UNITED STATES DISTRICT COURT WESTERN DISTRICT OF TEXAS WACO DIVISION

EXPRESS MOBILE,	INC.,	
	Plaintiff,	Case No. 6:20-cv-00804-ADA
v. GOOGLE LLC,		Jury Trial Demanded
	Defendant.	

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Express Mobile, Inc. ("Express Mobile" or "Plaintiff"), by its attorneys, demands a trial by jury on all issues so triable and for its Complaint against Google LLC ("Google" or "Defendant") alleges the following:

NATURE OF THE ACTION

1. This action arises under 35 U.S.C. § 271 for Google's infringement of Express Mobile's United States Patent Nos. 6,546,397 ("the '397 patent"), 7,594,168 ("the '168 patent"), 9,928,044 ("the '044 patent"), 9,471,287 ("the '287 patent") and 9,063,755 ("the '755 patent").

THE PARTIES

- 2. Plaintiff Express Mobile, Inc. is an inventor-owned corporation organized under the laws of the State of Delaware with a place of business at 38 Washington Street, Novato, California 94947.
- 3. Upon information and belief, Google LLC is located at 500 W 2nd St., Austin, TX 78701 and can be served through its registered agent for service at CSC Lawyers Incorporating Service California 2710 Gateway Oaks Drive Ste 150N, Sacramento, California 95833.

4. Upon information and belief, Google is an American multinational technology company that specializes in Internet-related services and products, which include online advertising technologies, a search engine, cloud computing, software, and hardware.

JURISDICTION AND VENUE

- 5. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 6. Upon information and belief, jurisdiction and venue for this action are proper in the Western District of Texas.
- 7. This Court has personal jurisdiction over Defendant because Defendant has purposefully availed itself of the rights and benefits of the laws of this State and this Judicial District. Upon information and belief, Google resides in the Western District of Texas by maintaining a regular and established place of business at 500 W 2nd St., Austin, TX 78701.
- 8. This Court also has personal jurisdiction over Defendant because it has done and is doing substantial business in this Judicial District, both generally and, upon information and belief, with respect to the allegations in this complaint, including Defendant's one or more acts of infringement in this Judicial District.
- 9. Venue is proper in this Judicial District under 28 U.S.C. §§ 1391(b) and (c) and § 1400(b). Defendant has committed acts of infringement through, for example, performing a method to allow users to produce Internet websites in the Western District of Texas and has a regular and established place of business in this District. Google's office at 500 W 2nd St., Austin, TX 78701 is a physical place in the District, it is an established location where Google's business has been carried out for several years, and Google publicly advertises its presence in the District.

THE PATENTS-IN-SUIT

- 10. Express Mobile is the lawful owner of all rights, title, and interest in the '397 patent titled "Browser Based Web Site Generation Tool and Run Time Engine," including the right to sue and to recover for infringement thereof. The '397 patent was duly and legally issued on April 8, 2003, naming Steven H. Rempell as the inventor. A true and correct copy of the '397 patent is attached as Exhibit A.
- 11. The inventions of the '397 patent solve technical problems related to website creation and generation. For example, the inventions enable the creation of websites through browser-based visual editing tools such as selectable settings panels which describe website elements, with one or more settings corresponding to commands. These features are exclusively implemented utilizing computer technology including a virtual machine.
- 12. The claims of the '397 patent do not merely recite the performance of some pre-Internet business practice on the Internet. Instead, the claims of the '397 patent recite inventive concepts that are rooted in computerized website creation technology, and overcome problems specifically arising in the realm of computerized website creation technologies.
- 13. The claims of the '397 patent recite inventions that are not merely the routine or conventional use of website creation systems and methods. Instead, the inventions teach a browser-based website creation system and method in which the user-selected settings representing website elements are stored in a database, and in which said stored information is retrieved to generate said website.
- 14. The technology claimed in the '397 patent does not preempt all ways of using website or web page authoring tools nor any other well-known prior art technology.

- 15. Accordingly, each claim of the '397 patent recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.
- 16. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent No. 7,594,168 titled "Browser Based Web Site Generation Tool and Run Time Engine," including the right to sue and to recover for infringement thereof. The '168 patent was duly and legally issued on September 22, 2009, naming Steven H. Rempell as the inventor. A true and correct copy of the '168 patent is attached as Exhibit B.
- 17. The inventions of the '168 patent solve technical problems related to website creation and generation. For example, the inventions enable the creation of websites through browser-based build tools and a user interface. The inventions greatly improve the productivity of the designer utilizing an innovative implementation for styles. These features are implemented utilizing computer technology.
- 18. The claims of the '168 patent do not merely recite the performance of some pre-Internet business practice on the Internet. Instead, the claims of the '168 patent recite inventive concepts that are rooted in computerized website creation technology and overcome problems specifically arising in the realm of computerized website creation technologies.
- 19. The claims of the '168 patent recite inventions that are not merely the routine or conventional use of website creation systems and methods. Instead, the inventions teach a browser-based website creation system including a server comprising a build engine configured to create and apply styles to, for example, a website with web pages comprised of objects.
- 20. The technology claimed in the '168 patent does not preempt all ways of using website or webpage authoring tools nor any other well-known or prior art technology.

- 21. Accordingly, each claim of the '168 patent recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.
- 22. In *Express Mobile v. KTree Computer Solutions*, a case filed in the Eastern District of Texas, the defendant, KTree Computer Solutions, brought a Motion for Judgment on the Pleadings asserting that the '397 patent and the '168 patent is invalid as claiming abstract subject matter under 35 U.S.C. § 101. (C.A. 2:17-00128; Dkt. 9, 17, 22-27). The briefing associated with the motion is incorporated by reference into this Complaint.
- 23. After considering the respective pleadings, Magistrate Judge Payne recommended denial of KTree's motion, without prejudice, holding that "the claims appear to address a problem particular to the internet: dynamically generating websites and displaying web pages based on stored user-selected settings" and further stating "the asserted claims do not bear all of the hallmarks of claims that have been invalidated on the pleadings by other courts in the past. For example, the claims are not merely do-it-on-a-computer claims." (Dkt. 29, attached as Exhibit C.) No objection was filed to the Magistrate Judge's report and recommendation and the decision therefore became final.
- 24. In *Express Mobile v. Pantheon Systems, Inc.*, a case filed in the Northern District of California, the defendant, Pantheon Systems, Inc., brought a Motion to Dismiss Plaintiff's First Amended Complaint asserting that the '397 patent and the '168 patent were directed to the abstract idea of creating and displaying webpages based upon information from a user with no further inventive concept and purportedly ineligible for patenting under 35 U.S.C. § 101. (Case No. 3:18-CV-04688-RS; Dkt. 26, 32 and 34). The briefing associated with the motion is incorporated by reference into this Complaint.

- 25. In *Express Mobile v. Code and Theory LLC*, a case filed in the Northern District of California, the defendant, Code and Theory LLC, brought a Motion to Dismiss Plaintiff's Complaint asserting that the '397 patent and the '168 patent are not subject matter eligible under 35 U.S.C. § 101 as a matter of law. (Case No. 3:18-CV-04679-RS; Dkt. 35, 40 and 41). The briefing associated with the motion is incorporated by reference into this Complaint.
- 26. After a hearing and a consideration of the respective pleadings, Hon. Richard Seeborg denied both motions holding that:
 - "The patents here are directed at a purportedly revolutionary technological solution to a technological problem—how to create webpages for the internet in a manner that permits 'what you see is what you get' editing, and a number of other alleged improvements over the then-existing methodologies." *Id.* at 5.
 - The claims of the '397 and '168 patents are "directed to a specific improvement to the way computers operate," and "it simply cannot be said on the present record that the claims are drawn so broadly as to be divorced from the potentially patent-eligible purported technological improvements described in the specification." *Id.* at 5-6. (Case No. 3:18-CV-04679-RS; Dkt.45; Case No. 3:18-CV-04688-RS Dkt.40; attached as Exhibit D.)
- 27. In Case Nos. 1:18-CV-01173-RGA and 1:18-CV-01175-RGA, infringement actions filed by Plaintiff in the District of Delaware, the respective defendants in those actions, Dreamhost LLC and Hostway Services, Inc., brought Motions to Dismiss claims of the '397 and '168 patents on the basis of invalidity under 35 U.S.C. § 101. (Case No. 1:18-CV-01173-RGA D.I. 14, D.I. 18-21 and 24 Case No. 1:18-CV-01175-RGA D.I. 17-19 and 23). The briefing associated with the motion is incorporated by reference into this Complaint.
- 28. After consideration of the respective pleadings, Judge Andrews denied both motions in a joint order, pointing to factual allegations of inventiveness identified by the Plaintiff, and an expert declaration explaining inventiveness of the claims, noting that such factual issues preclude a finding of invalidity on a motion to dismiss. (Case No. 1:18-CV-01173-RGA D.I. 43; Case No. 1:18-CV-01175-RGA D.I. 42; attached as Exhibit E.)

- 29. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent No. 9,928,044 titled "Systems and Methods for Programming Mobile Devices," including the right to sue and to recover for infringement thereof. The '044 patent was duly and legally issued on March 27, 2018, naming Steven H. Rempell, David Chrobak and Ken Brown as the inventors. A true and correct copy of the '044 patent is attached as Exhibit F.
- 30. The inventions of the '044 patent solve technical problems associated with methods and systems for displaying content on displays of devices by providing more efficient ways of generating, storing and retrieving code for displaying content, for example, dynamic content, uniformly across different kinds of devices. For example, the inventions of the '044 patent allow a data-efficient and flexible association between a symbolic name with a User Interface ("UI") object (e.g., a UI object for a widget) corresponding to a web component of a web service, that is manually or automatically selected. The symbolic name has a data format type corresponding to a subclass of UI objects that support the data format type of the symbolic name and is only available to UI objects that support the data format of the symbolic name. Information representative of the defined UI object can be stored in a database and subsequently retrieved from the database to build an application consisting of at least a portion of the database using a player, which uses the information to generate one or more web pages for display across different kinds of devices (e.g., PC, mobile or tablet; or different browsers, operating systems and applications, including for example both native and browser-based applications.)
- 31. The claims of the '044 patent do not merely recite the performance of some pre-Internet business practice on the Internet. Instead, the claims of the '044 patent recite inventive concepts that are rooted in the computerized, data-efficient definition, selection, storage and generation of user defined object attributes (e.g., a UI object for a widget) on displays for different types of devices, such as PC, mobile or tablet or different browsers, and applications.

Such features are specifically grounded in, and overcome problems with data efficiency and flexibility specifically arising in, the realm of computerized content generation and display technologies, and are not well-understood, routine and conventional elements.

- 32. For example, the claimed inventions of the '044 patent recite innovative, technical improvements that select and associate symbolic names with defined UI objects (e.g., UI objects for a widget) corresponding to web components of web services based on, for example, data format type, storing information representative of such settings in a database, and building applications, which together with players, generate uniform, data-efficient content, such as dynamic content, for display across different types of devices.
- 33. The technology claimed in the '044 patent does not preempt all ways for the computerized generation of code for a display of a device nor any other well-known or prior art technology. For example, the specific, innovative technical improvements do not preempt well-known methods of generating code for a display of a device by programming in HTML or JavaScript code.
- 34. Accordingly, each claim of the '044 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.
- 35. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent No. 9,471,287 titled "Systems and Methods for Integrating Widgets on Mobile Devices," including the right to sue and to recover for infringement thereof. The '287 patent was duly and legally issued on October 18, 2016, naming Steven H. Rempell, David Chrobak and Ken Brown as the inventors. A true and correct copy of the '287 patent is attached as Exhibit G.
- 36. The inventions of the '287 patent solve technical problems associated with methods and systems for displaying content on displays of devices by providing more efficient

ways of generating code for uniformly displaying content, for example dynamic content, across different kinds of devices. For example, the inventions of the '287 patent allow a data-efficient and flexible association between a symbolic name and a UI object (e.g., a UI object for a widget) corresponding to a web component of a web service, that is defined for presentation on a display of a device. The defined UI object can be selected by a user of an authoring tool or automatically selected by a system based on a web component selected by the user. Further, the symbolic name has a data format type corresponding to a subclass of UI objects that support the data format type of the symbolic name. A device-independent application including the symbolic name is then produced and provided to the device together with a device-platform-dependent player. Such operations provide a user-friendly platform allowing the UI object to be efficiently defined and uniformly displayed across different kinds of devices (e.g., PC, mobile or tablet; or different browsers, operating systems, and applications, including for example both native and browser-based applications).

- 37. The claims of the '287 patent do not recite merely the performance of a known business practice on the Internet. Instead, the claims of the '287 patent recite inventive concepts grounded in the computerized, data-efficient definition and generation of object attributes (e.g., a UI object for a widget) on displays for different types of devices, such as PC, tablet, or mobile devices, or different browsers and applications. Such features are specifically grounded in, and overcome problems with data efficiency and flexibility specifically arising in, the realm of computerized content generation and display technologies, and are not well-understood, routine, and conventional elements.
- 38. For example, the claimed inventions of the '287 patent recite innovative, technical improvements that associate symbolic names with UI objects (e.g., UI objects for a widget) corresponding to web components of web services that are manually or automatically

selected, and defined based on, for example, data format type, and produce device-independent applications including those symbolic names, together with device-dependent players, to provide uniform, data-efficient server-based content display across different types of devices.

- 39. The technology claimed in the '287 patent does not preempt all ways for the computerized generation of code for a display of a device nor any other well-known or prior art technology. For example, the specific, innovative technical improvements do not preempt well-known methods of generating code for a display of a device by programming in HTML or JavaScript code.
- 40. Each claim of the '287 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.
- 41. Accordingly, each claim of the '287 patent recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.
- 42. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent No. 9,063,755 titled "Systems and Methods for Presenting Information on Mobile Devices," including the right to sue and to recover for infringement thereof. The '755 patent was duly and legally issued on June 23, 2015, naming Steven H. Rempell, David Chrobak and Ken Brown as the inventors. A true and correct copy of the '755 patent is attached as Exhibit H.
- 43. The inventions of the '755 patent utilize inventive concepts to solve technical problems associated with methods and systems for displaying content on displays of devices, providing more efficient ways of generating code for uniformly displaying content, for example dynamic content, across different kinds of devices. For example, the inventions of the '755 patent allow a data-efficient and flexible association between a symbolic name and a UI object (e.g., a UI object for a widget), corresponding to a web component of a web service, that is

defined for presentation on a display of a device. A device-independent application including the symbolic name is produced and provided to the device, together with a device-platformdependent player.

- 44. The claimed inventions of the '755 patent allow the UI object to be efficiently displayed across different kinds of devices (e.g., PC, mobile or tablet; or different browsers, operating systems, and applications, including both native and browser-based applications), as opposed to, for example, programming directly in HTML or JavaScript code. In turn, a user can enter an input value to the UI object, and obtain an output value based on a web service associated with the UI object, the input value and output value also being communicated through symbolic names to provide an additional level of efficiency.
- 45. The claims of the '755 patent do not recite merely the performance of a known business practice on the Internet. Instead, the claims of the '755 patent recite inventive concepts concerning the computerized, data-efficient generation of server-based content (e.g., a UI object for a widget) on displays for different types of devices, such as PC, tablet, or mobile devices, or different browsers and applications. For example, the claims of the '755 utilize symbolic name associations and provide device-independent applications including those symbolic names, together with device-platform-dependent players, to devices. Further, input values and output values for the defined content are also communicated as symbolic names. Such features are specifically grounded in, and overcome problems with data efficiency and flexibility specifically arising in, the realm of computerized content generation and display technologies, and are not well-understood, routine, and conventional elements.
- 46. For example, the claimed inventions of the '755 patent recite innovative, technical improvements that associate symbolic names with defined UI objects (e.g., UI objects for a widget) corresponding to web components of web services, and produce device-

independent applications including those symbolic names, together with device-platform-dependent players, to provide uniform, data-efficient content, such as dynamic content, for display across different types of devices.

- 47. The technology claimed in the '755 patent does not preempt all ways for the computerized generation of code for a display of a device, nor any other well-known or prior art technology. For example, the specific, innovative technical improvements claimed in the '755 patent do not preempt well-known methods of generating code for a display of a device by programming in HTML or JavaScript code.
- 48. Each claim of the '755 patent thus recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

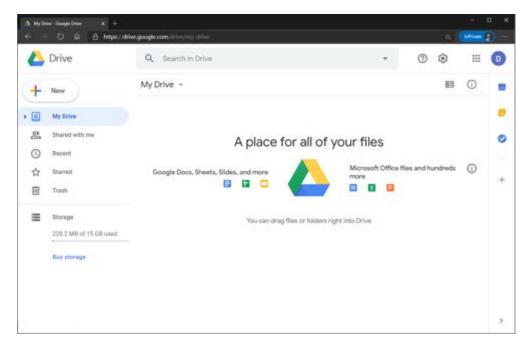
 Accordingly, each claim of the '755 patent recites a combination of elements sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible concept.

BACKGROUND

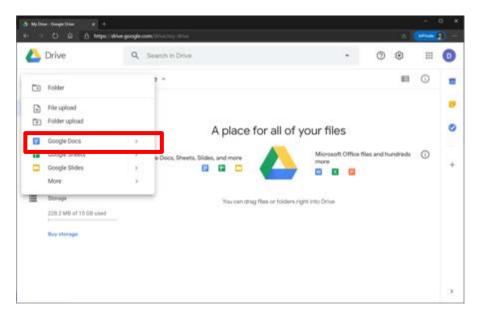
- 49. Plaintiff Express Mobile is a leader in the business of developing mobile app and web site design and creation platforms, and has intellectual property including U.S. patents relating to certain tools useful in the field. Express Mobile is managed by individuals with decades of technology and business experience. The Chairman of the Board and CTO of Express Mobile, Steve Rempell, is the inventor of Express Mobile's patent portfolio. Mr. Rempell has over 50 years of experience in technology companies, with much of that work focused on web-based technologies and applications.
- 50. Defendant Google is American multinational technology company that specializes in Internet-related services and products, which include online advertising technologies, a search engine, cloud computing, software, and hardware. Google generates billions of dollars of revenue per year.

