

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

<p>Relativity Display LLC, Plaintiff, v. The Home Depot, Inc., Defendant.</p>	<p>Case No. _____ Patent Case Jury Trial Demanded</p>
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COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Relativity Display LLC (“Relativity”), through its attorney, complains of The Home Depot, Inc. (“Home Depot”), and alleges the following:

PARTIES

1. Plaintiff Relativity Display LLC is a corporation organized and existing under the laws of Texas and maintains its principal place of business at 5068 W. Plano Parkway Suite 300, Plano, TX 75093.

2. Defendant Home Depot, Inc. is a corporation organized and existing under the laws of Delaware that maintains its principal place of business at 2455 Paces Ferry Road, Atlanta, GA 30339.

JURISDICTION

3. This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code.

4. This Court has exclusive subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

5. This Court has personal jurisdiction over Home Depot because it has engaged in systematic and continuous business activities in the Eastern District of Texas. Specifically, Home Depot provides its full range of services to residents in this District. As described below, Home Depot has committed acts of patent infringement giving rise to this action within this District.

VENUE

6. Venue is proper in this District under 28 U.S.C. § 1400(b) because Home Depot has committed acts of patent infringement in this District and has a regular and established place of business in this District. Specifically, Home Depot has retail stores in this District including a store located at 4600 State Hwy., Plano, TX 75024. In addition, Relativity has suffered harm in this district.

PATENTS-IN-SUIT

7. Relativity is the assignee of assignee of all right, title and interest in United States Patent Nos. 6,301,584 (the “’584 Patent”) and 6,868,525 (the “’525 Patent”) (collectively, the “Patents-in-Suit”), including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the Patent-in-Suit. Accordingly, Relativity possesses the exclusive right and standing to prosecute the present action for infringement of the Patents-in-Suit by Home Depot.

The ’584 Patent

8. On October 9, 2001, the United States Patent and Trademark Office issued the ’584 Patent. The ’584 Patent is titled “System and Method for Retrieving Entities and Integrating Data.” The application leading to the ’584 Patent was filed on and claims the priority of a European patent application filed on May 28, 1998. A true and correct copy of the ’584 Patent is attached hereto as Exhibit A and incorporated herein by reference.

9. The '584 Patent is valid and enforceable.

10. The inventors recognized that “[t]here exists a need for a mechanism to collect relevant information located at a plurality of Sites and Stored in plurality of incompatible formats according to configurable Search Strategies.” Ex. A, 2:16-19.

11. To tackle this problem, the claimed invention provides:

A data integration system and method gathers information dynamically from one or more data sources, which may be located at different servers and have incompatible formats, structures the information into a configurable, object oriented information model, and outputs the information for the user according to an associated, configurable visual representation with automatic content classification. (Ex. A, Abstract.)

The '525 Patent

12. On March 15, 2005, the United States Patent and Trademark Office issued the '525 Patent. The '525 Patent is titled “Computer Graphic Display Visualization System and Method.” The application leading to the '525 Patent was filed on May 26, 2000. A true and correct copy of the '525 Patent is attached hereto as Exhibit B and incorporated herein by reference.

13. The '525 Patent is valid and enforceable.

14. The inventors recognized there is a “tendency to return hits for a query that are so incredibly numerous, . . . that it is impractical for users to wade through them and find relevant results.” Ex. B, 3:7-10.

15. But the inventors also recognized the endemic problem of receiving far too many “garbage” results when conducting internet searches. Ex. B, 3:40-45 (“However, despite the apparent sophistication of many of the relevance testing techniques employed, the results typically fall short of the promise. Thus, there remains a need for a search engine for

uncontrolled databases that provides to the user results, which accurately correspond the desired information sought.).

16. To tackle the problem of excessive garbage search results and in order to improve methods of searching and navigating the internet's vast information, the claimed invention provides:

An improved human user computer interface system, providing a graphic representation of a hierarchy populated with naturally classified objects, having included therein at least one associated object having a distinct classification. Preferably, a collaborative filter is employed to define the appropriate associated object. The associated object preferably comprises a sponsored object, generating a subsidy or revenue. (Ex. B, Abstract.)

COUNT I: INFRINGEMENT OF THE '584 PATENT

17. Relativity incorporates the above paragraphs herein by reference.

18. **Direct Infringement.** Home Depot has been and continues to directly infringe at least claim 17 of the '584 Patent in this District and elsewhere in the United States by providing a method, for example, Home Depot's website, provides a web interface that enables users to search for desired products ("entities"). *See* Figures 1, 2 (below).

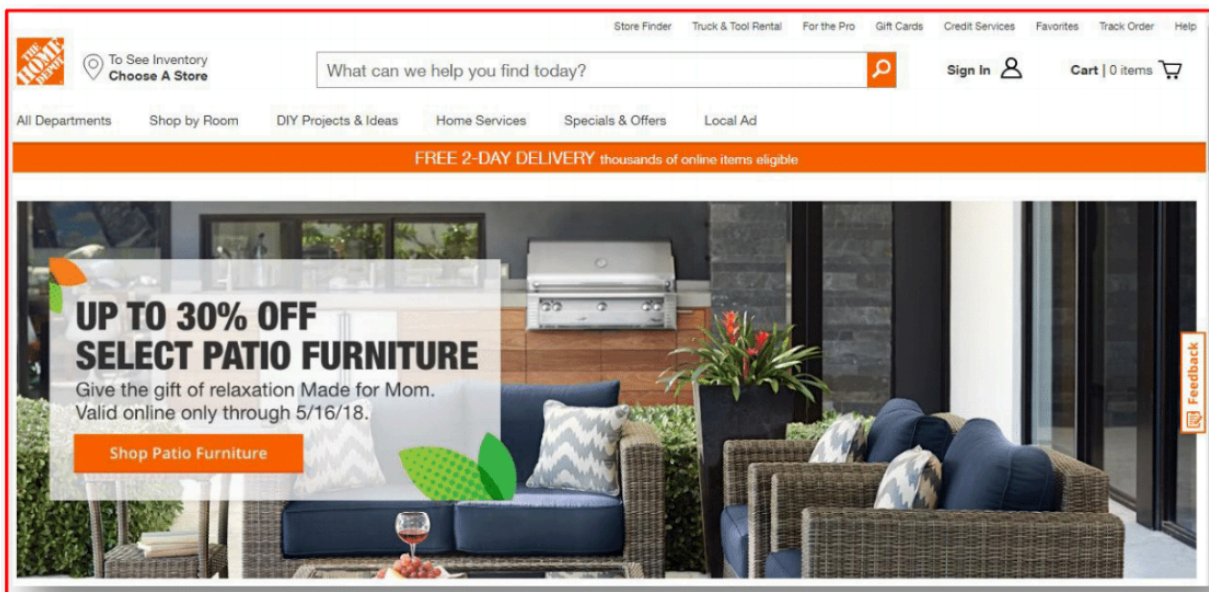


Figure 1.

Available at: <https://www.homedepot.com/>.

In an exemplary case below, user can select the ‘Microwaves’ department to view microwaves and their types that are currently being sold on Homedepot.com.

