

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
Alexandria Division**

Bin Liu,

Plaintiff,

v.

THE UNINCORPORATED
ASSOCIATIONS IDENTIFIED ON
SCHEDULE A,

Defendants.

Case No. 1:25-cv-2296

COMPLAINT

Plaintiff Bin Liu (“Plaintiff”) hereby brings the present action against all Individuals, Corporations, Limited Liability Companies, Partnerships, and Unincorporated Associates Identified on Schedule A (collectively, “Defendants”), as follows:

I. JURISDICTION AND VENUE

1. This Court has original subject matter jurisdiction over Plaintiff’s claims pursuant to the provisions of the Patent Act, 35 U.S.C. § 1 *et seq.*, 28 U.S.C. § 1338(a)-(b) (exclusive patent claim jurisdiction), and 28 U.S.C. § 1331 (original federal question jurisdiction).

2. This Court has personal jurisdiction because all accused products sold by the Defendants have been offered for sale and sold to residents of this judicial district.

3. This Court may properly exercise personal jurisdiction over Defendants because Defendants structure their business activities to target consumers in the United States, including Virginia, through at least the fully interactive e-commerce stores operating under the aliases

identified on Schedule A attached hereto (the “Seller Aliases”). Specifically, Defendants have targeted sales to Virginia residents by setting up and operating e-commerce stores that target United States consumers, offer shipping to the United States, including Virginia, accept payment in U.S. dollars and offer to sell and have sold products which infringe Plaintiff’s patented device, as described below, (collectively, the “Unauthorized Products”) to purchasers residing in Virginia and in this judicial district. Each of the Defendants committed tortious acts in Virginia, is engaged in interstate commerce, and has wrongfully caused Plaintiff substantial injury in the state of Virginia and in this judicial district.

4. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b)(3) because the Defendants are subject to the Court’s personal jurisdiction and are not residents in the United States and therefore there is no district in which an action may otherwise be brought.

5. Venue is proper in this Court pursuant to 28 U.S.C. § 1391 since the Defendants are, on information and belief, aliens who are engaged in at least some of the infringing acts and causing harm within this District by advertising, offering to sell, selling and/or shipping infringing products to consumers into this District.

II. INTRODUCTION

6. Plaintiff filed this case to prevent e-commerce store operators who infringe upon Plaintiff’s patented device from further selling and/or offering for sale Unauthorized Products. Defendants create e-commerce stores under one or more Seller Aliases and then advertise, offer for sale, and/or sell Unauthorized Products to unknowing consumers. E-commerce stores operating under the Seller Aliases share identifiers, such as design elements and similarities of the Unauthorized Products offered for sale, establishing that a logical relationship exists between them, and that Defendants’ infringing operation arises out of the same transaction, occurrence, or series

of transactions or occurrences. Defendants take advantage of a set of circumstances, including the anonymity and mass reach afforded by the Internet and the cover afforded by international borders, to violate Plaintiff's intellectual property rights with impunity. Defendants attempt to avoid liability by operating under one or more Seller Aliases to conceal their identities, locations, and the full scope and interworking of their infringing operation. Plaintiff is forced to file this action to combat Defendants' infringing of its patented device, as well as to protect consumers from purchasing Unauthorized Products over the internet. Plaintiff has been, and continues to be, irreparably damaged through loss of market share and erosion of Plaintiff's patent rights because of Defendants' actions and therefore seeks injunctive and monetary relief.

III. THE PARTIES

7. Plaintiff, Bin Liu, is a Chinese citizen with a residence at No. 080, Zhongua Road, Chiceng, Jiangbei District, Ningbo, ZJ, 315031, China and owns, as the inventor and applicant, U.S. Patent No. 11,911,650 (the "Patent-in-Suit"). A true and correct copy of the Patent-in-Suit is attached hereto as **Exhibit 1**.

8. The Patent-in-Suit was filed on June 22, 2023 and issued on February 27, 2024. *See Exhibit 1.*

9. The Patent-in-Suit is valid and enforceable and is entitled to a presumption of validity under 35 U.S.C. § 282. The validity of the Patent-in-Suit has never been challenged either in court or in the United States Patent and Trademark Office.

10. The Patent-in-Suit discloses and claims a multifunctional fitness frame with reversible pedal structure.

11. Plaintiff designs, manufactures, markets, and sells a variety of products related to exercise machines and equipment.

12. Plaintiff sells its products, directly and through authorized licensees, including products that embody the Patent-in-Suit (collectively, “Plaintiff’s Products”), exclusively direct-to-consumer through various online marketplaces including through his seller store on Amazon.com. Due to the popularity of the Plaintiff’s patented invention and the flood of infringing products on the Amazon.com marketplace, Plaintiff’s sales of its patented commercial embodiment dropped. The Defendants’ unlawful conduct of infringing the Patent-in-Suit has caused, and is continuing to cause, irreparable harm to Plaintiff.

