

JUDGE GARDEPHE

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

12 CIV 8630

DIGITAL UNDERGROUND MEDIA, INC.
and DIGITAL UNDERGROUND MEDIA
NYC,

Plaintiffs,

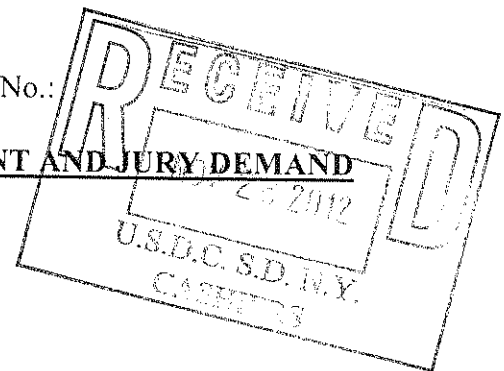
v.

SPECTRUM MOTION MEDIA LTD. and
SPECTRUM MOTION MEDIA NYC INC.,

Defendants.

Civil Action No.:

COMPLAINT AND JURY DEMAND



Plaintiffs Digital Underground Media, Inc. and Digital Underground Media NYC (collectively, "Digital"), by and through its undersigned attorneys, Gibbons P.C., hereby complain of Defendants Spectrum Motion Media Ltd. ("Spectrum") and Spectrum Motion Media NYC Inc. ("Spectrum NYC") (collectively, "Spectrum Defendants") as follows:

NATURE OF THE ACTION

1. This is an action for, *inter alia*, a declaratory judgment under 28 U.S.C. §§ 2201-2202 of non-infringement, invalidity and unenforceability of United States Patent No. 6,169,368 (the "'368 Patent"). Digital seeks a declaration that: (a) its LED in-tunnel advertising systems ("LED Systems"), and Digital's customers' use of its LED Systems, do not infringe the '368 Patent, either directly or indirectly; (b) that the '368 Patent is invalid based on prior art; and (c) the '368 Patent is unenforceable because of the Spectrum Defendants' misuse of its patent in improperly attempting to monopolize the in-tunnel advertising market. A true and correct copy of the '368 Patent, including the Certificate of Correction canceling and adding claims, is attached as Exhibit A hereto.

2. This is also an action for unfair competition and false advertising under the Lanham Act, 15 U.S.C. § 1125, as well as tortious interference with prospective economic relations, unfair competition, and deceptive acts and false advertising all under the laws of the State of New York.

JURISDICTION AND VENUE

3. This Court has exclusive original jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1338(a), 1367 and 2201-2202.

4. This Court has personal jurisdiction over Spectrum by virtue of it maintaining an office in New York City, New York, through Spectrum NYC which on information and belief serves primarily to act as an agent of Spectrum; to distribute and facilitate the sales and promotion of Spectrum products in the United States and within this District; and to solicit buyers of these products. Spectrum NYC has the same name as Spectrum, and Spectrum even itself refers to the New York office as Spectrum's office as shown below.

Spectrum Motion Media has opened a new office in New York to spear head their drive into the US advertising market. The new office is located in the iconic Chrysler Building where the company will focus on the roll out of MYRIAD, its world leading in-tunnel advertising system. The US is the largest advertising market in the world and central to Spectrum's growth strategy. Spectrum aims to unlock premium advertising space and provide unique out-of-home advertising opportunities across North America's major city metro networks. Spectrum's lead product MYRIAD is the world's most advanced in-tunnel advertising system providing stunning digital out-of-home viewing experiences that entertain and inform rail passengers.

*

*

*

Spectrum Motion Media launches stateside office in New York . . .

Exhibits B and C (emphasis added).

5. On information and belief, Spectrum has engaged in a continuous and systematic course of business in New York under New York Civil Practice Law and Rules (or “CPLR”) § 301 (general jurisdiction) and/or CPLR § 302 (specific or long-arm jurisdiction).

6. This Court has personal jurisdiction over Spectrum NYC by virtue of it maintaining an office at the Chrysler Building, 405 Lexington Avenue, New York, New York, 10174 (which is also the same location where process can be served) and conducting and soliciting business in New York as discussed above. A true and copy of New York State Department of State document showing Spectrum NYC’s registration in New York is attached as Exhibit D.

7. On information and belief, the Spectrum Defendants employ individuals in New York.

8. On information and belief, the Spectrum Defendants are required to pay taxes in New York.

9. On information and belief, the Spectrum Defendants maintain bank accounts in New York.

10. On information and belief, Spectrum Motion Media NYC Inc. is an alter ego of Spectrum Motion Media Ltd. as Spectrum Motion Media Ltd. has complete dominion and control over Spectrum Motion Media NYC Inc. As exemplary evidence, the entities have identical names and, upon information and belief, commonality between the management, directors and officers of the two entities (e.g., Steven Dunford). As such, upholding the corporate entity of Spectrum Motion Media NYC Inc. and allowing Spectrum Motion Media Ltd. to escape liability for its actions in the United States and this District would sanction a fraud or promote an injustice.

11. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391 (b) and (c) and 28 U.S.C. § 1400(b) because a substantial part of the events giving rise to the claims alleged herein occurred in this judicial district (as discussed further below) and because the Spectrum Defendants maintain an office and conduct business their activities in this judicial district.

THE PARTIES

12. Digital Underground Media, Inc. is a company organized under the laws of the province of Ontario, Canada with its principal place of business located in 780 South Drive, Winnipeg, Manitoba, Canada.

13. Digital Underground Media NYC is joint venture entity, not formally organized under any state law, which was originally created by way of a contractual relationship between Digital Underground Media, Inc. and Show Media Promotions LLC., a non-party. Show Media Promotions LLC has since assigned all of its rights and interests in the joint venture to Digital Underground Media, Inc.

14. On information and belief, Spectrum is a United Kingdom entity with its principal place of business located at 1 Kingdom Street, Paddington Central, London, United Kingdom W2 6PY. Upon information and belief, Spectrum advertises and purports to offer in-tunnel advertising systems competitive with Digital's LED Systems.

15. Spectrum NYC is a New York entity with its principal place of business located at Chrysler Building, 405 Lexington Avenue, New York, New York, 10174. On information and belief, Spectrum NYC advertises and purports to offer defendant Spectrum's competitive LED Systems.

FACTUAL BACKGROUND

A. Digital's LED In-Tunnel Advertising Systems

16. Digital installs and operates leading LED Systems, systems consisting of digitally-connected light emitting diodes.

17. Digital's LED Systems are designed to be placed in tunnels to display motion picture quality advertisements to passengers traveling on underground trains.

18. Digital markets its LED Systems to metro and mass transit system operators worldwide, providing these operators and others with substantial advertising royalty opportunities and, of course, revenue opportunities to Digital.

B. Spectrum Defendants' Advertising Systems

19. On information and belief, the Spectrum Defendants purport to offer advertising display systems in the form of taxi displays, motorsport displays and in-tunnel displays to metro systems.

20. The Spectrum Defendants also claim to provide advanced LED in-tunnel advertising display systems for entertaining rail passengers. Thus, at least theoretically, Digital and the Spectrum Defendants are competitors.

C. The Spectrum Defendants' Repeated Disruption Of Digital's Business

21. Digital has invested significant time, effort and financial resources in its development and marketing of its LED Systems.

22. In an effort to unfairly compete with Digital, the Spectrum Defendants have repeatedly disrupted, and continue to disrupt, Digital's business and prospective business opportunities by contacting Digital and its customers, threatening that Spectrum has exclusive rights to in-tunnel advertising systems by virtue of its intellectual property (e.g., the '368 Patent),

and threatening to commence litigation against Digital and/or its customers if they were to install or use any LED Systems except through the Spectrum Defendants.

1. Interference With Digital's Business - The London Heathrow Express

23. In 2006, the British Airport Authority ("BAA") (aka Heathrow Operating Company Limited and Heathrow Airport Limited) (collectively, the "HEX") signed an exclusive agreement with non-party entities to install and operate LED in-tunnel advertising.

24. The non-party entities installed and operated the System at HEX for approximately two years before their operations ceased, the operation of which generated £50,000 per four (4) week cycle of booked advertisements.

25. In 2011, Digital acquired the technology rights and ownership of the hardware relating to the LED System at HEX, a system which was fully operational and capable of immediately generating advertising revenue.

26. Shortly after Digital acquired the rights to the LED System at HEX and approached HEX about operating the LED System, Spectrum sent Digital a letter threatening that Spectrum would sue Digital if it persisted in its efforts to operate an LED System at HEX, claiming that Spectrum had exclusive patent rights to install and operate such a system.

27. Thereafter, HEX advised Digital that it would not issue any contract with Digital until the patent threats raised by Spectrum were resolved.

28. Worse, HEX later informed Digital that it had decided not to do business with Digital but, instead, that HEX had decided to move forward with Spectrum as a result of its patent threats.

29. To date, nearly two and a half years later, Spectrum has still not operated an LED System at HEX.

30. Digital has since contacted HEX again and offered to power up and operate the installed and fully functional LED System and provide sales support at no cost for two years, with all advertising revenue being retained by HEX. To date, HEX has not responded.

31. On information and belief, HEX has decided not to do business with Digital because Spectrum continues to wave and threaten to use its purported “exclusive” patent rights to block Digital’s business initiatives for LED Systems.

2. Interference With Digital’s Business - The New York Metropolitan Transportation Authority

32. The New York Metropolitan Transportation Authority (“NYC MTA”) has requested business proposals to install LED advertising display systems in train tunnels operated by the MTA (“MTA Request”).

33. The NYC MTA was the first major metro globally to issue a request for proposal for an LED in-tunnel advertising system.

34. Amongst metro systems, the NYC MTA is the global leader in advertising development.

35. In response to the NYC MTA Request, Digital prepared and submitted to the NYC MTA a comprehensive proposal (and required deposit) to have Digital’s LED Systems installed and used by the NYC MTA.

36. Following Digital’s submission of its proposal, the NYC MTA advised Digital that Spectrum and/or Spectrum NYC had advised the NYC MTA that Spectrum has exclusive patent rights to LED Systems in the United States.

37. Consequently, the NYC MTA has advised Digital that the NYC MTA cannot (and will not) select Digital’s LED System until Digital resolves Spectrum’s patent threats or reexamination of Spectrum’s patent is decided.

38. The NYC MTA's selection of Digital would represent a significant source of revenue for Digital, particularly given the size of NYC MTA system and value of the New York City advertising market.

39. On information and belief, Digital is the sole remaining candidate being considered by the NYC MTA for its LED System. The NYC MTA has returned the deposits of all other entities that submitted responses to the request for proposal, including the Spectrum Defendants.

40. Absent a resolution of this dispute, the NYC MTA will not proceed with its consideration of Digital's proposal. Further, absent a resolution of this dispute, the NYC MTA may decide to abandon its plans for in-tunnel advertising.

41. The Spectrum Defendants' repeated disruptive allegations, misrepresentations and threats to Digital and the NYC MTA have caused in Digital a reasonable apprehension that Spectrum and/or Spectrum NYC will institute litigation against Digital and/or its prospective customers alleging, *inter alia*, infringement of the '368 Patent.

42. As late as July 2012, the Spectrum Defendants have claimed "exclusive" patent rights to LED Systems.

43. The Spectrum Defendants' constant and disrupting allegations, misrepresentations and threats, to Digital and its potential customers, have resulted in lost business opportunities, impeded Digital's ability to raise capital, interfered with Digital's business interests and opportunities, and caused it great financial harm.

3. Interference With Digital's Business – Other Metro Systems

44. On information and belief, Spectrum's actions have also interfered with and prevented Digital from conducting business relating to its LED Systems with metro systems in U.S. cities other than New York, including Los Angeles, Chicago and Washington D.C.

45. On information and belief, Spectrum has contacted representatives of metro systems other than NYC MTA and HEX, including in Los Angeles, Washington D.C. and Chicago, making the same false representations that, by virtue of its '368 Patent, Spectrum owns the "exclusive" rights to LED Systems, and threatened to assert its patents against anyone who installs or operates such systems.

E. Spectrum's '368 Patent and Its Reexamination

46. On January 2, 2001, the United States Patent and Trademark Office ("USPTO") issued the '368 Patent, which is entitled "Visual Information Systems", over only one U.S. Patent and three foreign patents.

47. On November 12, 2002, the USPTO issued a Certificate Correction relating to the '368 patent in which claims 1-15 were cancelled entirely and new claims 1-15 were added.

48. On information and belief, the application that eventually matured into the '368 Patent is listed at the USPTO assignment website as allegedly being assigned to Spectrum through an assignment dated August 2, 2010.

49. On January 11, 2012, a request for reexamination was filed by Ade & Company Inc. alleging that the '368 Patent and specifically claims 1 through and including 11 were invalid over U.S. Patent Nos. 5,202,675 (to Tokimoto *et al.*), 4,470,044 (to Bell), 5,302,965 (to Belcher *et al.*), 5,133,081 (to Mayo), 5,108,171 (to Spaulding), 3,932,746 (to Swanson), and 4,726,388 (to Swinehart *et al.*) as well as EP Application No. 0156544 (to Lock *et al.*). This reexamination

was assigned number 90/012089. A true and correct copy of the filed reexamination request is attached as Exhibit E.

50. On February 28, 2012, the USPTO granted the reexamination request and found that a substantial new question of patentability exists for all claims of the '368 Patent as shown below.

- *Claims 1, 3, 4 and 7-11 in view of Tokimoto;*
- *Claim 1 in view of Bell and Lock;*
- *Claim 1 in view of Bell and Belcher;*
- *Claim 2 in view of Tokimoto and Mayo;*
- *Claim 5 in view of Tokimoto and Spaulding; and*
- *Claim 6 in view of Tokimoto, Spaulding, Swanson, and Swinehart.*

51. Specifically, for each of the above, the Examiner found that “there is a substantial likelihood that a reasonable examiner would consider the teachings of . . . [reference(s) listed above] important in deciding whether the claims of the '368 patent are patentable” (emphasis added). A true and correct copy of the granted reexamination request is attached as Exhibit F.

52. On July 2, 2012, the USPTO issued an office action rejecting claims 1-11 of the '368 Patent on four (4) different grounds.

- *Ground 1:* Claims 1, 3/1 [claim 3 depends on claim 1 or 2], 4, and 7-11 were rejected under 35 U.S.C. § 103(a) as unpatentable based on Tokimoto and Belcher;
- *Ground 2:* Claims 2 and 3/2 were rejected under 35 U.S.C. § 103(a) as unpatentable based on Tokimoto, Belcher, and Mayo;
- *Ground 3:* Claim 5 was rejected under 35 U.S.C. § 103(a) as unpatentable based on Tokimoto, Belcher, and Spaulding; and
- *Ground 4:* Claim 6 was rejected under 35 U.S.C. § 103(a) as unpatentable based on Tokimoto, Belcher, and Swanson.

A true and correct copy of the office action rejecting claims 1-11 is attached as Exhibit G.

53. On September 3, 2012, an office action response was filed. A true and correct copy of it is attached as Exhibit H.

54. To date, the '368 Patent remains under reexamination by the USPTO.

COUNT I
ACTION FOR DECLARATORY JUDGMENT
(NON-INFRINGEMENT OF PATENT RIGHTS)

55. Digital incorporates paragraphs 1 through 54 inclusive as if set forth verbatim herein.

56. This is an action for a declaratory judgment against the Spectrum Defendants pursuant to 28 U.S.C. §§ 2201-2202.

57. An actual controversy within the meaning of 28 U.S.C. § 2201 exists between Digital and the Spectrum Defendants regarding whether Digital's LED Systems, and Digital's customers' use of such systems, infringe any claim of the '368 Patent.