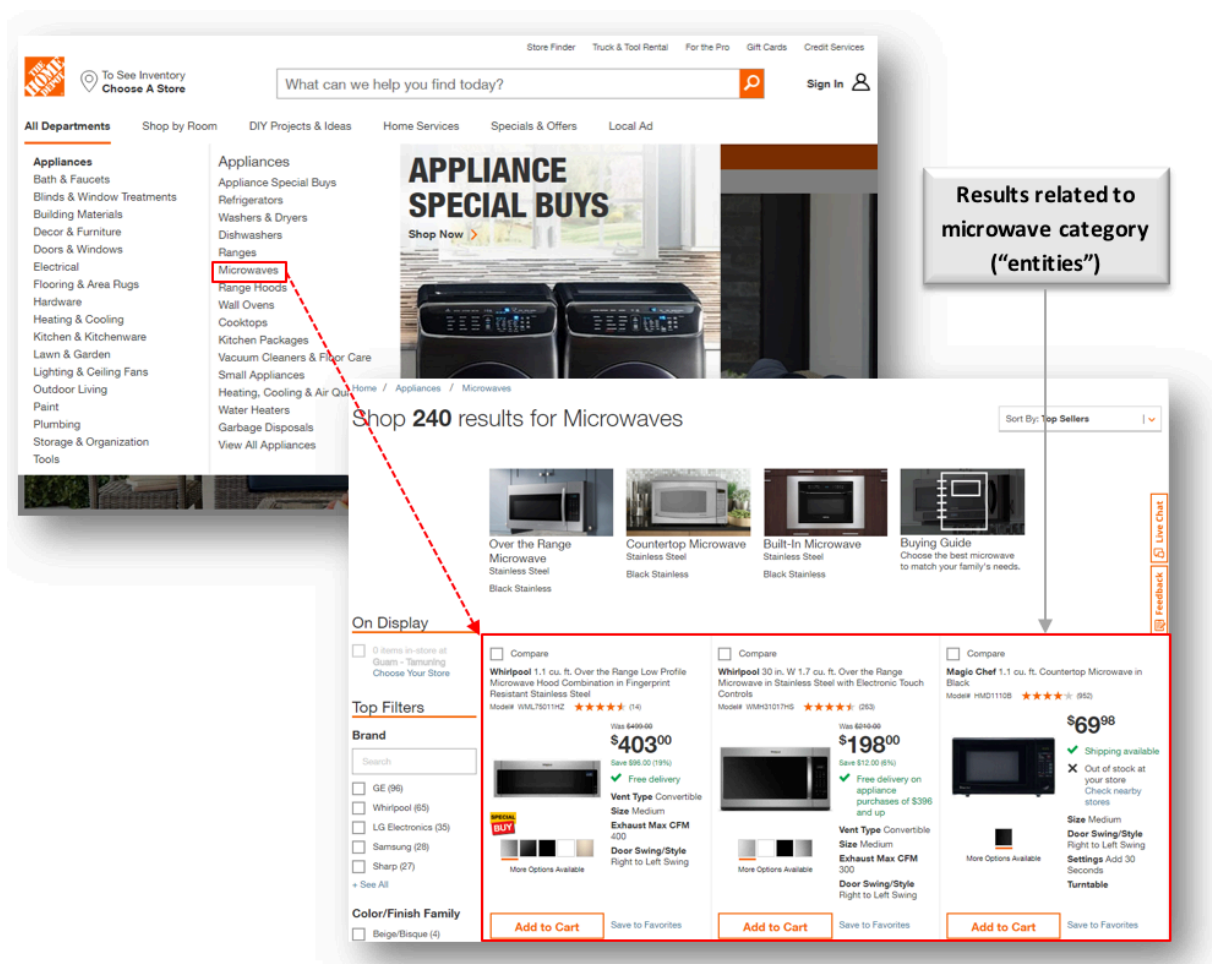


Figure 2.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves/N-5yc1vZc3ok>.

19. Home Depot’s website performs the step of claim 17(a): “storing a plurality of class.” For example, the products sold by Home Depot are classified into various categories

(such as Departments, sub department, Home Services, etc.). Each of these categories can be inferred to as class within which products are arranged. *See* Figures 3, 4 (below).

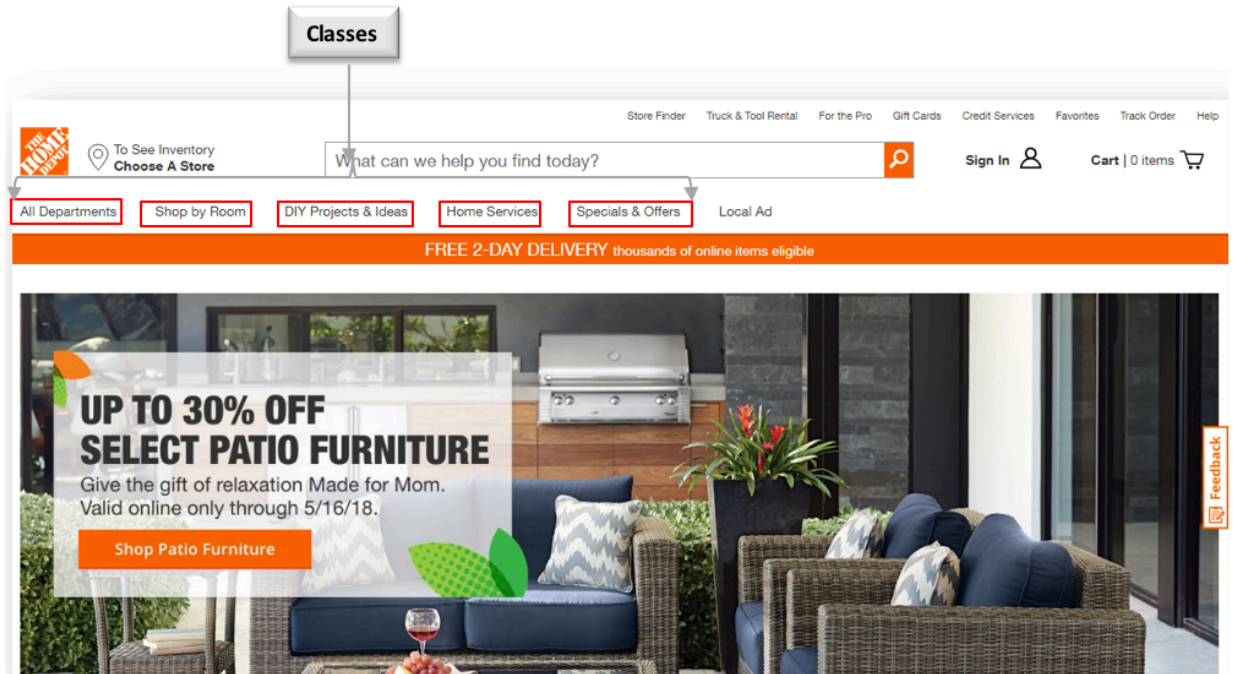


Figure 3.

Available at: <https://www.homedepot.com/>.

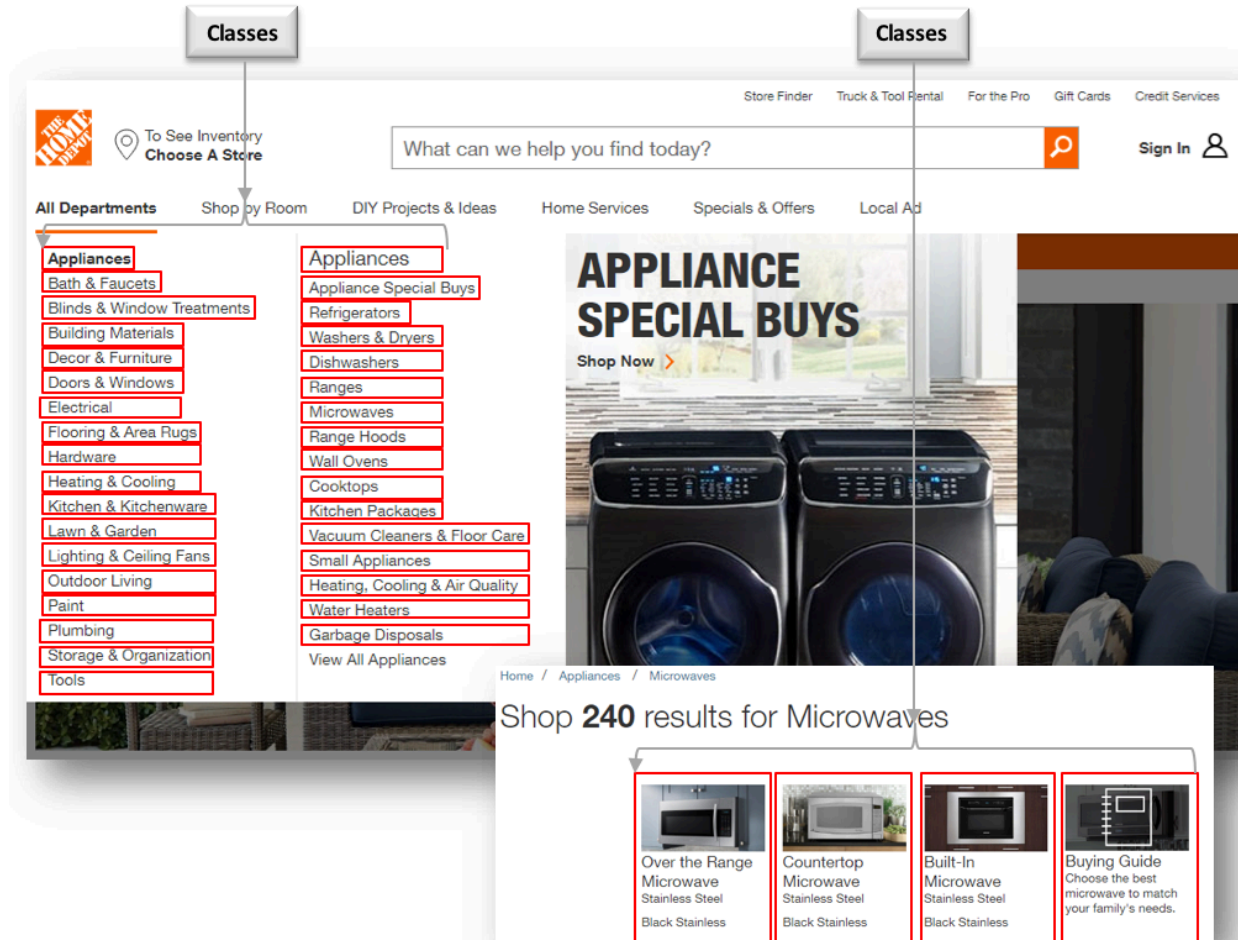


Figure 4.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves/N-5yc1vZc3ok>.

