UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

GLEN DIMPLEX AMERICAS LTD., F/K/A DIMPLEX NORTH AMERICA LIMITED,	
Plaintiff,	Case No. 9:20-cv-81340-WPD Hon. William P. Dimitrouleas
v.	
TWIN-STAR INTERNATIONAL, INC.,	
Defendant.	

AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Glen Dimplex Americas Ltd. ("Dimplex" or "Plaintiff"), by and through its undersigned attorneys, for its Amended Complaint against Defendant Twin-Star International, Inc. ("Twin-Star" or "Defendant") states and alleges as follows:

THE PARTIES

1. Dimplex is a corporation domiciled in and with a principal place of business in Ontario, Canada.

2. Twin-Star is a Florida corporation with a principal place of business in the Southern District of Florida, in Delray Beach, Florida.

JURISDICTION AND VENUE

3. This is an action for patent infringement under the patent laws of the United States, Title 35, United States Code, specifically §§ 271 and 281-285. This Court has subject matter jurisdiction under Title 28 United States Code §§ 1331 and 1338(a).

4. Personal jurisdiction over Defendant comports with the United States Constitution and FLA. STAT. 48.193 because Defendant conducts and solicits business within this district and derives substantial revenue from the sales of its products within this district and elsewhere in Florida, including the commission of acts of infringement by offering for sale and selling products that infringe one or more claims of United States Patent Nos. 9,709,229 ("the '229 Patent") and 9,739,433 ("the '433 Patent").

5. Venue is properly within the district under Title 28 United States Code §§ 1391 and 1400 because Defendant resides in this District, conducts business within this District and offers for sale and/or sells in this District products that infringe Plaintiff's patents.

BACKGROUND

6. Dimplex is the owner, by valid assignment, of all right, title, and interest in and to the '229 Patent and the '433 Patent, including the right to seek remedies and relief for past infringement thereof. Dimplex owned the '229 Patent

and the '433 Patent throughout the period of Defendant's infringing acts and still owns the '229 Patent and the '433 Patent.

7. The '229 Patent, entitled "Flame Simulating Assembly with Flicker Element Including Paddle Elements," was duly and legally issued by the United States Patent and Trademark Office on July 18, 2017, after full and fair examination. A true copy of the '229 Patent is attached hereto as **Exhibit A**.

8. The '433 Patent is a continuation-in-part of the '229 Patent and is also entitled "Flame Simulating Assembly with Flicker Element Including Paddle Elements." The '433 Patent was duly and legally issued by the United States Patent and Trademark Office on August 22, 2017, after full and fair examination. A true copy of the '433 Patent is attached hereto as **Exhibit B**.

9. Twin-Star has sold and distributed, and currently sells and distributes simulated logs and electric fireplace assemblies under the Twin-Star Classic Flame brand that incorporate simulated logs in the firebox of the devices, including, but not limited to, model numbers 18EF026FGT, 23II042FGL, 42II042FGT, 75881-BBD, and related models (the "Accused Products"), that, as more specifically alleged below, infringe one or more of the claims of the '229 Patent and of the '433 Patent.

10. As direct competitors in the field of manufacturing and selling electric fireplaces and related products, and as longtime adversaries in various patent

infringement actions, the parties have become familiar with not only each other's patents, but also with each other's competitive product offerings.

11. On November 1, 2018 and, perhaps, on other dates as well, Twin-Star and its counsel purchased two Dimplex electric fireplace products, also known as "fireboxes." All Dimplex fireboxes feature labels on their packaging and on the products themselves that direct the purchaser or reader to www.dimplex.com/patents. Once on the website, the visitor can click on a link to reveal a chart that identifies and "virtually marks" each of the fireboxes with the associated Dimplex patent(s) that cover them. *See* 35 U.S.C. § 287(a), the patent marking statute. As a matter of law, patent marking serves as constructive notice to infringers of the patent owner's patent rights. *Id.* At least forty Dimplex fireboxes, along with variants known as "linears," wall mounts and firebox inserts, claim coverage under the '229 patent. At least twenty Dimplex products claim coverage under the '433 patent. *See, e.g.,* https://www.dimplex.com/cms/publications/US_Patent_Web_Information_2019-12-09.pdf. The '229 and '433 patents are the two patents-in-suit.