58. The Spectrum Defendants have alleged, and Digital denies, that Digital's and/or its customers' manufacture, use, sales and offers for sale of its LED Systems, infringes the '368 Patent directly or indirectly.

59. The Spectrum Defendants' threats of patent infringement create a reasonable apprehension in Digital and its customers that Spectrum and/or Spectrum NYC will institute litigation against Digital and for its customers asserting infringement of the '368 Patent.

60. The Spectrum Defendants' threats of patent infringement adversely affect Digital and its customers because, until the Court makes a determination of Digital's rights, Digital and its customers will be in doubt as to Digital's rights to import, make, use and/or offer for sale its LED Systems, and customers will likely continue to refuse to do business with Digital.

61. Digital is entitled to a judgment declaring that its LED Systems do not infringe any claim of Spectrum's '368 Patent, either directly or indirectly, either literally or under the doctrine of equivalents.

COUNT II
ACTION FOR DECLARATORY JUDGMENT
(PATENT INVALIDITY)

62. Digital incorporates paragraphs 1 through 61 inclusive as if set forth verbatim herein.

63. An actual controversy within the meaning of 28 U.S.C. § 2201 exists between Digital and the Spectrum Defendants regarding whether or not each claim of the '368 Patent is valid.

64. Each claim of the '368 Patent is invalid for failure to meet one or more of the requirements for patentability set forth in 35 U.S.C. §§ 101, 102, 103 and/or 112 or other statutory or regulatory requirement under the U.S. patent laws.

65. In fact, as discussed herein, the USPTO has recently rejected claims 1-11 of the '368 Patent as invalid on at least four (4) different grounds.

66. Digital is entitled to a judgment declaring that each claim of the '368 Patent is invalid.

COUNT III
ACTION FOR DECLARATORY JUDGMENT
(UNENFORCEABILITY OF PATENT RIGHTS BASED ON PATENT MISUSE)

67. Digital incorporates paragraphs 1 through 66 inclusive as if set forth verbatim herein.

68. An actual controversy within the meaning of 28 U.S.C. § 2201 exists between Digital and the Spectrum Defendants regarding whether or not each claim of the '368 Patent is enforceable.

69. Each claim of the '368 Patent is unenforceable because the Spectrum Defendants have misused the '368 Patent.

70. The Spectrum Defendants have made, and continue to make, repeated false and misleading statements and threats to Digital and its customers regarding the scope of the '368 Patent, acts which constitute an attempt to exploit a monopoly not embraced in the patent.

71. Specifically, the Spectrum Defendants have made repeated false statements to the NYC MTA and Digital to the effect that Spectrum has exclusive patent rights to all LED Systems in the United States.

72. Rather than seeking to compete with Digital based on technology, skills and/or labor, the Spectrum Defendants have sought to overextend their patent in an effort to mislead and convince representatives of metro systems that Spectrum alone has rights to LED Systems in the United States.

73. The foregoing anticompetitive conduct by the Spectrum Defendants has resulted in Digital's exclusion from the metro system advertising market and precluded it from obtaining revenue which it would have obtained if the Spectrum Defendants had not falsely advised Digital's customers of Spectrum's purported exclusive rights.

74. In sum, the Spectrum Defendants have misused the '368 Patent by attempting to obtain market benefit beyond the scope of their patent rights, if any, as granted by the Patent Act, impermissibly broadening the physical or temporal scope of the '368 Patent in a manner that has anticompetitive effects.

COUNT IV
UNFAIR COMPETITION AND FALSE ADVERTISING UNDER THE LANHAM ACT

75. Digital incorporates paragraphs 1 through 74 inclusive as if set forth verbatim herein.

76. This claim arises under 15 U.S.C. § 1125.

77. Subject matter jurisdiction for this claim exists under 28 U.S.C. §§ 1331 and 1338.

78. On information and belief, the Spectrum Defendants have made false and/or misleading representations or descriptions of fact of the Spectrum Defendants and Digital's goods, commercial activities and/or services.

79. The Spectrum Defendants' intentional and deliberate false statements to the NYC MTA (and likely representatives of other U.S.-based metro systems) that they are the only entity that can provide LED Systems by virtue of the '368 Patent in the United States misrepresents the nature, characteristics and/or qualities of the Spectrum Defendants' and Digital's goods, commercial activities and/or services regarding in-tunnel advertising.

80. On information and belief, the foregoing representations have been made in commercial advertising and/or promotion to Digital customers, including the NYC MTA.

81. On information and belief, the foregoing false representations have occurred in interstate commerce.

82. The Spectrum Defendants' actions constitute unfair competition and such actions have caused damage to Digital's reputation, business and/or ability to offer its products.

83. The Spectrum Defendants' deception is material and is likely to influence the decisions of customers that may purchase LED Systems.

84. The Spectrum Defendants did not and do not have a good faith basis for making the foregoing representations.

85. The Spectrum Defendants will continue to engage in unfair competition unless enjoined by this Court.

86. Digital will continue to be harmed by the conduct of the Spectrum Defendants unless there is Court intervention.

87. The Spectrum Defendants' improper activities, as described above, have been willful and deliberate, thereby making this an exceptional case under the Lanham Act pursuant to 15 U.S.C. § 1117(a) to justify awarding Digital its attorneys' fees and costs.

COUNT V
COMMON LAW UNFAIR COMPETITION

88. Digital incorporates paragraphs 1 through 87 inclusive as if set forth verbatim herein.

89. This claim arises under common law for unfair competition.

90. Supplemental jurisdiction for this claim exists under 28 U.S.C. § 1367 given the common nucleus of facts that exists.

91. On information and belief, the Spectrum Defendants have made false and/or misleading representations or descriptions of fact about the Spectrum Defendants' purported exclusive rights to LED Systems and Digital's goods, commercial activities and/or services.

92. The Spectrum Defendants intentional and deliberate false statements to the NYC MTA (and likely representatives of other U.S.-based metro systems) that Spectrum alone can offer LED Systems in the United States by virtue of the '368 Patent misrepresents the nature, characteristics and/or qualities of the Spectrum Defendants' and Digital's goods, commercial activities and/or services relating to in-tunnel advertising.

93. On information and belief, the foregoing false representations have been made in commercial advertising and/or promotion to Digital customers, including the NYC MTA.

94. The Spectrum Defendants' actions constitute unfair competition and such actions have caused damage to Digital's reputation, business and/or ability to offer products, including the loss of potential business with NYC MTA.

95. On information and belief, the Spectrum Defendants have attempted to misappropriate Digital's time, labor and talent relating to its proposal to the NYC MTA.

96. The Spectrum Defendants have acted unfairly and in an unjustifiable attempt to profit from Digital's expenditure of time, labor and talent.

97. On information and belief, the Spectrum Defendants have intentionally uttered disparaging statements about Digital, including those made to the NYC MTA.

98. The Spectrum Defendants did not and do not have a good faith basis for making the foregoing representations.

99. The Spectrum Defendants will continue to engage in unfair competition unless enjoined by this Court.

100. Digital will continue to be harmed by the conduct of the Spectrum Defendants unless there is Court intervention.

COUNT VI
TORTIOUS INTERFERENCE WITH PROSPECTIVE ECONOMIC ADVANTAGE

101. Digital incorporates paragraphs 1 through 100 inclusive as if set forth verbatim herein.

102. Supplemental jurisdiction for this claim exists under 28 U.S.C. § 1367 given the common nucleus of facts that exists.

103. The Spectrum Defendants are liable to Digital for tortious interference with respect to Digital's prospective economic advantage in that the Spectrum Defendants are intentionally interfering with business negotiations between Digital and the NYC MTA relating

to the NYC MTA's selection of Digital to install its LED Systems, thereby preventing Digital from obtaining the benefits it would have received had the NYC MTA immediately selected Digital.

104. The Spectrum Defendants have and continue to intentionally, maliciously and improperly interfere with Digital's prospective business advantage by falsely advising the NYC MTA that (a) Digital's LED Systems infringe the '368 Patent and (b) the Spectrum Defendants have the exclusive rights to LED Systems in the United States, thereby causing apprehension of suit on the part of Digital and NYC MTA and, in turn, preventing Digital from receiving the benefit of its prospective economic advantage with the NYC MTA.

105. The actions of the Spectrum Defendants are a proximate and legal cause of the Digital's lost opportunities with regard to the NYC MTA and constitute intentional and tortious interference with Digital's prospective economic advantage.

106. As a consequence of the Spectrum Defendants' actions, Digital has suffered, and will continue to suffer injury for which it seeks damages, as set forth below.

COUNT VII
DECEPTIVE ACTS AND FALSE ADVERTISING
(N.Y. GEN. BUS. L. §§ 349 and 350)

107. Digital incorporates paragraphs 1 through 106 inclusive as if set forth verbatim herein.

108. Supplemental jurisdiction for this claim exists under 28 U.S.C. § 1367 given the common nucleus of facts that exists.

109. The Spectrum Defendants have engaged in deceptive acts and false advertising pursuant to N.Y. GEN. BUS. L. §§ 349 and 350.

110. The Spectrum Defendants have made false and/or misleading representations or descriptions of fact regarding the Spectrum Defendants' purported exclusive patent rights to LED Systems and Digital's goods, commercial activities and/or services.

111. The Spectrum Defendants' intentional and deliberate statements to the NYC MTA (and likely representatives of other U.S.-based metro systems) that Spectrum alone can provide LED Systems in the United States by virtue of the '368 Patent misrepresents the nature, characteristics and/or qualities of the goods, commercial activities and services relating to the LED Systems offered by Digital.

112. The Spectrum Defendants' deceptive acts and false advertising have caused damage to Digital's reputation, business and/or ability to offer its products.

113. The Spectrum Defendants' deception is material and has influenced, and is likely to influence further the decisions of customers that may consider purchasing Digital's LED Systems.

114. On information and belief, the Spectrum Defendants did not and do not have a good faith basis for making the foregoing representations.

115. On information and belief, the Spectrum Defendants will continue to engage in the deceptive acts and false advertising unless enjoined by this Court.

116. On information and belief, Digital will continue to be harmed by the conduct of the Spectrum Defendants unless there is Court intervention.

DEMAND FOR JURY TRIAL

Digital hereby demands a trial by jury of all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs Digital Underground Media, Inc. and Digital Underground Media NYC, pray as follows:

1. That the Court enter judgment declaring that Digital's LED Systems do not infringe any claim of the '368 Patent, either directly or indirectly, either literally or under the doctrine of equivalents.

2. That the Court enter judgment declaring that each claim of the '368 Patent is invalid.

3. That the Court enter judgment declaring that each claim of the '368 Patent is unenforceable.

4. That the Court enjoin the Spectrum Defendants and their respective officers, agents, servants, employees, attorneys, successors and assignees and all persons in active concert or participation with either, or any of them, from making any statements, threats and/or charges to third parties that (a) the use, sale, manufacture or offer for sale of Digital's LED Systems infringe any claim of the '368 Patent; and/or (b) the Spectrum Defendants have exclusive rights to LED Systems in the United States.

5. That the Court award Digital a full recovery of its damages resulting from the Spectrum Defendants' acts of unfair competition, acts of tortious interference with prospective economic advantage and false advertising.

6. That the Court enter judgment declaring this to be an exceptional case under 35 U.S.C. § 285 and 15 U.S.C. § 1117(a).

7. That the Court issue corrective advertising and promotional materials in a form approved by the Court to acknowledge the aforementioned violations and to ameliorate the false, misleading and deceptive claims regarding the '368 Patent as directed to the in-tunnel advertising market.

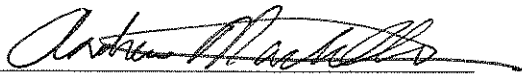
8. That the Spectrum Defendants be ordered to pay to Digital its attorneys' fees, costs and other expenses.

9. That this Court grant such further and other relief as this Court deems just and proper.

Dated: November 28, 2012
New York, New York

Respectfully submitted,

GIBBONS P.C.

By: 
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*Attorneys for Plaintiffs Digital
Underground Media, Inc. and Digital
Underground Media NYC*

EXHIBIT A

US006169368B1

(12) **United States Patent**
Margetson et al.

(10) **Patent No.:** **US 6,169,368 B1**
(45) **Date of Patent:** ***Jan. 2, 2001**

(54) **VISUAL INFORMATION SYSTEMS**

(75) **Inventors:** **Guy Edward John Margetson,**
Withersfield; Thomas Andrew Hedges,
Oxon; Roy Wyatt, Nr. Torrington, all of
(GB)

(73) **Assignee:** **Adflash Limited, London (GB)**

(*) **Notice:** This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

(21) **Appl. No.:** **09/101,612**

(22) **PCT Filed:** **Jan. 10, 1997**

(86) **PCT No.:** **PCT/GB97/00096**

§ 371 Date: **Sep. 14, 1998**

§ 102(e) Date: **Sep. 14, 1998**

(87) **PCT Pub. No.:** **WO97/25703**

PCT Pub. Date: Jul. 17, 1997

(30) **Foreign Application Priority Data**

Jan. 11, 1996 (GB) 9600519

(51) **Int. Cl.⁷** **H05B 37/00; G03B 25/00**

(52) **U.S. Cl.** **315/76; 315/363; 352/100**

(58) **Field of Search** 315/160, 161,
315/162, 163, 164, 360, 363, 76, 291; 352/100,
98

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,383,742 * 5/1983 Brachet et al. 352/100

FOREIGN PATENT DOCUMENTS

2461140 12/1975 (DE) .

0390749 10/1990 (EP) .

2241813 9/1991 (GB) .

* cited by examiner

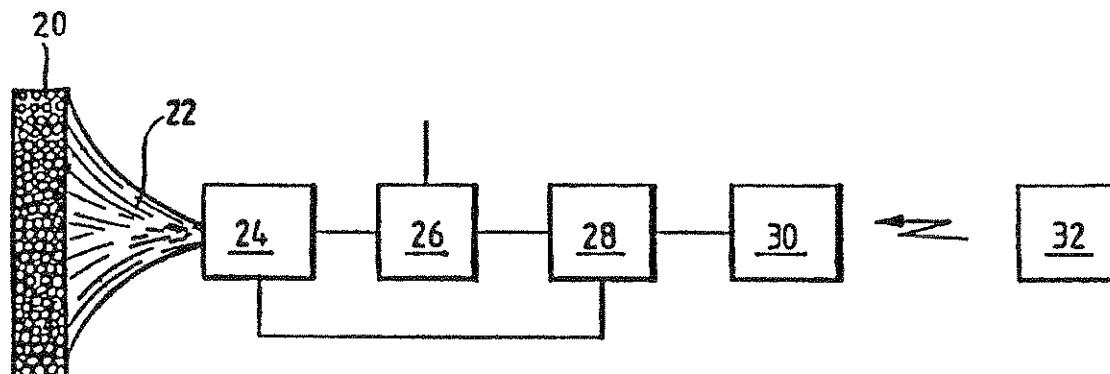
Primary Examiner—David H. Vu

(74) *Attorney, Agent, or Firm*—Christie, Parker & Hale, I.L.P.

