a new examination request is filed before **20 February 2017**.

You can file an examination request using online services.

Details of this patent application can be viewed on AusPat, our Australian patent search database.

Yours sincerely,

Commissioner of Patents

Australian Government
IP Australia

Delivering a world leading IP system

Phone: 1300 651 010
International: +61 2 6283 2999

www.ipaustralia.gov.au

ABN: 38 113 072 755

10 April 2019

Standard patent application has lapsed

Phillips Ormonde Fitzpatrick
PO Box 323
Collins Street West VIC 8007
Australia

Your reference	1071813
Application number	2014388300
Applicant name	Srinivas S. Devathi

Dear Phillips Ormonde Fitzpatrick,

This application has lapsed because the application failed to gain acceptance by 28 March 2019.

Under certain circumstances, you may be able to reinstate this patent application by applying for an extension of time (see *section 223 of the Patents Act 1990*).

Details of this patent application can be viewed on AusPat, our Australian patent search database.

Yours sincerely,

IP Australia

INPI INSTITUTO NACIONAL DA PROPRIEDADE INDUSTRIAL

27/09/2016 870160055020 16:56

00.000.2.2.16.0769352.0

Pedido nacional de Invenção, Modelo de Utilidade, Certificado de Adição de Invenção e entrada na fase nacional do PCT

Número do Processo: BR 11 2016 022393 4

Dados do Depositante (71)

Depositante 1 de 1

Nome ou Razão Social: Srinivas S. DEVATHI

Tipo de Pessoa: Pessoa Fisica

CPF/CNPJ: US0016190262

Nacionalidade: Indiana

Qualificação Física: Outras ocupações não especificadas anteriormente

Endereço: 111 Congress Ave. Suite 400 Austin, TX 78701

Cidade:

Estado:

CEP:

País: Estados Unidos da América

Telefone:

Fax:

Email: mail@dnlegal.com.br