COUNT I - INFRINGEMENT OF U.S. PATENT NO. 6,546,397

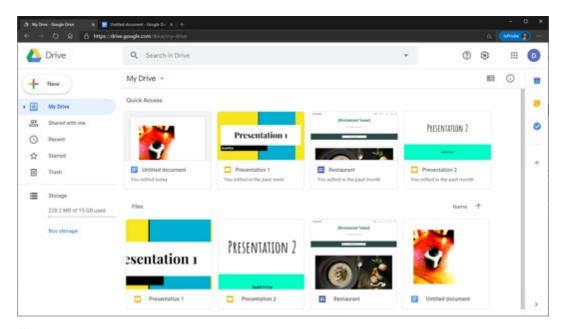
- 51. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 50 above.
- 52. Defendant has performed a method to allow users to produce Internet websites which infringed, either literally or under the doctrine of equivalents, one or more claims of the '397 patent in violation of 35 U.S.C. § 271(a).
- 53. Upon information and belief, Google directly infringed at least claim 1 of the '397 patent through its Google Docs Document and Presentation Extensions (the "Accused Instrumentality") that provided browser-based website authoring tools in which the user-selected settings representing website elements are stored in a database and in which said stored information is retrieved to generate said website. Each and every step of at least claim 1 of the '397 patent was performed by Google.
- 54. The Accused Instrumentality enabled a user to produce a website through a browser on the user's computer. For example, through the Accused Instrumentality, Google practiced a method to allow users to produce Internet websites on and for computers having a browser and a virtual machine capable of generating displays. Users of these Google products, as a result of Google's practice of the method, created web sites through either drive.google.com or docs.google.com.



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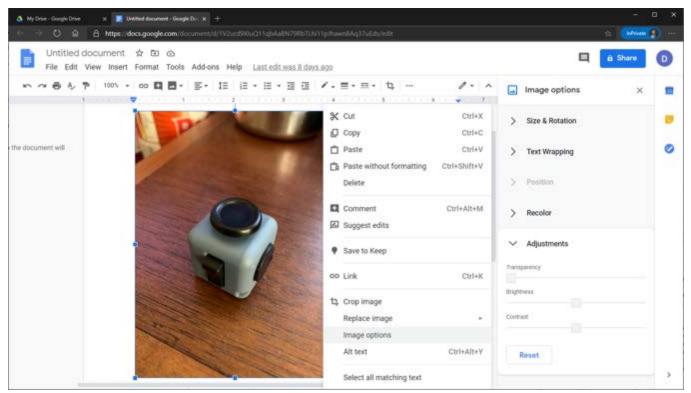


Source: https://drive.google.com/drive/my-drive



Source: https://docs.google.com/presentation/u/0/

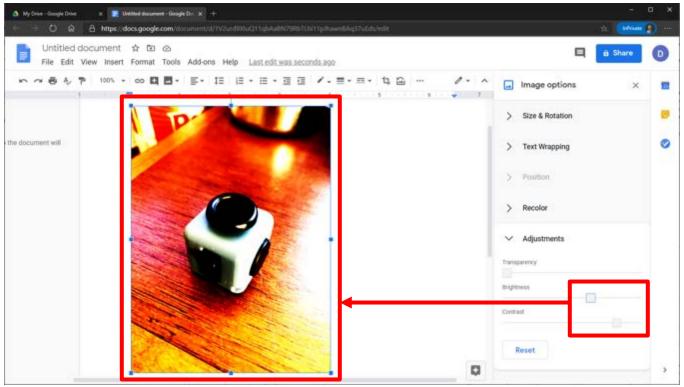
55. The Accused Instrumentality included a user selectable panel of settings describing elements on a website comprising all extensions available. Google, through the Accused Instrumentality, presented viewable menus having a user selectable panel of settings describing elements on a website. These panels of settings were presented by Google through a browser on a computer adapted to accept dozens of selectable settings in said panels as inputs therefrom, and these user selectable settings in said panels corresponded to commands to a virtual machine (e.g., a Webkit virtual machine). For example, a user could create a Google Doc document and add an element such as a picture. Right clicking on the image would open a selectable panel of settings describing this element. This panel was presented by Google through a browser on a computer.



Source:

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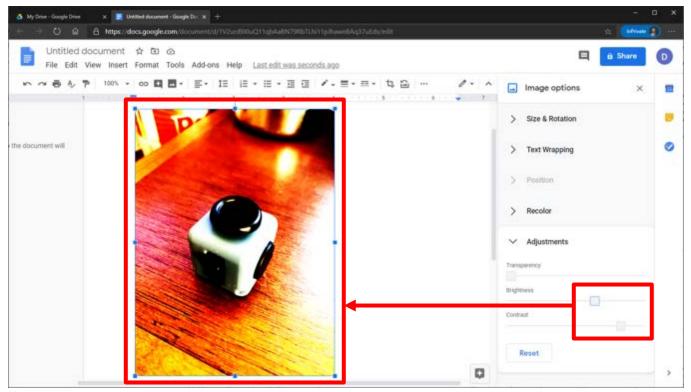
56. For example, in response to a user changing settings of the element, the Google Docs system would take these selectable settings as inputs, where these inputs are commands to a virtual machine. For example, in response to a user who changing the brightness and contrast settings in the panel, Google would present the changes reflected in the virtual machine of the browser.



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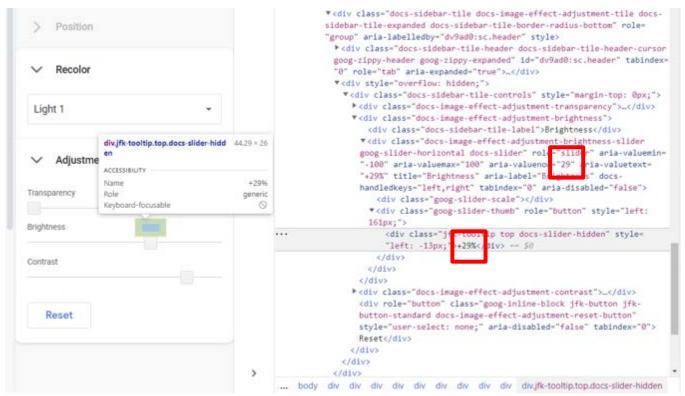
57. Google, through the Accused Instrumentality, generated or updated the display immediately upon the selection of a user selectable setting. When a generated UI object was selected its selected settings were displayed for editing. When the user changed the setting, Google would generate the display.



Source:

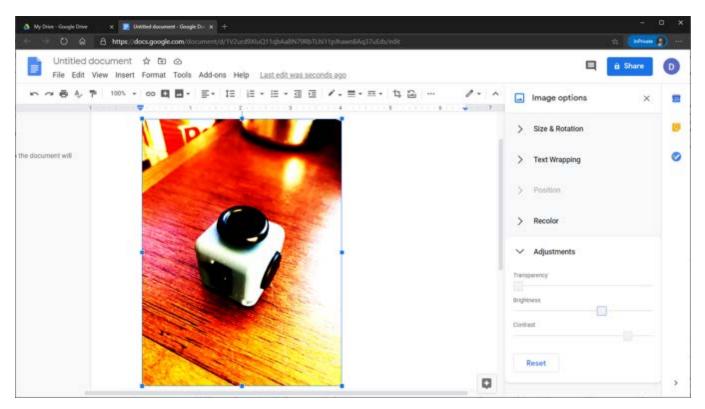
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58. Google, through the Accused Instrumentality, stored information representative of the one or more user selected settings in a database. For example, when a user changed a setting (e.g., by moving the slider), the settings were stored by Google in a Google database, and reflected in the HTML of the page, such as the "29% brightness" settings below. Storage of settings in a Google database is also shown below.



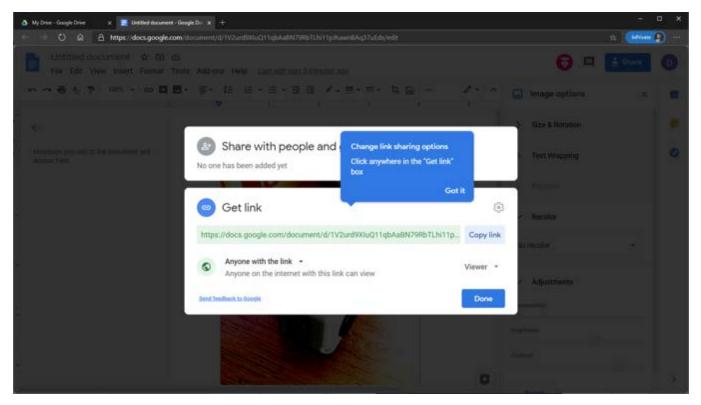
 $\underline{https://docs.google.com/document/d/1V2urd9XIuQ11qbAaBN79RbTLhi11pJhawnBAq37uEds/edit}$

59. Google, through the Accused Instrumentality, generated a website at least in part by retrieving the information representative of the one or more user selected settings stored in said database. For example, when the settings were saved, Google generated the website based on these settings.



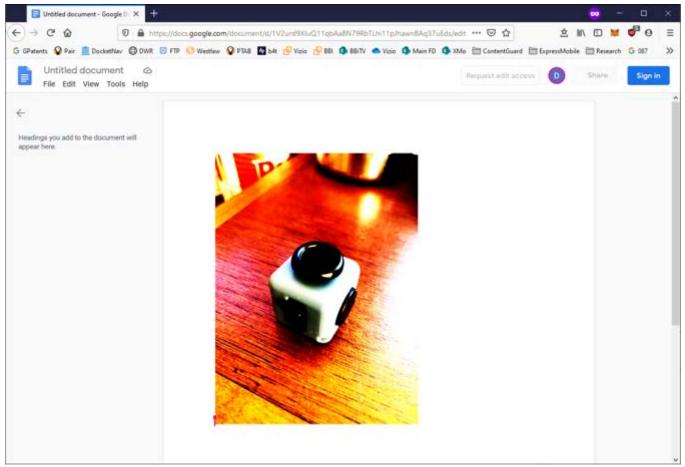
 $\underline{https://docs.google.com/document/d/1V2urd9XIuQ11qbAaBN79RbTLhi11pJhawnBAq37uEds/edit}$

60. Because these settings were saved by Google in the Google database, these settings were also used by Google used to generate a website, as shown, for example, when a user accessed the document.



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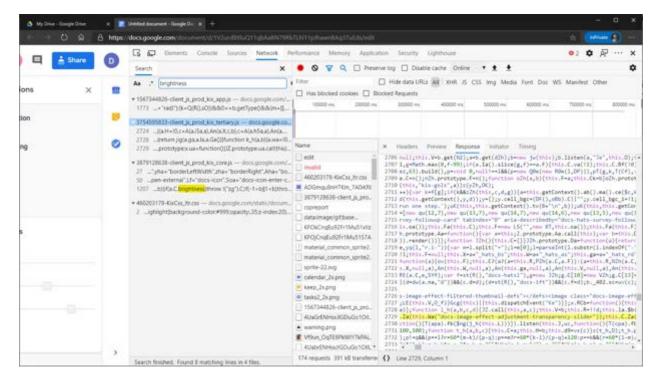
For example, when the document above was shared with a link, a user (e.g., a non-logged in user with Firefox in the example below) who looked at the linked document would see the image with the same settings saved in the database.



Source:

 $\underline{https://docs.google.com/document/d/1V2urd9XIuQ11qbAaBN79RbTLhi11pJhawnBAq37uEds/\underline{edit}}$

61. Google, through the Accused Instrumentality, built one or more web pages to generate the website from at least a portion of the database and at least one run time file, where the at least one run time file utilizes information stored in the database to generate virtual machine commands for the display of at least a portion of said one or more web pages. As shown below, the Accused Instrumentality relied on a number of runtime JavaScript files to generate, monitor, and display the various elements of the customizable portion of the page based on user settings, such as the "docs-image-effect-adjustment-transparency-slider" function in the "3754595833-client_js_prod_kix_tertiary.js" JavaScript file shown below.



Source:

 $\underline{https://docs.google.com/document/d/1V2urd9XIuQ11qbAaBN79RbTLhi11pJhawnBAq37uEds/\underline{edit}}$

62. Google was made aware of the '397 patent and its infringement thereof at least as early as December 20, 2018 when Express Mobile provided notice of Google's infringement of the '397 patent to Kent Walker, Senior Vice-President of Global Affairs of Google. Since at least the time Google received notice, Google has induced end-user licensees of the Accused Instrumentality to infringe at least claim 1 of the '397 patent under 35 U.S.C. § 271(b) through the end-users' use of the Accused Instrumentality. In particular, Google licenses its hardware and software to end-users and when the licensed end-users use the Accused Instrumentality in the manner described above, each limitation of claim 1 of the '397 patent is practiced by and attributable to the licensed end-user of the hardware and software that comprise the Accused Instrumentality. Google's actions aid and abet end-user licensees of its hardware and software that comprise the Accused Instrumentality and to use the infringing functionality of the Accused Instrumentality in a manner that performs each step of claim 1 of the '397 patent. See e.g., https://docs.google.com/, https://developers.google.com/slides/,

https://support.google.com/docs/, https://support.google.com/docs/community, including all related domains and subdomains.

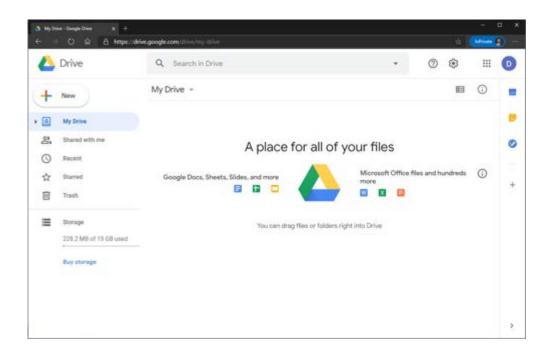
- 63. Since Google was made aware of its infringement of the '397 patent Google has done nothing to abate its own infringement or the infringement of end-users who are licensed to use the hardware and software that comprise the Accused Instrumentality and the infringing features of the Accused Instrumentality. Rather, Google has opted to make the business decision to "efficiently infringe" the '397 patent and continue to induce, instruct and abet end-user licensees to use the infringing Accused Instrumentality in accordance with the method of claim 1 of the '397 patent. Google knows that its acts are infringing and that end-user licensees are infringing through their use of the Accused Instrumentality because the licensee end-users have dominion over the Google hardware and software used to perform the steps of claim 1 of the '397 patent. Moreover, Google has the specific intent to induce end-user licensees to infringe because it was made aware of its infringement by Express Mobile and thus knew of the infringing use of the Accused Instrumentality by end-user licensees yet continued to induce, instruct and abet end-users to use the infringing Accused Instrumentality.
- 64. Google is liable as a contributory infringer of the '397 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States website or web page authoring tools to be especially made or adapted for use in an infringement of the '397 patent. The Accused Instrumentality is a material component for use in practicing the steps of claim 1 of the '397 patent, is specifically made and is not a staple article of commerce suitable for substantial non-infringing use. For example, the Accused Instrumentality (*e.g.*, the "Google Docs" software) is still a material component for use in practicing the '397 patent, and is not a staple article of commerce suitable for substantial non-infringing use. As set forth in the paragraphs above, the Google Docs software is specifically designed to allow users to produce

Internet websites on and for computers having a browser and a virtual machine capable of generating displays. Google Docs software has no purpose other than to function in combination with computers having a browser having a virtual machine and to present information through that browser in order to generate a website including building one or more web pages. The Google Docs software comprises a build tool for building the websites and web pages as set forth in the paragraphs above. The Google Docs software is, therefore, a material part of the invention and is not a "staple article of commerce." The Google Docs software also has no substantial non-infringing use. In particular, the Google Docs software is designed and provided to be used in conjunction with a computer including a web browser including a virtual machine, which is required to display the website in a manner that infringes the claimed invention. As set forth above, Google has prior knowledge of its infringement through a notice letter prior to filing suit and that its provision of the Accused Instrumentality causes end-users to infringe the '397 patent.

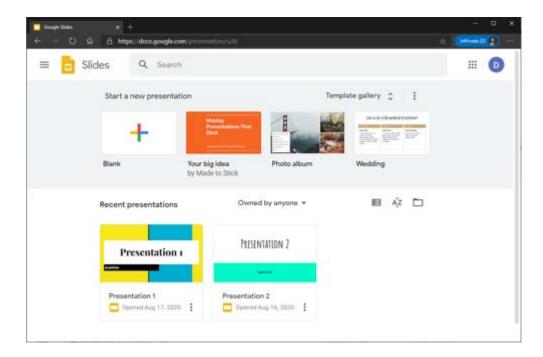
- 65. Upon information and belief, since the date of its receipt of notice, Google's infringement of the '397 patent was willful and intentional under the standard announced in *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least December 20, 2018, Google willfully infringed the '397 patent by refusing to take a license and continuing to make, use, test, sell, license, and/or offer for sale/license the '397 Accused Instrumentality. Google was aware that it infringed the '397 patent since at least December 20, 2018 and instead of taking a license, Google opted to make the business decision to "efficiently infringe" the '397 patent. In doing so, Google willfully infringed the '397 Patent.
 - 66. Google's infringement has damaged and injured Express Mobile.

COUNT II - INFRINGEMENT OF U.S. PATENT NO. 7,594,168

- 67. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 66 above.
- 68. Upon information and belief, Google has manufactured, used, sold, offered to sell and/or provided and continues to manufacture, sell, offer for sale and/or provide its Slides product (the "Accused Instrumentality") that infringes, either literally or under the doctrine of equivalents, one or more claims of the '168 patent, including at least claim 1, in violation of 35 U.S.C. § 271(a).
- 69. The Accused Instrumentality is available through drive.google.com and docs.google.com. Created web sites are also available through drive.google.com and docs.google.com.

