**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION**

CRANE MERCHANDISING SYSTEMS, INC.,	
Plaintiff,	**CASE NO. _____**
v.	
BEST BUY CO., INC.,	**JURY TRIAL DEMANDED**
Defendants.	

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement by Crane Merchandising Systems, Inc. against Best Buy Co., Inc.

I.   PARTIES

1.   Plaintiff Crane Merchandising Systems, Inc. ("CMS") is a Delaware corporation with its principal place of business in St. Louis, Missouri.

2.   Defendant Best Buy Co., Inc. ("Best Buy") is a Minnesota corporation with its principal place of business in Richfield, Minnesota. Best Buy has registered to do business in Texas and appointed CT Corporation as its registered agent, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136. Moreover, Best Buy has regular and established places of business at locations throughout Texas and this District.

II.   JURISDICTION AND VENUE

3.   This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

4.   This Court has personal jurisdiction over Best Buy because (1) it is registered to do business in Texas; and (2) it has regular and established places of business in Texas.

5.   Venue is proper in this District under 28 U.S.C. § 1400(b) because Best Buy has, within this District, committed acts of infringement (as described below) and has regular and established places of business in this District.

III.   FACTUAL BACKGROUND

6.   CMS is the leading global manufacturer of innovative solutions for vending machines, cashless systems, and wireless communications. For more than 80 years, the CMS name has been synonymous with vending durability and reliability. CMS has been a pioneer in the vending industry, and continually seeks out new ways to enhance how operators and consumers interact with vending machines.

7.   CMS developed an improved method for vending products, particularly products of various sizes, shapes, and configurations and fragile items that do not fare well when subjected to dropping or impact forces. On December 11, 2001, the United States Patent and Trademark Office ("USPTO") issued U.S. Patent No. 6,328,180 B1 entitled "Apparatus and Method for Vending Products." The Ex Parte Reexamination Certificate for U.S. Patent No. 6,328,180 C1 issued on July 1, 2013 ("the '180 Patent"). CMS is the owner of all rights, title, and interest in and to the '180 Patent and possesses all rights of recovery under the '180 Patent. A true and correct copy of the '180 Patent is attached as **Exhibit A**.

8.   CMS also invented a system for estimating consumer demand at remotely located equipment.   On July 9, 2013, the USPTO issued U.S. Patent No. 8,484,068 B2 ("the '068 Patent") entitled "Method and System for Evaluating Consumer Demand for Multiple Products and Services at Remotely Located Equipment." CMS is the owner of all rights, title, and interest

in and to the '068 Patent and possesses all rights of recovery under the '068 Patent. A true and correct copy of the '068 Patent is attached as **Exhibit B**.

9.   The '180 Patent and the '068 Patent are valid, enforceable, and as of the filing of this suit, have not expired.

10.   ZoomSystems (not a party to this suit)[1] provides automated retail delivery systems for leading retailers, including satellite retail machines known as ZoomShops. Best Buy uses the "end-to-end technology and service solution" called ZoomShops. Upon information and belief, ZoomSystems entered into license agreements, legal agreements, and location contracts regarding ZoomShops. Thus, Best Buy and ZoomSystems act under direction and control, pursuant to a contract, and as a joint enterprise with regard to Best Buy ZoomShops. ZoomSystems partners with retailers who use ZoomShop systems, including ZoomShop machines, to automatically vend retailers' products to consumers. One of those partners is Best Buy, who uses ZoomShops systems located in this District to vend its products. In particular, Best Buy ZoomShop machines are located throughout the Dallas/Fort Worth Airport and Love Field Airport.

IV.   COUNT ONE: INFRINGEMENT OF U.S. PATENT NO. 6,328,180 B1

11.   CMS repeats and re-alleges each and every allegation contained in paragraphs 1 through 10 above as though fully stated herein.

12.   The '180 Patent relates generally to an automated vending system designed to vend products of various shapes, sizes, and configurations without dropping or subjecting the vended products to damaging impact forces. The '180 Patent describes generally a vending machine system with a transparent front, products aligned in queues, and a robotic carriage

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[1] ZoomSystems is the subject of a separate Complaint Plaintiff filed in the United States District Court, District of Delaware, cause number 1:17-CV-01000-UNA.

assembly that moves along an X-Y plane within the machine, captures the selected product, and smoothly transports the selected product to a delivery port.