COUNT I

INFRINGEMENT OF THE '229 PATENT

12. Dimplex incorporates each of the preceding paragraphs 1-11 as if fully set forth herein.

13. On information and belief, Defendant sells products, including, but not limited to, the Accused Products, that infringe at least claims 1, 2, 3, 4, and 13 of the '229 Patent ("the Asserted '229 Patent Claims").

14. Defendant either knew or should have had prior knowledge of the '229 Patent given its lengthy history of patent litigation with Dimplex. As to the litigation history, Dimplex filed the first patent infringement case, asserting its patents against Twin-Star in the Northern District of Illinois on May 20, 2004, Docket No. 04-cv-3533. Dimplex filed its second patent infringement case asserting its patents against Twin-Star in the Eastern District of Michigan on October 21, 2013, Case No. 13-cv-14415. Indeed, this is the parties' fifth patent case; in three of such cases, including this one, Dimplex asserted its patents and in two of the cases, Twin-Star asserted its patents. On information and belief, as a result of the parties' many patent cases, they both paid attention to the other's intellectual property.

15. Further, as to the '229 patent specifically, Defendant had actual knowledge of the '229 patent because of its purchase in November, 2018, along with its counsel's purchase in November, 2018, of Dimplex products identifying protection under the '229 Patent. As noted by the Federal Circuit, patent marking puts infringers on constructive notice, and allows patent owners to potentially collect damages from the time of constructive notice. *See Rembrandt Wireless*

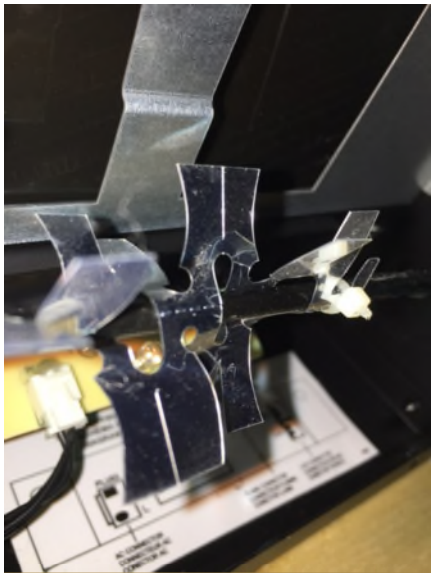
Technologies, LP v. Samsung Electronics Co. Ltd., 853 F.3d 1370, 1383-4 (Fed. Cir. 2017).

16. Moreover, in the context of the parties' negotiation of their Confidentiality, Tolling and Standstill Agreement, dated February 25, 2020, Dimplex warned Twin-Star that Dimplex has unasserted patent infringement claims to bring against Twin-Star. Accordingly, Twin-Star should be deemed to have had actual knowledge that it was infringing at least one claim of the '229 patent by no later than February 25, 2020.

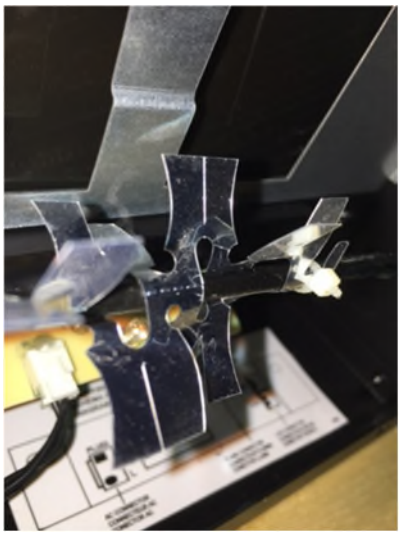
17. In the alternative, taking into account the prior assertion of patent infringement during negotiations with Twin-Star, and Twin-Star's purchase of Dimplex's products whose packaging indicates they are covered by U.S. patents, Twin-Star had a subjective belief of a high probability that its product infringes one or more of Dimplex's patents, and deliberately refused to review the patents listed on Dimplex's website to avoid learning of its infringement. Thus, Twin-Star exhibited willful blindness vis-à-vis Dimplex's '229 Patent.