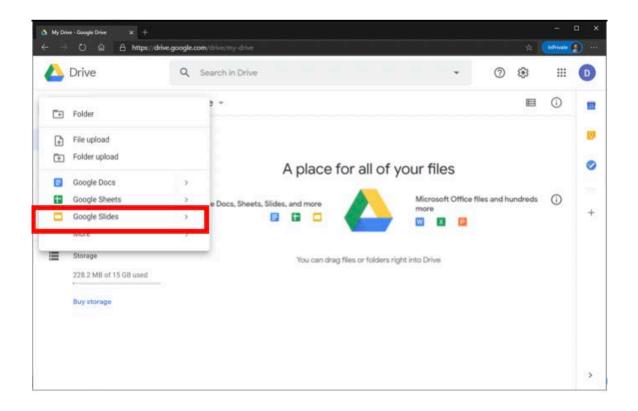


Source: https://drive.google.com/drive/my-drive



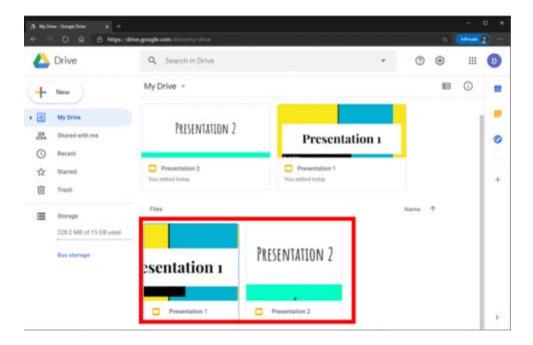
Source: https://docs.google.com/presentation/u/0/

70. The Accused Instrumentality comprises a build engine. For example, users begin the web page creation in the Accused Instrumentality's build engine by creating a Google document, such as a Slides presentation, which is a web page.



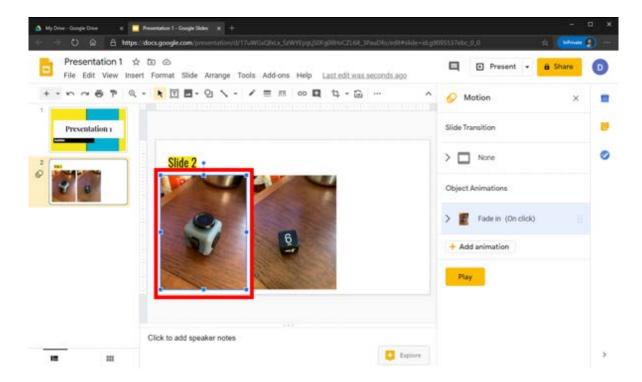
Source: https://drive.google.com/drive/my-drive

71. The Accused Instrumentality accepts user input to create a web site, the web site comprising a plurality of web pages, each web page comprising a plurality of objects, and accepts user input to associate a style with objects of the plurality of web pages. For example, the web site at https://drive.google.com/drive/my-drive comprises a plurality of web pages. For example, it may comprise two Slides presentations, such as "Presentation 1" and "Presentation 2," as shown below.



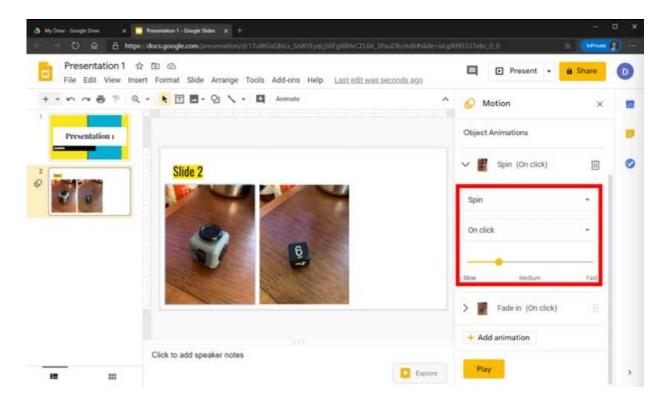
Source: https://drive.google.com/drive/my-drive

72. Each web page comprises a plurality of objects. For example, users may add images to their presentations. Two images have been added to Slide 2, and at least these images are objects, forming a plurality of objects comprising the web page.



 $\underline{https://docs.google.com/presentation/d/17uWGsQfxLx_SzWYEyqLjS0Fg0ilHvCZL6it_3PauDf} \underline{o/edit\#slide=id.g9095537ebc_0_0}$

73. The Accused Instrumentality accepts user input to associate a style with objects of the plurality of web pages. For example, for every object, a user may change the animation of the object. In the example below, a user may, for example, change the animation type ("Spin" selected here), when the animation is triggered ("On click" selected here), and how long the animation will take.

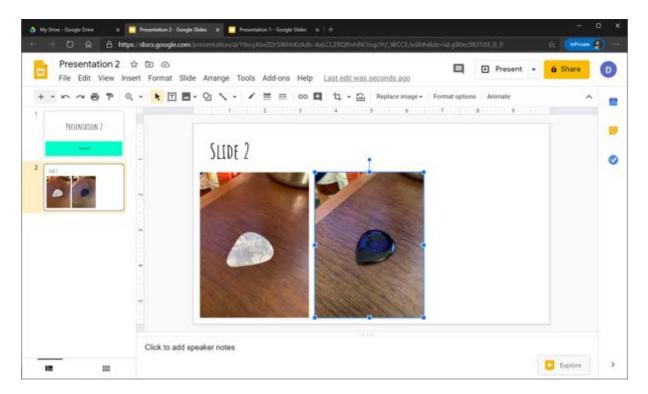


 $\frac{https://docs.google.com/presentation/d/17uWGsQfxLx_SzWYEyqLjS0Fg0ilHvCZL6it_3PauDfo/edit\#slide=id.g9095537ebc_0_0$

74. Each web page comprises at least one button object or at least one image object.

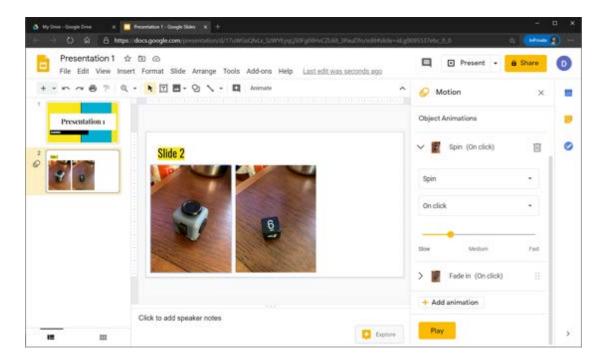
As described above, the Presentation 1 web page comprises at least one image object.

Similarly, the Presentation 2 web page comprises at least one image object.



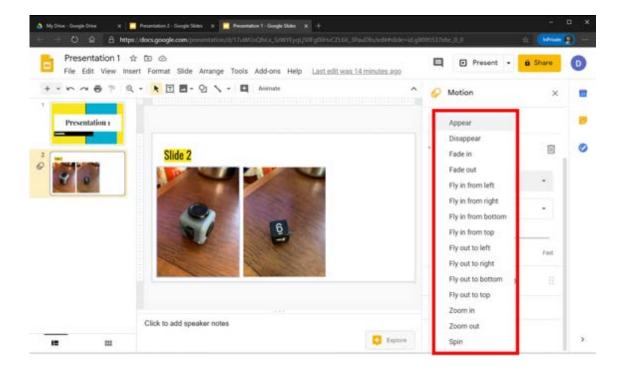
Source: https://docs.google.com/presentation/d/19scyXxvZDr5WHrKzAdn-AxLCLZRQRnHNOoqcYU_WCCE/edit#slide=id.g90ec983103_0_0

75. The at least one button object or at least one image object is associated with a style that includes values defining transformations and time lines for the at least one button object or at least one image object. As described above, the image object is associated with a style that includes values defining transformations (Spin, On click) and timelines (slow to fast).



 $\frac{https://docs.google.com/presentation/d/17uWGsQfxLx_SzWYEyqLjS0Fg0ilHvCZL6it_3PauDfo/edit\#slide=id.g9095537ebc_0_0$

76. Other animations are available for each object.



https://docs.google.com/presentation/d/17uWGsQfxLx_SzWYEyqLjS0Fg0ilHvCZL6it_3PauDfo/edit#slide=id.g9095537ebc_0_0

77. Each web page is defined entirely by each of the plurality of objects comprising that web page and the style associated with the object. Google's Accused Instrumentality utilizes the HTML Document Object Model ("DOM"), in which all page elements of an HTML document, including images or other content, are represented as objects so that they may be accessed and manipulated by languages such as JavaScript¹². As shown below, Google's Slides page utilizes DOM API functions in order to manipulate the plurality of objects that define the entire page.

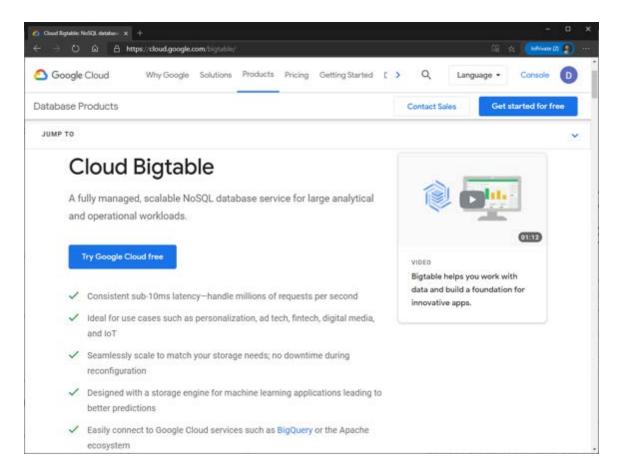
Source:

https://docs.google.com/presentation/

78. The Accused Instrumentality is configured to produce a database with a multidimensional array comprising the objects that comprise the web site including data defining, for each object, the object style, an object number, and an indication of the web page that each object is part of. The Accused Instrumentality relies on Google's Bigtable database, which is a multidimensional database.

¹ https://dom.spec.whatwg.org/#introduction-to-the-dom

² https://developer.mozilla.org/en-US/docs/Web/API/Document Object Model/Introduction

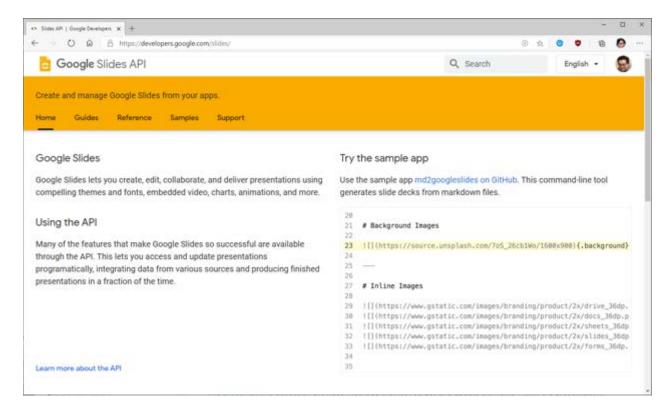


Source: https://cloud.google.com/bigtable/



Source: https://research.google/pubs/pub27898/

79. The Accused Instrumentality also offers a "Google Slides" API that interfaces with its databases in order to edit presentations.



Source: https://developers.google.com/slides/

80. From the available fields in the API, the Accused Instrumentality shows that its databases have multidimensional arrays comprising the objects that comprise the web site including data defining, for each object, the object style (such as the "transform" field), an object number (such as the "object ID" field), and an indication of the web page that each object is part of (such as the "presentation ID" field).

Working with object IDs

A presentation in the Slides API is made up of pages and page elements. These objects include an object ID string that is unique within a presentation.

Source: https://developers.google.com/slides/how-tos/overview

objectId	string
	A user-supplied object ID.
	If you specify an ID, it must be unique among all pages and page elements in the presentation. The ID must start with an alphanumeric character or an underscore (matches regex [a-zA-Z0-9_]); remaining characters may include those as well as a hyphen or colon (matches regex [a-zA-Z0-9:]). The length of the ID must not be less than 5 or greater than 50.
	If you don't specify an ID, a unique one is generated.

https://developers.google.com/slides/reference/rest/v1/presentations/request#CreateSlideRequest

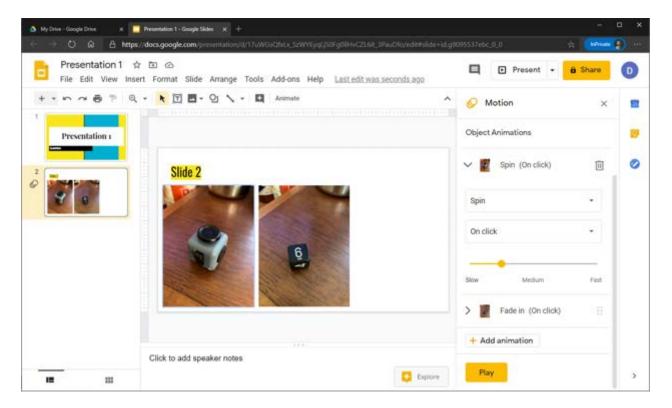
Methods	
get	GET /v1/presentations/{presentationId}/pages/{page0bjectId} Gets the latest version of the specified page in the presentation.

Source: https://developers.google.com/slides/reference/rest

```
'transform': {
    'scaleX': current scaleX value,
    'scaleY': current scaleY value,
    'shearX': current shearX value,
    'shearY': current shearY value,
    'translateX': X coordinate to move to,
    'translateY': Y coordinate to move to,
    'unit': 'EMU' // or 'PT'
```

Source: https://developers.google.com/slides/how-tos/transform

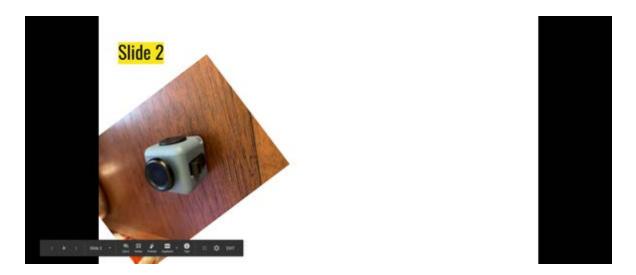
81. This behavior is also recognized through use of the system, as settings that are modified for each object are saved between sessions. For example, each object has its own animation settings, the objects stay associated with their respective slides, and their animation settings persist after being entered, which shows that these styles are stored in a database.



Source:

 $\underline{https://docs.google.com/presentation/d/17uWGsQfxLx_SzWYEyqLjS0Fg0ilHvCZL6it_3PauDf} o/edit\#slide=id.g9095537ebc_0_0$

82. The Accused Instrumentality provides the database to a server accessible to a web browser. As described above, the Accused Instrumentality API connects to Google's Bigtable database, which is provided to a server accessible to a web browser because the Accused Instrumentality files are displayed on a web browser. In addition to the editing capabilities shown above, when a user clicks "present," the Accused Instrumentality will begin a full-screen presentation using the data from the database.



Source:

 $\frac{https://docs.google.com/presentation/d/17uWGsQfxLx_SzWYEyqLjS0Fg0ilHvCZL6it_3PauDfo/edit\#slide=id.g9095537ebc_0_0$

with access to a runtime engine to generate the web-site from the objects and style data extracted from the provided databases. Modern web browsers all include a runtime engine for generating web-sites. Modern web browsers rely on browser engines, to interpret and execute JavaScript and HTML to render web pages on a computer. For example, Google Chrome relies on Webkit (which includes WebCore and JavaScript Core, see http://en.wikipedia.org/wiki/WebKit); As discussed above, the browser constructs the website according to the Document Object Model, in which all page elements of an HTML document are represented as objects so that they may be accessed and manipulated by languages such as JavaScript³⁴. As shown below, Google's Slides page utilizes DOM API functions in order to manipulate the plurality of objects that define the entire page.

³ https://dom.spec.whatwg.org/#introduction-to-the-dom

⁴ https://developer.mozilla.org/en-US/docs/Web/API/Document Object Model/Introduction

Source: https://docs.google.com/presentation/

84. Google was made aware of the '168 patent and its infringement thereof at least as early as December 20, 2018 when Express Mobile provided notice of Google's infringement of the '168 patent to Kent Walker, Senior Vice-President of Global Affairs of Google. Since at least the time Google received notice, Google has induced end-users of the Accused Instrumentality to infringe at least claim 1 of the '168 patent under 35 U.S.C. § 271(b) through the end-users' use of the Accused Instrumentality. In particular, Google's actions aid and abet others such as customers and end-users to use the Accused Instrumentality and in particular to use the infringing functionality of the Accused Instrumentality—*i.e.*, to use the Accused Instrumentality to assemble a web site including a plurality of web pages in accordance with claim 1 of the '168 patent. *See e.g.*, https://docs.google.com/, https://developers.google.com/slides/, https://support.google.com/docs/,

https://support.google.com/docs/community, including all related domains and subdomains.

85. Since Google was made aware of its infringement of the '168 patent Google has done nothing to abate its own infringement or the infringement of end-users using the Accused Instrumentality and the infringing features of the Accused Instrumentality. Rather, Google has opted to make the business decision to "efficiently infringe" the '168 patent and continue to induce, instruct and abet end-users to use the infringing Accused Instrumentality. Google knows that its acts are infringing and that end-users are infringing through their use of the Accused Instrumentality because one who uses an infringing apparatus also infringes.