20. Home Depot’s website performs the step of claim 17(b): “each of said classes defines a structure of said entities, said structure including a plurality of property definitions, each property definition identifying property values to be retrieved dedicated to said property definition, said property values being stored in said data sources.” For example, the “Microwaves” department includes attributes (“property definitions”) such as Over the Range Microwave, Countertop Microwave, Built-In Microwave, etc. The property definition identifies property values (i.e. number of microwave) belonging to each to property of definition. Each

department includes further sub-departments such that each of the sub-department itself corresponds to a separate class. *See* Figures 5, 6 (below).

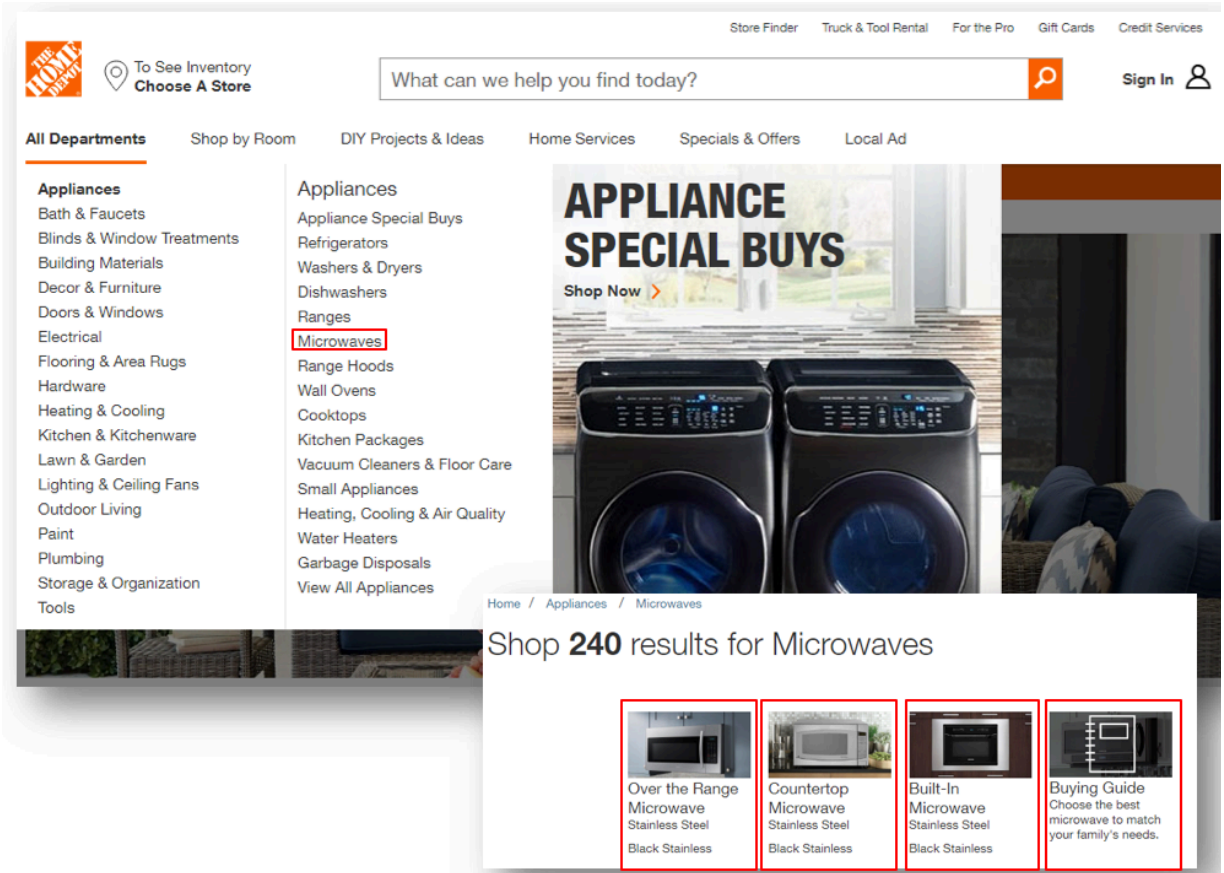


Figure 5.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves/N-5yc1vZc3ok>.

The screenshot shows a product listing page for microwaves. On the left is a sidebar with filters:

- Color: Black Slate (6), Black Stainless Steel (45), Black (98), Chrome (1)
- Savings Center: Special Buys (127), Spring Black Friday (1)
- Department: Appliances > Microwaves
 - Built-In Microwaves (16)
 - Countertop Microwaves (220)
 - Microwave Drawers (6)
 - Over-the-Range Microwaves (188)
- Microwave Features: Auto-Touch Control Panel (24), Bluetooth (4), Charcoal Filter (112), Clock (386), Convection (46)

 Three product cards are displayed:

- Whirlpool** 30 in. W 1.7 cu. ft. Over the Range Microwave in Stainless Steel with Electronic Touch Controls. Model# WMH31017HS. Price: \$198.00 (Was \$210.00, Save \$12.00 (5%)). Features: Free delivery on purchases of \$396 and up, Vent Type Convertible, Size Medium, Exhaust Max CFM 300, Door Swing/Style Right to Left Swing.
- GE** 1.6 cu. ft. Over the Range Microwave in White. Model# JVM3160DFWW. Price: \$198.00 (Was \$229.00, Save \$31.00 (14%)). Features: Free delivery on appliance purchases of \$396 and up, Vent Type Convertible, Size Medium, Exhaust Max CFM 300, Cooktop Lighting.
- KitchenAid** 30 in. 2.0 cu. ft. Over the Range Microwave in Stainless Steel with Sensor Cooking. Model# KMH5120ESS. Price: \$589.00 (Was \$649.00, Save \$60.00 (9%)). Features: Free delivery, Vent Type Convertible, Size Large, Exhaust Max CFM 300, Charcoal Filter.

 Each card has an 'Add to Cart' button and a 'Save to Favorites' link. At the bottom, there is a 'Buying Guide' section titled 'Microwaves Buying Guide' with a 'Read Our Guide' button. On the right edge, there are vertical buttons for 'Live Chat', 'Feedback', and 'Live Chat'.

Figure 6.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves/N-5yc1vZc3ok>.

21. Home Depot’s website performs the step of claim 17(c): “said classes include at least one dependent class hierarchically linked to at least one other class, said dependent class comprising additional property definitions specifying additional property values, in addition to the property values of the classes from which it depends.” For example, “Over-the-Range” is a subset of “Microwaves” and includes the property values of the ‘Microwaves’ class. *See* Figures 7, 8 (below).

The image shows a screenshot of a Home Depot website's microwave product page. On the left, there are filter sections: 'Color' (Black Slate (8), Black Stainless Steel (45), Black (98), Chrome (1), + See All), 'Savings Center' (Special Buys (127), Spring Black Friday (1)), and 'More Ways to Filter'. Under 'More Ways to Filter', the 'Department' is set to 'Appliances', and 'Microwaves' is selected. Below this, 'Over-the-Range Microwaves' is highlighted with a red box. A box labeled 'Dependent classes' has an arrow pointing to the 'Microwaves' filter. Another box labeled ''Over-the-Range Microwaves' is dependent on 'Appliance'' has an arrow pointing to the 'Over-the-Range Microwaves' sub-filter. The main content area shows product listings for Whirlpool, GE, KitchenAid, and Magic Chef microwaves. A 'Buying Guide' section is also visible, titled 'Microwaves Buying Guide' with a 'Read Our Guide' button.