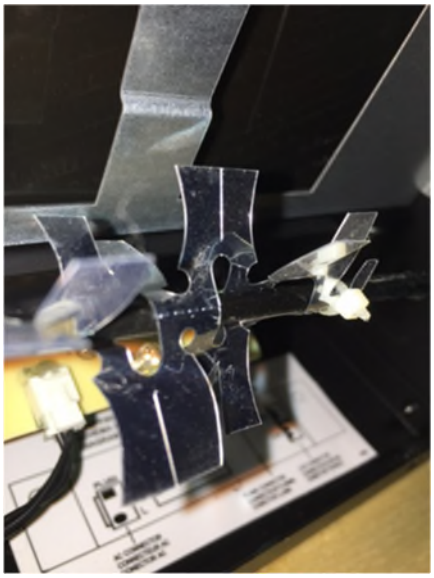
18. Finally, at a minimum, Twin-Star had actual knowledge that it was infringing at least one claim of the '229 patent at least as early as August 18, 2020, when counsel for Twin-Star received by email a copy of the original Complaint filed in this action.

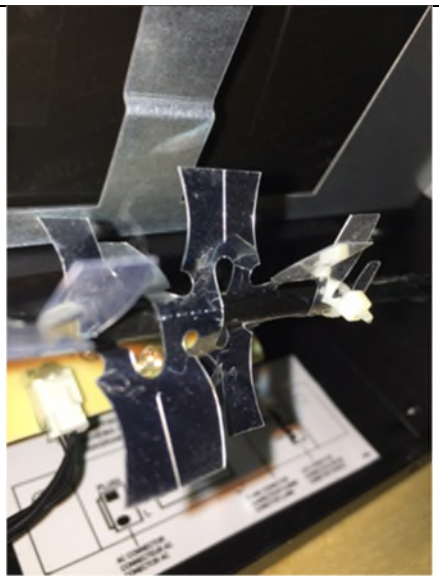
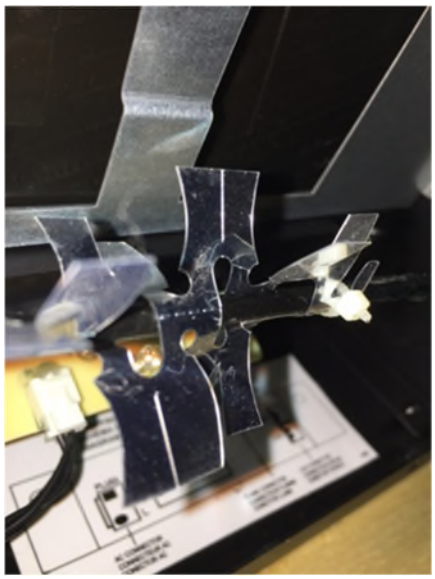
19. The following claim charts, necessarily preliminary because they are provided in advance of any discovery, summarize the nature of the infringement:

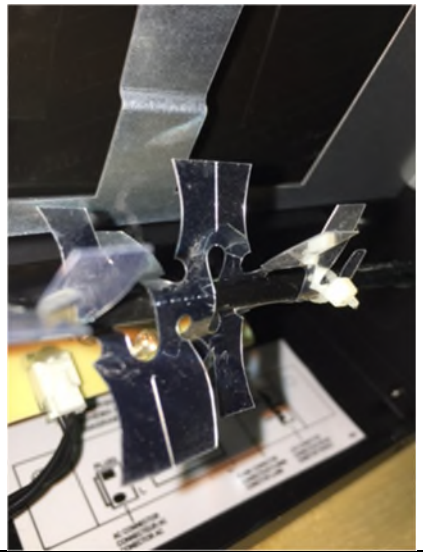
'229 Patent Claim	Claim Limitation	Element of Infringing Product
1.	A flame simulating assembly comprising:	The Accused Products include a flame simulating assembly.[1]
	at least one light source for producing light;	At least one light source produces light. 
	a screen to which the light from said at least one light source is directed, to provide a plurality of images of flickering flames thereon;	A screen is included to which the light from said at least one light source is directed. The at least one light source provide a plurality of images of flickering flames thereon.