(57) **ABSTRACT**

A visual information system includes an array of light emitting elements located at the side of a train track. The elements are individually energizable by a controller in response to a predetermined program stored in a memory and representative of a predetermined visual image. The controller causes selected elements to be turned ON and OFF, some repetitively, in a predetermined sequence as dictated by the program with a time span of 0.015 seconds. A sensor activates the controller upon the approach of a train so that a passenger gazing at the array as the train passes will perceive the image apparently extending over an area substantially greater than the area of said array.

15 Claims, 3 Drawing Sheets



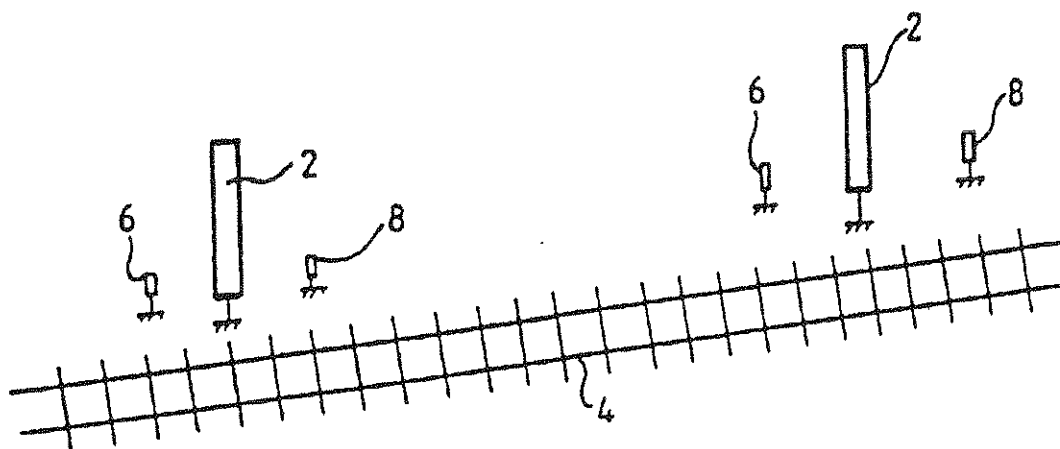


Fig.1.

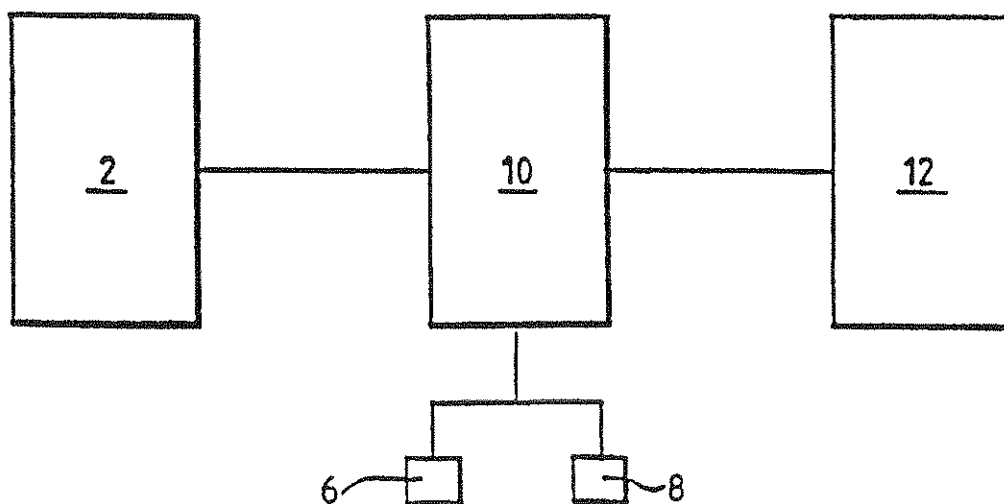
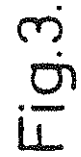


Fig.2.



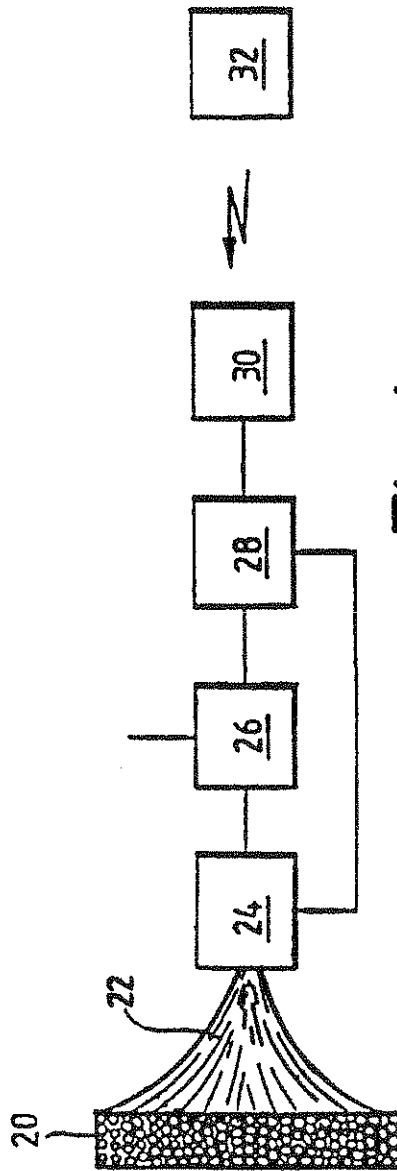


Fig. 4.

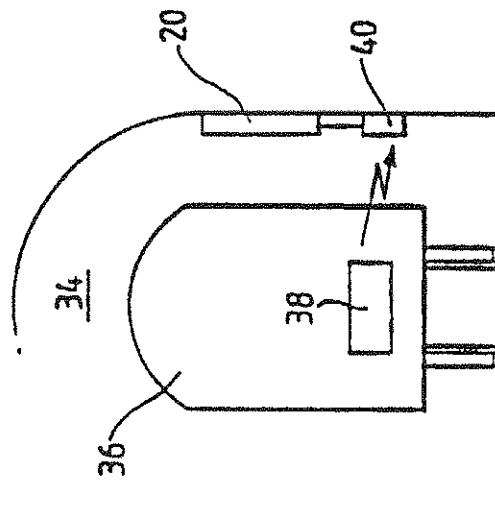


Fig. 5.

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VISUAL INFORMATION SYSTEMS

FIELD OF THE INVENTION

The present invention relates to visual information systems. 5

BACKGROUND OF THE INVENTION

Advertising is often presented in illuminated form consisting of an array of fluorescent lights. Such lights are usually switched on during the hours of darkness. The array occupies the same area as the image presented and consumes relatively large amounts of energy. Such systems are relatively inflexible in as much as the whole array needs to be rebuilt to display another image. 10

Other arrays of moving images are known in which an array consisting of a plurality of rows and columns of light sources are individually energizable to produce, for example, a moving message. Such arrays have several times more columns of light source than rows. Also, the size of the array is the same size as the image and consequently the wiring of individual light sources to the controlling circuitry and the complexity of the control circuitry are likely to be very costly. 15

It is an object of the invention to provide an improved visual information system. 20

SUMMARY OF THE INVENTION

According to the present invention there is provided a visual information system comprising an array consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns, a memory for storing a program representative of a predetermined image, a controller actuatable to control the selection and sequence of energization of the light sources within a predetermined time span in accordance with the predetermined program stored on the memory so that a viewer observing the array and being carried past the array at a predetermined speed will observe immediately following said predetermined time span the predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array. 25

According to the present invention there is further provided a visual information display system comprising a fiber optic array in which one end of a bundle of optical fibers is arranged so that the ends of the individual fibers at one end of the bundle form a vertically elongate array of rows and columns and the ends of the individual fibers at the opposite end of the bundle are connected to an electro-optical interface unit, and means for supplying electrical signals to the interface unit to cause the array to display a succession of images in sufficiently quick succession that a viewer being carried past the array perceives a single horizontally elongate display consisting of said successive images located side by side. 30

BRIEF DESCRIPTION OF THE DRAWINGS

Visual information system embodying the invention will now be described, with reference to the accompanying diagrammatic drawings, in which: 35

FIG. 1 is a front elevation of the system;

FIG. 2 is a block diagram of the system;

FIG. 3 is a more detailed block diagram of the system; 40

FIG. 4 is a block diagram of another form of system embodying the invention; and

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FIG. 5 is an end view of a train passing through a tunnel and illustrating the positioning of the system.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The visual information system to be described is arranged to be located in tunnels through which public transportation vehicles such as tube trains normally run. The system consists of a series of light source arrays 2 arranged at spaced intervals along the track 4 on the side wall of the tunnel, generally level with the windows of the train so that the arrays can be viewed by the passengers in the train. A sensor 6 located upstream of each array 2 is responsive to the approach of the train to the array to actuate the array. 15 Another sensor 8 located downstream of each array is responsive to when the train has passed to deactivate the array 2. The sensors 6 and 8 may take the form of infrared transmitter and receiver pairs.

Each array 2 consists of four columns and sixty four rows of individually and selectively energizable light sources for example light emitting diodes. 20

Selected light sources in the array are switched ON and OFF by a controller 10 in accordance with a predetermined program stored in a memory 12. The controller is triggered by the sensor 6 and the program is cyclically repeated until a signal is received from the sensor 8. 25

The switching rate of the light sources and the duration of their energization is such that a passenger sitting in the train and keeping his eyes directed at the array will observe an image several times wider than the width of the array. 30

The effect is achieved because with light flashes of very short duration, the reaction of the human eye to the flash persists long after the flash has finished. Thus, where a series of very short flashes occur over a short time span less than 0.015 seconds, all the flashes appear to the eye to have occurred at the same time and when the flashes are spaced from one another on the retina because the viewer has moved relative to the array, the eye perceives a composite light pattern which will persist for a short time while immediately following the time span. It will thus be appreciated that a program can be created and stored in the memory 12 which will produce almost any desired image for the observer. The image may take the form of alpha numeric information or may take the form of an advertising poster. 35

The block diagram of the system is more clearly shown in FIG. 3. 40

As can be seen, the array 2 consists of a series of light emitting diodes 20. In this arrangement only sixteen are shown, arranged in a single column. Each LED has a power output of 32 mcd's and has a high switching speed with a switching time faster than 10 nanoseconds. 45

The controller 10 includes a driver 22 which acts to drive the LED's 20 through respective resistors 24. The driver 22 is controlled by a central processing unit (CPU) 26 which derives its instructions from terminal 1 of the memory 12 via resistors R36 and R34 which feed terminal 5 of the CPU. The memory 12 is in the form of an erasable programmable read only memory (EPROM). 50

The CPU 26 is triggered into action by a signal received on terminal 28 from the sensor 6.

The CPU cyclically repeats the program stored in the EPROM 12 at a repetition rate in the range of from 10-50 Hz but is preferably 15 Hz. 55

By updating the memory periodically the passengers will be able to observe different images.

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When a large plurality of arrays are provided they can be divided into groups with the memory of the system in each group being updatable simultaneously. A central computer (not shown) is provided to store a plurality of different programs. The central computer is connected to each group to update the memory in each group with a new program depending either upon the time of day or the location of the group.

When a color image is required, each light source of the array can be replaced by a row consisting of red, green and blue elements or a row consisting of red, green, blue and white light elements. Each element is selectively energizable. It will be appreciated that by having the program determine the period of energization of each light source, the shade of color in the final image can be varied as required.

While the rows and columns in each memory can be varied, it is preferable that the ratio of rows to columns in the array is 16:1 or greater.

In the embodiment shown in FIG. 4, the optical array 20 consists of an array formed by the exposed ends of a bundle 22 of optical fibers. The opposite ends of the electro-optical fibers of the bundle 22 are connected to an electro-optical interface unit 24. Data representative of a desired image to be displayed is transmitted from a central computer 32 by radio optical or direct wire link to a data interface unit 30 which passes the signals to a processor 28 which in turn causes the signals to be stored in a storage unit 26. The processor 28 is responsive to a local trigger such as the sensors 6 and 8 described in connection with FIGS. 1 and 2 or a remote trigger, to cause the electro-optical interface to read out the stored data from the memory 26 and to cause the corresponding image to be progressively reproduced on the display 20 in a manner such as that described in conjunction with FIGS. 1 to 3.

The central computer 32 can be programmed to send different displays to different groups of optical arrays as required and alter the displays stored by the memories 26 at different times of the day, week and/or month.

In the embodiment shown in FIG. 5, a train 36 within a tunnel 34 carries an on-board transmitter 38 which is connected to an on-board or a remote central computer 32. Data from the computer 32 is transmitted by the transmitter 38 to a receiver 40 adjacent a display 20 mounted on the wall of the tunnel. The receiver is connected to the data interface 30 (see FIG. 4) of the display from whereon the system operates in the same manner as described in connection with FIG. 4.

The transmitter and receiver may be acoustic, optical or radio. Also, the train may have an on-board speed monitor and data representative of the speed of the train transmitted to the processor 28 so that the processor can modify the rate that the electro-optical interface reads signals from the memory 26 in a manner to synchronize the display with the speed of the train.

In a modification, instead of the interface 24 reading signals from the memory 26, the memory 26 can be omitted and the signals read in real time from the processor 28.

What is claimed is:

1. A visual information system for use in connection with a carrier for carrying observers along a predetermined path, the system comprising an array to be located adjacent said path and consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns, a memory for storing a program representative of a predetermined image, a controller actuatable to control the selection and sequence of energization of the light sources within a predetermined time span corresponding to persis-

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tent time of a human retina to light, and in accordance with the predetermined program stored in the memory, a rate of operation of the controller being set to correspond with a speed of the carrier past the array such that an observer carried by the carrier past the array will observe said predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array.

2. A system according to claim 1, including sensing means for monitoring passage of the carrier carrying said observer past the array to actuate said controller.

3. A system according to claim 2, wherein said sensing means comprises infrared sensing means arranged to activate said controller upon approach of said carrier to the array and to deactivate the controller upon departure of said carrier away from said array.

4. A system according to claim 3, wherein the sensing means comprises a first infrared transmitter and receiver pair located upstream of the array and a second infrared receiver and transmitter pair located downstream of the array.

5. A system according to any preceding claim, wherein the controller is arranged to cyclically repeat the energizations specified by the predetermined program at regular intervals.

6. A system according to claim 1, wherein the array consists of light sources of different colors and wherein the predetermined program specifies different durations of energization of the different colored light sources.

7. A system according to claim 1, wherein said controller is arranged to complete one cycle of the predetermined program within a period of 0.015 seconds.

8. A system according to claim 1, wherein a ratio of rows to columns in the array is 16:1 or greater.

9. A system according to claim 1, wherein each light source comprises a light emitting diode and the controller includes a driver for driving each light emitting diode, the driver being arranged to vary a period for which its corresponding diode is energized in accordance with the program stored in the memory.

10. An arrangement comprising a plurality of systems each according to claim 1 and a main computer arranged to store a plurality of different programs, each program representing a respective image, said main computer being operable to replace the program stored in said memories with a program stored in said main computer.

11. An arrangement according to claim 10, wherein said main computer is programmed to replace the program stored in selected ones of the memories in accordance with the time of day.

12. An arrangement according to claim 10 or claim 11, wherein the computer is programmed to replace the program stored in selected ones of the memories in accordance with a location of their associated arrays.