Figure 7.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves-Over-the-Range-Microwaves/N-5yc1vZc3pa>.

The screenshot shows a Home Depot product page for microwaves. On the left, there are several filter sections: 'Color/Finish Family' (with options like Beige/Bisque, Black Slate, Black Stainless Steel, Black, Grey), 'Brand' (with options like GE, Whirlpool, Samsung, LG Electronics, Maytag), 'Microwave Features' (with options like Auto-Touch Control Panel, Bluetooth, Charcoal Filter, Clock, Convection), and 'Microwave Settings' (with options like Add 30 Seconds, Beverage, Control Lock, Cook Power, Cook Time). A callout box on the left points to these filter sections with the text: "Filters ('additional property definitions') belonging to a selected sub-department (i.e. 'Over-the-Ranges Microwaves')".

The main content area displays several microwave products with their prices, ratings, and features. For example, a Whirlpool 1.1 cu. ft. Over the Range Low Profile Microwave Hood Combination is priced at \$403.00 (was \$466.00). Other products include an Amana 1.6 cu. ft. Over the Range Microwave in Stainless Steel for \$158.00, a GE 1.6 cu. ft. Over the Range Microwave in White for \$198.00, and a KitchenAid 30 in. 2.0 cu. ft. Over the Range Microwave in Stainless Steel for \$589.00. Each product listing includes an 'Add to Cart' button and a 'Save to Favorites' button.

At the bottom of the page, there is a 'Buying Guide' section titled 'Microwaves Buying Guide' with a sub-header 'Microwaves are the most stylish and cook food. The Home Depot buying the best one for you.' Below this, there are more product listings, including an LG Electronics 1.7 cu. ft. Over the Range Microwave Oven in Stainless Steel for \$258.00 and a KitchenAid 30 in. W 1.9 cu. ft. Over the Range Convection Microwave in Stainless Steel for \$420.00.

Figure 8.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves-Over-the-Range-Microwaves/N-5yc1vZc3pa>.

22. Home Depot’s website performs the step of claim 17(d): “receiving a query, said query including an identifier for identifying a particular class and at least one of said property values.” For example, a user may query Home Depot’s web interface by selecting “Microwaves” (“a particular class”). See Figure 9 (below).

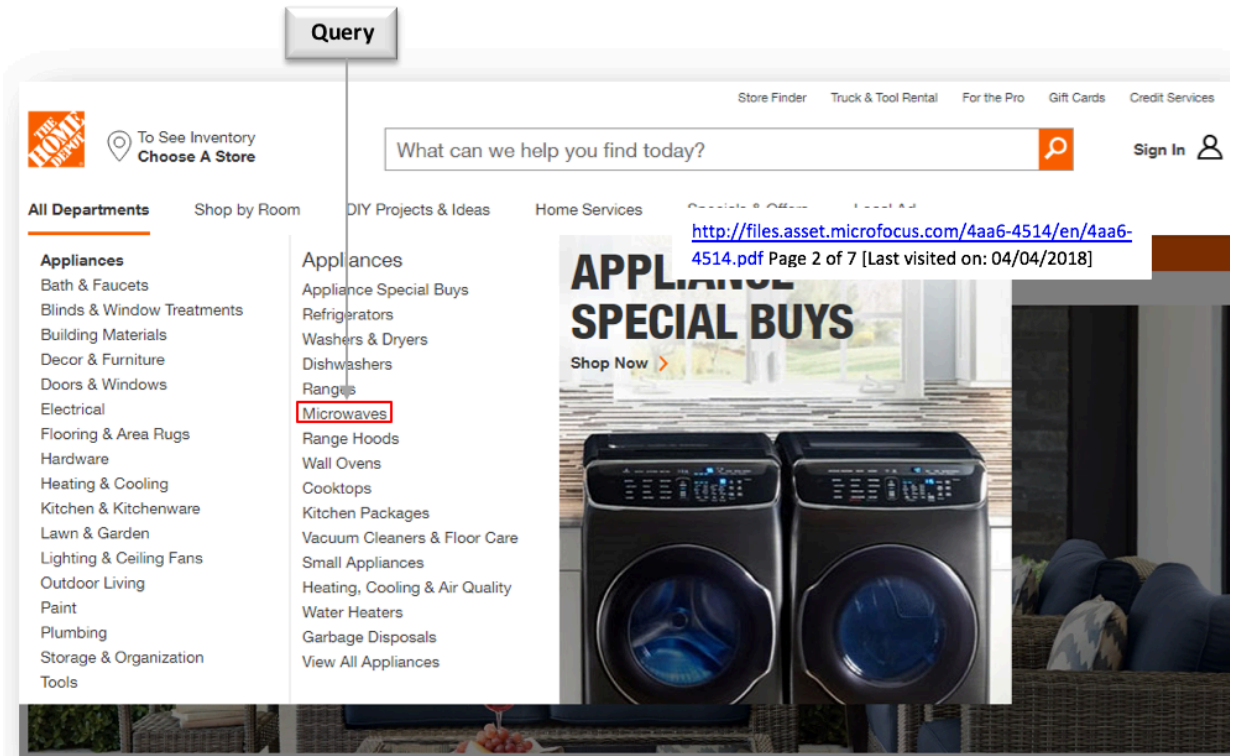


Figure 9.

Available at: <https://www.homedepot.com/>.

23. Home Depot’s website performs the step of claim 17(e): “selecting among said classes, said particular class dedicated to said identifier.” For example, In response to user selection of a category, the corresponding category is identified by the Home Depot (“particular class”). See Figure 10 (below).