Moreover, Google has the specific intent to induce end-users to infringe because it was made aware of its infringement by Express Mobile and thus knew of the infringing use of the Accused

Instrumentality by end-users yet continued to induce, instruct and abet end-users to use the infringing Accused Instrumentality. The end-users control the Accused Instrumentality by using the infringing functionality to assemble a website including a plurality of web pages in accordance with claim 1 of the '168 patent by operating Google Slides accessible through drive.google.com. The end-users benefit from each and every limitation of claim 1 because the infringing functionality of the Accused Instrumentality allows end-users to receive the benefit of creating a website including multiple web pages including slide presentations accessible through drive.google.com and each claim limitation used together provides a necessary piece of the system needed to provide such a benefit. *See* https://drive.google.com/drive/my-drive; https://docs.google.com/, https://developers.google.com/slides/,

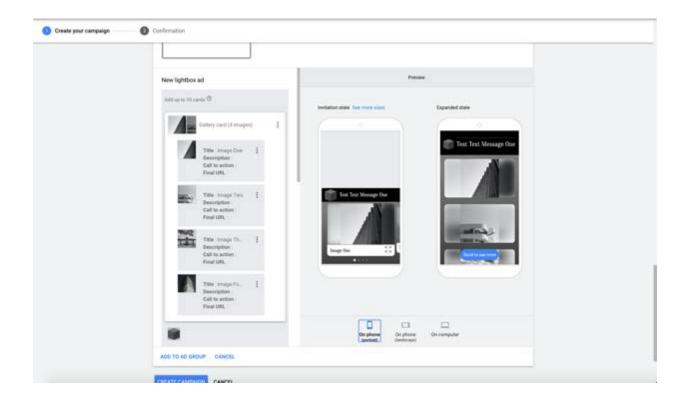
https://support.google.com/docs/, https://support.google.com/docs/community.

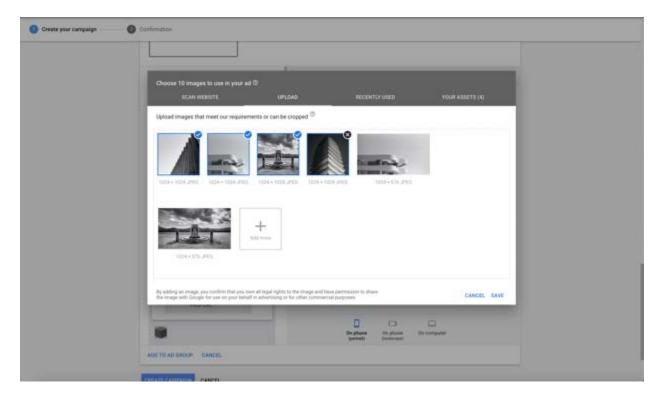
- 86. Upon information and belief, since the date of its receipt of notice, Google's infringement of the '168 patent has been willful and intentional under the standard announced in *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least December 20, 2018, Google has willfully infringed the '168 patent by refusing to take a license and continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentality. Google has been aware that it infringes the '168 patent since at least December 20, 2018 and instead of taking a license, Google has opted to make the business decision to "efficiently infringe" the '168 patent. In doing so, Google willfully infringed the '168 Patent.
- 87. Google's infringement has damaged and injured and continues to damage and injure Express Mobile.

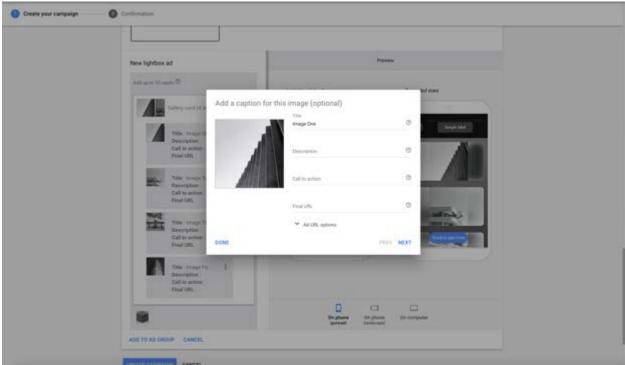
COUNT III - INFRINGEMENT OF U.S. PATENT NO. 9,928,044

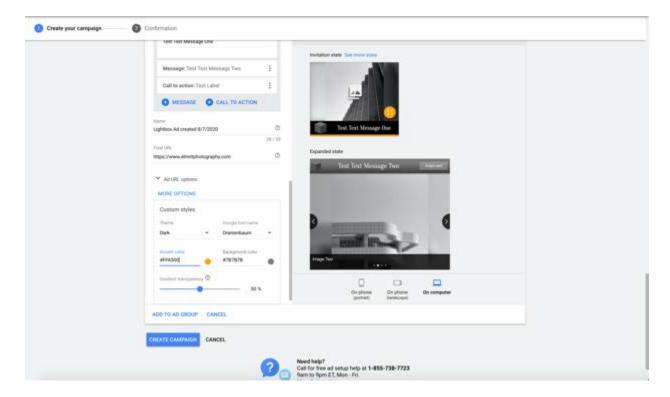
88. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 87 above.

- 89. Upon information and belief, Google has manufactured, used, sold, offered to sell and/or provided and continues to manufacture, sell, offer for sale and/or provide its Google Ads product (the "Accused Instrumentality") that infringes, either literally or under the doctrine of equivalents, one or more claims of the '044 patent in violation of 35 U.S.C. § 271(a).
- 90. Upon information and belief, Google has directly infringed at least claim 1 of the '044 patent through its Accused Instrumentality that generates code to provide content on a display of a device.
- 91. The browser environment of the Accused Instrumentality comprises a system to generate code to provide content on a display of a device.

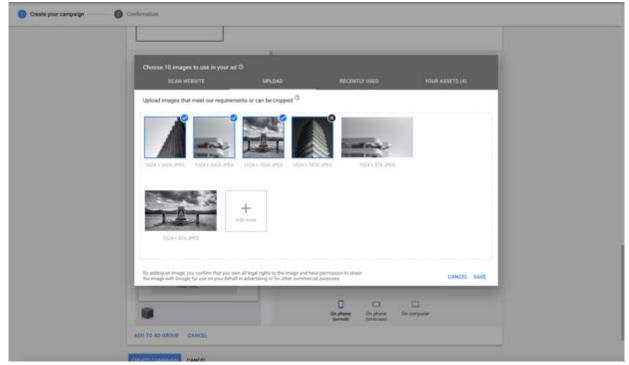




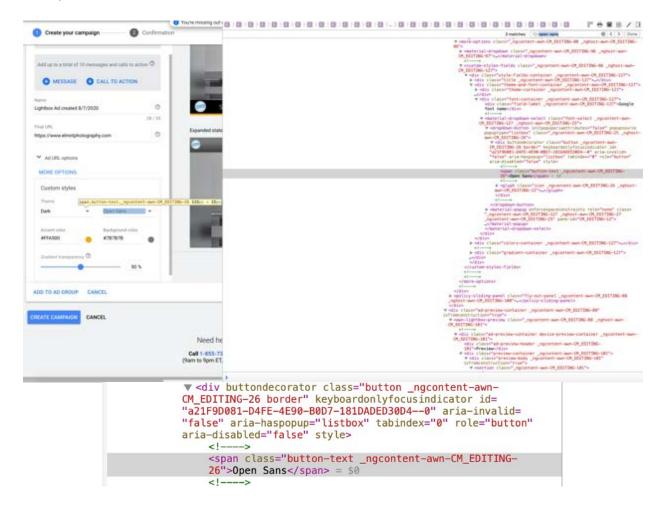




92. The Accused Instrumentality stores the content and settings adjustments in a database, both locally and on Google's external database servers in order to serve the designed ads on the designed page and across the Internet on all pages signed up to display Google AdSense ads. These databases are stored on computer memory.

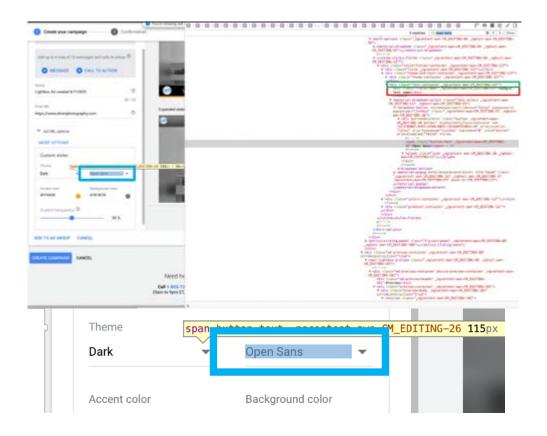


(The Google Ads environment showing stored images in the Google Ads database for use in Ads)



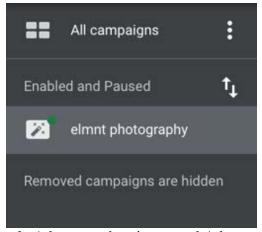
(The Google Ads environment source code showing the storage of a selected font setting in the local database)

93. The various menus and settings in the Accused Instrumentality include symbolic names for web components such as "Google font name," a symbolic name for the ad font setting component that can be evoked by that symbolic name. The font component is related to menu inputs (selecting a font) and display outputs (the corresponding font display change across the entire ad portion of the web page) of the Accused Instrumentality web service, obtained over a network by the user. The component's symbolic name ("Google font name") is a character string that is not a persistent address or pointer to an output value. The font selection component is associated with a data format class type ("font-container") corresponding to a subclass of UI objects (in this case, a menu for selecting font), and where this symbolic name has a preferred UI object (the font selection menu).

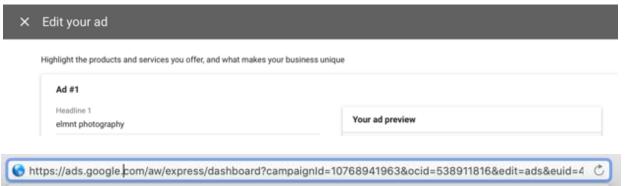


(The Google Ads web environment and corresponding page source showing the symbolic name [in red], the data format class type corresponding to a subclass of UI objects [in green], and the preferred UI object [in blue])

94. When a user creates an ad via the Accused Instrumentality web environment, that ad has a persistent address that is stored in the database to allow users to return to and consistently access or edit a particular ad.

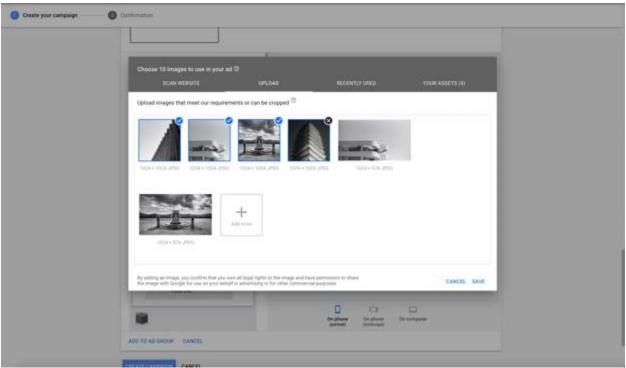


(Google Ads menu showing stored Ad campaigns)

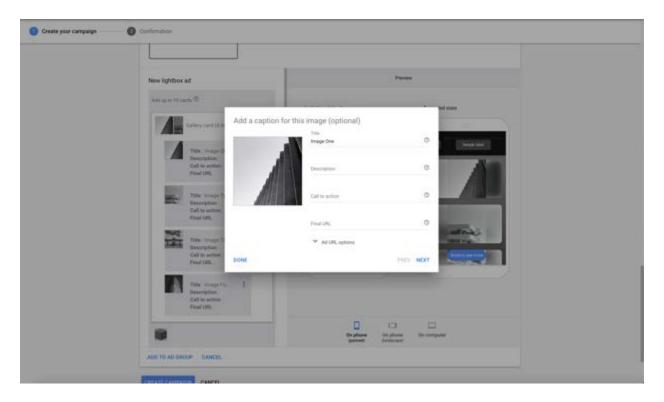


(Google Ads page for stored ad showing persistent address for particular ad, specifically "campaignId=10768941963," which is an ID stored with Google to allow reference to a persistent Google Ad campaign)

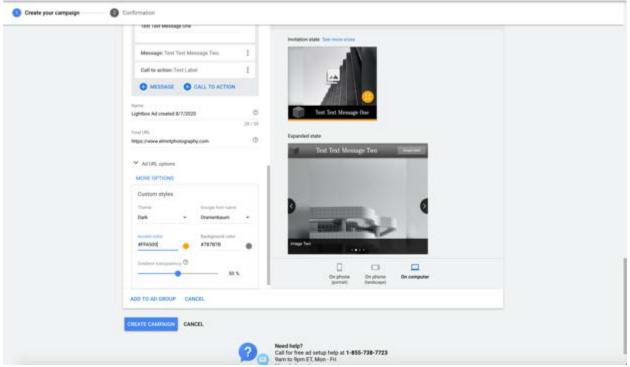
95. The Accused Instrumentality web environment has an authoring tool configured to define a UI object for presentation on the display.



(Google Ads environment showing selection of images for rotating gallery on website)

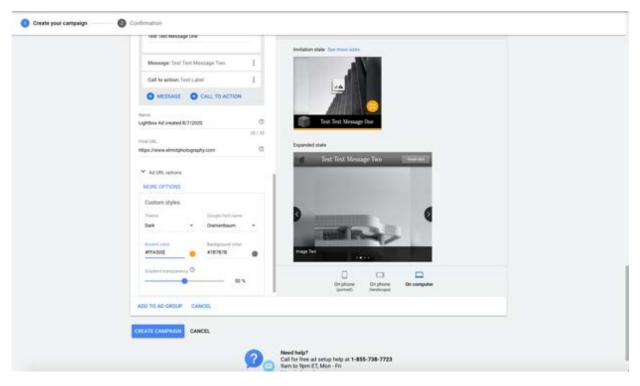


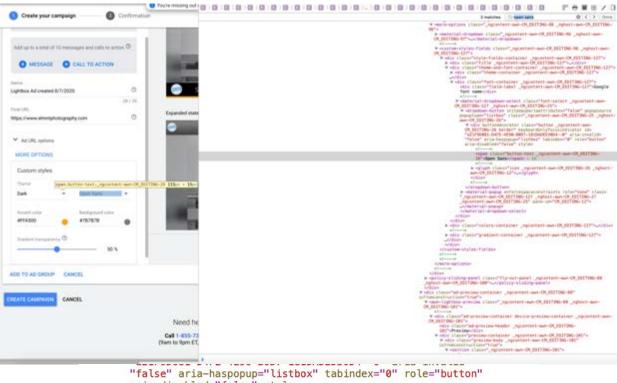
(Google Ads environment showing title and other properties of individual image for rotating gallery on website)



(Google Ads environment showing rotating message text, color selection, font selection, and other associated settings for ad content and rotating gallery of images on website)

96. The defined UI object that is selected in this example is a font selection, which is a web component of the Accused Instrumentality environment. The "font-container" web component for selecting the font for the displayed ad is a web component included in the computer memory. The font selection's setting comprises an input of the web service, and the resulting output to the user in the form of the displayed font is an output of the web service. In this case, the defined UI object is automatically selected by the system as the preferred UI object corresponding to the "Google font selection" symbolic name when the user selects the "More Options" web component and reveals the font selection web component.



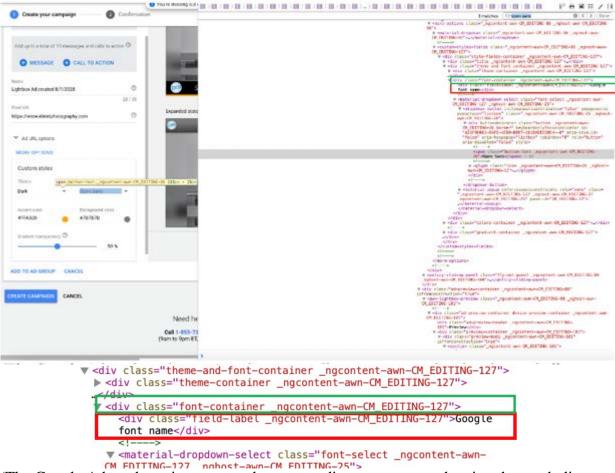


```
aria-haspopup= tistbox tabindex= 0 rote= button
aria-disabled="false" style>
<!---->
<span class="button-text _ngcontent-awn-CM_EDITING-
26">Open Sans</span> = $0
<!---->

> <glyph class="icon _ngcontent-awn-CM_EDITING-26 _nghost-awn-CM_EDITING-12">...</glyph>
```

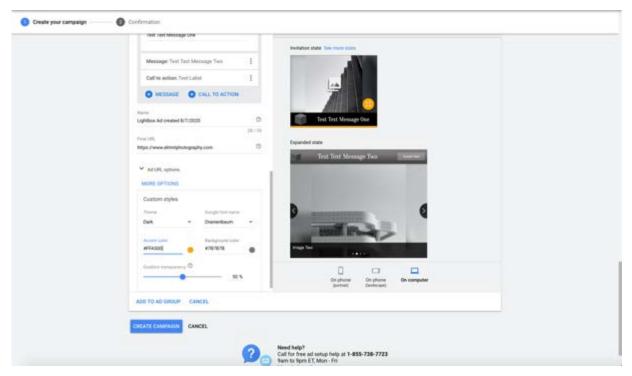


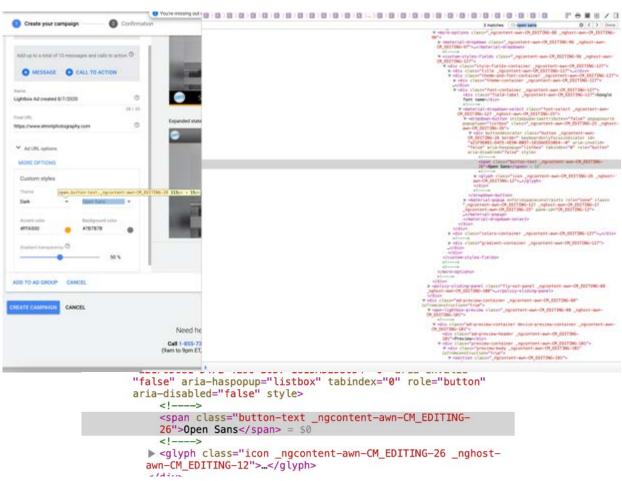
97. The authoring tool in the Accused Instrumentality is configured to access said computer memory to select the symbolic name corresponding to the web component of the defined UI object. For example, the Accused Instrumentality associates page components such as the "font-container" and their associated symbolic name in memory as shown below.