[1] At this stage Dimplex takes no position as to whether the preamble is limiting.

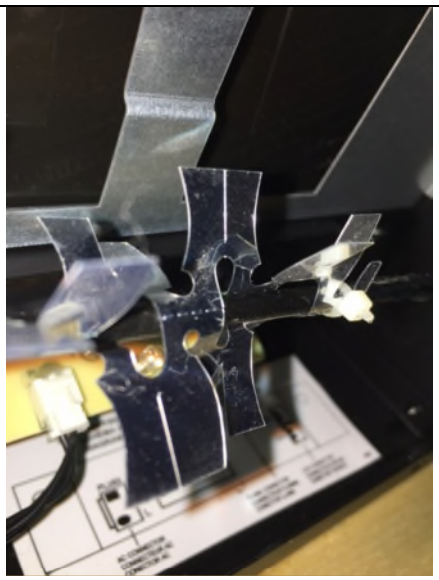
		
	a rotatable flicker element comprising:	The Accused Products include a rotatable flicker element. 

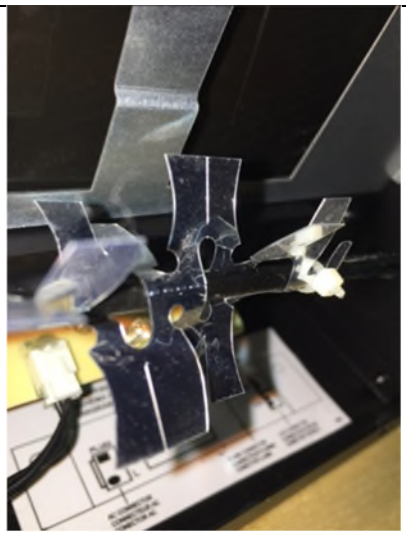
		
	an elongate rod defined by an axis thereof about which the rod is rotatable;	The rotatable flicker element includes an elongate rod that is defined by an axis thereof about which the rod is rotatable. 
	a plurality of paddle elements located in respective predetermined locations on the rod, each said paddle element comprising at least one body portion	The rotatable flicker element includes a plurality of paddle elements located in respective predetermined locations on the rod. Each said paddle element includes at least one body portion having at least one reflective surface thereon. Said at least one reflective surface includes a central region that is substantially centrally located on said at least one reflective surface and a perimeter region at least partially located around the central region. The perimeter region substantially defining a perimeter plane.