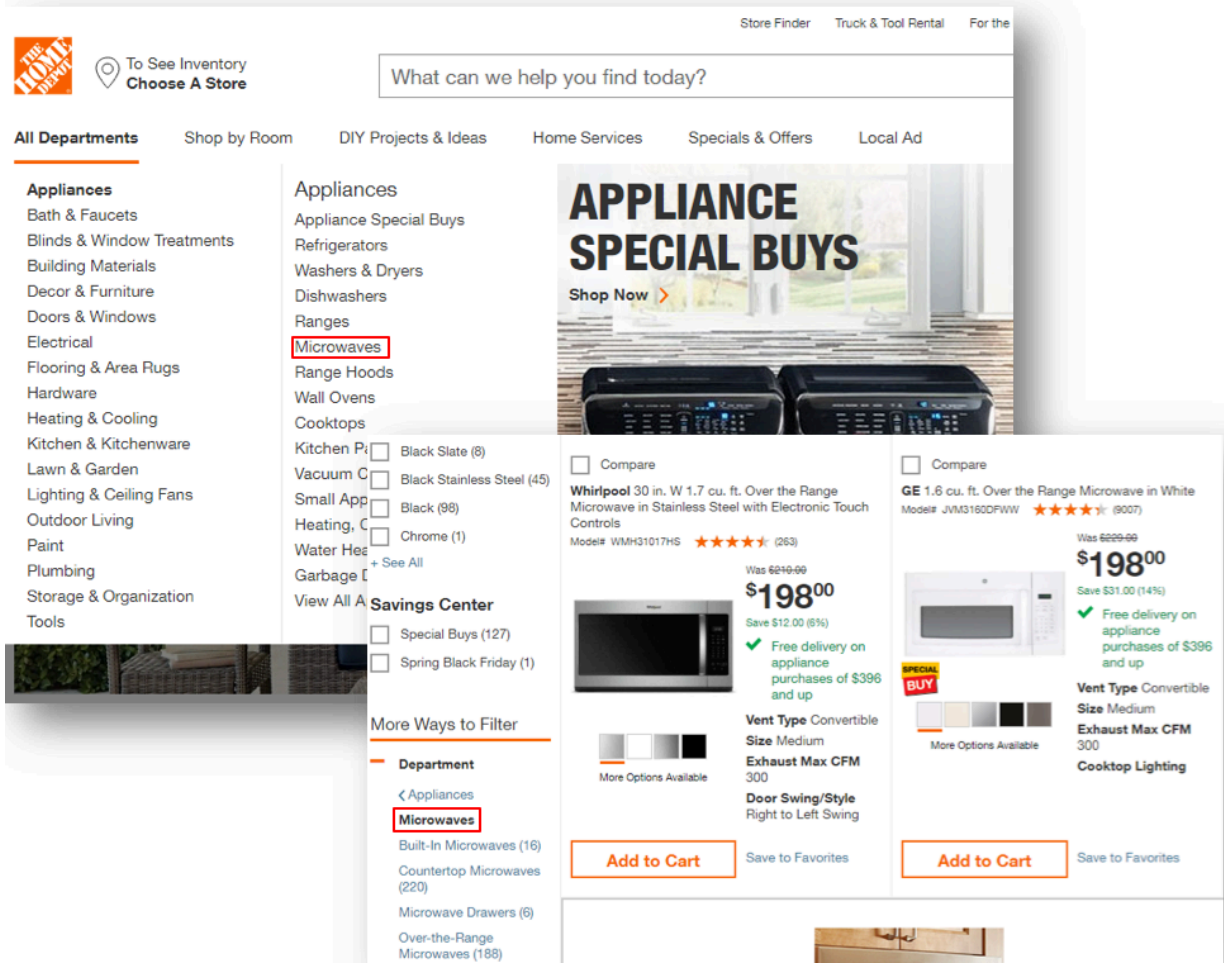


Figure 10.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves/N-5yc1vZc3ok>.

24. Home Depot’s website performs the step of claim 17(f): “accessing said data sources.” For example, Home Depot’s website operates and accesses data sources in response to user queries. *See* Figure 11 (below). Figure 11 displays the source code on a screen during an inspection of the Home Depot web page.

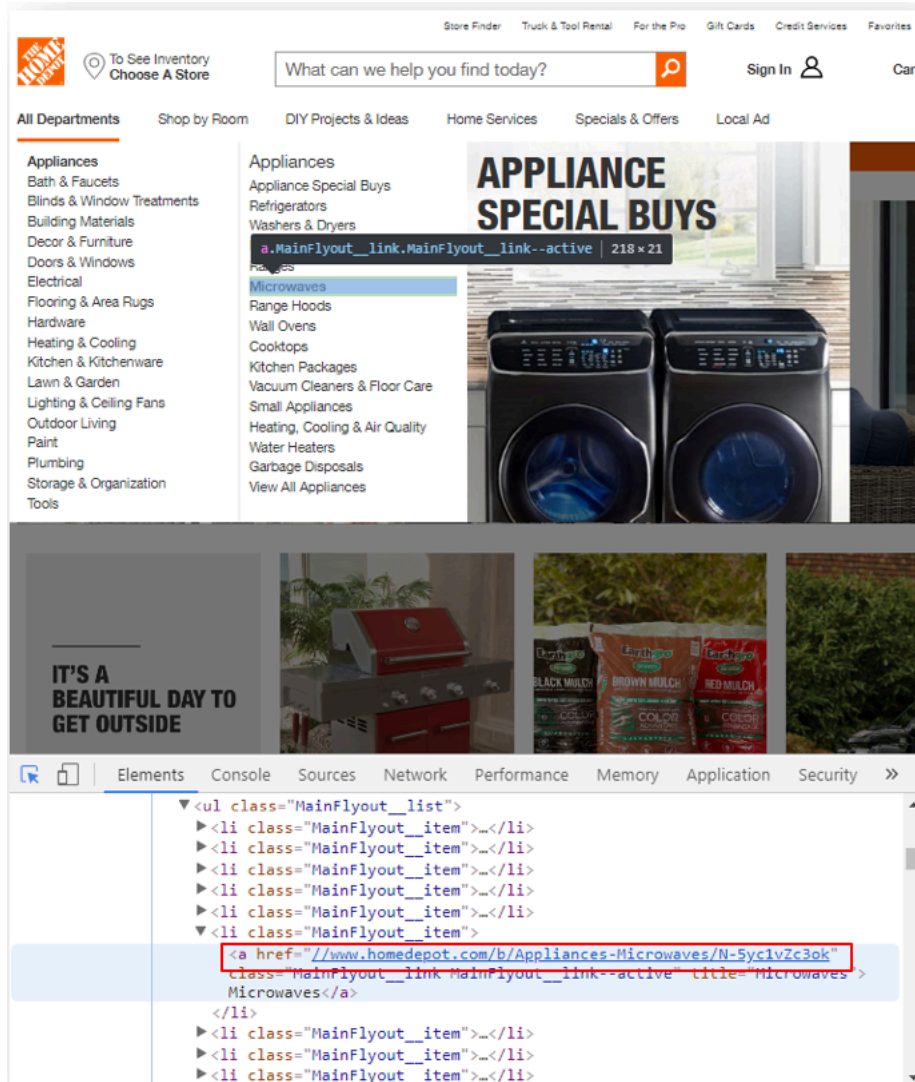


Figure 11.

25. Home Depot’s website performs the step of claim 17(g): “retrieving property values pertaining to at least one particular entity that comprise said at least one of said property values.” For example, Home Depot’s website displays information about ‘Over the Range’ under the ‘Microwaves’ category. *See* Figure 12 (below).

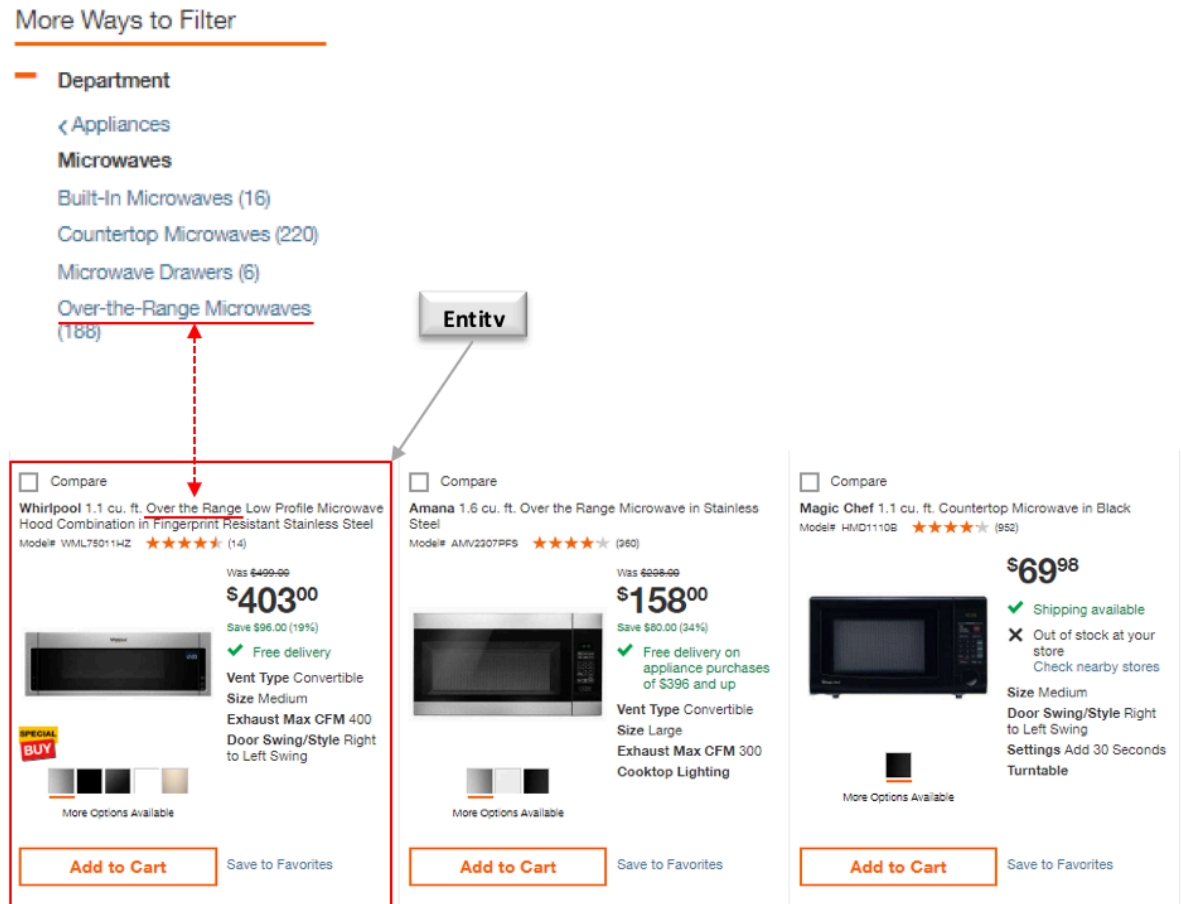


Figure 12.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves/N-5yc1vZc3ok>.