13. A transport system having a path along which carriers can pass and a visual display system located adjacent said path, the display system comprising a fibre optic array in which one end of a bundle of optical fibers is arranged so that ends of the individual fibers form a vertically elongate array of rows and columns and ends of the individual fibers at the opposite end of the bundle are connected to an electro-optical interface unit, control means for supplying electrical signals to the interface unit to cause the array to display a succession of images and means for controlling the rate at which the control means supplies said signals in accordance with a speed of a carrier past the display system, and within a time frame related to a persistent time of a human retina to light, such that an observer on the carrier will perceive apparently simultaneously a single horizon-

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tally elongate display consisting of said successive images located side by side.

14. A transport system according to claim 13, wherein the control means includes a computer for generating data representative of a desired display, a local data interface for receiving the data, and a processor for processing the received data and storing it in a memory, the processor being arranged to control the interface unit to respond to the data stored in the memory.

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15. A transport system according to claim 14, wherein the carrier is a train, the path is defined by a train tunnel, and the array is mounted on a wall of the train tunnel and further comprising an on-board transmitter on a passing train to transmit the data from the computer to supply the interface unit with said data.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,169,368 B1
DATED : January 2, 2001
INVENTOR(S) : Guy Edward John Margetson, Thomas Andrew Hedges and Roy Wyatt

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page,

Item [57], **ABSTRACT,**

Line 11, after "perceive the" insert -- said --.

Column 3, line 58, through Column 6, line 6,

Delete claims 1-15 in their entirety and insert therefor the following claims:

- 1. An arrangement comprising a main computer arranged to store a plurality of different programs, each program representing a respective image, and a plurality of visual information systems, each system having:
 - an array consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns;
 - a memory for storing a program representative of a predetermined image;
 - a controller actuatable to control the selection and sequence of energization of the light sources within a predetermined time span in accordance with the predetermined program stored in the memory, so that a viewer observing the array and being carried past the array at a predetermined speed will observe, immediately following said predetermined time span, the predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array; andsaid main computer being operable to replace the program stored in said memories with one of said different programs stored in said main computer.
- 2. An arrangement according to claim 1 wherein said main computer is programmed to replace the program stored in selected ones of the memories in accordance with the time of day.
- 3. An arrangement according to claim 1 or claim 2 wherein the computer is programmed to replace the program stored in selected ones of the memories in accordance with a location of their associated arrays.

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,169,368 B1
DATED : January 2, 2001
INVENTOR(S) : Guy Edward John Margetson, Thomas Andrew Hedges and Roy Wyatt

Page 2 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- 4. An arrangement according to claim 1 wherein each said system includes sensing means for monitoring the passage of a carrier carrying said viewer past the array to trigger said controller into action.
- 5. An arrangement according to claim 4 wherein each said sensing means has infrared sensing means arranged to activate said controller upon approach of said carrier to the array and to deactivate the controller upon the departure of said carrier away from said array.
- 6. An arrangement according to claim 4 wherein each said sensing means comprises a first infrared transmitter and receiver pair located upstream of the array and a second infrared and transmitter pair located downstream of the array.
- 7. An arrangement according to claim 1 wherein the controller of each said system is arranged to cyclically repeat the energizations specified by the predetermined program at regular intervals.
- 8. An arrangement according to claim 1 wherein the array of each said system consists of light sources of different colors and wherein the predetermined program specifies different durations of energization of the different colored light sources.
- 9. An arrangement according to claim 1 wherein the controller of each said system is arranged to complete one cycle of the predetermined programs within a period of 0.015 seconds.
- 10. An arrangement according to claim 1 wherein the ratio of rows to columns in each said array is 16:1 or greater.
- 11. An arrangement according to claim 1 wherein in each said system each light source comprises a light emitting diode and the controller includes a driver for driving each light emitting diode, the driver being arranged to vary a period for which its corresponding diode is energized in accordance with the program stored in the memory.

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,169,368 B1
DATED : January 2, 2001
INVENTOR(S) : Guy Edward John Margetson, Thomas Andrew Hedges and Roy Wyatt

Page 3 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

-- 12. A transport system having a path along which carriers can pass and a visual display system located adjacent said path, the display system comprising a fiber optic array in which one end of a bundle of optical fibers is arranged so that ends of the individual fibers form a vertically elongate array of rows and columns and ends of the individual fibers at the opposite end of the bundle are connected to an electro-optical interface unit, control means for supplying electrical signals to the interface unit to cause the array to display a succession of images and means for controlling the rate at which the control means supplies said signals in accordance with a speed of the carrier past the display system, and within a time frame related to a persistent time of a human retina to light, whereby an observer on the carrier will perceive apparently simultaneously a single horizontally elongate display consisting of said successive images located side by side.

-- 13. A transport system according to claim 12 wherein the control means includes a computer for generating data representative of a desired display, a local data interface for receiving the data, and a processor for processing the received data and storing it in a memory, the processor being arranged to control the interface unit to respond to the data stored in the memory.

-- 14. A transport system according to claim 13 wherein the carrier is a train, the path is defined by a train tunnel, and the array is mounted on a wall of the train tunnel and further comprising an on-board transmitter on a passing train to transmit the data from the computer to supply the interface unit with said data.

-- 15. A transport system having a path along which carriers can pass and a visual display system located adjacent said path, the display system comprising:
a fiber optic array in which one end of a bundle of optical fibers is arranged so that ends of the individual fibers at one end of the bundle form a vertically elongate array of rows and columns and ends of the individual fibers at the opposite end of the bundle are connected to an electro-optical interface unit;

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,169,368 B1
DATED : January 2, 2001
INVENTOR(S) : Guy Edward John Margetson, Thomas Andrew Hedges and Roy Wyatt

Page 4 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:


a controller supplying electrical signals to the interface unit to cause the array to display a succession of images; and

a monitor controlling the rate at which the controller supplies said signals in accordance with a speed of the carrier past the system, and within a time frame related to a reaction time of a human retina to light, whereby an observer on the carrier will perceive apparently simultaneously a single horizontally elongate display consisting of said successive images located side by side. --

Signed and Sealed this

Twelfth Day of November, 2002

Attest:

A handwritten signature in black ink, appearing to read "James E. Rogan", written over a horizontal line.

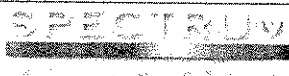
Attesting Officer

JAMES E. ROGAN
Director of the United States Patent and Trademark Office

EXHIBIT B

9/3/12

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LATEST NEWS

Spectrum Launches Stateside Office in New York

Tuesday, December 21 07:37 | [Permalink](#)



Spectrum Motion Media
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New York NY 10174

T +1 212 829 4340

Spectrum Motion Media has opened a new office in New York to spear head their drive into the US advertising market. The new office is located in the iconic Chrysler Building where the company will focus on the roll out of MYRIAD, its world leading in-tunnel advertising system.

The US is the largest advertising market in the world and central to Spectrum's growth strategy. Spectrum aims to unlock premium advertising space and provide unique out-of-home advertising opportunities across North America's major city metro networks. Spectrum's lead product MYRIAD is the world's most advanced in-tunnel advertising system providing stunning digital out-of-home viewing experiences that entertain and inform rail passengers.

JCDecaux to double digital presence in the UK

Friday, December 10 07:35 | [Permalink](#)



Talking at The Screen digital conference in London, Jeremy Male, CEO UK & Northern Europe of

JCDecaux, announced plans to double its digital presence in UK rail and mall environments by Q3 2011. JCDecaux will launch the first national rail

9/3/12

Homepage

D6 network and extend the mall D6 network across the UK as part of wider digital investment across all environments.

JCDecaux has appointed Steve Arnold as its first Head of Digital to champion the development of digital across environments in a move intended to change digital Outdoor from a London-centric offer to a national medium. 80% of digital outdoor revenue is currently derived from London and it is hoped that this new investment will start to make digital outdoor a truly national proposition.

Jeremy Male said, "JCDecaux's investment means digital Outdoor will reach more people on a daily basis than the quality and mid-market national press put together and more than radio over a two-week campaign. A tipping point has been reached with digital revenues forecast to reach £115 million in 2011, and as a national proposition, digital Outdoor will attract new brands to the medium. JCDecaux has spearheaded the transformation of traditional Outdoor and we are now looking to do the same for digital."

Eye plans Australia's biggest DOOH rollout at airport

Wednesday, December 1 16:31 | [Permalink](#)



Out-of-Home media company EYE has retained the rights to Melbourne Airport's internal media and

has also won the contract for its external advertising from incumbent Cody Outdoor Advertising. Among its plans for the airport next year, EYE has announced its intention to create the country's largest single-site installation of digital out-of-home media at the airport.

The firm's Eye Fly division plans to invest AUD6m (£3.8m) on a range of innovative advertising formats including a significant suite of landmark digital media opportunities and Australia's first high definition external airport digital sites.

With 100% coverage of Australian domestic airport media, Eye Fly handles a total of 21 airports across Indonesia, New Zealand, Australia and the UK. It also operates retail, roadside and campus advertising businesses.

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EXHIBIT C



EXHIBIT D

NYS Department of State

Division of Corporations

Entity Information

The information contained in this database is current through November 26, 2012.

Selected Entity Name: SPECTRUM MOTION MEDIA NYC INC.

Selected Entity Status Information

Current Entity Name: SPECTRUM MOTION MEDIA NYC INC.

DOS ID #: 4023853

Initial DOS Filing Date: NOVEMBER 26, 2010

County: NEW YORK

Jurisdiction: NEW YORK

Entity Type: DOMESTIC BUSINESS CORPORATION

Current Entity Status: ACTIVE

Selected Entity Address Information

DOS Process (Address to which DOS will mail process if accepted on behalf of the entity)

SPECTRUM MOTION MEDIA NYC INC.

CHRYSLER BUILDING

405 LEXINGTON AVENUE

NEW YORK, NEW YORK, 10174

Registered Agent

NONE

This office does not record information regarding the names and addresses of officers, shareholders or directors of nonprofessional corporations except the chief executive officer, if provided, which would be listed above. Professional corporations must include the name(s) and address(es) of the initial officers, directors, and shareholders in the initial certificate of incorporation, however this information is not recorded and only

available by viewing the certificate.

***Stock Information**

# of Shares	Type of Stock	\$ Value per Share
200	No Par Value	

*Stock information is applicable to domestic business corporations.

Name History

Filing Date	Name Type	Entity Name
NOV 26, 2010	Actual	SPECTRUM MOTION MEDIA NYC INC.

A **Fictitious** name must be used when the **Actual** name of a foreign entity is unavailable for use in New York State. The entity must use the fictitious name when conducting its activities or business in New York State.

NOTE: New York State does not issue organizational identification numbers.

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EXHIBIT E

REQUEST FOR REEXAMINATION OF US PATENT NO. 6,169,368

Identification of Claims for which Reexamination is Requested

In accordance with 37 CFR 1.510, reexamination of Claims 1-11 of US Patent No. 6,169,368 is requested in view of the following references:

Tokimoto, US Patent No. 5,202,675
Bell, US Patent No. 4,470,044
Belcher, US Patent No. 5,302,965
Lock et al, EP Application No. 0 156 544
Mayo, US Patent No. 5,133,081
Spaulding, US Patent No. 5,108,171
Swanson, US Patent No. 3,932,746
Swinehart, US Patent No. 4,726,388

Reexamination of Claim 1 is requested in view of the Tokimoto patent. Reexamination of Claim 1 is also requested in view of the combination of Bell in view of Belcher. Reexamination of Claim 1 is also requested in view of the combination of Bell in view of Lock. Reexamination of Claim 2 is requested in view of the combination of Tokimoto in view of Mayo. Reexamination of Claim 3, 4, and 7 through 11 is requested in view of Tokimoto. Reexamination of Claim 5 is requested in view of the combination of Tokimoto in view of Spaulding. Reexamination of Claim 6 is requested in view of the combination of Tokimoto and Spaulding in view of Swanson and Swinehart.

Statement Pointing Out Each Substantial New Question of Patentability

None of the above noted prior art references were considered in the file of US Patent No. 6,169,368. Because the teachings of the above noted prior art references disclose subject matter of the claims of US Patent No. 6,169,368 which was not taught in any prior art cited during prosecution of US Patent 6,169,368, as explained in further detail below, the teachings of the above noted prior art references raise a substantially new question of patentability.

Detailed Explanation Under 37 CFR 1.510 (b)

'368 patent claims	Claim element	Relevant portions of prior art
Claim 1 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto.		
1	An arrangement comprising a main computer arranged to store a plurality of different programs, each program representing a respective image, and a plurality of visual information systems, each system having:	<p>It is respectfully submitted that it is well within the knowledge of those of ordinary skill in the art to store a plurality of programs to execute predetermined functions on a main computer and to provide controls so that the stored programs could be replaced as necessary.</p> <p>Furthermore, Fig. 1 of Tokimoto is a schematic diagram of the circuit structure of the Tokimoto patent's display apparatus. The circuit structure includes a sensor zone, a data-forming zone, and a display zone. Subsystems in these zones include various programs (e.g., the programmable oscillator and the programmable frequency divider of the data forming zone) for generating images on a display. The Tokimoto patent specification discloses that the sensor zone includes a CPU, and it is understood based on language in the specification---including, but not limited to references to "computing," "circuit," "programmable," "memory," etc.--that the circuits in the display apparatus operate as a main computer storing programs representing images for display on the display apparatus.</p> <p>More particularly, the elements of the data forming zone in Figure 1 of Tokimoto are generally considered to function as a main computer which includes a memory 14 capable of storing a program.</p> <p>The embodiment of Figure 14(a) of Tokimoto also discloses a plurality of visual information systems representing respective picture planes.</p>
	an array consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns	Tokimoto illustrates in Figure 7(a) a display apparatus having $L \times 1$ picture elements. Each "picture element has red, green, and blue light elements, resulting in an array of rows and columns of light elements. At Col. 2, lines 13-18 it is noted that a display array zone is constructed by many emission elements. The embodiment of Figure 10(a) further discloses at Col. 9, lines 53 to 56 that a display pane of $(L \times M)$ picture elements is provided.

	a memory for storing a program representative of a predetermined image	In Tokimoto, element 14 of Figure 1 is a memory portion of the data-forming zone of the display apparatus. The memory portion 14 stores information related to the images to be displayed in the display zone. The memory portion 14 is further defined at Col. 8, lines 48 to 52 and at Col. 9, lines 3 through 26.
	a controller acuatable to control the selecting and sequence of energization of the light sources within a predetermined time span in accordance with the predetermined program stored in the memory	The data-forming zone shown in Figs. 1 and 5 of Tokimoto is a controller providing a control signal to the display zone causing the changing over and display of images on the display apparatus. The timing generator 13 controls the predetermined time span in accordance with the program stored in the memory. The display drivers 17, 50 and 52 specifically control the energization of the light sources in accordance with selections made by the data forming zone.
	so that a viewer observing the array and being carried past the array at a predetermined speed will observe, immediately following said predetermined time span, the predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array	According to Tokimoto a passenger or observer in a vehicle (e.g., on the subway) can view an image (e.g., an LxM dimension image) as they move past the display apparatus at a speed X m/sec. The LxM dimension image is substantially larger than the area of the array—Lx1 picture elements (with each picture element having a red, green, and blue light element). Col. 1, line 55 through Col. 2, line 27 discloses utilizing a similar "after-image effect of an observer". Col. 7, lines 22 through 44 further disclose how an image is displayed with is substantially larger than the area of the array.
	said main computer being operable to replace the program stored in said memories with one of said different programs stored in said main computer	As discussed above, the Tokimoto patent specification discloses circuits in the display apparatus operating as a main computer storing programs representing images for display on the display apparatus. Col. 2, lines 15 to 18 disclose changing over and displaying the images in regular succession. Col. 5, lines 54 to 60 disclose changing the programming to accommodate a change in direction of the movement of the observer. Col. 9, lines 43 to 48 disclose changing the programming to accommodate a change of speed. Further, Tokimoto discloses that in some embodiments display data storage may be reloadable ROM or RAM and data can be changed as described at Col. 13, lines 58 through 63.