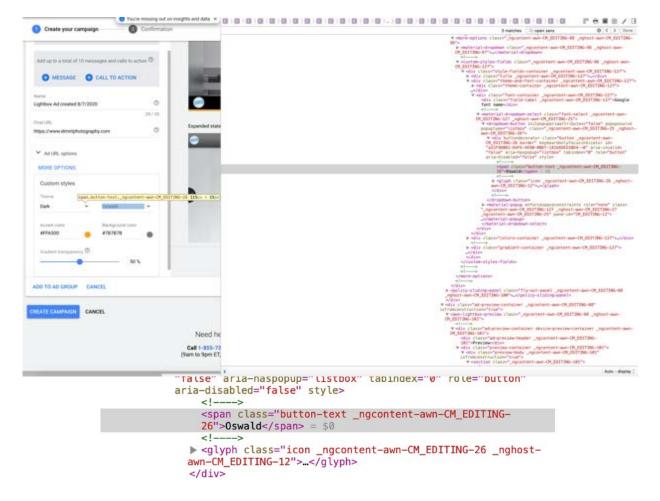


(The Google Ads web environment and corresponding page source showing the symbolic name [in red] and the web component [in green])

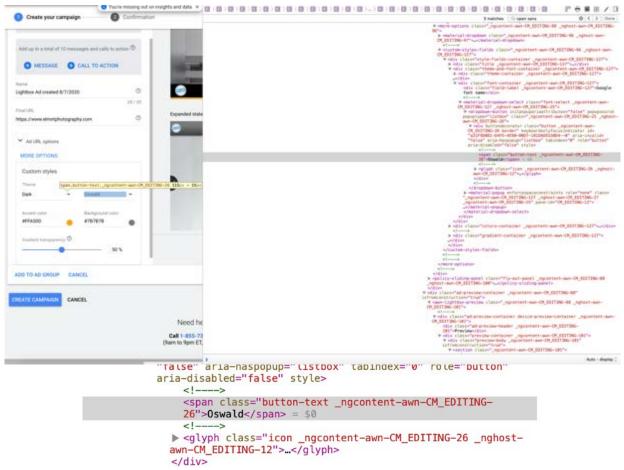
- 98. When a user-modifiable UI object is invoked by the Accused Instrumentality, it is associated with a symbolic name unique to that type of UI object (such as the font selection menu). The authoring tool associates this symbolic name with the defined UI object so that it can be referenced by the Accused Instrumentality environment at a later time. This data is committed to the database by the authoring tool.
- 99. The Accused Instrumentality environment is configured to store information representative of the UI objects and their settings and associated data in a database, as shown below. This information includes settings such as the font of the designed ad.



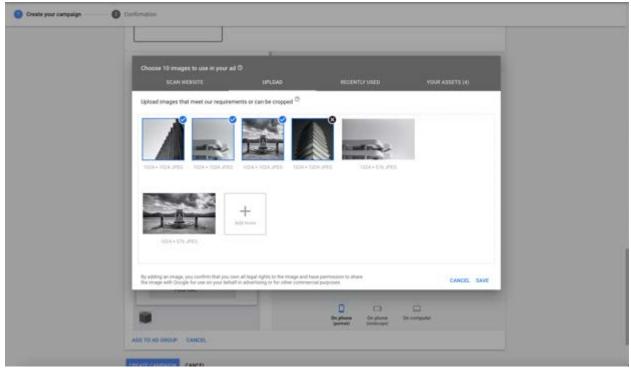




100. All data from the Accused Instrumentality environment that is being viewed is stored in a local database and in the Google database. When a user chooses a UI component and edits it or otherwise makes changes, these components and associated data are loaded from the Google database where they are stored, and associated settings are loaded from and committed to the local database.



(Google Ads database information such as the selected "Google font name" for display on the portion of the web page for editing ads is loaded from the Google database)

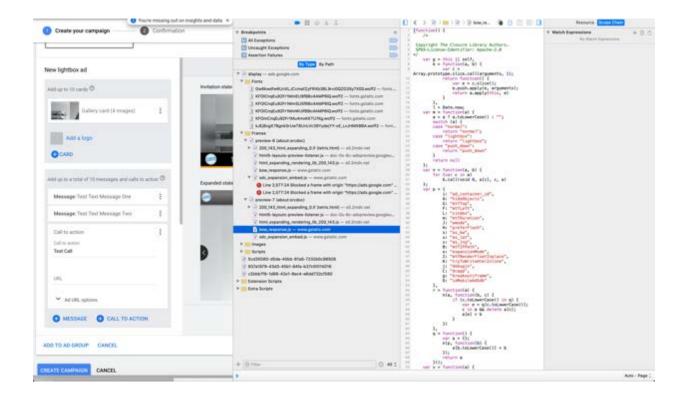


(Previously stored images for use in a Google Ad are similarly stored with the database, and are retrievable at a later time for editing a particular ad under "Your Assets" shown in the above picture)

- 101. The authoring tool in the Accused Instrumentality is configured to build an application consisting of a web page view from the Google database. The application is provided, for example, in the form of JavaScript files and associated data for the web page view(s) that are stored in the Google database.
- which interacts with the application and data stored on the Accused Instrumentality server. The player is, for example, software provided to the device in connection with the application. The player accesses and renders the data to generate the web page viewed by the user. The player operates with the virtual machine (for example, Google Chrome uses the V8 virtual machine) and the information stored in the database in order to generate and display at least a portion of one or more web pages. The player includes code that is device-platform-dependent in order to

allow the environment to work across a variety of devices such as personal computers (including laptops and desktops), tablets, browsers, and mobile phones.

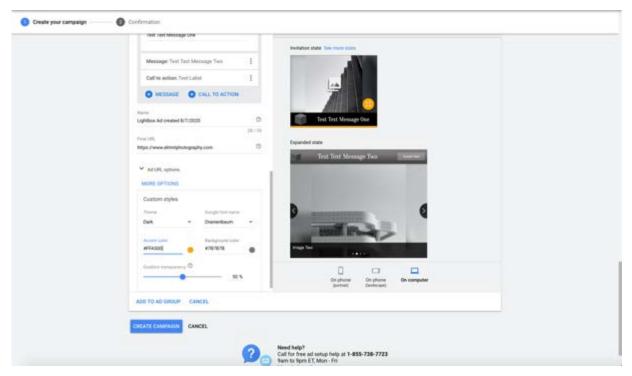
103. When a browser accesses the Accused Instrumentality or views an ad generated by the Accused Instrumentality, the application is provided to the device, for example, in the form of JavaScript files and other assets. The player code operates with the virtual machine to interpret this JavaScript and execute it locally.

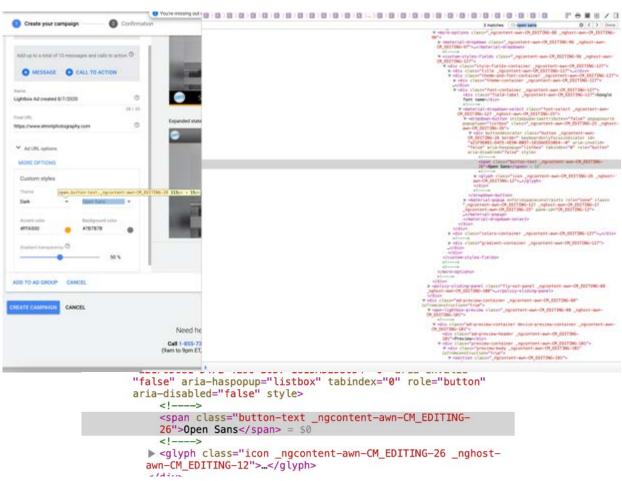


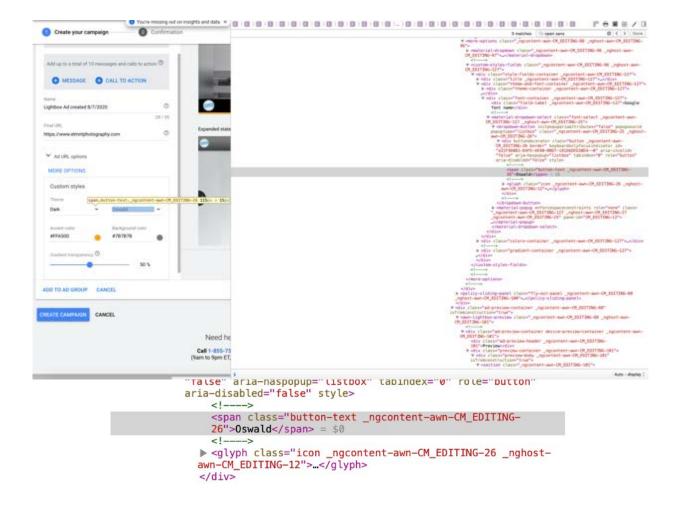


(A plurality of .js files—JavaScript runtime files—that comprise the Google Ads editing environment are shown)

104. The Accused Instrumentality includes UI objects (such as text fields and menus of settings) that are configured to receive input and generate visual output. Interaction by the user with the Accused Instrumentality environment allows the application to store any input values in the Google database. The web service also uses that same data to generate and display output values associated with these inputs when displaying data from the database to the user. For example, the user provides an input value associated with the "Google font name" symbolic name to an input of the "font-container" UI object. The web service receives that input value and symbolic name from the device, and generates an output value (in the form of the selected font) associated with the "Google font name" symbolic name.







JavaScript instructions provided with the Accused Instrumentality in order to receive the output symbolic name and output value. The instructions also provide for the display of this output value (the selected "Google font name") in the UI object (the "font-container") in order to display the appropriate data to the user. This output value (in this case, the selected font "Oswald") is presented in the "font-container" UI object for display on the device to the user.



106. Upon information and belief, Google was made aware of the '044 patent and its infringement thereof at least as early as when Google was made aware of its infringement of the '755 patent. The '755 patent and the '044 patent are related patents and, on information and belief, Google became aware of the other family members of the '044 patent it infringed around the time Google was provided notice of its infringement of the '755 patent on December 20, 2018 by virtue of its investigation into its own infringement. Moreover, Google was also made aware of the '044 patent and its infringement thereof at least as early as August 31, 2020 when Express Mobile provided notice of Google's infringement of the '044 patent to Jim Maccoun, Patent Counsel at Google. Since at least the time Google received notice, Google has induced end-users of the Accused Instrumentality to infringe at least claim 1 of the '044 patent under 35 U.S.C. § 271(b) through the end-users' use of the Accused Instrumentality. In particular,

Google's actions aid and abet others such as customers and end-users to use the Accused Instrumentality and in particular to use the infringing functionality of the Accused Instrumentality—*i.e.*, to use the Accused Instrumentality to build an application including one or more web page views in accordance with claim 1 of the '044 patent. *See e.g.*, https://ads.google.com/, https://ads.google.com/intl/en_us/home/resources/, https://ads.google.com/intl/en_us/home/how-it-works/,

https://ads.google.com/intl/en_us/home/faq/, and related domains and subdomains.

107. Since Google was made aware of its infringement of the '044 patent Google has done nothing to abate its own infringement or the infringement of end-users using the Accused Instrumentality and the infringing features of the Accused Instrumentality. Rather, Google has opted to make the business decision to "efficiently infringe" the '044 patent and continue to induce, instruct and abet end-users to use the infringing Accused Instrumentality. Google knows that its acts are infringing and that end-users are infringing through their use of the Accused Instrumentality because one who uses an infringing apparatus also infringes. Moreover, Google has the specific intent to induce end-users to infringe because it was made aware of its infringement by Express Mobile and thus knew of the infringing use of the Accused Instrumentality by end-users yet continued to induce, instruct and abet end-users to use the infringing Accused Instrumentality. The end-users control the Accused Instrumentality by using the infringing functionality to build an application including one or more web pages in views in accordance with claim 1 of the '044 patent by operating the Google Ads authoring tool. The end-users benefit from each and every limitation of claim 1 because the infringing functionality of the Accused Instrumentality allows end-users to receive the benefit of creating an online advertisement for goods and/or services to "[g]et more calls to your business," "[i]ncrease visits to your store," and/or "[d]rive people to your website," and each claim

limitation used together provides a necessary piece of the system needed to provide such a benefit. *See* https://ads.google.com/home/how-it-works/.

108. Google is liable as a contributory infringer of the '044 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States website or web page authoring tools to be especially made or adapted for use in an infringement of the '044 patent. The Accused Instrumentality is a material component for use in practicing the '044 patent, is specifically made and is not a staple article of commerce suitable for substantial non-infringing use. For example, in configurations or use scenarios where Google contends that it does not sell, make or import the "computer memory" of claim 1, the Accused Instrumentality (e.g., the system implementing the "Google Ads" software visual editing tool) is still a material component for use in practicing the '044 patent, and is not a staple article of commerce suitable for substantial non-infringing use. As set forth in the paragraphs above, the Google Ads software visual editing tool is specifically designed to store information in order to serve the designed ads on the designed page and across the Internet on all pages signed up to display Google AdSense ads. Google Ads software visual editing tool has no purpose other than to store this information in a "computer memory," including "symbolic names required for evoking one or more web components each related to a set of inputs and outputs of a web service obtainable over a network ..., and b) an address of the web service." The Google Ads software visual editing tool also comprises the claimed "authoring tool" as set forth in the paragraphs above. The Google Ads software visual editing tool is, therefore, a material part of the invention and is not a "staple article of commerce." The Google Ads software visual editing tool also has no substantial non-infringing use. In particular, the Google Ads software visual editing tool can only be used in conjunction with a "computer memory," which is required to run the software and store the symbolic names and web addresses to infringe the claimed

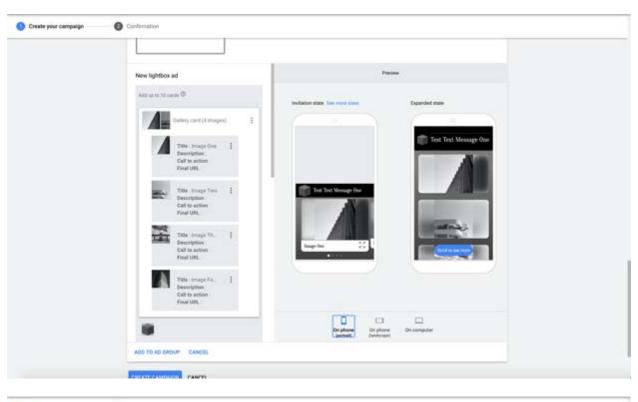
invention. As set forth above, Google has prior knowledge of its infringement through a notice letter prior to filing suit as well as in conjunction with the filing of the Original complaint and that its provision of the Accused Instrumentality causes end-users to infringe the '044 patent.

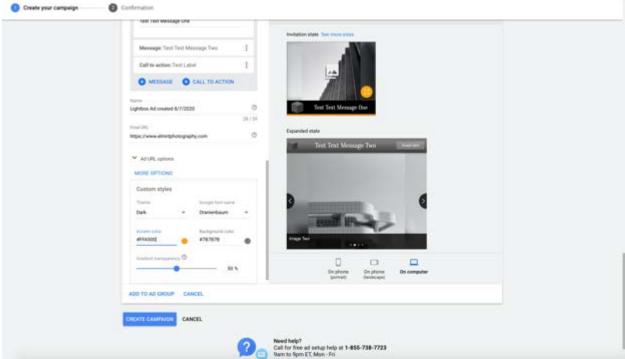
- 109. Upon information and belief, since the date of its receipt of notice, Google's infringement of the '044 patent has been willful and intentional under the standard announced in *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least August 31, 2020, Google has willfully infringed the '044 patent by refusing to take a license and continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentality. Google has been aware that it infringes the '044 patent since at least August 31, 2020 and instead of taking a license, Google has opted to make the business decision to "efficiently infringe" the '044 patent. In doing so, Google willfully infringed the '044 Patent.
- 110. Google's infringement has damaged and injured and continues to damage and injure Express Mobile.

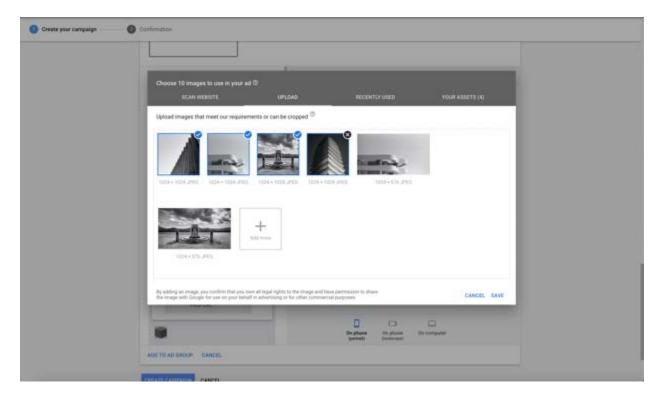
COUNT IV - INFRINGEMENT OF U.S. PATENT NO. 9,471,287

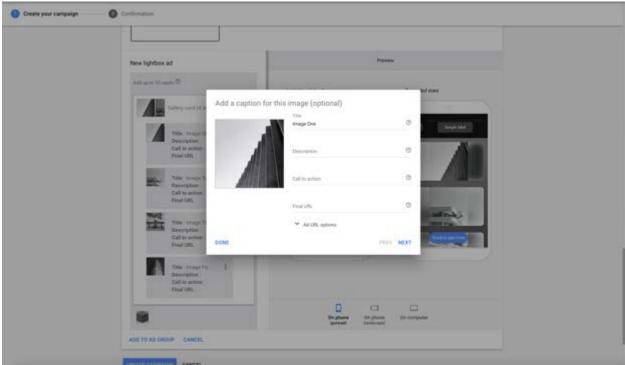
- 111. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 110 above.
- 112. Google has manufactured, used, sold, offered to sell and/or provided and continues to manufacture, sell, offer for sale and/or provide its Google Ads product (the "Accused Instrumentality") that infringes, either literally or under the doctrine of equivalents, one or more claims of the '287 patent in violation of 35 U.S.C. § 271(a).
- 113. Upon information and belief, Google has directly infringed at least claim 1 of the '287 patent through its Accused Instrumentality that generates code to provide content on a display of a device.