26. Home Depot’s website performs the step of claim 17(h): “establishing, for each particular entity to be retrieved, if said particular entity pertains to one of said dependent classes of said selected particular class.” For example, Home Depot’s website shows that microwaves belong to subcategories such as “Over-the-Range.” See Figure 13 (below).

More Ways to Filter

- Department
 - Appliances
 - Microwaves
 - Built-In Microwaves (16)
 - Countertop Microwaves (220)
 - Microwave Drawers (6)
 - Over-the-Range Microwaves (188)

Product	Price	Features
Whirlpool 1.1 cu. ft. Over the Range Low Profile Microwave Hood Combination in Fingerprint Resistant Stainless Steel	\$403.00 (Was \$499.00, Save \$96.00)	Vent Type Convertible, Size Medium, Exhaust Max CFM 400, Door Swing/Style Right to Left Swing
Amana 1.6 cu. ft. Over the Range Microwave in Stainless Steel	\$158.00 (Was \$208.00, Save \$50.00)	Vent Type Convertible, Size Large, Exhaust Max CFM 300, Cooktop Lighting
Magic Chef 1.1 cu. ft. Countertop Microwave in Black Steel	\$69.98	Size Medium, Door Swing/Style Right to Left Swing, Settings Add 30 Seconds Turntable

Figure 13.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves/N-5yc1vZc3ok>.

27. Home Depot’s website performs the step of claim 17(i): “retrieving, upon establishing that said particular entity pertains to one of said dependent classes of said selected particular class, said additional properties of said dependent class.” For example, Home Depot’s website identifies the brands, colors and features of selected microwaves. *See* Figure 14 (below).

Properties (highlighted in red) of the dependent class identified in response to selection of a class

The screenshot displays a product grid for microwaves. On the left, there are several filter sections: 'Top Filters' with a 'Brand' search box and a list of brands (GE, Whirlpool, LG Electronics, Samsung, Sharp); 'Color/Finish Family' with a list of colors (Beige/Bisque, Black Slate, Black Stainless Steel, Black, Chrome); 'Savings Center' with 'Special Buys' and 'Spring Black Friday'; 'More Ways to Filter' with a 'Department' dropdown (Appliances) and a list of microwave types (Built-in, Countertop, Microwave Drawers, Over-the-Range); and 'Microwave Features' with a list of features (Auto-Touch Control Panel, Bluetooth, Charcoal Filter, Clock). The main grid shows six microwave products, each with a 'Compare' button, product name, model number, star rating, price (original and sale), savings amount, delivery status, and 'Add to Cart' button. At the bottom, there is a 'Buying Guide' section for microwaves with an image of a microwave and a 'Read Our Guide' button.

Figure 14.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves/N-5yc1vZc3ok>.

28. Home Depot’s website performs the step of claim 17(j): “outputting the retrieved entities.” For example, Home Depot’s website displays identified products, such as microwaves, along with property values such as price. See Figure 15 (below).

The screenshot displays a Home Depot product page for microwaves. On the left, there is a sidebar with filters including 'On Display', 'Top Filters', 'Brand' (with a search box and checkboxes for GE, Whirlpool, LG Electronics, Samsung, and Sharp), 'Color/Finish Family' (with checkboxes for Beige/Bisque, Black Slate, Black Stainless Steel, Black, and Chrome), 'Savings Center' (with checkboxes for Special Buys and Spring Black Friday), and 'More Ways to Filter' (with sections for Department and Microwave Features). The main content area is a grid of six microwave product listings, each with a 'Compare' button, product name, model number, price (original and current), savings amount, and features. The products include Whirlpool, Amana, Magio Chef, Whirlpool 30 in., GE, and KitchenAid models. At the bottom, there is a 'Buying Guide' section with an image of a microwave and a 'Read Our Guide' button.

Figure 15.

Available at: <https://www.homedepot.com/b/Appliances-Microwaves/N-5yc1vZc3ok>.

29. **Induced Infringement.** Home Depot has also actively induced, and continues to induce, the infringement of at least claim 17 of the '584 Patent by actively inducing its customers, including merchants and end-users to use Home Depot's website in an infringing manner as described above. Upon information and belief, Home Depot has specifically intended that its customers use its website that infringe at least claim 17 of the '584 Patent by, at a minimum, providing access to support for, training and instructions for, its website to its customers to enable them to infringe at least claim 17 of the '584 Patent, as described above.

Even where performance of the steps required to infringe at least claim 17 of the '584 Patent is accomplished by Home Depot and Home Depot's customer jointly, Home Depot's actions have solely caused all of the steps to be performed.

30. Relativity is entitled to recover damages adequate to compensate it for such infringement in an amount no less than a reasonable royalty under 35 U.S.C. § 284.

31. Relativity will continue to be injured, and thereby caused irreparable harm, unless and until this Court enters an injunction prohibiting further infringement.

COUNT II: INFRINGEMENT OF THE '525 PATENT

32. Relativity incorporates the above paragraphs herein by reference.

33. **Direct Infringement.** Home Depot has been and continues to directly infringe at least claim 44 of the '525 Patent in this District and elsewhere in the United States by providing a method, for example, Home Depot's website, for providing a human-computer user interface.

34. Home Depot's website performs the step of claim 44(a): "providing an object browser." For example, Home Depot's operates an eCommerce portal that provides a web page allowing users to search for products. *See* Figure 16 (below).

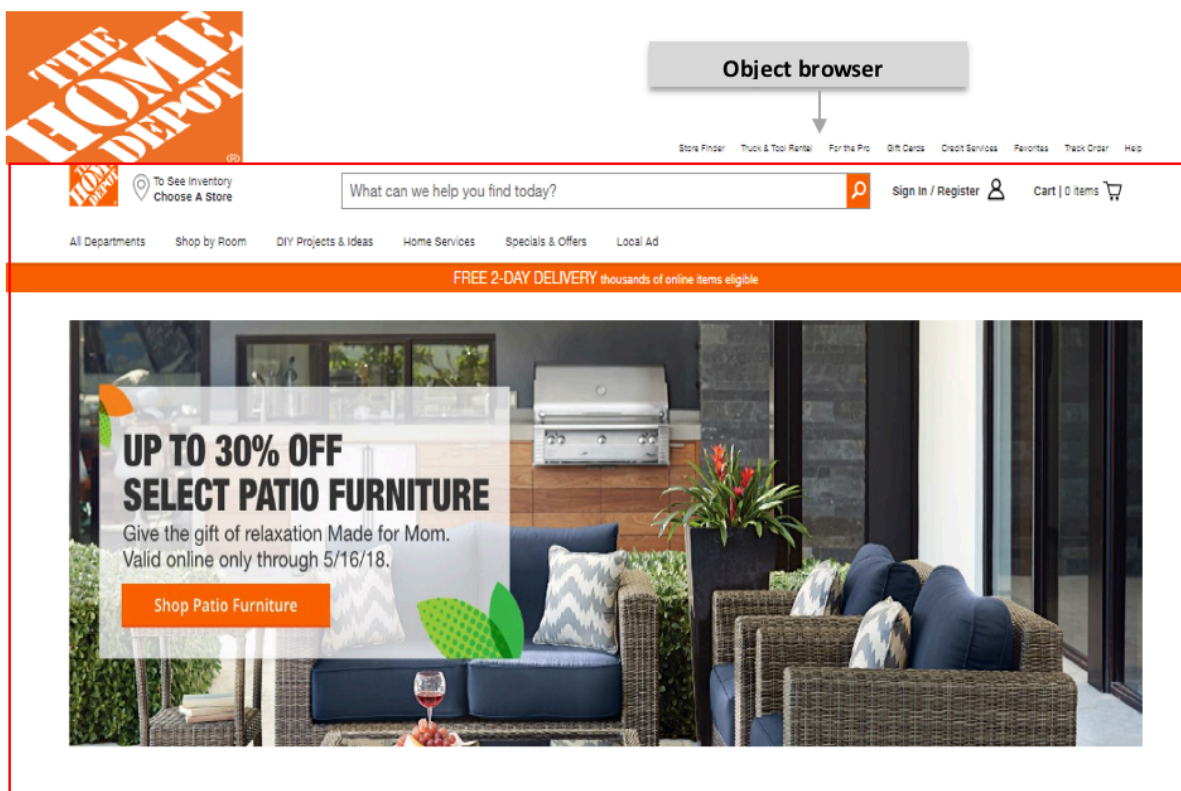


Figure 16.