13. On information and belief, Defendants, either individually or jointly, operate one or more e-commerce stores under the Seller Aliases listed in Schedule A attached hereto. Tactics used by Defendants to conceal their identities, and the full scope of their operation make it virtually impossible for Plaintiff to learn Defendants’ true identities and the exact interworking of their infringing network.

14. On information and belief, Defendants are engaged in business in Virginia but have not appointed an agent for service of process.

15. On information and belief, Defendants have registered, established, or purchased, and maintained their Amazon storefronts on Amazon.com.

16. On information and belief, Defendants target their business activities toward consumers throughout the United States, including within this District, through the simultaneous operation of commercial internet-based e-commerce stores like Amazon.com.

17. On information and belief, each of the Defendants targets their business activities toward consumers in Virginia at least through its operation of storefronts on Amazon.com, Inc. (“Amazon”)(See Schedule A.)

18. On information and belief, Defendants are the past and present controlling forces behind the sale of the Unauthorized Products infringing Plaintiff's intellectual property rights.

19. On information and belief, Defendants have purposefully directed some portion of their illegal activities towards consumers in Virginia through the advertisement, offer to sell, sale, and/or shipment of the Unauthorized Products into the State.

20. On information and belief, many Defendants registered and maintained their Amazon storefronts for the sole purpose of engaging in the infringing activities and will likely continue to register or acquire new seller accounts on Amazon.com solely for the purpose of selling and offering for sale of the Unauthorized Products unless preliminarily and permanently enjoined.

21. Plaintiff has identified Defendants based on their Amazon Storefront aliases, as their identities and locations remain unknown. Many of Defendants are operating multiple internet storefronts and online marketplace seller accounts using different seller accounts on Schedule "A". As a result, there are more seller accounts than there are Defendants, a fact that will be confirmed in discovery. If Defendants provide additional credible information regarding their identities and locations, Plaintiff will take appropriate steps to amend the Complaint.

IV. DEFENDANTS' UNLAWFUL CONDUCT

22. The success of the Plaintiff's Products has resulted in significant infringement of the Patent-in-Suit. Because of this, Plaintiff has implemented an anti-infringement program that involves investigating suspicious websites and online marketplace listings identified in proactive Internet sweeps. Recently, Plaintiff has identified many fully interactive e-commerce stores offering Unauthorized Products on online marketplace platforms like Amazon and Walmart, Inc. ("Walmart"), including the e-commerce stores operating under the Seller Aliases. True and correct copies of the screenshot printouts showing the active e-commerce stores' ordering pages for

products for sale in Virginia that are operating under the Seller Aliases reviewed are attached as **Exhibit 2**.

23. The Seller Aliases target consumers in this Judicial District and throughout the United States. According to a report prepared for The Buy Safe America Coalition, most counterfeit products now come through international mail and express courier services (as opposed to containers) due to increased sales from offshore online infringers. *The Counterfeit Silk Road Impact of Counterfeit Consumer Products Smuggled Into the United States*, prepared by John Dunham & Associates (**Exhibit 3**).

24. Online marketplace platforms like those used by Defendants do not adequately subject new sellers to verification and confirmation of their identities, allowing counterfeiters to “routinely use false or inaccurate names and addresses when registering with these e-commerce platforms.” Daniel C.K. Chow, *Alibaba, Amazon, and Counterfeiting in the Age of the Internet*, 40 NW. J. INT’L L. & BUS. 157, 186 (2020) (attached as **Exhibit 4**); *see also* report on “Combating Trafficking in Counterfeit and Pirated Goods” prepared by the U.S. Department of Homeland Security’s Office of Strategy, Policy, and Plans (Jan. 24, 2020), attached as **Exhibit 5**, and finding that on “at least some e-commerce platforms, little identifying information is necessary for a counterfeiter to begin selling” and that “[t]he ability to rapidly proliferate third-party online marketplaces greatly complicates enforcement efforts, especially for intellectual property rights holders.” Counterfeiters hedge against the risk of being caught and having their websites taken down from an e-commerce platform by establishing multiple virtual storefronts. **Exhibit 5** at p. 22. Since platforms generally do not require a seller on a third-party marketplace to identify the underlying business entity, counterfeiters can have many different profiles that can appear unrelated even though they are commonly owned and operated. **Exhibit 5** at p. 39. Further, “[e]-commerce platforms create

bureaucratic or technical hurdles in helping brand owners to locate or identify sources of counterfeits and counterfeiters.” **Exhibit 4** at 186-187. Specifically, brand owners are forced to “suffer through a long and convoluted notice and takedown procedure only [for the counterfeit seller] to reappear under a new false name and address in short order.” *Id.* at p. 161.