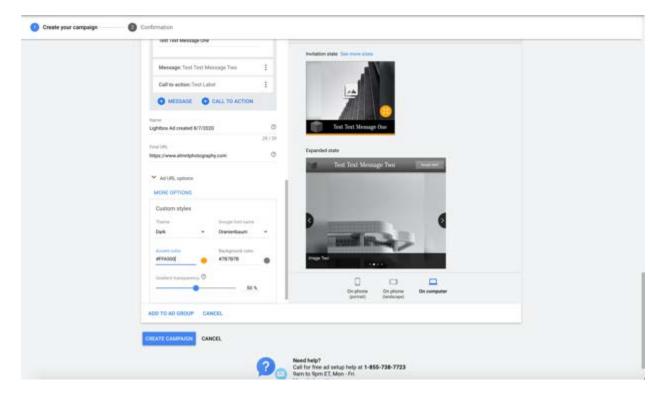
114. The browser environment of the Accused Instrumentality comprises a system to generate code to provide content on a display of a device for each of its users.



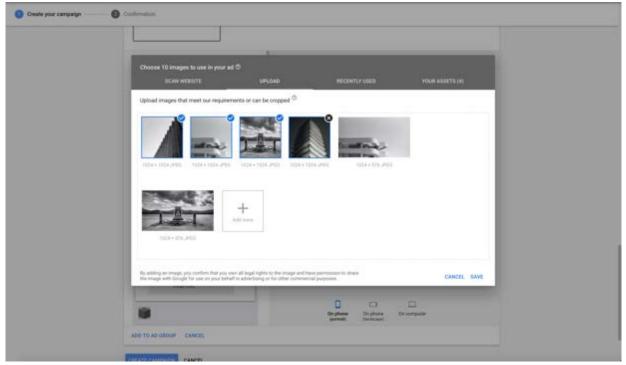




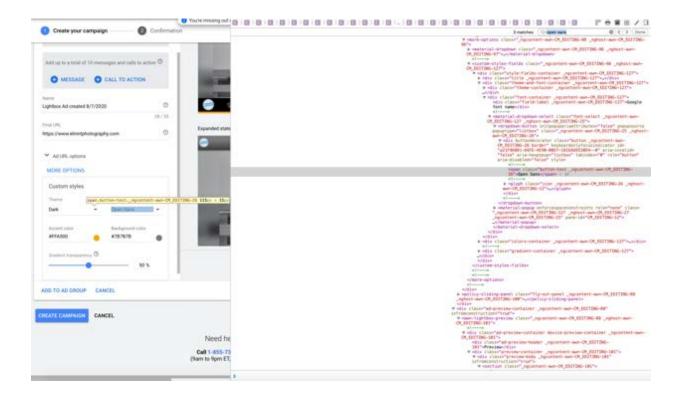




115. The Accused Instrumentality stores the content and settings adjustments in a database, both locally and on Google's external database servers in order to serve the designed ads on the designed page and across the Internet on all pages signed up to display Google AdSense ads. These databases are stored on computer memory.

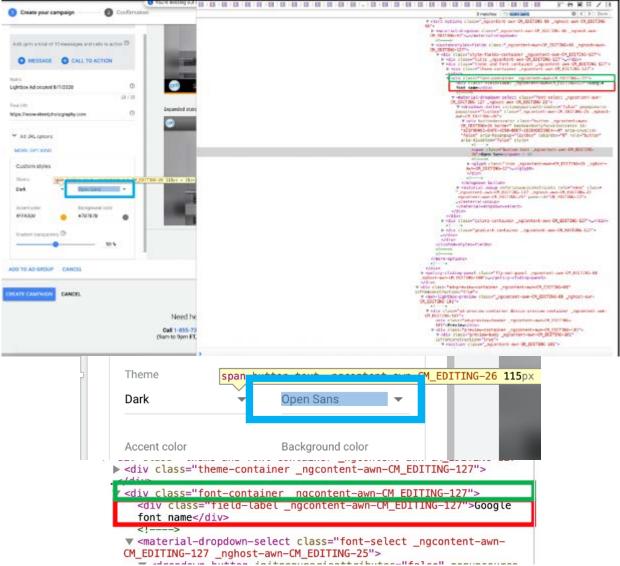


(The Google Ads environment showing stored images in the Google Ads database for use in Ads)



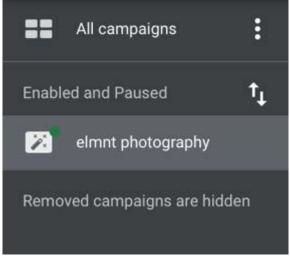
(The Google Ads environment source code showing the storage of a selected font setting in the local database)

116. The various menus and settings in the Accused Instrumentality include symbolic names for web components such as "Google font name," a symbolic name for the ad font setting component that can be evoked by that symbolic name. The font component is related to menu inputs (selecting a font) and display outputs (the corresponding font display change across the entire ad portion of the web page) of the Google Ad web service, obtained over a network by the user. The component's symbolic name ("Google font name") is a character string that is not a persistent address or pointer to an output value. The font selection component is associated with a data format class type ("font-container") corresponding to a subclass of UI objects (in this case, a menu for selecting font), and where this symbolic name has a preferred UI object (the font selection menu).

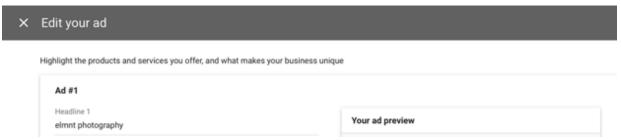


(The Google Ads web environment and corresponding page source showing the symbolic name [in red], the data format class type corresponding to a subclass of UI objects [in green], and the preferred UI object [in blue])

117. When a user creates an ad via the Accused Instrumentality web environment, that ad has a persistent address that is stored in the database to allow users to return to and consistently access or edit a particular ad.



(Google Ads menu showing stored Ad campaigns)

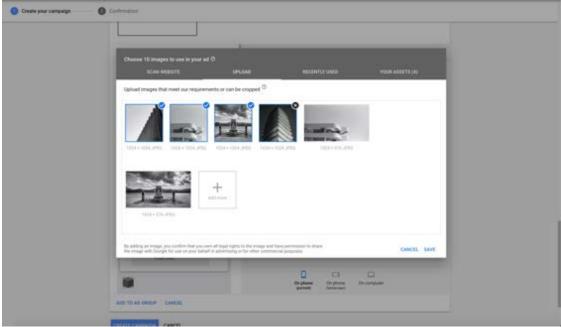


(Google Ads menu showing top-level editing menu for existing campaign)

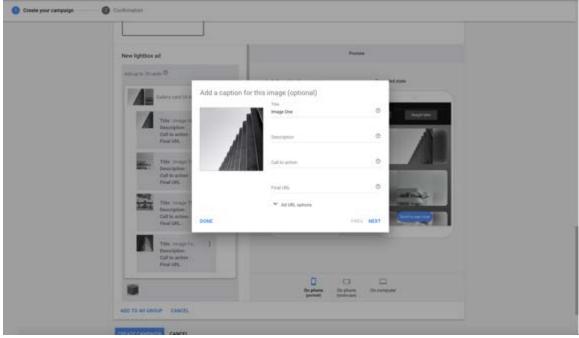


(Google Ads page for stored ad showing persistent address for particular ad, specifically "campaignId=10768941963," which is an ID stored with Google to allow reference to a persistent Google Ad campaign)

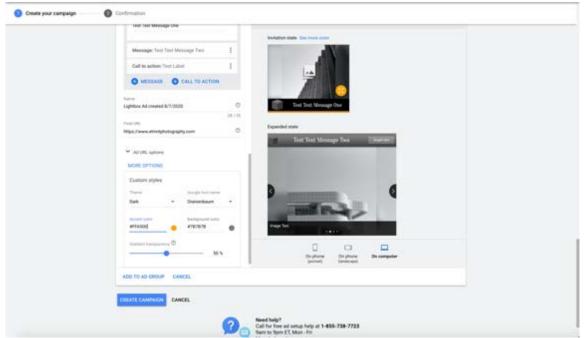
118. The Accused Instrumentality web environment has an authoring tool configured to define a UI object for presentation on the display.



(Google Ads environment showing selection of images for rotating gallery on website)

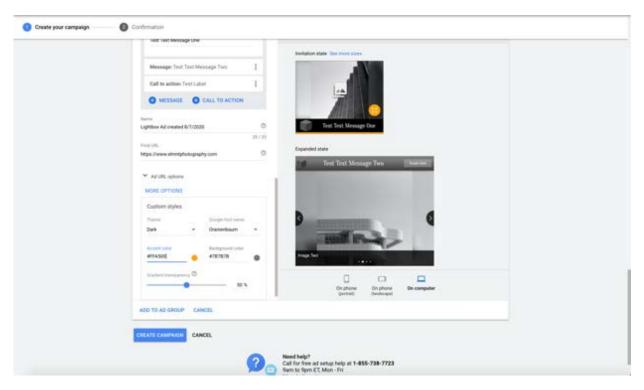


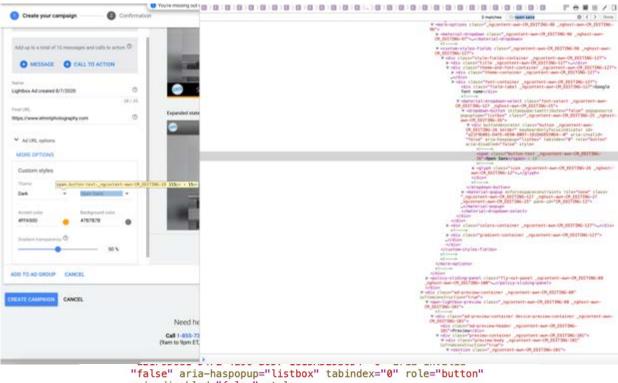
(Google Ads environment showing title and other properties of individual image for rotating gallery on website)



(Google Ads environment showing rotating message text, color selection, font selection, and other associated settings for ad content and rotating gallery of images on website)

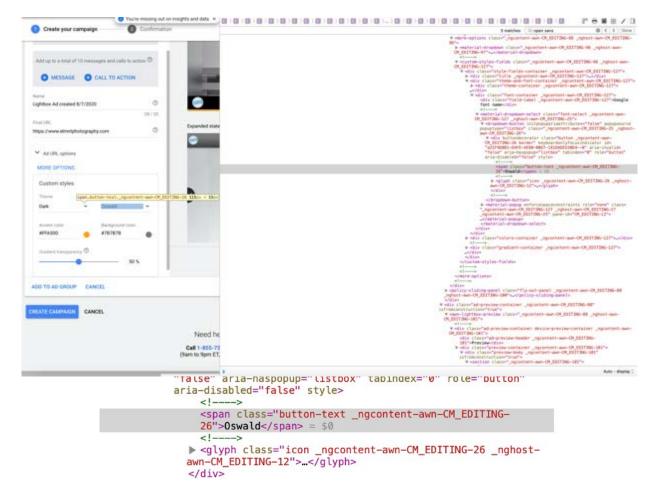
a web component of the Accused Instrumentality environment. The "font-container" web component for selecting the font for the displayed ad is a web component included in the computer memory. The font selection's setting comprises an input of the web service, and the resulting output to the user in the form of the displayed font is an output of the web service. In this case, the defined UI object is automatically selected by the system as the preferred UI object corresponding to the "Google font selection" symbolic name when the user selects the "More Options" web component and reveals the font selection web component.



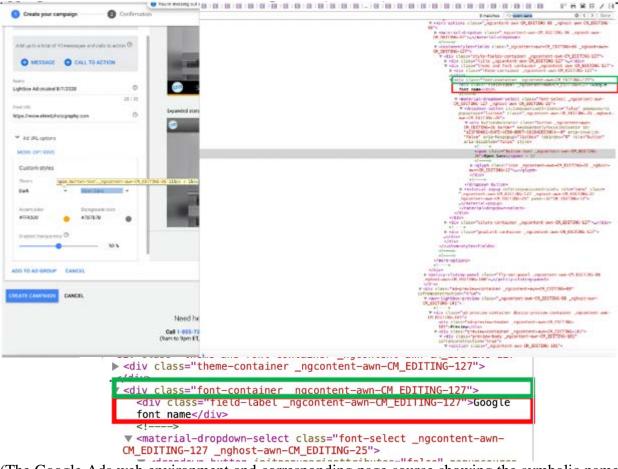


```
aria-disabled="false" style>
<!---->
<span class="button-text _ngcontent-awn-CM_EDITING-26">Open Sans</span> = $0
<!--->

> <glyph class="icon _ngcontent-awn-CM_EDITING-26 _nghost-awn-CM_EDITING-12">...</glyph>
```



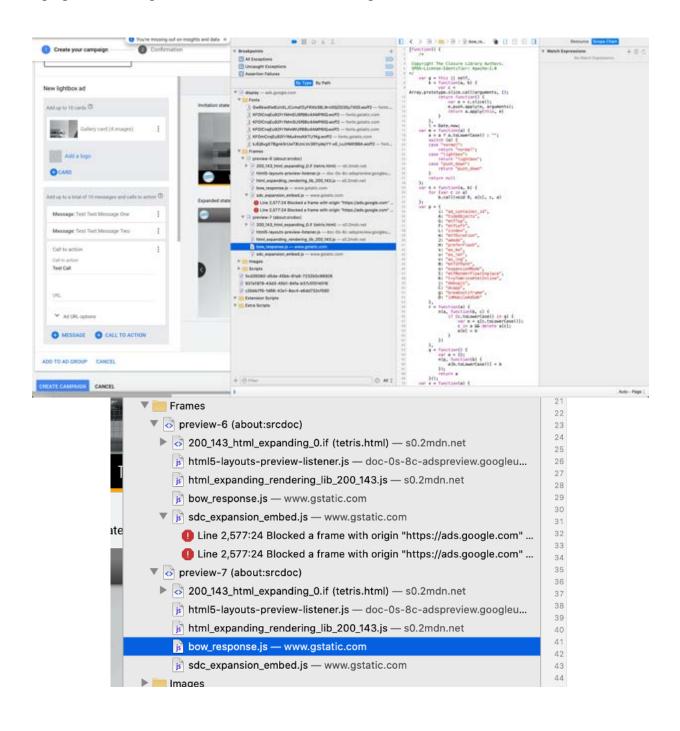
120. The authoring tool in the Accused Instrumentality is configured to access said computer memory to select the symbolic name corresponding to the web component of the defined UI object. When a user-modifiable UI object is invoked by the Accused Instrumentality, it is associated with a symbolic name unique to the that type of UI object (such as the font selection menu). The authoring tool associates this symbolic name with the defined UI object so that it can be referenced by the Accused Instrumentality environment at a later time. For example, the Accused Instrumentality associates page components such as the "font-container" and their associated symbolic name in memory as shown below.



(The Google Ads web environment and corresponding page source showing the symbolic name [in red] and the web component [in green])

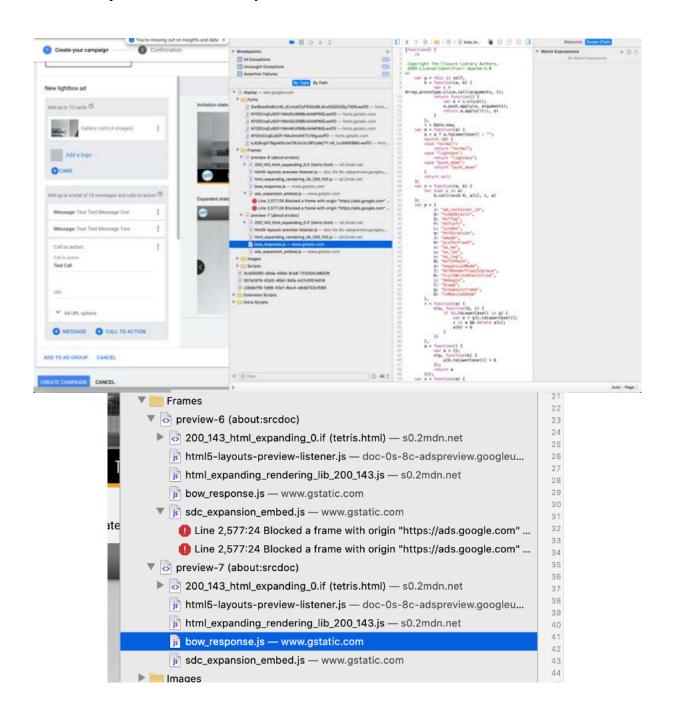
- 121. The Accused Instrumentality web environment and corresponding page source showing the symbolic name [in red] and the web component [in green]. The authoring tool in the Accused Instrumentality is configured to produce an application consisting of a web page view from the Accused Instrumentality database. The application is provided, for example, in the form of JavaScript files and associated data for the web page view(s) that are stored in the Google database.
- 122. When a browser is used to access the Accused Instrumentality, it uses a player which interacts with the application and data stored on the Google server. The player is, for example, software provided to the device in connection with the application. The player accesses and renders the data to generate the web page viewed by the user. The player operates

with the virtual machine (for example, Google Chrome uses the V8 virtual machine) and the information stored in the database in order to generate and display at least a portion of one or more web pages. The player includes code that is device-platform-dependent in order to allow the environment to work across a variety of devices such as personal computers (including laptops and desktops), tablets, browsers, and mobile phones.