Available at: <https://www.homedepot.com/>.

35. Home Depot’s website performs the step of claim 44(b): “receiving a user-defined content-based selection criteria and returning respective resource locators of selected objects consistent with the criteria and respective resource locators of objects associated with the criteria.” For example, Home Depot allows users to enter search term (“selection criteria”) according to which, related products are identified, such as Frozen Doors. Each of the identified products (“selected objects”) matching to the search term contains links (“resource locators”). The user can click on them to view more details. *See* Figures 17, 18 (below).

Selection criteria

Resource locators (links) of selected objects

Shop Refrigerators by Style

- French Door: Keep fresh food at your fingertips with wide shelves and full-width drawers.
- Side-by-Side: Great choice for easy access to fresh & frozen food.
- Bottom Freezer: Full-width shelf design keeps fresh food at eye level with large door storage.

Shop 148 results for French Door Refrigerators

Product Name	Price	Features
Frigidaire Gallery 21.93 cu. ft. French Door Refrigerator in Stainless Steel, Counter Depth	\$2,599.00	Free delivery, Width (in.) 26, Counter Depth Yes, Depth 28.5 in, Capacity (cu. ft.) 21.7
Frigidaire 26.8 cu. ft. French Door Refrigerator in Stainless Steel	\$1,727.00	Free delivery, Width (in.) 36, Counter Depth No, Depth 33.05, Capacity (cu. ft.) 26.8
Whirlpool 20 cu. ft. French Door Refrigerator in Fingerprint Resistant Stainless Steel with Internal Water Dispenser	\$1,899.00	Free delivery, Width (in.) 35.63, Counter Depth Yes, Depth 26.88 in, Capacity (cu. ft.) 14.38

Figure 17.

Available at: <https://www.homedepot.com/b/Appliances-Refrigerators-French-Door-Refrigerators/N-5yc1vZc3oo>.

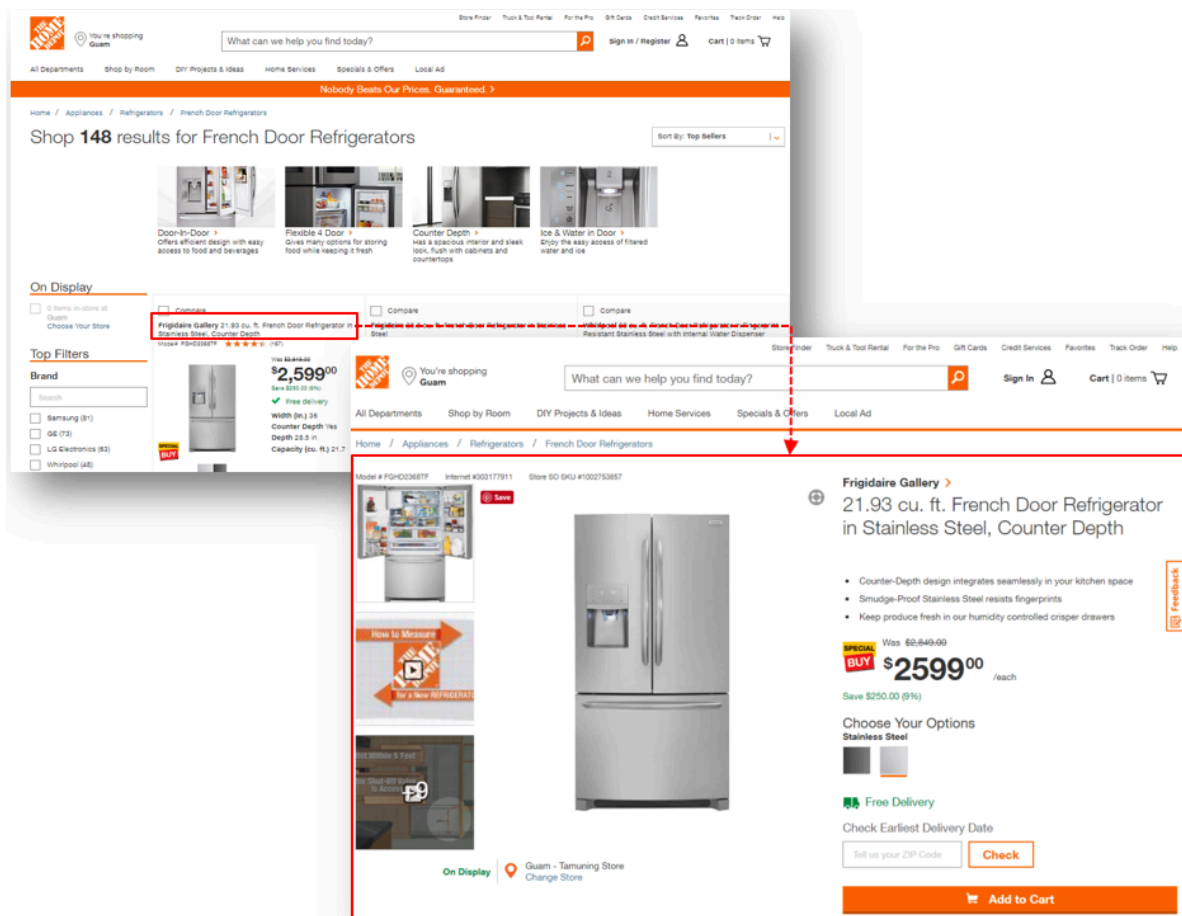


Figure 18.

Available at: <https://www.homedepot.com/p/Frigidaire-Gallery-21-93-cu-ft-French-Door-Refrigerator-in-Stainless-Steel-Counter-Depth-FGHD2368TF/303177911>.

36. Home Depot’s website performs the step of claim 44(c): “displaying the respective resource locators of the selected objects through the object browser, within a hierarchy, wherein objects selected based on content are placed in the hierarchy in content-dependent manner.” As shown in exemplary case below, the user searches for Name, Price, Top Ratings, and relevant search results, containing the identified product information, are displayed. These displayed results can be sorted in the ‘Price Low to High’ hierarchy. *See* Figure 19 (below).