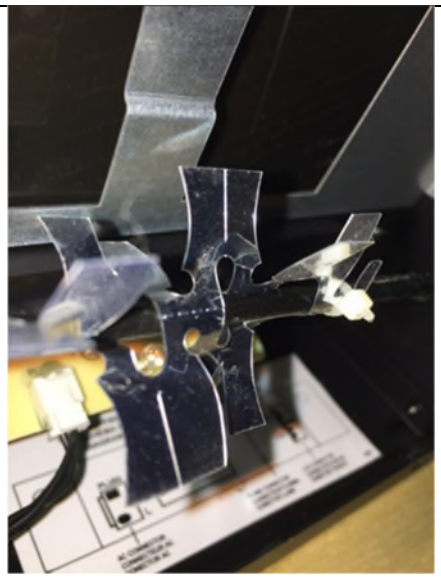
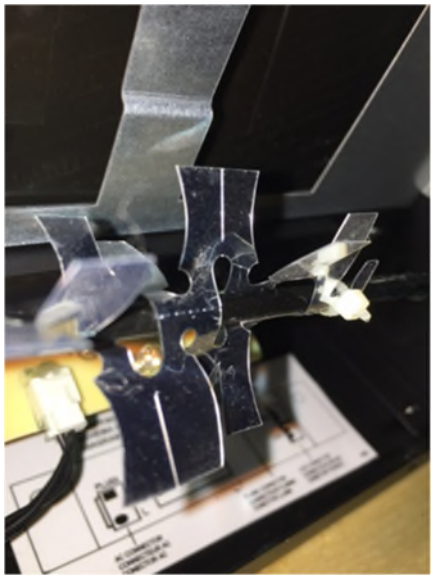
	having at least one reflective surface thereon, said at least one reflective surface comprising a central region that is substantially centrally located on said at least one reflective surface and a perimeter region at least partially located around the central region, the perimeter region substantially defining a perimeter plane;	
	the paddle elements being located to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from said at least one light source from said at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis, to provide the images of flickering flames	The paddle elements are located to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from said at least one light source from said at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis, to provide the images of flickering flames on the screen. 

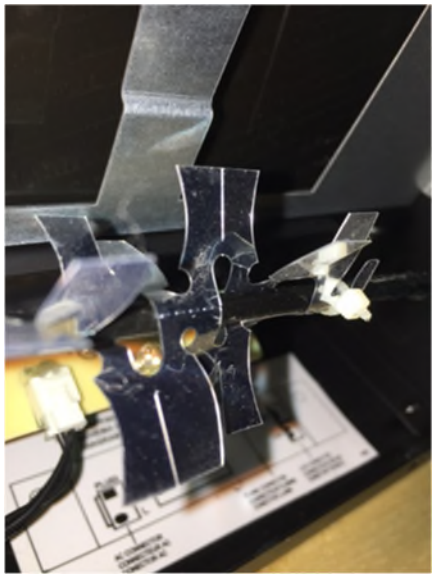
	on the screen; and	
	the central region being substantially non-planar and the perimeter region being at least partially planar, to cause the light reflected therefrom to the screen as the flicker element rotates to have varying intensity at the respective predetermined regions on the screen.	The central region is substantially non-planar and the perimeter region is at least partially planar, to cause the light reflected therefrom to the screen as the flicker element rotates to have varying intensity at the respective predetermined regions on the screen. 
2.	A flame simulating assembly comprising:	The Accused Products include a flame simulating assembly.[2]
	at least one light source for producing light;	At least one light source produces light.

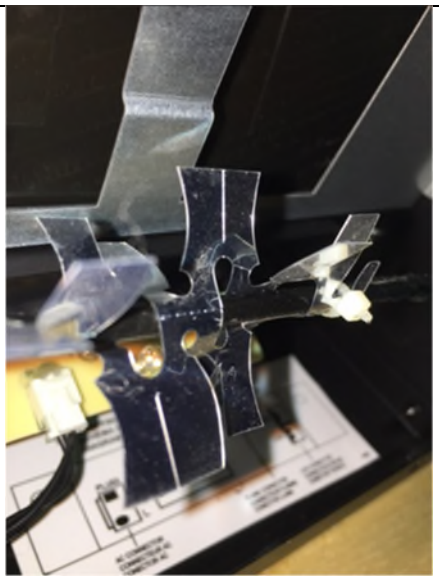
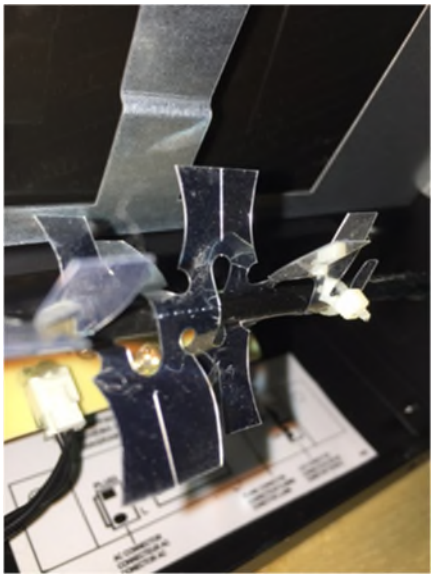
[2] At this stage Dimplex takes no position as to whether the preamble is limiting.