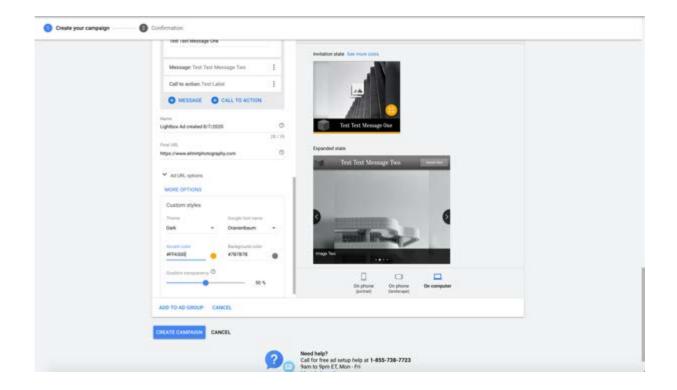
(A plurality of .js files—JavaScript runtime files—that comprise the Google Ads editing environment are shown)

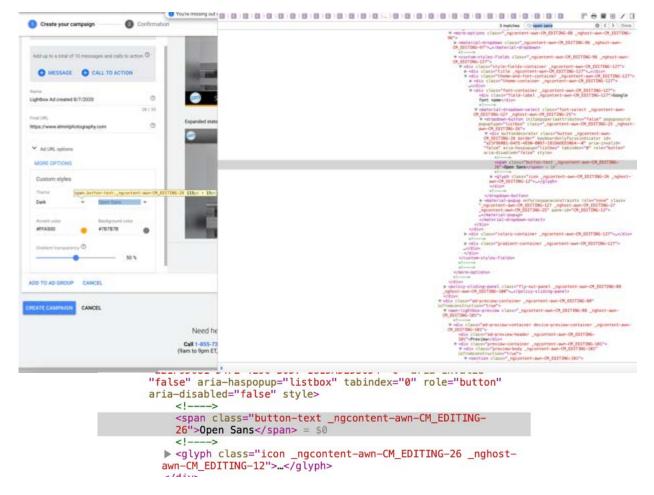
123. When a browser accesses the Accused Instrumentality or views an ad generated by the Accused Instrumentality, the application is provided to the device in the form of JavaScript files and other assets. The player code operates with the virtual machine to interpret this JavaScript and execute it locally.



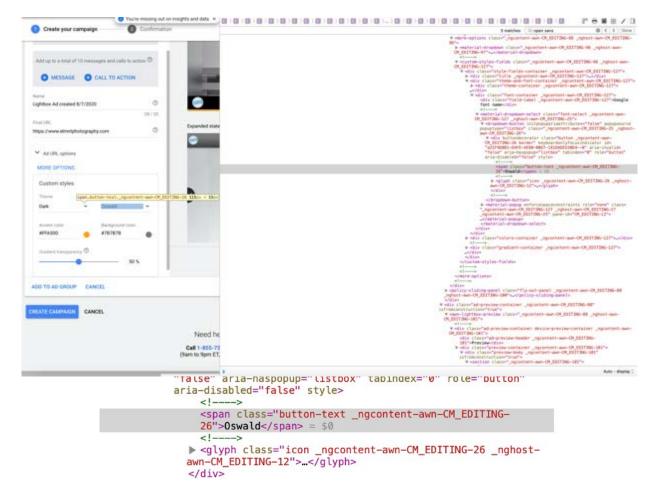
(A plurality of .js files—JavaScript runtime files—that comprise the Google Ads editing environment are shown)

124. The Accused Instrumentality includes UI objects (such as text fields and menus of settings) that are configured to receive input and generate visual output. Interaction by the user with the Accused Instrumentality environment allows the application to store any input values with the Google database. The web service also uses that same data to generate and display output values associated with these inputs when displaying data from the database to the user. For example, shown below, the user provides an input value associated with the "Google font name" symbolic name to an input of the "font-container" UI object. The web service receives that input value and symbolic name from the device, and generates an output value (in the form of the selected font) associated with the "Google font name" symbolic name.





JavaScript instructions provided with the Accused Instrumentality in order to receive the output symbolic name and output value. The instructions also provide for the display of this output value (the selected "Google font name") in the UI object (the "font-container") in order to display the appropriate data to the user. This output value (in this case, the selected font "Oswald") is presented in the "font-container" UI object for display on the device to the user. For example, shown below, the user provides an input value associated with the "Google font name" symbolic name to an input of the "font-container" UI object. The web service receives that input value and symbolic name from the device, and generates an output value (in the form of the selected font) associated with the "Google font name" symbolic name.



126. Google was made aware of the '287 patent and its infringement thereof at least as early as December 20, 2018 when Express Mobile provided notice of Google's infringement of the '397 patent to Kent Walker, Senior Vice-President of Global Affairs of Google. Since at least the time Google received notice, Google has induced end-users of the Accused Instrumentality to infringe at least claim 1 of the '287 patent under 35 U.S.C. § 271(b) through the end-users' use of the Accused Instrumentality. In particular, Google's actions aid and abet others such as customers and end-users to use the Accused Instrumentality and in particular to use the infringing functionality of the Accused Instrumentality—*i.e.*, to use the Accused Instrumentality to build an application including one or more web page views in accordance with claim 1 of the '044 patent. *See e.g.*, https://ads.google.com/,

https://ads.google.com/intl/en_us/home/how-it-works/,

https://ads.google.com/intl/en_us/home/faq/, and related domains and subdomains.

- Since Google was made aware of its infringement of the '287 patent Google has 127. done nothing to abate its own infringement or the infringement of end-users using the Accused Instrumentality and the infringing features of the Accused Instrumentality. Rather, Google has opted to make the business decision to "efficiently infringe" the '287 patent and continue to induce, instruct and abet end-users to use the infringing Accused Instrumentality. Google knows that its acts are infringing and that end-users are infringing through their use of the Accused Instrumentality because one who uses an infringing apparatus also infringes. Moreover, Google has the specific intent to induce end-users to infringe because it was made aware of its infringement by Express Mobile and thus knew of the infringing use of the Accused Instrumentality by end-users yet continued to induce, instruct and abet end-users to use the infringing Accused Instrumentality. The end-users control the Accused Instrumentality by using the infringing functionality to build an application including one or more web pages in views in accordance with claim 1 of the '287 patent by operating the Google Ads authoring tool. The end-users benefit from each and every limitation of claim 1 because the infringing functionality of the Accused Instrumentality allows end-users to receive the benefit of creating an online advertisement for goods and/or services to "[g]et more calls to your business," "[i]ncrease visits to your store," and/or "[d]rive people to your website," and each claim limitation used together provides a necessary piece of the system needed to provide such a benefit. See https://ads.google.com/home/how-it-works/.
- 128. Google is liable as a contributory infringer of the '287 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States website or web page authoring tools to be especially made or adapted for use in an infringement of the '287 patent.

The Accused Instrumentality is a material component for use in practicing the '287 patent, is specifically made and is not a staple article of commerce suitable for substantial non-infringing use. For example, in configurations or use scenarios where Google contends that it does not sell, make or import the "computer memory" of claim 1, the Accused Instrumentality (e.g., the system implementing the "Google Ads" software visual editing tool) is still a material component for use in practicing the '287 patent, and is not a staple article of commerce suitable for substantial non-infringing use. As set forth in the paragraphs above, the Google Ads software visual editing tool is specifically designed to store information in order to serve the designed ads on the designed page and across the Internet on all pages signed up to display Google AdSense ads. Google Ads software visual editing tool has no purpose other than to store this information in a "computer memory," including "symbolic names required for evoking one or more web components each related to a set of inputs and outputs of a web service obtainable over a network ..., and b) an address of the web service." The Google Ads software visual editing tool also comprises the claimed "authoring tool" as set forth in the paragraphs above. The Google Ads software visual editing tool is, therefore, a material part of the invention and is not a "staple article of commerce." The Google Ads software visual editing tool also has no substantial non-infringing use. In particular, the Google Ads software visual editing tool can only be used in conjunction with a "computer memory," which is required to run the software and store the symbolic names and web addresses to infringe the claimed invention. As set forth above, Google has prior knowledge of its infringement through a notice letter prior to filing suit as well as in conjunction with the filing of the Original complaint and that its provision of the Accused Instrumentality causes end-users to infringe the '287 patent.

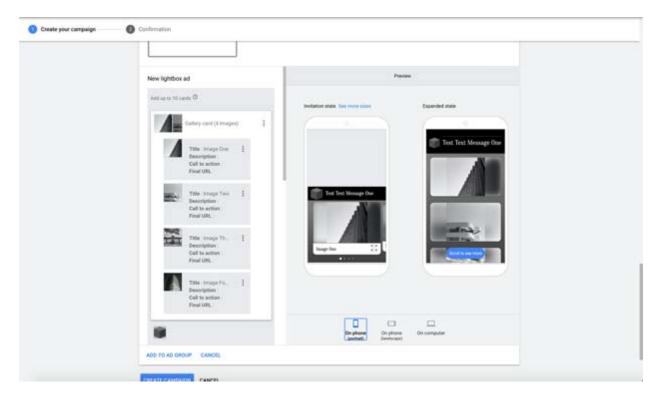
129. Upon information and belief, since the date of its receipt of notice, Google's infringement of the '287 patent has been willful and intentional under the standard announced in

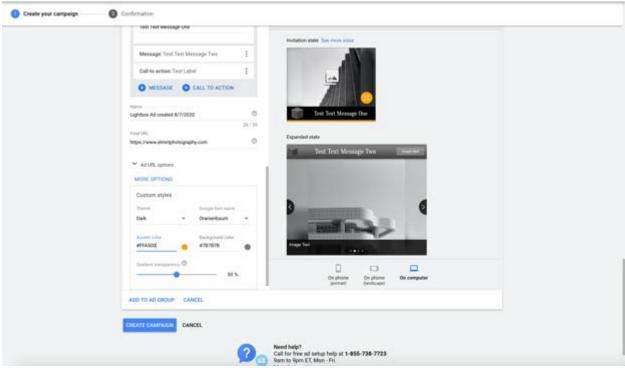
Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least December 20, 2018, Google has willfully infringed the '287 patent by refusing to take a license and continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentality. Google has been aware that it infringes the '287 patent since at least December 20, 2018 and instead of taking a license, Google has opted to make the business decision to "efficiently infringe" the '287 patent. In doing so, Google willfully infringed the '287 Patent.

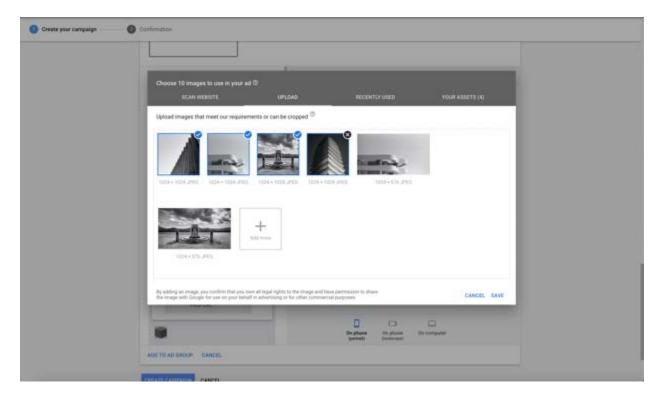
130. Google's infringement has damaged and injured and continues to damage and injure Express Mobile.

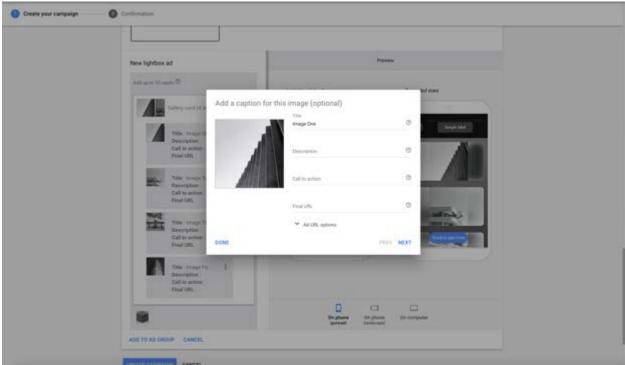
COUNT V - INFRINGEMENT OF U.S. PATENT NO. 9,063,755

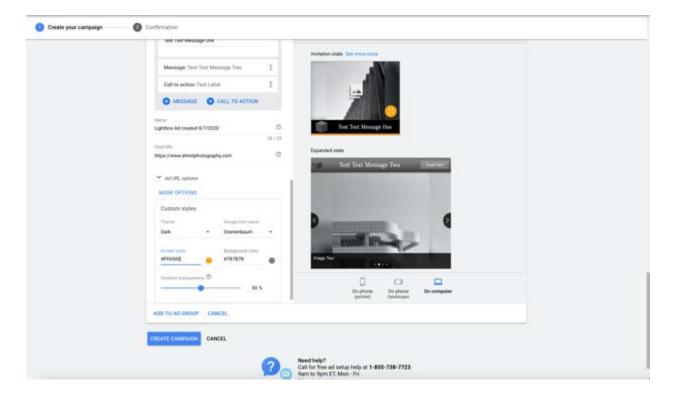
- 131. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 130 above.
- 132. Upon information and belief, Google has manufactured, used, sold, offered to sell and/or provided and continues to manufacture, sell, offer for sale and/or provide its Google Ads (the "Accused Instrumentality") that infringes, either literally or under the doctrine of equivalents, one or more claims of the '755 patent in violation of 35 U.S.C. § 271(a).
- 133. Upon information and belief, Google has directly infringed at least claim 1 of the '755 patent through its Accused Instrumentality that generates code to provide content on a display of a device.
- 134. The browser environment of the Accused Instrumentality comprises a system to generate code to provide content on a display of a device.



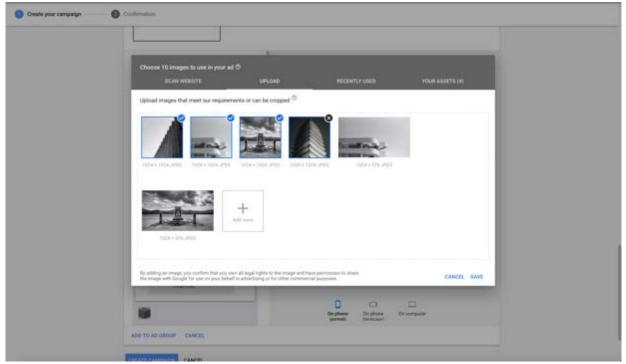




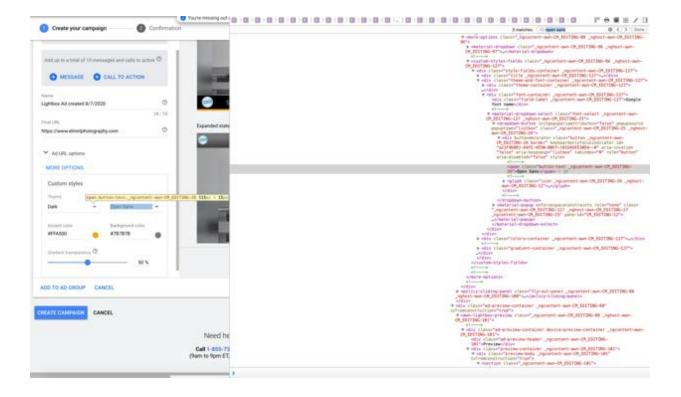




135. The Accused Instrumentality stores the content and settings adjustments in a database, both locally and on Google's external database servers in order to serve the designated ads on the designed page and across the Internet on all pages signed up to display Google AdSense ads. These databases are stored on computer memory.

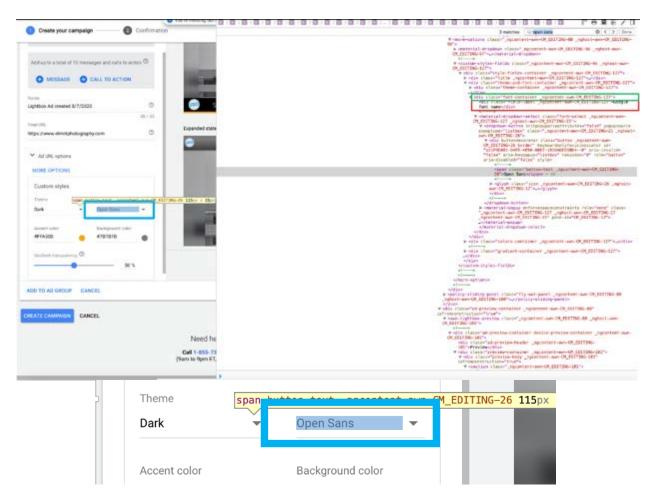


(The Google Ads environment showing stored images in the Google Ads database for use in the ads)



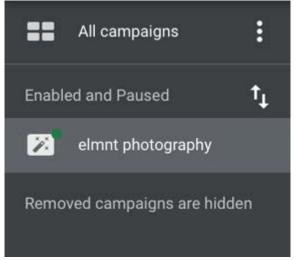
(The Google Ads environment source code showing the storage of a selected font setting in the local database)

136. The various menus and settings in the Accused Instrumentality include symbolic names for web components such as "Google font name," a symbolic name for the ad font setting component that can be evoked by that symbolic name. The font component is related to menu inputs (selecting a font) and display outputs (the corresponding font display change across the entire ad portion of the web page) of the Accused Instrumentality web service.

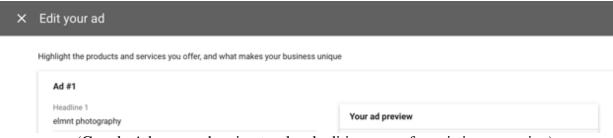


(The Google Ads web environment and corresponding page source showing the symbolic name [in red], the data format class type corresponding to a subclass of UI objects [in green], and the preferred UI object [in blue])

137. When a user creates an ad via the Accused Instrumentality web environment, that ad has a persistent address that is stored in the database to allow users to return to and consistently access or edit a particular ad.