Claim 2 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto in view of US Patent No. 5,133,081 by Mayo.

2	An arrangement according to claim 1 wherein said main computer is programmed to replace the program stored in selected ones of the memories in accordance with the time of day.	<p>Claim 1 is invalid over Tokimoto as described above. Tokimoto also discloses at Col. 2, lines 37 to 42 that in an electric signboard, the display content can be easily changed.</p> <p>Further, the additional element provided by claim 2 is an obvious design choice that would have been extraordinarily well-known at the time of the '368 patent's filing.</p> <p>US Patent No. 5,133,081 discloses a remotely controlled "billboard" having a display which the patent teaches can be automatically changed at certain times of day. This patent is in the field of public displays along a road, so it is in the same field of invention as the Tokimoto patent and is combinable therewith.</p>
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Claim 3 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto.

3	An arrangement according to claim 1 or claim 2 wherein the computer is programmed to replace the program stored in selected ones of the memories in accordance with a location of their associated arrays.	<p>Claims 1 and 2 are invalid over Tokimoto as described above. The images displayed on the display apparatus are based on the location of the array of display elements in relation to the observer's field of view.</p> <p>Figure 9 of Tokimoto includes a "memory address" element which includes components R0, G0, R1, G1, etc. corresponding to different program data associated with different picture planes.</p> <p>Tokimoto further describes at Col. 10, line 65 to Col. 12, line 17 an arrangement in which the program data for each array is changed over dependent upon the location of the array.</p> <p>Furthermore, some embodiments of Tokimoto utilize moving arrays. The control circuit 76 of Fig. 21, for example, is connected to ROM 77 for the storage of display data.</p>
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Claim 4 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto.

4	An arrangement according to claim 1 wherein each system includes a sensing means for monitoring the passage of a carrier carrying said viewer past the array to trigger said controller into action.	Claim 1 is invalid over Tokimoto as described above. As described in Tokimoto at Col. 3, line 66 to Col. 4, line 3 and at col. 4, line 20 to col. 5, line 25 in relation to Figures 1 through 4, the sensor zone detects the movement of a vehicle on which an observer is carried and calculates the moving direction and moving speed of the moving member on receipt of information from a sensor. The sensor zone is able to determine whether a detection signal indicates a vehicle or not and may or may not put out a start signal based on this determination. A start trigger is put out after the lapse of a certain time from the point of detection of a vehicle. The trigger actuates the components of the data forming zone which functions as a controller.
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Claim 5 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto in view of US Patent No. 5,108,171 by Spaulding.

5	An arrangement according to claim 4 wherein each said sensing means has infrared sensing means arranged to activate said controller upon approach of said carrier to the array and to deactivate the controller upon the departure of said carrier away from said array.	<p>Claim 4 is invalid over Tokimoto as described above. The sensing means of Tokimoto further includes timing elements 13 in cooperation with the sensing means such that once a vehicle is detected, the controller is effectively actuated upon approach of a vehicle to the array and deactivated upon the departure of the vehicle away from the array.</p> <p>Use of infrared type sensors within the field of displays for moving vehicles was a well-known design choice at the priority date of the '368 patent as shown in Figures 1, 2 and 6 and as described at Col. 6, lines 1 to 32 of Spaulding. More particularly, Spaulding discloses a coded signal source 7A which generates an infrared beam and a coded signal receiver/decoder 7B for sensing the infrared signal to activate displaying of an image to an observer.</p>
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Claim 6 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto in view of US Patent No. 5,108,171 by Spaulding, in further view of US Patent No. 4,726,388 by Swinehart, and in further view of US Patent No. 3,932,746 by Swanson.

6	An an-arrangement according to claim 4 wherein each said sensing means comprises a first infrared transmitter and receiver pair located upstream of the array and a second infrared and transmitter pair located downstream of the array	<p>Claim 4 is invalid over Tokimoto as described above.</p> <p>The first and second infrared transmitter and receiver pairs of each sensing means in the '368 patent are used for activating the controller upon approach of the vehicle and to deactivate the controller upon the departure of the vehicle respectively. Spaulding discloses each sensing means includes a first infrared transmitter and receiver pair in the form of a coded signal source 7A which generates an infrared beam and a coded signal receiver/decoder 7B for sensing the infrared signal to activate displaying of an image to an observer. A timer is used to deactivate the display of the image in Tokimoto and Spaulding instead of a second infrared transmitter and receiver pair; however use of a timer or a second transmitter/receiver pair is considered to be a well known matter of design choice at the priority date of the '368 patent.</p> <p>Swinehart et al discloses a sensing station at Col. 7, line 52 through col. 8, line 54 which uses several infrared transmitter and receiver pairs to control the starting and stopping of several moving processes in relation to a vehicle.</p> <p>Swanson also discloses in column 1 that it is well known to use light-beam activated start at stop gates which are used to activate and deactivate a (timing) process in response to approach and departure of a moving object.</p>
Claim 7 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto.		
7	An arrangement according to claim 1 wherein the controller of each said system is arranged to cyclically repeat the energizations specified by the predetermined program at regular intervals.	<p>Claim 1 is invalid over Tokimoto as described above. Tokimoto also describes at col. 2, lines 15 through 18 that the circuits are operable to change over and display images in regular succession. Figures 8*a) through 8(c), 9, and 10(a) through 10(e) are also believed to be relevant.</p>

Claim 8 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto.		
8	An arrangement according to claim 1 wherein the array of each said system consists of light sources of different colors and wherein the predetermined program specifies different durations of energization of the different colored light sources.	Claim 1 is invalid over Tokimoto as described above. Different colors are also in Tokimoto in Figures 7(a) through 7(e), 8(a) through 8(c) and 9 and described in col. 7, lines 22 through 28, col. 8, lines 12 through 16 and col. 8, line 48 through col.9, line 2.. In some embodiments, each picture element (row) comprises one color element R, one color element G, and one color element B. In some embodiments, each LED display element has one chip R and one chip G. Picture plane data are read out from the data forming zone and picture planes are displayed as shown in the timing chart.
Claim 9 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto.		
9	An arrangement according to claim 1 wherein the controller of each said system is arranged to complete one cycle of the predetermined programs within a period of 0.015 seconds.	Claim 1 is invalid over Tokimoto as described above. Tokimoto discloses equations for calculating cycle timings based on a variety of parameters. If a period of 0.015 seconds is necessary for an image cycle, the Tokimoto patent can achieve that. Tokimoto also discloses, by way of example only, data in the display zone being changed over in 78 μ s, which is within a period of 0.015 seconds. As the specific duration is a matter of design choice, Claim 9 is also believed to be obvious in view of the understanding of one of ordinary skill in the art.
Claim 10 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto.		
10	An arrangement according to claim 1 wherein the ratio of rows to columns in each said array is 16:1 or greater.	Claim 1 is invalid over Tokimoto as described above. Tokimoto discloses at col. 8, lines 17 through 20 in reference to Figure 8 (a) that the display apparatus has 256x1 picture elements (note: each picture element comprises two color light elements).

Claim 11 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over Tokimoto.		
11	An arrangement according to claim 1 wherein each said system each light source comprises a light emitting diode and the controller includes a driver for driving each light emitting diode, the driver being arranged to vary a period for which its corresponding diode is energized in accordance with the program stored in the memory.	Claim 1 is invalid over Tokimoto as described above. In some embodiments of Tokimoto, LED's are used as the display elements. The display zone circuits throughout the Tokimoto specification show a variety of display drivers as shown by element 17 in Figure 1, elements 52 and 55 in Figure 6(b), and elements 32, 35 and 38 in Figure 15. The drivers are described at col. 7, lines 3 through 19 and at col. 10, line 65 to col. 11, line 3.

Claim 1 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over EP0156044 by Lock et al in view of US Patent No. 4,470,044 by Bell.		
1	An arrangement comprising a main computer arranged to store a plurality of different programs, each program representing a respective image, and a plurality of visual information systems, each system having:	Lock discloses a circuit board 8 which functions as a main computer arranged to store different programs representing respective images for use with a plurality of visual information systems 5.
	an array consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns	The light sources 5 of Lock are arranged in two arrays of individually energizable light sources.
	a memory for storing a program representative of a predetermined image	A data store 29 of Lock functions as a memory for storing a program representing an image.
	a controller actuatable to control the selecting and sequence of energization of the light sources within a predetermined time span in accordance with the predetermined program stored in the memory so that a viewer observing the array and being carried past the array at a predetermined speed will observe, immediately following said predetermined time span, the predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array,	<p>Lock discloses at page 5, lines 3 through 15 that electronic circuitry functions as a controller to control the energization of the light sources so as to cause an image to appear to the responding human eye.</p> <p>Lock differs from the '368 patent in that the two visual information systems are movable arrays on opposing sides of a rotating display instead of fixed arrays relative to which an observer is carried. Bell discloses at col. 3, lines 32 to 42 that it is well known that a moving array of like configuration can be readily modified so that the observer on a fast moving vehicle such as a railroad passenger would see the same effect moving past a fixed array such that the application of the teachings of a Lock to a fixed display relative to which the observer is carried is believed to be well within the understand of persons of ordinary skill in the art.</p>
	said main computer being operable to replace the program stored in said memories with one of said different programs stored in said main computer	Lock describes at page 7, lines 13 to 30 that different program modes are stored and can be selected for use by the circuit board for energizing the lights according to the different programs.

Claim 1 of US Patent No. 6,169,368 is unpatentable under 35 USC 103 as being obvious over US patent 5,302,965 by Belcher in view of US Patent No. 4,470,044 by Bell.		
1	An arrangement comprising a main computer arranged to store a plurality of different programs, each program representing a respective image, and a plurality of visual information systems, each system having:	In relation to Figure 6, Belcher discloses at col. 4, line 3 through col. 5, line 60 that electronic circuits are included which provide the function of a main computer arranged to store different programs relating to different images on a data module 54. The electronic circuits are operable in relation to a plurality of visual information systems, each represented as a display card 5.
	an array consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns	Belcher discloses each visual information system or display card 5 includes an array of light emitting diodes 6.
	a memory for storing a program representative of a predetermined image	Belcher discloses a data module 54 for storing image data.
	a controller actuatable to control the selecting and sequence of energization of the light sources within a predetermined time span in accordance with the predetermined program stored in the memory so that a viewer observing the array and being carried past the array at a predetermined speed will observe, immediately following said predetermined time span, the predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array	<p>Belcher discloses at col. 1, line 50 to col. 2, line 23 that control means are provided for controlling the light sources so as to display at least one selected image at a time.</p> <p>Belcher differs from the '368 patent in that the visual information systems are movable arrays at circumferentially spaced positions about a rotating display instead of fixed arrays relative to which an observer is carried. Bell discloses at col. 3, lines 32 to 42 that it is well known that a moving array of like configuration can be readily modified so that the observer on a fast moving vehicle such as a railroad passenger would see the same effect moving past a fixed array such that the application of the teachings of a Belcher to a fixed display relative to which the observer is carried is believed to be well within the understand of persons of ordinary skill in the art.</p>
	said main computer being operable to replace the program stored in said memories with one of said different programs stored in said main computer	Belcher discloses at col. 10, line 47 to col. 11, line 3 that new sets of images can be easily programmed into the display by changing the removable data module.

Conclusion

For the reasons given above, reexamination of claims 1 through 11 of US Patent No. 6,169,368 is requested.

Respectfully submitted



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EXHIBIT F



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/012,089	01/11/2012	6169368	86685-287/RWD	1235

7590 02/28/2012

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EXAMINER

ART UNIT PAPER NUMBER

DATE MAILED: 02/28/2012

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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. 90/012,089.

PATENT NO. 6169368.

ART UNIT 3992.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Order Granting / Denying Request For Ex Parte Reexamination	Control No.	Patent Under Reexamination
	90/012,089	6169368
	Examiner	Art Unit
	Michael J. Yigdall	3992

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The request for *ex parte* reexamination filed 11 January 2012 has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.

Attachments: a) ☐ PTO-892, b) ☒ PTO/SB/08, c) ☐ Other: _____

1. ☒ The request for *ex parte* reexamination is GRANTED.

RESPONSE TIMES ARE SET AS FOLLOWS:

For Patent Owner's Statement (Optional): TWO MONTHS from the mailing date of this communication (37 CFR 1.530 (b)). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

For Requester's Reply (optional): TWO MONTHS from the date of service of any timely filed Patent Owner's Statement (37 CFR 1.535). **NO EXTENSION OF THIS TIME PERIOD IS PERMITTED.** If Patent Owner does not file a timely statement under 37 CFR 1.530(b), then no reply by requester is permitted.

2. ☐ The request for *ex parte* reexamination is DENIED.

This decision is not appealable (35 U.S.C. 303(c)). Requester may seek review by petition to the Commissioner under 37 CFR 1.181 within ONE MONTH from the mailing date of this communication (37 CFR 1.515(c)). **EXTENSION OF TIME TO FILE SUCH A PETITION UNDER 37 CFR 1.181 ARE AVAILABLE ONLY BY PETITION TO SUSPEND OR WAIVE THE REGULATIONS UNDER 37 CFR 1.183.**

In due course, a refund under 37 CFR 1.26 (c) will be made to requester:

- a) ☐ by Treasury check or,
b) ☐ by credit to Deposit Account No. _____, or
c) ☐ by credit to a credit card account, unless otherwise notified (35 U.S.C. 303(c)).

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cc:Requester (if third party requester)

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DETAILED ACTION

1. A request for *ex parte* reexamination of claims 1-11 of U.S. Patent No. 6,169,368 ("the '368 patent") was filed on January 11, 2012.

Prior Art Cited in the Request

2. The following patents and printed publications are cited in the request for *ex parte* reexamination:

U.S. Patent No. 5,202,675 to Tokimoto et al. ("Tokimoto").

U.S. Patent No. 4,470,044 to Bell ("Bell").

U.S. Patent No. 5,302,965 to Belcher et al. ("Belcher").

European Pub. No. EP 0 156 544 to Lock et al. ("Lock").

U.S. Patent No. 5,133,081 to Mayo ("Mayo").

U.S. Patent No. 5,108,171 to Spaulding ("Spaulding").

U.S. Patent No. 3,932,746 to Swanson ("Swanson").

U.S. Patent No. 4,726,388 to Swinehart et al. ("Swinehart").

Overview of the Patent

3. The '368 patent describes a visual information system that includes an array of light emitting elements that are individually energizable by a controller in response to a predetermined program stored in a memory and representative of a predetermined visual image. The controller causes selected elements to be turned on and off in a predetermined sequence. In one embodiment, the array of light emitting elements is located at the side of a train track. A sensor activates the controller upon the approach of a train so that a passenger gazing at the array as the

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train passes will perceive the image apparently extending over an area substantially greater than the area of the array.