25. The very same concerns regarding anonymity, offshore online infringement, multi-storefront infringers, and slow and ineffective marketplace procedures for intellectual property rights holders, impact Plaintiff’s enforcement efforts when trying to assert its own patent rights.

26. Defendants have targeted sales to Virginia residents by setting up and operating e-commerce stores that target United States consumers using one or more Seller Aliases, offer shipping to the United States, including Virginia, accept payment in U.S. dollars and, on information and belief, sell and/or offer for sale Unauthorized Products to residents of Virginia. *See* **Exhibit 2**.

27. Defendants concurrently employ and benefit from similar advertising and marketing strategies. For example, Defendants facilitate sales by designing the e-commerce stores operating under the Seller Aliases so that they appear to unknowing consumers to be authorized online retailers, outlet stores, or wholesalers. E-commerce stores operating under the Seller Aliases appear sophisticated and accept payment in U.S. dollars in multiple ways, including via credit cards, Alipay, Amazon Pay, and/or PayPal. E-commerce stores operating under the Seller Aliases often include content and images that make it very difficult for consumers to distinguish their stores from an authorized retailer. Plaintiff has not licensed or authorized Defendants use of the Patent-in-Suit, and none of the Defendants are authorized retailers of Plaintiff’s Products.

28. E-commerce store operators, like Defendants, commonly engage in fraudulent conduct when registering the Seller Aliases by providing false, misleading and/or incomplete

information to e-commerce platforms to prevent discovery of their true identities and the scope of their e-commerce operation.

29. E-commerce store operators like Defendants regularly register or acquire new seller aliases for the purpose of offering for sale and selling Unauthorized Products. Such seller alias registration patterns are one of many common tactics used by e-commerce store operators like Defendants to conceal their identities and the full scope and interworking of their infringing operation, and to avoid being shut down.

30. Even though Defendants operate under multiple fictitious aliases, the e-commerce stores operating under the Seller Aliases often share unique identifiers, such as templates with common design elements that intentionally omit contact information or other information for identifying Defendants or other Seller Aliases they operate or use. E-commerce stores operating under the Seller Aliases include other common features, such as registration patterns, accepted payment methods, check-out methods, keywords, advertising tactics, similarities in price and quantities, the same incorrect grammar and misspellings, and/or the use of the same text and images. Additionally, Unauthorized Products for sale by the Seller Aliases bear similar irregularities and indicia of being infringing to one another, suggesting that the Unauthorized Products were manufactured by and come from a common source and that Defendants are interrelated.

31. E-commerce store operators like Defendants communicate with each other through QQ.com chat rooms and utilize websites, like sellerdefense.cn, that provide tactics for operating multiple online marketplace accounts and evading detection by intellectual property owners. Websites like sellerdefense.cn also tip off e-commerce store operators like Defendants of new intellectual property infringement lawsuits filed by intellectual property owners, such as Plaintiff,

and recommend that e-commerce operators cease their infringing activity, liquidate their associated financial accounts, and change the payment processors that they currently use to accept payments in their online stores.

32. Infringers such as Defendants typically operate under multiple seller aliases and payment accounts so that they can continue operation despite Plaintiff's enforcement. E-commerce store operators like Defendants maintain offshore bank accounts and regularly move funds from their financial accounts to offshore accounts outside the jurisdiction of this Court to avoid payment of any monetary judgment awarded to plaintiffs.

33. Defendants are working in active concert to knowingly and willfully manufacture, import, distribute, offer for sale, and sell Unauthorized Products in the same transaction, occurrence, or series of transactions or occurrences. Defendants, without any authorization or license from Plaintiff have, jointly and severally, knowingly and willfully infringed the Patent-in-Suit in connection with the use and/or manufacturing of Unauthorized Products and distribution, offering for sale, and sale of Unauthorized Products into the United States and Virginia over the Internet.

34. On information and belief, Defendants are concurrently sourcing the Unauthorized Products from the same or coordinated manufacturer to conduct infringing activities toward consumers in the United States and Virginia because the Unauthorized Products—regardless of the specific Defendants—are all virtually identical in appearance and share the same claimed features of the Patent-in-Suit. The similarities among the Unauthorized Products are so striking that an ordinary observer tasked with comparing the Products would be unable to recognize any similarities as mere coincidences and would rather infer that the Products originate from the same manufacturer. As shown in the claim chart attached as **Exhibit 6**, each of the Unauthorized

Products employs the same features claimed in claim 1 of the Patent-in-Suit either directly or by the doctrine of equivalents, further evidencing that Defendants are concurrently conducting infringing activities toward consumers in the United States and Virginia.

35. Defendants' unauthorized use and/or manufacturing of the elements claimed in the Patent-in-Suit in connection with the distribution, offering for sale, and sale of Unauthorized Products, including the sale of Unauthorized Products into the United States, including Virginia, is likely to cause, and has caused, loss of market share and erosion of Plaintiff's patent rights is irreparably harming Plaintiff.