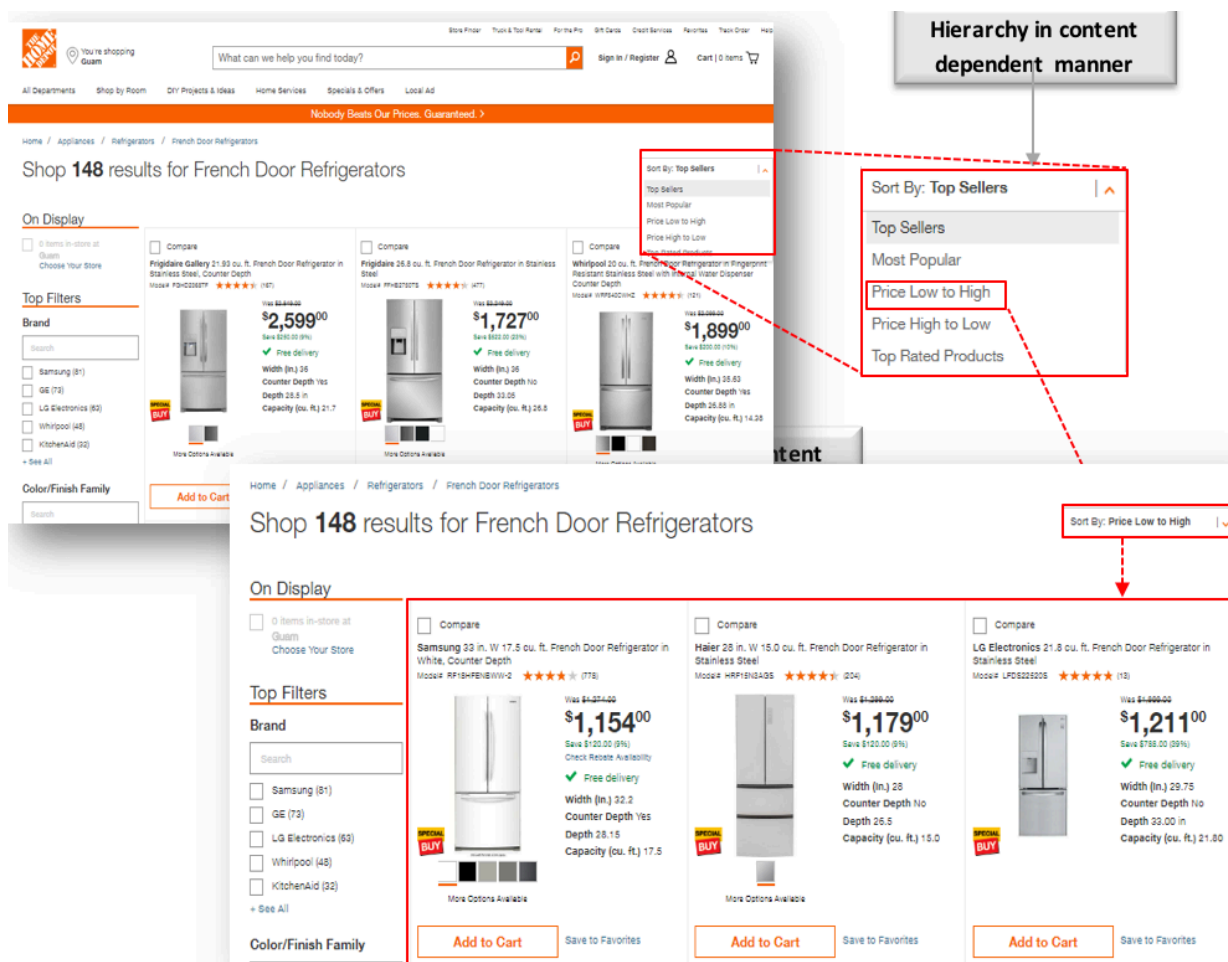


Figure 19.

Available at: <https://www.homedepot.com/b/Appliances-Refrigerators-French-Door-Refrigerators/N-5yc1vZc3oo>.

37. Home Depot’s website performs the step of claim 44(d): “objects selected based on association with the criteria are placed in the hierarchy in association-dependent manner, wherein at least one level of the hierarchy has at least two objects.” In the exemplary case below, the user searches for ‘French Door’ Refrigerators and the identified search result are arranged in various categories such as ‘Brands’ category. See Figure 20 (below).

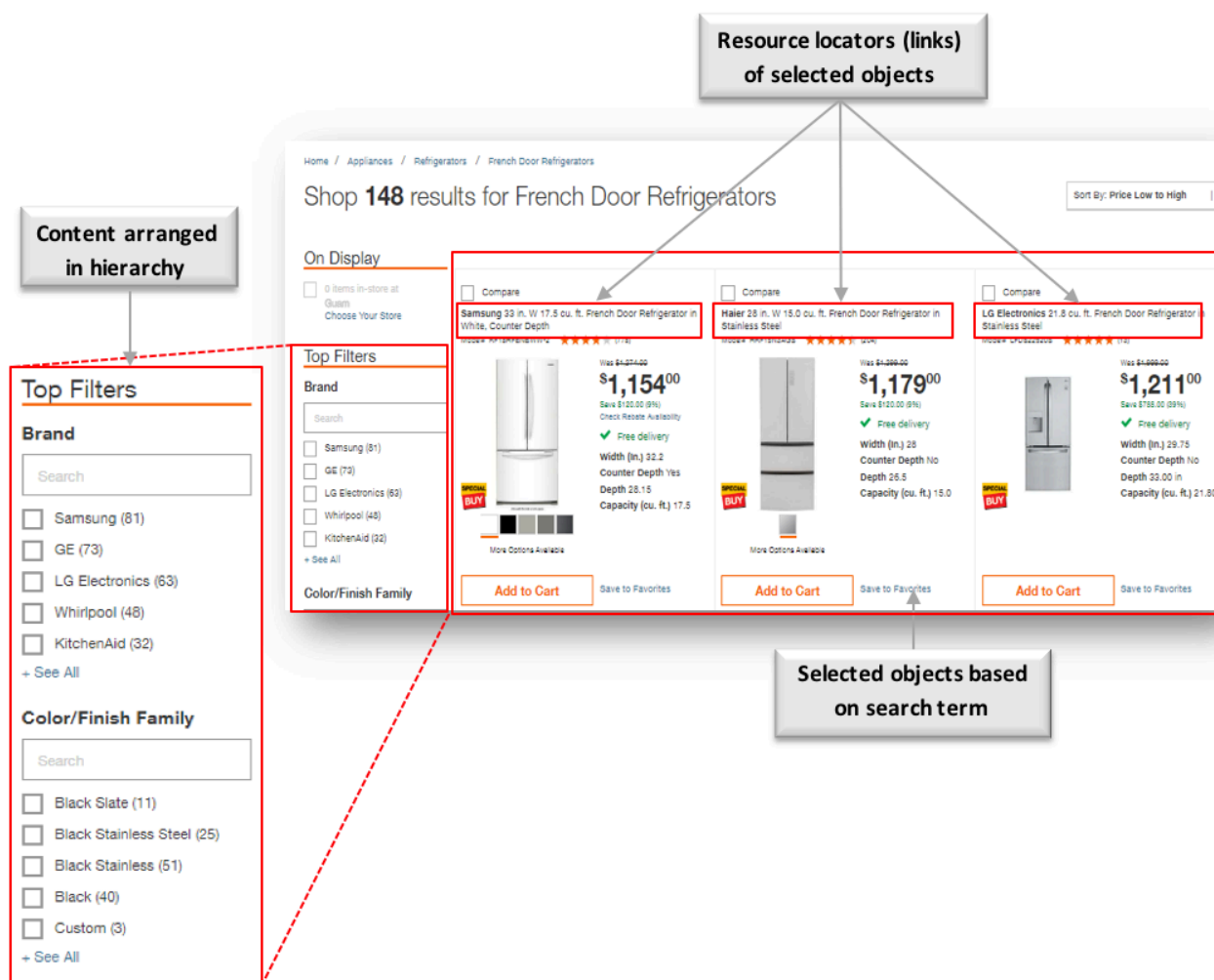


Figure 20.

Available at: https://www.homedepot.com/b/Appliances-Refrigerators-French-Door-Refrigerators/N-5yc1vZc3oo?Ns=P_REP_PRC_MODE%7C0.

38. **Induced Infringement.** Home Depot has also actively induced, and continues to induce, the infringement of at least claim 44 of the '525 Patent by actively inducing its customers, including merchants and end-users to use Home Depot's website in an infringing manner as described above. Upon information and belief, Home Depot has specifically intended that its customers use its website that infringe at least claim 44 of the '525 Patent by, at a minimum, providing access to support for, training and instructions for, its website to its

customers to enable them to infringe at least claim 44 of the '525 Patent, as described above. Even where performance of the steps required to infringe at least claim 44 of the '525 Patent is accomplished by Home Depot and Home Depot's customer jointly, Home Depot's actions have solely caused all of the steps to be performed.

39. Relativity is entitled to recover damages adequate to compensate it for such infringement in an amount no less than a reasonable royalty under 35 U.S.C. § 284.

40. Relativity will continue to be injured, and thereby caused irreparable harm, unless and until this Court enters an injunction prohibiting further infringement.

JURY DEMAND

41. Under Rule 38(b) of the Federal Rules of Civil Procedure, Relativity respectfully requests a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Relativity asks this Court to enter judgment against Home Depot, granting the following relief:

- A. A declaration that Home Depot has infringed the Patent-in-Suit;
- B. An award of damages to compensate Relativity for Home Depot's direct infringement of the Patent-in-Suit;
- C. An order that Home Depot and its officers, directors, agents, servants, employees, successors, assigns, and all persons in active concert or participation with them, be preliminarily and permanently enjoined from infringing the Patent-in-Suit under 35 U.S.C. § 283;
- D. An award of damages, including trebling of all damages, sufficient to remedy Home Depot's willful infringement of the Patent-in-Suit under 35 U.S.C. § 284;

- E. A declaration that this case is exceptional, and an award to Relativity of reasonable attorneys' fees, expenses and costs under 35 U.S.C. § 285;
- F. An award of prejudgment and post-judgment interest; and
- G. Such other relief as this Court or jury may deem proper and just.

Dated: May 21, 2018

Respectfully submitted,

/s/ Isaac Rabicoff

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