Independent claim 1 of the '368 patent is directed to an arrangement comprising a main computer arranged to store a plurality of different programs, each program representing a respective image, and a plurality of visual information systems, each system having:

an array consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns;

a memory for storing a program representative of a predetermined image;

a controller actuable to control the selection and sequence of energization of the light sources within a predetermined time span in accordance with the predetermined program stored in the memory, so that a viewer observing the array and being carried past the array at a predetermined speed will observe, immediately following said predetermined time span, the predetermined image as an apparently stationary image occupy an area substantially larger than the area of said array; and

said main computer being operable to replace the program stored in said memories with one of said different programs stored in said main computer.

Prosecution History

4. The '368 patent issued on January 2, 2001 from a continued prosecution application of U.S. Application No. 09/101,612 ("the '612 application"), filed under 35 U.S.C. § 371 in the national stage on September 14, 1998.

The '612 application originally presented claims 1-15 for examination. A notice of allowance was mailed on September 24, 1999, including an examiner's amendment to the

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claims. Claims 1-15 were allowed. The examiner stated in the reasons for allowance that the prior art of record "does not teach or disclose a visual information system comprising an array consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns, a memory, and a controller wherein the rate of operation of the controller being set to correspond with the speed of the carrier past the array such that the observer in the carrier past the array will observe a predetermined image represented by a program stored in the memory as a stationary image occupying an area substantially larger than the that of the array" (page 5).

An amendment was filed on October 4, 1999 canceling claims 1-9 and adding new claims 16-25. An amendment to claim 15 was filed on December 23, 1999. An amendment canceling claims 16 and 17 and adding new claim 26 was filed on May 5, 2000. A notice of allowance was mailed on June 1, 2000. Claims 10-15 and 18-26 were allowed and renumbered as claims 1-15. No new reasons for allowance were made of record. A certificate of correction was signed on November 12, 2002, including corrections to the claims.

Substantial New Questions of Patentability

5. The requester asserts that claims 1, 3, 4 and 7-11 of the '368 patent are unpatentable over the Tokimoto reference (request, pages 2-8).

The Tokimoto reference was not of record or considered in the examination of the '612 application. Tokimoto teaches a display apparatus consisting of $L \times 1$ picture elements, each picture element comprising red, green and blue color elements arranged in rows and columns (see, e.g., FIG. 7-(a) and column 7, lines 26-31). The picture elements are controlled based on the speed of an observer moving past the display apparatus such that the observer will observe an

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L×M image, the area of which is larger than the area of the L×1 display apparatus (see, e.g., FIG. 7-(d) and column 7, lines 20-49). The teachings of Tokimoto are new and non-cumulative to the prior art considered in the examination of the '612 application. Thus, there is a substantial likelihood that a reasonable examiner would consider the teachings of Tokimoto important in deciding whether the claims of the '368 patent are patentable.

Accordingly, the examiner agrees that the Tokimoto reference raises a substantial new question of patentability.

6. The requester asserts that claim 2 of the '368 patent is unpatentable over the Tokimoto reference in combination with the Mayo reference (request, page 4).

As noted above, the Tokimoto reference was not of record or considered in the examination of the '612 application. Likewise, the Mayo reference was not of record or considered in the examination of the '612 application. Tokimoto teaches a display apparatus consisting of L×1 picture elements, each picture element comprising red, green and blue color elements arranged in rows and columns (see, e.g., FIG. 7-(a) and column 7, lines 26-31). The picture elements are controlled based on the speed of an observer moving past the display apparatus such that the observer will observe an L×M image, the area of which is larger than the area of the L×1 display apparatus (see, e.g., FIG. 7-(d) and column 7, lines 20-49). Mayo further teaches a remotely programmable billboard system that provides graphical and alphanumeric messages (see, e.g., column 4, lines 56-61). The messages are controlled based on the time of day (see, e.g., column 8, lines 18-24). The teachings of Tokimoto and Mayo are new and non-cumulative to the prior art considered in the examination of the '612 application. Thus, there is a

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substantial likelihood that a reasonable examiner would consider the teachings of Tokimoto and Mayo important in deciding whether the claims of the '368 patent are patentable.

— Accordingly, the examiner agrees that the Tokimoto reference in combination with the Mayo reference raises a substantial new question of patentability.

7. The requester asserts that claim 5 of the '368 patent is unpatentable over the Tokimoto reference in combination with the Spaulding reference (request, page 5).

As noted above, the Tokimoto reference was not of record or considered in the examination of the '612 application. Likewise, the Spaulding reference was not of record or considered in the examination of the '612 application. Tokimoto teaches a display apparatus consisting of $L \times 1$ picture elements, each picture element comprising red, green and blue color elements arranged in rows and columns (see, e.g., FIG. 7-(a) and column 7, lines 26-31). The picture elements are controlled based on the speed of an observer moving past the display apparatus such that the observer will observe an $L \times M$ image, the area of which is larger than the area of the $L \times 1$ display apparatus (see, e.g., FIG. 7-(d) and column 7, lines 20-49). Spaulding further teaches an infrared sensing means for activating an image display panel (see, e.g., FIG. 1 and column 5, lines 37-59). The teachings of Tokimoto and Spaulding are new and non-cumulative to the prior art considered in the examination of the '612 application. Thus, there is a substantial likelihood that a reasonable examiner would consider the teachings of Tokimoto and Spaulding important in deciding whether the claims of the '368 patent are patentable.

Accordingly, the examiner agrees that the Tokimoto reference in combination with the Spaulding reference raises a substantial new question of patentability.

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8. The requester asserts that claim 6 of the '368 patent is unpatentable over the Tokimoto reference in combination with the Spaulding reference, the Swanson reference and the Swinehart reference (request, page 6).

As noted above, the Tokimoto and Spaulding references were not of record or considered in the examination of the '612 application. Likewise, the Swanson and Swinehart references were not of record or considered in the examination of the '612 application. Tokimoto teaches a display apparatus consisting of $L \times 1$ picture elements, each picture element comprising red, green and blue color elements arranged in rows and columns (see, e.g., FIG. 7-(a) and column 7, lines 26-31). The picture elements are controlled based on the speed of an observer moving past the display apparatus such that the observer will observe an $L \times M$ image, the area of which is larger than the area of the $L \times 1$ display apparatus (see, e.g., FIG. 7-(d) and column 7, lines 20-49). Spaulding teaches an infrared sensing means for activating an image display panel (see, e.g., FIG. 1 and column 5, lines 37-59). Swanson likewise teaches infrared sensors comprising infrared transmitters and receivers (see, e.g., column 7, lines 52-62). The sensors are for controlling a process based on the movement of a vehicle past the sensors (see, e.g., column 8, lines 19-36). Swinehart further teaches the use of such sensors in start-stop gates to activate and deactivate a counter-timer (see, e.g., column 1, line 65 to column 2, line 5). The teachings of Tokimoto, Spaulding, Swanson and Swinehart are new and non-cumulative to the prior art considered in the examination of the '612 application. Thus, there is a substantial likelihood that a reasonable examiner would consider the teachings of Tokimoto, Spaulding, Swanson and Swinehart important in deciding whether the claims of the '368 patent are patentable.

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Accordingly, the examiner agrees that the Tokimoto reference in combination with the Spaulding, Swanson and Swinehart references raises a substantial new question of patentability.

9. The requester asserts that claim 1 of the '368 patent is unpatentable over the Bell reference in combination with the Lock reference (request, page 9).

The Bell and Lock references were not of record or considered in the examination of the '612 application. Bell teaches an array of light emitting diodes (see, e.g., FIG. 1 and column 4, lines 4-20). The light emitting diodes are independently energized according to a pattern such that an observer moving his or her eyes across the array at a predetermined speed will observe an image (see, e.g., column 4, lines 24-33 and 37-41). The area of the image is larger than the area of the array (see, e.g., FIG. 4 and column 6, lines 39-52). Lock further teaches a visual display apparatus comprising an array of light sources and programming to encode an image displayed to an observer (see, e.g., abstract). The teachings of Bell and Lock are new and non-cumulative to the prior art considered in the examination of the '612 application. Thus, there is a substantial likelihood that a reasonable examiner would consider the teachings of Bell and Lock important in deciding whether the claims of the '368 patent are patentable.

Accordingly, the examiner agrees that the Bell reference in combination with the Lock reference raises a substantial new question of patentability.

10. The requester asserts that claim 1 of the '368 patent is unpatentable over the Bell reference in combination with the Belcher reference (request, page 10).

As noted above, the Bell reference was not of record or considered in the examination of the '612 application. Likewise, the Belcher reference was not of record or considered in the

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examination of the '612 application. Bell teaches an array of light emitting diodes (see, e.g., FIG. 1 and column 4, lines 4-20). The light emitting diodes are independently energized according to a pattern such that an observer moving his or her eyes across the array at a predetermined speed will observe an image (see, e.g., column 4, lines 24-33 and 37-41). The area of the image is larger than the area of the array (see, e.g., FIG. 4 and column 6, lines 39-52). Belcher further teaches a display comprising an array of light sources a memory for storing data representing a plurality of different images (see, e.g., column 1, lines 50-58). The teachings of Bell and Belcher are new and non-cumulative to the prior art considered in the examination of the '612 application. Thus, there is a substantial likelihood that a reasonable examiner would consider the teachings of Bell and Belcher important in deciding whether the claims of the '368 patent are patentable.

Accordingly, the examiner agrees that the Bell reference in combination with the Belcher reference raises a substantial new question of patentability.

Conclusion

11. A substantial new question of patentability affecting claims 1-11 of '368 patent is raised by the request for *ex parte* reexamination.

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. § 305 requires that *ex parte* reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

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The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving the '368 patent throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

12. All correspondence relating to this *ex parte* reexamination proceeding should be directed:

By mail to: Mail Stop *Ex Parte* Reexam
Attn: Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450


By fax to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

/Michael J. Yigdall/
Primary Examiner, Art Unit 3992

Conferees:


SUDHANSHU C. PATKAR
SPRS, 3992



Primary Examiner Art Unit 3992

EXHIBIT G



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90/D12,089	01/11/2012	6169368	86685-287/RWD	1235
26646	7590	07/02/2012	EXAMINER	
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			ART UNIT	PAPER NUMBER

DATE MAILED: 07/02/2012

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ADE & COMPANY INC.
2157 HENDERSON HIGHWAY
WINNIPEG, MANITOBA R2G 1P9
CANADA

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. 90/012,089.

PATENT NO. 6169368.

ART UNIT 3992.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Office Action in Ex Parte ReexaminationControl No.
90/012,089Patent Under Reexamination
6169368Examiner
Michael J. YigdallArt Unit
3992

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

- a ☐ Responsive to the communication(s) filed on _____. b ☐ This action is made FINAL.
 c ☒ A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire 2 month(s) from the mailing date of this letter. Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c). If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892. 3. ☐ Interview Summary, PTO-474.
 2. ☐ Information Disclosure Statement, PTO/SB/08. 4. ☐ _____.

Part II SUMMARY OF ACTION

- 1a. ☒ Claims 1-11 are subject to reexamination.
 1b. ☒ Claims 12-15 are not subject to reexamination.
 2. ☐ Claims _____ have been canceled in the present reexamination proceeding.
 3. ☐ Claims _____ are patentable and/or confirmed.
 4. ☒ Claims 1-11 are rejected.
 5. ☐ Claims _____ are objected to.
 6. ☐ The drawings, filed on _____ are acceptable.
 7. ☐ The proposed drawing correction, filed on _____ has been (7a) ☐ approved (7b) ☐ disapproved.
 8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some* c) ☐ None of the certified copies have
 1 ☐ been received.
 2 ☐ not been received.
 3 ☐ been filed in Application No. _____.
 4 ☐ been filed in reexamination Control No. _____.
 5 ☐ been received by the International Bureau in PCT application No. _____.
 * See the attached detailed Office action for a list of the certified copies not received.
 9. ☐ Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.
 10. ☐ Other: _____

cc: Requester (if third party requester)

U.S. Patent and Trademark Office

PTOL-466 (Rev. 08-06)

Office Action in Ex Parte Reexamination

Part of Paper No. 20120515

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DETAILED ACTION

1. An order granting the request for *ex parte* reexamination of claims 1-11 of U.S. Patent No. 6,169,368 ("the '368 patent") was mailed on February 28, 2012. Claims 12-15 of the '368 patent are not subject to reexamination.

No statement under 37 CFR 1.530 was filed by the patent owner.

Prior Art Cited in the Order

2. The following patents and printed publications were cited in the order granting the request for *ex parte* reexamination:

U.S. Patent No. 5,202,675 to Tokimoto et al. ("Tokimoto").

U.S. Patent No. 4,470,044 to Bell ("Bell").

U.S. Patent No. 5,302,965 to Belcher et al. ("Belcher").

European Pub. No. EP 0 156 544 to Lock et al. ("Lock").

U.S. Patent No. 5,133,081 to Mayo ("Mayo").

U.S. Patent No. 5,108,171 to Spaulding ("Spaulding").

U.S. Patent No. 3,932,746 to Swanson ("Swanson").

U.S. Patent No. 4,726,388 to Swinehart et al. ("Swinehart").

Summary of Rejections

3. The following rejections of the claims are set forth below in this Office action:

Ground 1: Claims 1, 3/1, 4 and 7-11 are rejected under 35 U.S.C. § 103(a) as unpatentable over Tokimoto in view of Belcher.

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Ground 2: Claims 2 and 3/2 are rejected under 35 U.S.C. § 103(a) as unpatentable over Tokimoto in view of Belcher, and further in view of Mayo.

Ground 3: Claim 5 is rejected under 35 U.S.C. § 103(a) as unpatentable over Tokimoto in view of Belcher, and further in view of Spaulding.

Ground 4: Claim 6 is rejected under 35 U.S.C. § 103(a) as unpatentable over Tokimoto in view of Belcher, and further in view of Swanson.

4. The examiner notes that the rejections set forth below are based on the Tokimoto, Belcher, Mayo, Spaulding and Swanson references. No rejections of the claims, as presently written, are made in this Office action based on the Bell, Lock and Swinehart references because the teachings of those references are essentially cumulative to the teachings cited in the rejections below. However, in order for claims to be found patentable and/or confirmed in this *ex parte* reexamination proceeding, the claims must be patentable over every prior art patent and printed publication cited in the order granting the request.

Claim Rejections under 35 U.S.C. § 103

5. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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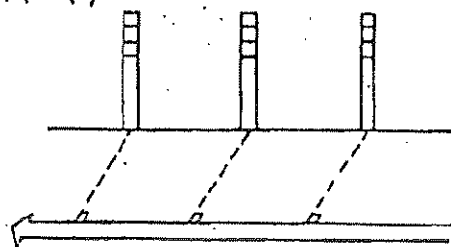
6. Ground 1: Claims 1, 3/1, 4 and 7-11 are rejected under 35 U.S.C. § 103(a) as unpatentable over Tokimoto in view of Belcher.

Claim 1

An arrangement comprising a main computer arranged to store a plurality of different programs, each program representing a respective image, and a plurality of visual information systems, each system having:

Tokimoto teaches a display apparatus that includes a sensor zone, a data-forming zone and a display zone (see, e.g., FIG. 1), and further teaches an arrangement comprising a plurality of display apparatuses (see, e.g., FIG. 14-(a) and column 10, lines 33-42).