COUNT I

PATENT INFRINGEMENT OF THE 11,911,650 PATENT (15 U.S.C. § 271)

36. Plaintiff hereby re-alleges and incorporates by reference the allegations set forth in the preceding paragraphs.

37. As shown, Defendants are working in active concert to knowingly and willfully manufacture, import, distribute, offer for sale, and sell infringing products in the same transaction, occurrence, or series of transactions or occurrences. Defendants, without any authorization or license from Plaintiff, have jointly and severally, knowingly and willfully offered for sale, sold, and/or imported into the United States for subsequent resale or use the same product that infringes directly and/or indirectly the Patent-in-Suit.

38. As shown in the claim chart attached as **Exhibit 6**, the products being made, imported, offered for sale, and sold by Defendants incorporate each of the elements claimed in claim 1 of the Patent-in-Suit so as to cause the Defendants' products to infringe the '650 Patent. Accordingly, each product being sold by each of the Defendants infringes upon the Patent-in-Suit.

39. As part of their overall infringement scheme, Defendants are, on information and belief, concurrently employing and benefitting from substantially similar advertising and marketing strategies based in large measure upon an illegal use of infringements of the Patent-in-Suit. Considering the striking similarities among the Unauthorized Products, Defendants likely source the Products from the same manufacturer, further solidifying their concurrent infringement scheme targeting consumers in the United States and Virginia

40. Specifically, Defendants offer for sale, sell, and/or import into the United States for subsequent resale or use Unauthorized Products that infringe directly and/or indirectly and under the doctrine of equivalents the claims of the '650 Patent for a multifunctional fitness frame with reversible pedal structure claimed in the Patent-in-Suit. Each infringing product being sold by Defendants are substantially the same.

41. As a direct and proximate result of Defendants' infringement, Plaintiff has suffered irreparable harm and monetary and other damages in an amount to be determined. Defendants' infringement of the Patent-in-Suit in connection with the offering to sell, selling, or importing of products that infringe the Patent-in-Suit, including such acts into the State of Virginia, is irreparably harming Plaintiff. Defendants' wrongful conduct has caused Plaintiff to suffer irreparable harm resulting from the loss of its lawful patent rights to exclude others from making, using, selling, offering for sale, and importing the patented devices as well as the lost sales and loss of repeat sales stemming from the infringing acts.

42. Defendants' infringement has been and continues to be willful. Accordingly, Plaintiff is entitled to treble damages under 35 U.S.C. § 284 and this is an exceptional case under 35 U.S.C. § 285.

43. Plaintiff is entitled to injunctive relief pursuant to 35 U.S.C. § 283. Unless Defendants are preliminarily and permanently enjoined by this Court from continuing their infringement of the Patent-in-Suit, Plaintiff will continue to suffer additional irreparable harm, including loss of market share and erosion of patent rights.

44. Plaintiff is entitled to recover all damages allowable under the patent laws, including those damages adequate to compensate for the infringement, pursuant to 35 U.S.C. § 284, but in no event less than a reasonable royalty.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for judgment against Defendants as follows:

- 1) That Defendants, their affiliates, officers, agents, servants, employees, attorneys, confederates, and all persons acting for, with, by, through, under, or in active concert with them be temporarily, preliminarily, and permanently enjoined and restrained from:
 - a. Making, using, offering for sale, selling and/or importing into the United States for subsequent sale or use any products that infringe upon U.S. Patent No. 11,911,650;
 - b. Aiding, abetting, contributing to, or otherwise assisting anyone in infringing upon U.S. Patent No. 11,911,650; and
- 2) Entry of an Order that, upon Plaintiff's request, those with notice of the injunction, including without limitation, any websites and/or online marketplace platforms, such as Amazon and Walmart, shall disable and cease displaying any advertisements used by or associated with Defendants in connection with the sale of goods that infringe U.S. Patent No. 11,911,650.
- 3) That Judgment be entered against Defendants finding that they have infringed upon U.S. Patent No. 11,911,650.

- 4) That Judgment be entered against Defendants finding that infringement of U.S. Patent No. 11,911,650 has been willful.
- 5) That Plaintiff be awarded damages for such infringement in an amount to be proven at trial, pursuant to 35 U.S.C. § 284 and any other damages as appropriate, together with interests and costs.
- 6) That Plaintiff be awarded treble damages for Defendants' willful infringement of upon U.S. Patent No. 11,911,650.
- 7) A finding that this case is exceptional under 35 U.S.C. § 285.
- 8) That Plaintiff be awarded its reasonable attorneys' fees and costs.
- 9) Award any and all other relief that this Court deems just and proper.

JURY DEMAND

Plaintiff demands a trial by jury on all issues so triable.

Respectfully Submitted:

Dated: December 9, 2025

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