(Google Ads menu showing stored Ad campaigns)

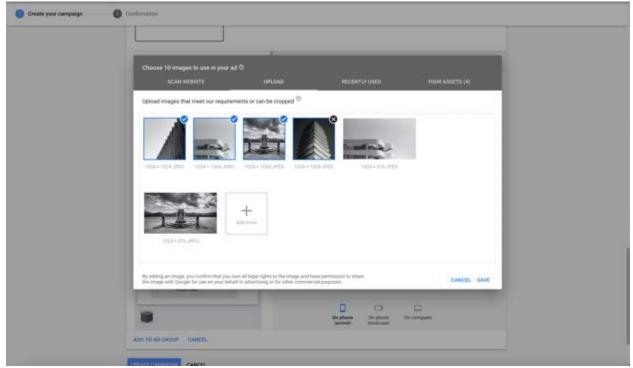


(Google Ads menu showing top-level editing menu for existing campaign)

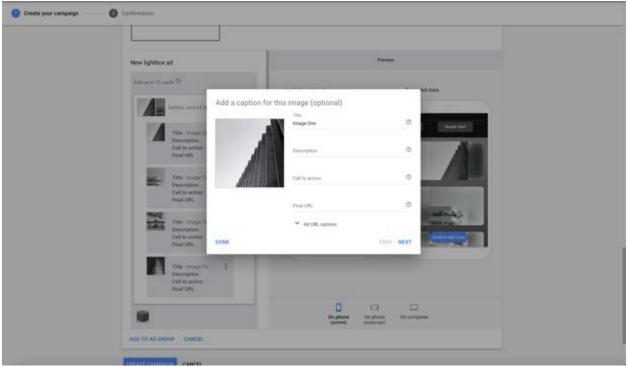


(Google Ads page for stored ad showing persistent address for particular ad, specifically "campaignId=10768941963," which is an ID stored with Google to allow reference to a persistent Google Ad campaign)

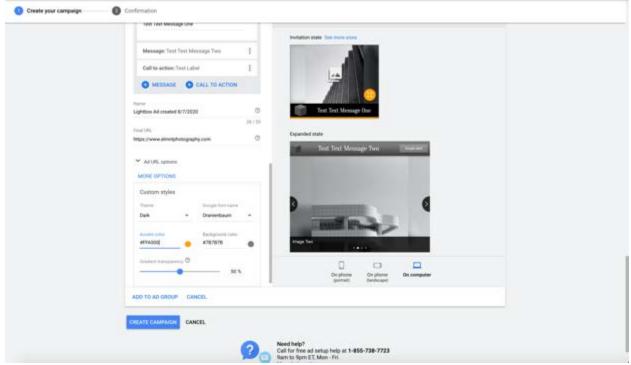
138. The authoring tool in the Accused Instrumentality is configured to build an application consisting of a web page view from the Google database. The application is provided, for example, in the form of JavaScript files and associated data for the web page view(s) that are stored in the Google database.



(Google Ads environment showing selection of images for rotating gallery on website)

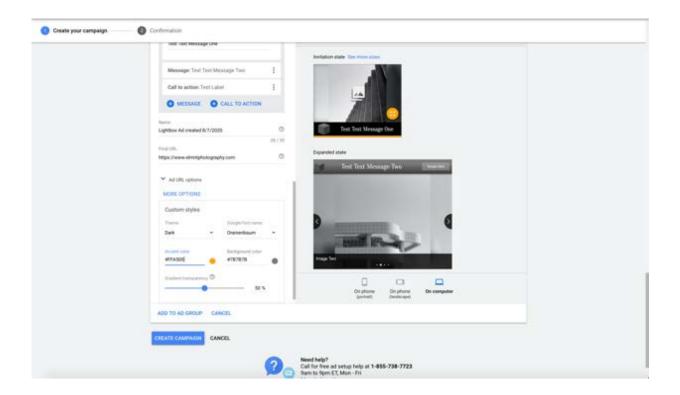


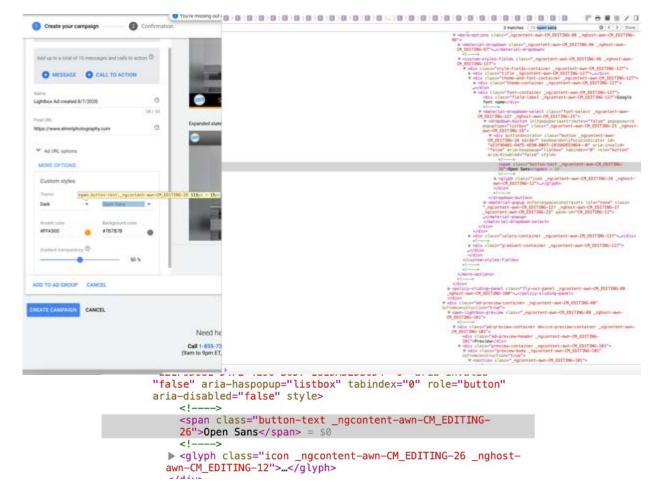
(Google Ads environment showing title and other properties of individual image for rotating gallery on website)



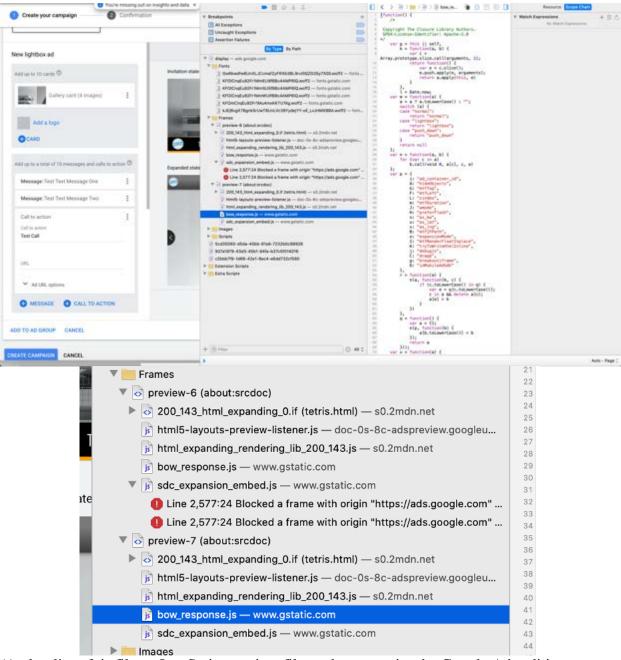
(Google Ads environment showing rotating message text, color selection, font selection, and other associated settings for ad content and rotating gallery of images on website)

a web component of the Google Ads environment. The "font-container" web component for selecting the font for the displayed ad is a web component included in the computer memory. The font selection's setting comprises an input of the web service, and the resulting output to the user in the form of the displayed font is an output of the web service. In this case, the defined UI object is automatically selected by the system as the preferred UI object corresponding to the "Google font selection" symbolic name when the user selects the "More Options" web component and reveals the font selection web component.



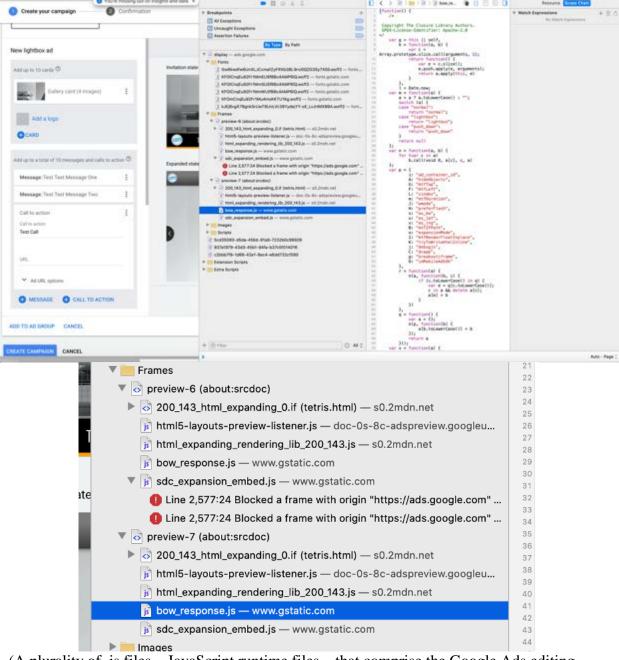


which interacts with the application and data stored on the Google server. The player is, for example, software provided to the device in connection with the application. The player accesses and renders the data to generate the web page viewed by the user. The player operates with the virtual machine (for example, Google Chrome uses the V8 virtual machine) and the information stored in the database in order to generate and display at least a portion of one or more web pages. The player includes code that is device-dependent in order to allow the environment to work across a variety of devices such as personal computers (including laptops and desktops), tablets, and mobile phones.



(A plurality of .js files—JavaScript runtime files—that comprise the Google Ads editing environment are shown)

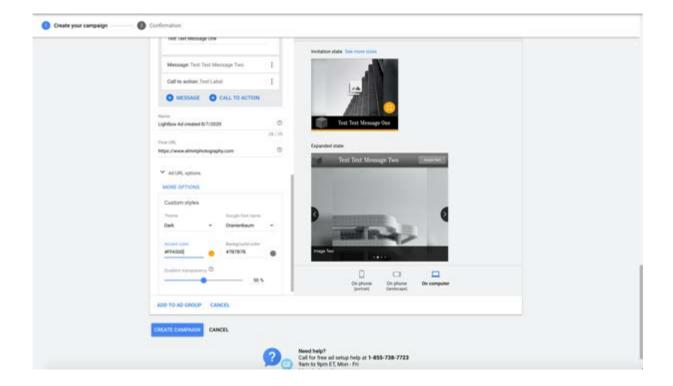
141. When a browser accesses the Accused Instrumentality or views an ad generated by the Accused Instrumentality, the application is provided to the device in the form of JavaScript files and other assets. The player code operates with the virtual machine to interpret this JavaScript and execute it locally.

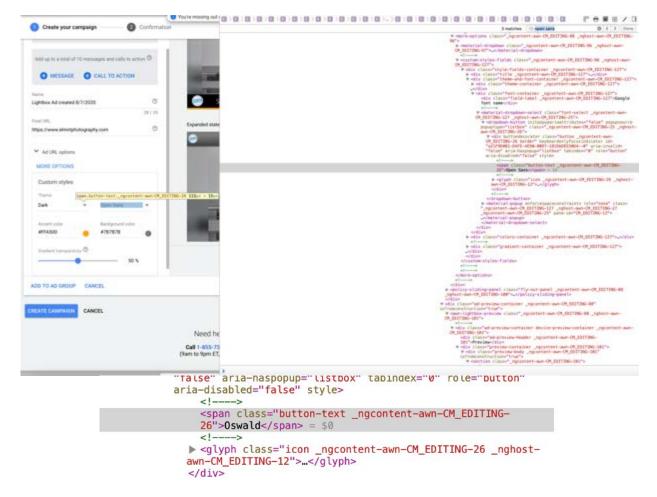


(A plurality of .js files—JavaScript runtime files—that comprise the Google Ads editing environment are shown)

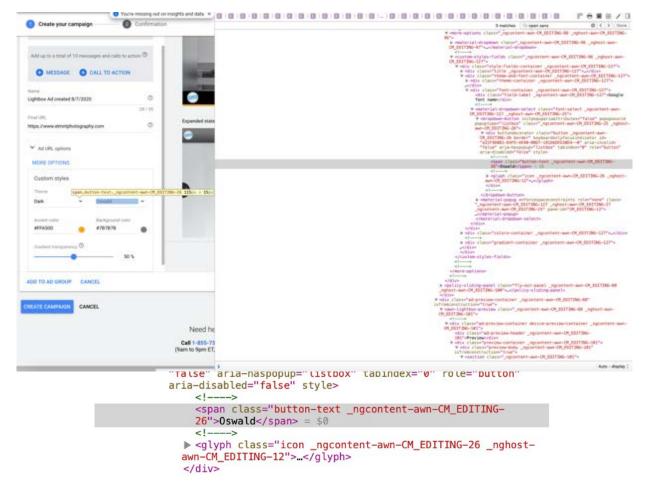
142. The Accused Instrumentality includes UI objects (such as text fields and menus of settings) that are configured to receive input and generate visual output. Interaction by the user with the Accused Instrumentality environment allows the application to store any input values with the Google database. The web service also uses that same data to generate and display output values associated with these inputs when displaying data from the database to the

user. For example, shown below, the device provides the user provided input value associated with the "Google font name" symbolic name to an input of the "font-container" UI object. The web service receives that input value and symbolic name from the device and generates an output value (in the form of the selected font) associated with the "Google font name" symbolic name.





143. The player code on the device operates with the virtual machine to execute the JavaScript instructions provided with the Accused Instrumentality in order to receive the output symbolic name and output value. The instructions also provide for the display of this output value (the selected "Google font name") in the UI object (the "font-container") in order to display the appropriate data to the user. This output value (in this case, the selected font "Oswald") is presented in the "font-container" UI object for display on the device to the user.



144. Google was made aware of the '755 patent and its infringement thereof at least as early as December 20, 2018 when Express Mobile provided notice of Google's infringement of the '397 patent to Kent Walker, Senior Vice-President of Global Affairs of Google. Since at least the time Google received notice, Google has induced end-users of the Accused Instrumentality to infringe at least claim 1 of the '755 patent under 35 U.S.C. § 271(b) through the end-users' use of the Accused Instrumentality. In particular, Google's actions aid and abet others such as customers and end-users to use the Accused Instrumentality and in particular to use the infringing functionality of the Accused Instrumentality—*i.e.*, to use the Accused Instrumentality to build an application including one or more web page views in accordance with claim 1 of the '755 patent. *See e.g.*, https://ads.google.com/,

https://ads.google.com/intl/en_us/home/how-it-works/,

https://ads.google.com/intl/en_us/home/faq/, and related domains and subdomains.

- 145. Since Google was made aware of its infringement of the '755 patent Google has done nothing to abate its own infringement or the infringement of end-users using the Accused Instrumentality and the infringing features of the Accused Instrumentality. Rather, Google has opted to make the business decision to "efficiently infringe" the '755 patent and continue to induce, instruct and abet end-users to use the infringing Accused Instrumentality. Google knows that its acts are infringing and that end-users are infringing through their use of the Accused Instrumentality because one who uses an infringing apparatus also infringes. Moreover, Google has the specific intent to induce end-users to infringe because it was made aware of its infringement by Express Mobile and thus knew of the infringing use of the Accused Instrumentality by end-users yet continued to induce, instruct and abet end-users to use the infringing Accused Instrumentality. The end-users control the Accused Instrumentality by using the infringing functionality to build an application including one or more web pages in views in accordance with claim 1 of the '755 patent by operating the Google Ads authoring tool. The end-users benefit from each and every limitation of claim 1 because the infringing functionality of the Accused Instrumentality allows end-users to receive the benefit of creating an online advertisement for goods and/or services to "[g]et more calls to your business," "[i]ncrease visits to your store," and/or "[d]rive people to your website," and each claim limitation used together provides a necessary piece of the system needed to provide such a benefit. See https://ads.google.com/home/how-it-works/.
- 146. Google is liable as a contributory infringer of the '755 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States website or web page authoring tools to be especially made or adapted for use in an infringement of the '755 patent.

The Accused Instrumentality is a material component for use in practicing the '755 patent, is specifically made and is not a staple article of commerce suitable for substantial non-infringing use. For example, in configurations or use scenarios where Google contends that it does not sell, make or import the "computer memory" of claim 1, the Accused Instrumentality (e.g., the system implementing the "Google Ads" software visual editing tool) is still a material component for use in practicing the '755 patent, and is not a staple article of commerce suitable for substantial noninfringing use. As set forth in the paragraphs above, the Google Ads software visual editing tool is specifically designed to store information in order to serve the designed ads on the designed page and across the Internet on all pages signed up to display Google AdSense ads. Google Ads software visual editing tool has no purpose other than to store this information in a "computer memory," including "symbolic names required for evoking one or more web components each related to a set of inputs and outputs of a web service obtainable over a network ..., and b) an address of the web service." The Google Ads software visual editing tool also comprises the claimed "authoring tool" as set forth in the paragraphs above. The Google Ads software visual editing tool is, therefore, a material part of the invention and is not a "staple article of commerce." The Google Ads software visual editing tool also has no substantial non-infringing use. In particular, the Google Ads software visual editing tool can only be used in conjunction with a "computer memory," which is required to run the software and store the symbolic names and web addresses to infringe the claimed invention. As set forth above, Google has prior knowledge of its infringement and that its provision of the Accused Instrumentality causes end-users to infringe the '755 patent through a notice letter prior to filing suit as well as in conjunction with the filing of the Original complaint.

147. Upon information and belief, since the date of its receipt of notice, Google's infringement of the '755 patent has been willful and intentional under the standard announced in

Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least December 20, 2018, Google has willfully infringed the '755 patent by refusing to take a license and continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentality. Google has been aware that it infringes the '755 patent since at least December 20, 2018 and instead of taking a license, Google has opted to make the business decision to "efficiently infringe" the '755 patent. In doing so, Google willfully infringed the '755 Patent.

148. Google's infringement has damaged and injured and continues to damage and injure Express Mobile.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff requests that the Court enter judgment for Plaintiff and against Defendant as follows:

- 149. That U.S. Patent No. 6,546,397 be judged valid, enforceable, and infringed by Defendant;
- 150. That U.S. Patent No. 7,594,168 be judged valid, enforceable, and infringed by Defendant;
- 151. That U.S. Patent No. 9,928,044 be judged valid, enforceable, and infringed by Defendant;
- 152. That U.S. Patent No. 9,471,287 be judged valid, enforceable, and infringed by Defendant;
- 153. That U.S. Patent No. 9,063,755 be judged valid, enforceable, and infringed by Defendant;

- 154. That Plaintiff be awarded judgment against Defendant for damages together with interests and costs fixed by the Court including an accounting of all infringements and/or damages not presented at trial;
- 155. That the Court declare this an exceptional case and award Plaintiff its attorneys' fees, as provided by 35 U.S.C. § 285 and that Plaintiff be awarded enhanced damages up to treble damages for willful infringement as provided by 35 U.S.C. § 284; and
- 156. That Plaintiff be awarded such other and further relief as this Court may deem just and proper.

JURY DEMAND

Plaintiff respectfully requests a jury trial on all issues so triable.

Dated: November 25, 2020 /s/ Robert F. Kramer (with permission)

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Attorneys for Plaintiff Express Mobile, Inc.

CERTIFICATE OF SERVICE

I hereby certify that all counsel of record, who are deemed to have consented to electronic service are being served this 25th day of November, 2020, with a copy of this document via the Court's CM/ECF system.

/s/ Robert Christopher Bunt ROBERT CHRISTOPHER BUNT