13.   Best Buy has directly infringed and continues to directly infringe one or more claims of the '180 Patent in violation of 35 U.S.C. § 271(a) by using in this District and elsewhere in the United States the ZoomShop systems. A representation of Best Buy's use of a ZoomShop system is depicted below:

14.   Best Buy infringes claim 33 of the '180 Patent, which provides as follows:

A method of vending discrete products from a vending machine of the type having a transparent front viewing panel that enables customer viewing of the actual products held by the machine and available for vending, comprising the steps of:

a.   aligning a plurality of upright standing products to be vended in at least two ordered queues of said products, each queue including an aligned row of said upright standing products on a respective surface for said queue, wherein sidewalls spaced according to dimensions of said products in said queue retain said products in said queue standing upright on said respective surface in said aligned row as said queue of products moves;
b.   providing a customer selection input identifiable with at least one of said two ordered queues of said products;
c.   removing a product from said one of said ordered queues by a robotic assembly in response to said customer input selection;
d.   moving said removed product to a delivery port of the machine by smoothly moving the selected product by said robotic assembly in a generally vertical X-Y plane within a vend selection space of the vending machine; wherein said removing and moving steps are smoothly performed without subjecting the selected product to sharp impact forces.

15.   Best Buy performs each and every step of claim 33. Best Buy used ZoomShop machines to vend its products, and those machines have a transparent viewing panel that allows

customer viewing of the actual products available for vending. In the alternative, Best Buy, its customers, and ZoomSystems jointly infringe based upon their direction and control, agreements, and relationship.

16. The ZoomShop machines vend Best Buy's products by aligning the products to be vended in at least two ordered queues. Each queue of products in the ZoomShop machines stands upright on a different one of a plurality of surfaces. Within the ZoomShop machines, sidewalls dividing the shelves or trays keep products in a queue in an upright manner on a respective surface for that queue as the queue of products is pushed forward toward the front of the queue. The sidewalls are spaced according to dimensions of products within the respective queue.

17. The ZoomShop machines include a customer selection input identifiable with at least one of the ordered queues of products.

18. In response to customer input, a robotic assembly within the ZoomShop machines removes a product from its queue.

19. The ZoomShop machines then move the selected product to a delivery port by smoothly moving the product via the robotic assembly in a generally vertical X-Y plane. The movement of the retrieved product to the delivery port is performed without subjecting the delivered product to sharp impact force.

20. Best Buy's acts of infringement have caused damages to CMS, and CMS is entitled to recover from Best Buy the damages sustained as a result of its wrongful acts in an amount subject to proof at trial.

21. CMS will be substantially and irreparably harmed by Best Buy's infringing activities unless those activities are enjoined by this Court. CMS has no adequate remedy at law.

As a result of the infringement, CMS is entitled to preliminary and permanent injunctive relief, restraining and enjoining Best Buy and all those in privity with or acting in concert with it, from infringing the '180 Patent.

V. COUNT TWO: INFRINGEMENT OF U.S. PATENT NO. 8,484,068 B2

22.   CMS repeats and re-alleges each and every allegation contained in paragraphs 1 through 21 above as though fully stated herein.

23.   The '068 Patent relates generally to estimating customer demand for products or demand for servicing at remotely located equipment and using a hierarchy or various levels of reliability to estimate consumer demand and maintenance of the remotely located equipment.

24.   Best Buy used systems that infringe the '068 Patent including, but not limited to, ZoomSystems' products or services associated with ZoomSystems' ZoomShop systems.