Fig.14 - (a)



Tokimoto does not explicitly describe a main computer arranged to store a plurality of different programs, each program representing a respective image.

However, Tokimoto teaches that each display apparatus stores display data (i.e., a program) representing an image (see, e.g., column 2, lines 5-18), and describes an embodiment wherein the display data or program is stored in "reloadable ROM or RAM such as EEPROM and ... can be changed by an external machine" (see, e.g., column 13, lines 60-63).

Moreover, in an analogous art, Belcher teaches a display apparatus that includes "a memory for storing data for providing a plurality of displayed images and control means for controlling the light sources so as to display at least one selected image at a time" (see, e.g., column 1, lines 50-58). Belcher further teaches that "new data" is provided to the apparatus from a remote computer "in order to adapt the display for a desired application" (see, e.g., column 9, lines 30-46).

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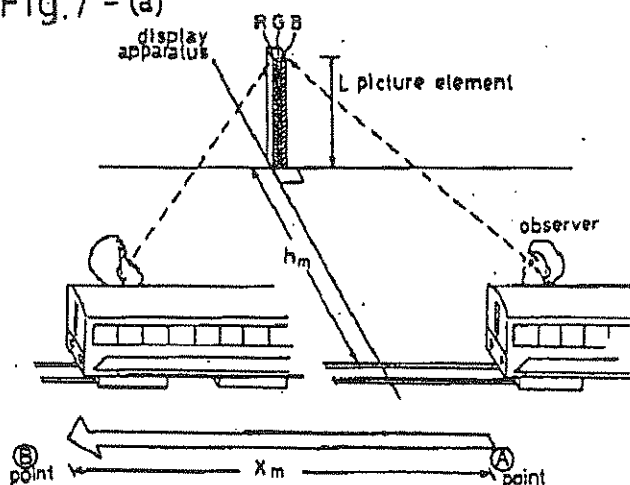
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Therefore, it would have been obvious to those of ordinary skill in the art at the time of the invention to provide Tokimoto with a main computer arranged to store a plurality of different programs, each program representing a respective image. As suggested in Belcher, such an arrangement would allow the display apparatus of Tokimoto to display a plurality of different images for desired applications.

an array consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns;

Tokimoto teaches that each display apparatus includes a display array portion 18 comprising display elements capable of turning on and off (see, e.g., column 4, lines 14-17). The display elements are individually and selectively driven such as illustrated in FIG. 6-(b). Tokimoto describes an array consisting of $L \times 1$ picture elements, each picture element comprising red, green and blue color elements arranged in rows and columns (see, e.g., FIG. 7-(a) and column 7, lines 26-31).

Fig.7 - (a)



a memory for storing a program representative of a predetermined image;

Tokimoto teaches that each display apparatus includes a memory portion 14 storing display data or a program that represents an image (see, e.g., FIG. 1 and column 2, lines 5-18).

a controller actuatable to control the selection and sequence of energization of the light sources within a predetermined time span in accordance

Tokimoto teaches that each display apparatus includes data-forming zone comprising a timing generator 13 that controls the selection and sequence of energizing the display elements within a predetermined time span

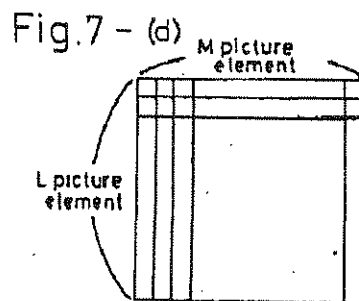
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with the predetermined program stored in the memory, so that a viewer observing the array and being carried past the array at a predetermined speed will observe, immediately following said predetermined time span, the predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array; and

based on the display data or program stored in the memory portion 14 (see, e.g. FIG. 1 and column 6, lines 20-60). Tokimoto further describes that an observer moving past the array at a predetermined speed will observe an apparently stationary $L \times M$ image that is larger than the area of the $L \times 1$ array (see, e.g., FIG. 7-(d) and column 7, lines 20-49).



Tokimoto describes that the display apparatus "can display a large image by a small number of display elements" and that "even an observer moving at a high speed can see the display content by utilizing the after-image effect of eyes" (see, e.g., column 1, lines 7-12).

said main computer being operable to replace the program stored in said memories with one of said different programs stored in said main computer.

As set forth above, Tokimoto describes an embodiment wherein an external machine is operable to change the display data or program stored in the memory of each display apparatus (see, e.g., column 13, lines 60-63), and Belcher likewise teaches that the remote computer is operable to reprogram the data stored in the memory with new data (see, e.g., column 9, lines 30-46).

Claim 3/1

An arrangement according to claim 1 or claim 2 wherein the computer is programmed to replace the program stored in selected ones of the memories in accordance with a location of their associated arrays.

Tokimoto further describes that each display apparatus is programmed according to the location of its array (see, e.g., column 5, lines 18-38, and see, e.g., FIG. 14-(a) and column 10, lines 33-42, describing that "if the space between two adjacent one-dimensional display apparatuses is appropriately set, a continuous long display of picture planes ... as shown in FIG. 14-(b) or a discontinuous frame-to-frame display as shown in FIG. 14-(c) can be obtained"). Therefore, it would have been obvious to those of ordinary skill in the art at

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the time of the invention to configure the computer of Tokimoto to replace the program stored in selected ones of the memories in accordance with a location of their associated arrays.

Claim 4

An arrangement according to claim 1 wherein each said system includes sensing means for monitoring the passage of a carrier carrying said viewer past the array to trigger said controller into action.

Tokimoto further teaches that each display apparatus includes a sensor zone comprising a sensor circuit 11 for detecting the movement of a vehicle carrying the observer past the array and triggering the data-forming zone (see, e.g., FIG. 1 and column 3, line 66 to column 4, line 3, and see, e.g., column 8, lines 39-44).

Claim 7

An arrangement according to claim 1 wherein the controller of each said system is arranged to cyclically repeat the energizations specified by the predetermined program at regular intervals.

Tokimoto further teaches that that the display elements are cyclically energized "in regular succession" at an interval based on the speed of the observer moving past the array (see, e.g., column 5, lines 18-38).

Claim 8

An arrangement according to claim 1 wherein the array of each said system consists of light sources of different colors and wherein the predetermined program specifies different durations of energization of the different colored light sources.

Tokimoto further teaches that the array consists of picture elements comprising red, green and blue color elements (see, e.g., column 7, lines 26-31), and describes that the color elements are energized for different durations (see, e.g., column 7, lines 3-19).

Claim 9

An arrangement according to claim 1 wherein the controller of each said system is arranged to complete one cycle of the predetermined programs within a period of 0.015 seconds.

Tokimoto further teaches that the scanning speed of each display apparatus is controlled based on the speed of the observer moving past the array (see, e.g., column 6, lines 20-60), and describes an example wherein the display is "changed over at an interval of 78 μ sec" (see,

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e.g., column 8, lines 31-35). In other words, Tokimoto describes that one cycle of the display is completed in 78 microseconds (7.8×10^{-5} seconds), which falls within a period of 0.015 seconds.

Claim 10

An arrangement according to claim 1 wherein the ratio of rows to columns in each said array is 16:1 or greater.

Tokimoto further teaches that the ratio of rows to columns of picture elements in one embodiment of each array is 256:1 (see, e.g., column 8, lines 17-19).

Claim 11

An arrangement according to claim 1 wherein in each said system each light source comprises a light emitting diode and the controller includes a driver for driving each light emitting diode, the driver being arranged to vary a period for which its corresponding diode is energized in accordance with the program stored in the memory.

Tokimoto further teaches that each display element comprises an LED or light emitting diode (see, e.g., column 4, lines 14-17). The controller includes a driver for driving each LED such illustrated in FIG. 6-(b). Tokimoto further teaches that the timing generator 13 controls the time each LED is energized based on the display data or program stored in the memory (see, e.g., column 7, lines 3-19).

7. Ground 2: Claims 2 and 3/2 are rejected under 35 U.S.C. § 103(a) as unpatentable over Tokimoto in view of Belcher, and further in view of Mayo.

Claim 2

An arrangement according to claim 1 wherein said main computer is programmed to replace the program stored in selected ones of the memories in accordance with the time of day.

Tokimoto does not explicitly describe that the main computer is programmed to replace the program stored in selected ones of the memories in accordance with the time of day.

However, in an analogous art, Mayo teaches a remotely programmable billboard system for displaying messages along a highway, for example (see, e.g., column 4, lines 56-61). Mayo further teaches that the messages are made "active or inactive depending on the

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time of day" (see, e.g., column 8, lines 19-24).

Likewise, the display apparatus of Tokimoto is for displaying images to passengers in a tunnel, for example (see, e.g., FIG. 7-(a) and abstract). Therefore, in view of Mayo, it would have been obvious to those of ordinary skill in the art at the time of the invention to configure the computer of Tokimoto to replace the program stored in selected ones of the memories in accordance with the time of day. Such a configuration would allow the display apparatus of Tokimoto to display different images to the passengers in the tunnel based on the time of day.

Claim 3/2

An arrangement according to claim 1 or claim 2 wherein the computer is programmed to replace the program stored in selected ones of the memories in accordance with a location of their associated arrays.

Tokimoto further describes that each display apparatus is programmed according to the location of its array (see, e.g., column 5, lines 18-38, and see, e.g., FIG. 14-(a) and column 10, lines 33-42, describing that "if the space between two adjacent one-dimensional display apparatuses is appropriately set, a continuous long display of picture planes ... as shown in FIG. 14-(b) or a discontinuous frame-to-frame display as shown in FIG. 14-(c) can be obtained"). Therefore, it would have been obvious to those of ordinary skill in the art at the time of the invention to configure the computer of Tokimoto to replace the program stored in selected ones of the memories in accordance with a location of their associated arrays.

8. Ground 3: Claim 5 is rejected under 35 U.S.C. § 103(a) as unpatentable over Tokimoto in view of Belcher, and further in view of Spaulding.

Claim 5

An arrangement according to claim 4 wherein each said sensing means has infrared sensing means arranged to activate said controller upon approach

Tokimoto further teaches that the sensor circuit 11 comprises first and second optical sensors to detect the speed and direction of a moving vehicle and activate the controller accordingly (see, e.g., column 4, lines 20-

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of said carrier to the array and to deactivate the controller upon the departure of said carrier away from said array.

41 and 49-68), but does not explicitly describe infrared sensing means arranged to activate said controller upon approach of said carrier to the array and to deactivate the controller upon the departure of said carrier away from said array.

However, in an analogous art, Spaulding teaches a display apparatus for displaying stationary images to passengers in a moving vehicle (see, e.g., FIG. 1 and abstract). Spaulding further teaches sensors for triggering the display apparatus according to a coded signal 3 "of pulsed infrared light" (see, e.g., column 5, lines 37-54). Spaulding describes that the coded, infrared signals allow the display apparatus to respond only when intended such that "other sources of light and infrared light will not trigger image illumination" (see, e.g., column 5, lines 54-59).

Therefore, it would have been obvious to those of ordinary skill in the art at the time of the invention to implement the sensor circuit 11 of Tokimoto such that the sensors comprise infrared sensing means arranged to activate said controller upon approach of said carrier to the array and to deactivate the controller upon the departure of said carrier away from said array. As Spaulding suggests, such an implementation would allow the display apparatus of Tokimoto to illuminate only when intended.

9. Ground 4: Claim 6 is rejected under 35 U.S.C. § 103(a) as unpatentable over Tokimoto in view of Belcher, and further in view of Swanson.

Claim 6

An arrangement according to claim 4 wherein each said sensing means comprises a first infrared transmitter and receiver pair located upstream of the array and a second infrared and transmitter pair located downstream of the array.

Tokimoto further teaches that the sensor circuit 11 comprises first and second optical sensors to detect the speed and direction of a moving vehicle and activate the controller accordingly (see, e.g., column 4, lines 20-41 and 49-68), but does not explicitly describe a first infrared transmitter and receiver pair located upstream of the array and a second infrared and transmitter pair

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located downstream of the array.

However, in an analogous art, Swanson teaches a set of first and second "start-stop gates" for starting and stopping a timing system (see, e.g., abstract). Swanson further teaches that each start-stop gate comprises an infrared source or transmitter and an infrared receiver (see, e.g., column 1, line 65 to column 2, line 10, and column 2, lines 60-64). Swanson describes that the infrared transmitters and receivers are highly accurate "in a variety of atmospheric, weather and ambient conditions" (see, e.g., column 1, lines 57-61).

Therefore, it would have been obvious to those of ordinary skill in the art at the time of the invention to implement the sensor circuit 11 of Tokimoto such that the sensors comprise a first infrared transmitter and receiver pair located upstream of the array and a second infrared and transmitter pair located downstream of the array. As Swanson suggests, such an implementation would allow for accurately starting and stopping the display apparatus of Tokimoto in different environmental conditions.

Conclusion

10. In order to ensure full consideration of any amendments, affidavits or declarations, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116 after final rejection and 37 CFR 41.33 after appeal, which will be strictly enforced.

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11. Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. § 305 requires that *ex parte* reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving the '368 patent throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

12. All correspondence relating to this *ex parte* reexamination proceeding should be directed:

By mail to: Mail Stop *Ex Parte* Reexam
Attn: Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By fax to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

By EFS: Registered users may submit correspondence via the EFS-Web electronic filing system at <https://efs.uspto.gov/efile/myportal/efs-registered>.

Application/Control Number: 90/012,089
Art Unit: 3992

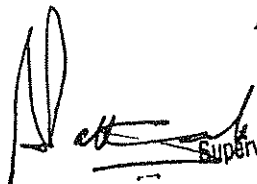
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Any inquiry concerning this communication should be directed to the Central
Reexamination Unit at telephone number (571) 272-7705.

/Michael J. Yigdal/
Primary Examiner, Art Unit 3992

Conferees:

/Luke S. Wassum/
Primary Examiner
Art Unit 3992

 SUDHANSHU C. PATHAK
Supervisory Patent Reexamination Specialist
CRU -- Art Unit 3992

Reexamination 	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90012089	6169368
	Certificate Date	Certificate Number

Requester Correspondence Address:	<input type="checkbox"/> Patent Owner	<input checked="" type="checkbox"/> Third Party
ADE & COMPANY INC. 2157 HENDERSON HIGHWAY WINNIPEG, MANITOBA R2G 1P9 CANADA		

LITIGATION REVIEW <input checked="" type="checkbox"/>	MY (examiner initials)	01/24/2012 (date)
Case Name		Director Initials
(None found)		<i>for Reg.</i>

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	NUMBER
1. (No copending Office proceedings)	

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EXHIBIT H

SEP-03-2012 00:12

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P.02/11

FAX RECEIVED

SEP 03 2012

Attorney Docket No. 15027/5002

CENTRAL REEXAMINATION UNIT UNITED STATES PATENT AND TRADEMARK OFFICE

FIRST NAMED APPLICANT: Guy Edward John Margetson
REEXAM SERIAL NO.: 90/012,089
REEXAM FILED: January 11, 2012
US PATENT NO.: 6,169,368
TITLE: VISUAL INFORMATION SYSTEMS
ART UNIT: 3992
CONFIRMATION: 1235
EXAMINER: Michael J. Yigdall

Mail Stop *Ex Parte* Reexam
Attn: Central Reexamination Unit
Commissioner for Patents
US Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

I hereby certify that this correspondence is being filed with the United States Patent and Trademark Office via facsimile submission with attention to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Date: September 2, 2012

Signature: Linda Lecomte
Linda Lecomte (Reg. No. 47,084)

RESPONSE

SIR:

Kindly amend the above-captioned application before further examination, as set forth below:

Amendments to the Claims are reflected in the listing of the claims which begins on page 2 of this paper.

Remarks begin on page 6 of this paper.

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P.03/11

AMENDMENTS TO THE CLAIMS:

Without prejudice, this listing of the claims replaces all prior versions and listings of the claims in the present application:

LISTING OF CLAIMS:

1. (Original) A visual information system for use in connection with a carrier for carrying observers along a predetermined path, the system comprising an array to be located adjacent said path and consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns, a memory for storing a program representative of a predetermined image, a controller actuatable to control the selection and sequence of energization of the light sources within a predetermined time span corresponding to persistent time of a human retina to light, and in accordance with the predetermined program stored in the memory, a rate of operation of the controller being set to correspond with a speed of the carrier past the array such that an observer carried by the carrier past the array will observe said predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array.
2. (Original) A system according to claim 1, including sensing means for monitoring passage of the carrier carrying said observer past the array to actuate said controller.
3. (Original) A system according to claim 2, wherein said sensing means comprises infrared sensing means arranged to activate said controller upon approach of said carrier to the array and to deactivate the controller upon departure of said carrier away from said array.
4. (Original) A system according to claim 3, wherein the sensing means comprises a first infrared transmitter and receiver pair located upstream of the array and a second infrared receiver and transmitter pair located downstream of the array.
5. (Original) A system according to any preceding claim, wherein the controller is arranged to cyclically repeat the energizations specified by the predetermined program at regular intervals.

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P.04/11

6. (Original) A system according to claim 1, wherein the array consists of light sources of different colors and wherein the predetermined program specifies different durations of energization of the different colored light sources.
7. (Original) A system according to claim 1, wherein said controller is arranged to complete one cycle of the predetermined program within a period of 0.015 seconds.
8. (Original) A system according to claim 1, wherein a ratio of rows to columns in the array is 16:1 or greater.
9. (Original) A system according to claim 1, wherein each light source comprises a light emitting diode and the controller includes a driver for driving each light emitting diode, the driver being arranged to vary a period for which its corresponding diode is energized in accordance with the program stored in the memory.
10. (Original) An arrangement comprising a plurality of systems each according to claim 1 and a main computer arranged to store a plurality of different programs, each program representing a respective image, said main computer being operable to replace the program stored in said memories with a program stored in said main computer.
11. (Original) An arrangement according to claim 10, wherein said main computer is programmed to replace the program stored in selected ones of the memories in accordance with the time of day.
12. (Original) An arrangement according to claim 10 or claim 11, wherein the computer is programmed to replace the program stored in selected ones of the memories in accordance with a location of their associated arrays.
13. (Original) A transport system having a path along which carriers can pass and a visual display system located adjacent said path, the display system comprising a fibre optic array in which one end of a bundle of optical fibers is arranged so that ends of the individual fibers form a vertically elongate array of rows and columns and ends of the individual fibers at the

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P.05/11

opposite end of the bundle are connected to an electro-optical interface unit, control means for supplying electrical signals to the interface unit to cause the array to display a succession of images and means for controlling the rate at which the control means supplies said signals in accordance with a speed of a carrier past the display system, and within a time frame related to a persistent time of a human retina to light, such that an observer on the carrier will perceive apparently simultaneously a single horizontally elongate display consisting of said successive images located side by side.

14. (Original) A transport system according to claim 13, wherein the control means includes a computer for generating data representative of a desired display, a local data interface for receiving the data, and a processor for processing the received data and storing it in a memory, the processor being arranged to control the interface unit to respond to the data stored in the memory.

15. (Original) A transport system according to claim 14, wherein the carrier is a train, the path is defined by a train tunnel, and the array is mounted on a wall of the train tunnel and further comprising an on-board transmitter on a passing train to transmit the data from the computer to supply the interface unit with said data.

16. (New) A visual information system for use in connection with a carrier for carrying observers along a predetermined path, the system comprising:

- an array located adjacent to the predetermined path and consisting of a plurality of individually and selectively energizable light sources arranged in rows and columns, each of the light sources including a light emitting diode;
- a memory for storing a program representative of a predetermined image;
- a controller actuatable to control the selection and sequence of energization of the light sources within a predetermined time span corresponding to persistent time of a human retina to light, and in accordance with the predetermined program stored in the memory, a rate of operation of the controller being set to correspond with a speed of the carrier past the array such that an observer carried by the carrier past the array will observe said predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array,

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wherein the controller includes a driver for driving each light emitting diode, the driver being arranged to vary a period for which its corresponding light emitting diode is energized to control respective shade of color displayed in accordance with the program stored in the memory.

17. (New) The system of claim 16, wherein each light source of the array is a row of red, green, blue and white light elements.

18. (New) The system of claim 16, further comprising a sensor for monitoring passage of the carrier carrying said observer past the array to actuate said controller.

19. (New) The system of claim 16, wherein the sensor is an infrared sensor arranged to activate said controller upon approach of said carrier to the array and to deactivate the controller upon departure of said carrier away from said array.

20. (New) The system of claim 19, wherein the sensor includes a first infrared transmitter and receiver pair located upstream of the array and a second infrared receiver and transmitter pair located downstream of the array.

21. (New) The system of claim 16, wherein the controller is arranged to cyclically repeat the energizations specified by the predetermined program at regular intervals.

22. (New) The system of claim 16, wherein the array consists of light sources of different colors and wherein the predetermined program specifies different durations of energization of the different colored light sources.

23. (New) The system of claim 16 further comprising a main computer arranged to store a plurality of different programs, each program representing a respective image, the main computer being operable to replace the program stored in said memories with a program stored in the main computer.

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REMARKS

New claims 16 to 23 have been added. Support for those claims can be found in the Detailed Disclosure section of Applicants' original Specification. No new matter has been added. The new claims presented do not provide a broadening of the claims.

Claims 1 to 23 are pending in the present application. Reconsideration of the allowability of those claims is respectfully requested.

Applicants note that claims 12 to 15 are not subject to reexamination here. Those claims will not be addressed in the below remarks.

Claims 1, 3, 4, and 7 to 11, were rejected under 35 USC § 103(a) for allegedly being obvious over U.S. Patent No. 5,202,675 to Tokimoto ("Tokimoto reference") in view of U.S. Patent No. 5,302,965 to Belcher ("Belcher reference").

The Tokimoto reference recites an "n-dimensional type scanning display method and apparatus" by which "an observer moving at a high speed can see the display content by utilizing the after-image effect of eyes and which can display a large image by a small number of display elements." Specifically, the Tokimoto reference describes in its Disclosure of the Invention and throughout its Specification that it provides an "n-dimensional display image" in the "(n-1)-dimensional plane." Further, the Tokimoto reference describes that it provides an Lx1 array to produce an Lx M image. Further, the Tokimoto describes that it provides picture elements each comprising one color element red, one color element green, and one color element blue.

The Belcher reference refers to a display including a static unit on which is mounted a rotating unit driven by a motor, the rotating unit having light emitting diodes arranged as vertical columns which sweep around a cylindrical surface. The Belcher reference further refers to the light emitting diodes being controlled by a control circuit in accordance with data stored in a memory so as to provide a cylindrical display.

In contrast, claim 1 provides for a visual information system, and requires an array of individually and selectively energizable light sources arranged in rows and columns... such that an observer carried by the carrier past the array will observe said predetermined image as an apparently stationary image occupying an area substantially larger than the area of said array. The present invention concerns using light sources in an array to produce a "substantially larger" image than the array, as in claim 1, not a 2 dimensional (or n dimensional) image from a 1 dimensional (or n-1 dimensional) image, as apparently taught in

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the Tokimoto reference, or a same height but lengthened width of the used array as in Tokimoto. See, e.g., Tokimoto reference, Detailed Disclosure, first 13 paragraphs, and Fig. 7(a) and accompanying text. Further, claim 1 requires that the light sources are arranged "in rows and columns" in contrast to the Tokimoto reference teaching of an Lx1 array. See, e.g., Tokimoto reference, Fig. 7(a) and accompanying text. Further, claim 1 requires a memory element, the memory storing a program which is "representative of a predetermined image" and "in accordance with the predetermined program stored in the memory, a rate of operation of the controller being set to correspond with a speed of the carrier." The Tokimoto reference does not disclose a program in which the rate of operation of the controller is set to correspond with a speed of the carrier. Instead, the Tokimoto reference refers a ROM 77 or a memory storing a preset image which is then displayed, but no sensing of the speed or operation of a carrier is made by Tokimoto. See, e.g., Tokimoto reference, Fig. 21 and accompanying text, Fig. 14 and accompanying text, and Fig. 1 and accompanying text. Further, the Tokimoto reference does not teach or disclose a controller which is actuatable to control the selection and sequence of energization of light sources as in claim 1. Instead the Tokimoto reference essentially appears to teach displaying a preset timed sequence, and in order to change any presets, such "data can be changed by an external machine." See, Tokimoto reference, Fig. 1 and accompanying text, Fig. 7(a) and accompanying text, Fig. 21 and accompanying text.

The Belcher reference in combination with the Tokimoto reference does not cure each of the deficiencies of the Tokimoto reference described above. For example, while the Belcher reference refers to providing LEDs controlled by a control circuit responding to data stored, the Belcher reference does not teach or disclose any of: a "substantially larger" display image relative to the light source arrays, light source arrays arranged in rows and columns, rate of operation by a controller being set to correspond with a speed of an object (i.e., carrier) moving past the image, among others. The Belcher reference instead refers to a completely different system in which the moving piece and the light source are located on the same platform so that the light sources project a repeating image. See, e.g., Belcher reference, Fig. 5 and accompanying text.

Accordingly, Applicants respectfully submit that claim 1 is allowable over the combination of the Tokimoto and Belcher references, and that claims 3, 4, and 7 to 11, are also allowable over the references since those claims depend ultimately from claim 1.

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Applicant kindly request the withdrawal of the rejection of claims 1, 3, 4, and 7 to 11.

Claims 2 and 3, were rejected under 35 USC § 103(a) for allegedly being obvious over the Tokimoto reference in view of the Belcher reference and further in view of U.S. Patent No. 5,133,081 to Mayo ("Mayo reference").

Claims 2 and 3 depend from claim 1, and are believed allowable over the Tokimoto and Belcher references as described above. The Mayo reference in combination with the Tokimoto and Belcher references does not cure each of the outstanding deficiencies of those references described above. The Mayo reference refers to a remotely controllable message broadcast system which includes remote message transmitters and repeaters, but does not teach or disclose (nor is cited as support for teaching or disclosing) a "substantially larger" display image relative to the light source arrays, light source arrays arranged in rows and columns, rate of operation by a controller being set to correspond with a speed of an object (i.e., carrier) moving past the image, among others.

Accordingly, Applicants respectfully submit that claims 2 and 3 are allowable over the combination of the Tokimoto, Belcher, and Mayo references. Applicant kindly request the withdrawal of the rejection of claims 2 and 3.

Claim 5 was rejected under 35 USC § 103(a) for allegedly being obvious over the Tokimoto reference in view of the Belcher reference and further in view of U.S. Patent No. 5,108,171 to Spaulding ("Spaulding reference").

Claim 5 depends from claim 1, and is believed allowable over the Tokimoto and Belcher references as described above. The Spaulding reference in combination with the Tokimoto and Belcher references does not cure each of the outstanding deficiencies of those references described above. The Spaulding reference refers to an apparatus for displaying a series of stationary images to form an animated display when seen from a moving subway train is presented. Specifically, the Spaulding reference involves a series of image display panels located along a length of subway track, those stationary panels being momentarily illuminated when a window passes by. A sensor is used to detect the presence of a train or train window by a light signal. The Spaulding reference does not teach or disclose (nor is cited as support for teaching or disclosing) a "substantially larger" display image relative to light source arrays, light source arrays arranged in rows and columns, rate of operation by a controller being set to correspond with a speed of an object (i.e., carrier) moving past the image, among others features described above and as claimed in claim 1.

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Accordingly, Applicants respectfully submit that claim 5 is allowable over the combination of the Tokimoto, Belcher, and Spaulding references. Applicant kindly request the withdrawal of the rejection of claim 5.

Claim 6 was rejected under 35 USC § 103(a) for allegedly being obvious over the Tokimoto reference in view of the Belcher reference and further in view of U.S. Patent No. 3,932,746 to Swanson ("Swanson reference").

Claim 6 depends from claim 1, and is believed allowable over the Tokimoto and Belcher references as described above. The Swanson reference in combination with the Tokimoto and Belcher references does not cure each of the outstanding deficiencies of those references described above. The Swanson reference refers to a self-contained timing system having photoelectronic start-stop gates which employ a pulsed invisible light beam to communicate elapsed time, et al. The Swanson reference does not teach or disclose (nor is cited as support for teaching or disclosing) a "substantially larger" display image relative to light source arrays, light source arrays arranged in rows and columns, rate of operation by a controller being set to correspond with a speed of an object (i.e., carrier) moving past the image, among others features described above and as claimed in claim 1.

Accordingly, Applicants respectfully submit that claim 6 is allowable over the combination of the Tokimoto, Belcher, and Swanson references. Applicant kindly request the withdrawal of the rejection of claim 6.

In view of the foregoing, Applicants respectfully submit that the claims are in condition for allowance over the cited references. Should the Examiner(s) believe otherwise, Applicants respectfully request an Examiner Interview to discuss the current claims and the cited references.

CONCLUSION

For at least the foregoing reasons, Applicants respectfully submit that any outstanding rejections of the claims have been overcome, that claims 1 to 11 are in condition for allowance, and that all claims 1 to 11 of U.S. Patent No. 6,169,368 under reexamination and new claims 16 to 23, be held patentable. It is therefore respectfully requested that the rejections be reconsidered and withdrawn, and that the present application issue as early as possible.

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Respectfully submitted,

Dated: September 2, 2012

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SEP 03 2012

CENTRAL REEXAMINATION UNIT

Attorney Docket No. 15027/5002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

FIRST NAMED APPLICANT: Guy Edward John Margetson
REEXAM SERIAL NO.: 90/012,089
REEXAM FILED: January 11, 2012
US PATENT NO.: 6,169,368
TITLE: VISUAL INFORMATION SYSTEMS
ART UNIT: 3992
CONFIRMATION: 1235
EXAMINER: Michael J. Yigdal

Mail Stop *Ex Parte* Reexam
Attn: Central Reexamination Unit
Commissioner for Patents
US Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

I hereby certify that this correspondence is being filed with the United States Patent and Trademark Office via facsimile with attention to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:
Date: September 2, 2012
Signature: /Linda Lecomte/
Linda Lecomte (Reg. No. 47,084)

TRANSMITTAL OF RESPONSE AND REQUEST FOR EXTENSION

SIR:

Transmitted herewith for filing in the above-identified patent application is a Response to the Office Action dated July 2, 2012.

No fee is believed due. The Commissioner is authorized, as appropriate and/or necessary, to charge any fees (including any Rule 136(a) extension fees, extra claim fees, reexamination fees, etc.) and/or credit any overpayment to Deposit Account No. 11-0600.

Respectfully submitted,

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