25.   For example, through its use of the ZoomShop systems, Best Buy infringed claim 1 of the '068 Patent, which provides as follows:

> A method for estimating consumer demand for a product based on sales data for the product at remotely located equipment comprising:
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> receiving in an application server first inventory level data from the remotely located equipment wherein the first inventory level data represents product inventory levels in the remotely located equipment, the product inventory levels recorded at multiple time intervals;
>
> receiving in the application server equipment operating status data from the remotely located equipment, wherein the equipment operating status data represents equipment operating status of the remotely located equipment, the equipment operating status recorded at multiple time intervals;
>
> arranging in the application server the received first inventory level data and the received equipment operating status data in associated levels of a data hierarchy of reliability, quality and quantity;
>
> storing in the application server the received first inventory level data and the received equipment operating status data and associated levels of the data hierarchy; and

calculating in the application server a consumer demand estimate for the product based on the levels of the data hierarchy of the stored first inventory level data and the stored equipment operating status data.

26.   Best Buy's use of the ZoomShop system performs each and every step of claim 1 of the '068 Patent. In general, each ZoomSystems machine with Best Buy products relies on an application server, called an e-Center, which is connected to and remotely monitors each networked machine. The e-Center tracks sales data at the remote ZoomShop machine in real time and estimates customer demand for Best Buy's products vended from the remote ZoomShop machine to minimize out-of-stock conditions and provide inventory replenishment. The e-Center tracks inventory level data from the remote ZoomShop machine and performs inventory monitoring in real-time. To provide real-time inventory monitoring, the e-Center records product inventory levels at multiple time intervals. In the alternative, Best Buy and ZoomSystems jointly infringe based upon their direction and control, agreements, and relationship.

27.   The e-Center receives equipment operating status data from the remote ZoomShop machine. The e-Center analyzes events and data throughout the day to detect errors or potential problems requiring tech support at the remote ZoomShop machine.

28.   On information and belief, the e-Center arranges received inventory level data and equipment operating status hierarchically (by product category/specific products and by device/operating event), with information indicating reliability (origin of the inventory information as coming from report by stocking agent versus product sales, origin of equipment event as reported by the device or detected by a controller), quality (product sales versus customer browsing of products, catastrophic device event versus event that can be addressed during scheduled service), and quantity (how many customer interactions browsing each product, how many events for each device).

29.   On information and belief, the e-Center stores information received from each ZoomShop machine. That information includes inventory level data and equipment operating status data which is arranged hierarchically.

30.   On information and belief, the e-Center calculates estimates of consumer demand for products based on the hierarchical inventory data level and stored equipment operating status.

31.   Best Buy's acts of infringement have caused damages to CMS, and CMS is entitled to recover from Best Buy the damages sustained as a result of its wrongful acts in an amount subject to proof at trial.

32.   CMS will be substantially and irreparably harmed by the infringing activities unless those activities are enjoined by this Court. CMS has no adequate remedy at law. As a result of the infringement, CMS is entitled to preliminary and permanent injunctive relief, restraining and enjoining Best Buy and all those in privity with or acting in concert with Best Buy from infringing the '068 Patent.

VI.   DEMAND FOR JURY TRIAL

33.   CMS hereby demands that all issues be determined by jury.

VII.   PRAYER FOR RELIEF

WHEREFORE, CMS prays for relief against Best Buy as follows:

(a)   A judgment that Best Buy has directly infringed the '180 Patent;

(b)   A judgment that Best Buy has directly infringed the '068 Patent;

(c)   An order for preliminary injunctive relief prohibiting Best Buy, its officers, agents, servants, employees, successors, assigns, or all other persons or entities in active concert,

participation, or privity with any of the foregoing, from any further acts of infringement of the '180 Patent and the '068 Patent;

(d)   An order for permanent injunctive relief prohibiting Best Buy, its officers, agents, servants, employees, successors, assigns, or all other persons or entities in active concert, participation, or privity with any of the foregoing, from any further acts of infringement of the '180 Patent and the '068 Patent;

(e)   A judgment and order requiring Best Buy to pay CMS damages under 35 U.S.C. § 284, together with pre-judgment and post-judgment interest;

(f)   A judgment declaring that this case is exceptional and awarding CMS its expenses, costs, and attorneys' fees incurred prosecuting this action pursuant to 35 U.S.C. § 285; and

(g)   Such other and further relief as the Court deems just and equitable.

Dated: July 25, 2017   By: */s/ Jamil N. Alibhai*
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