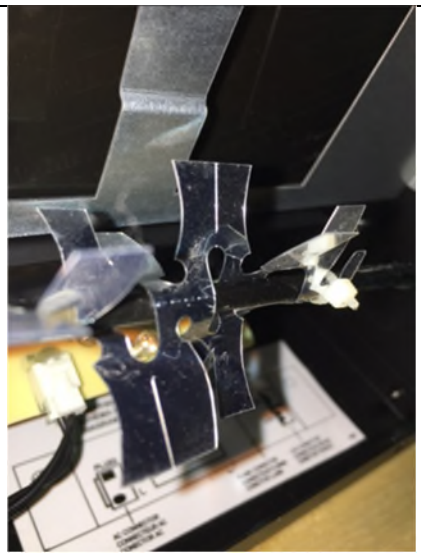
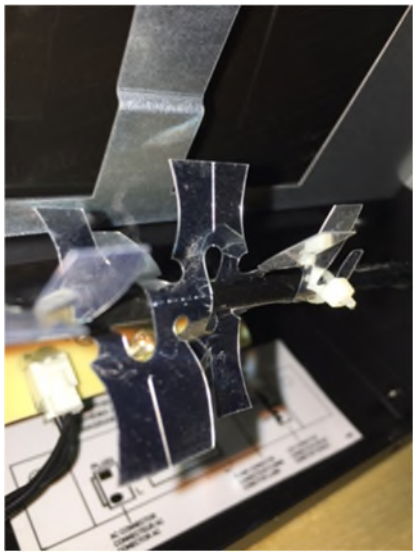
		
	a screen to which the light from said at least one light source is directed, to provide a plurality of images of flickering flames thereon;	A screen is included to which the light from said at least one light source is directed, to provide a plurality of images of flickering flames thereon. 
	a rotatable flicker element comprising:	The Accused Products include a rotatable flicker element.

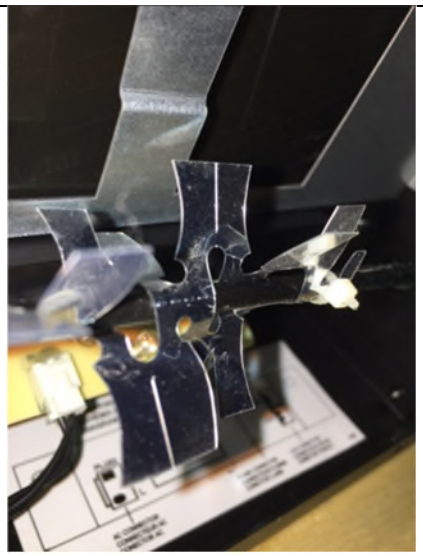
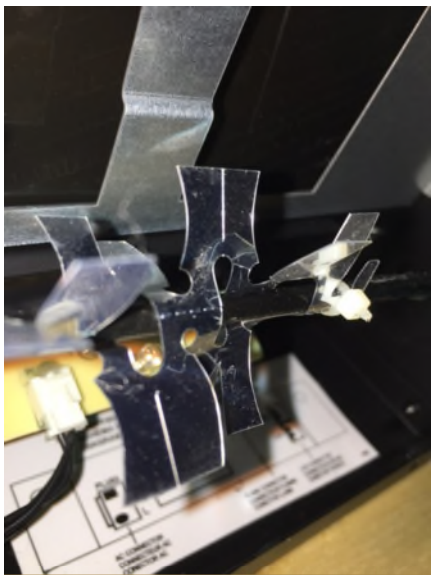
		 
	an elongate rod defined by an axis thereof about which the rod is rotatable;	The rotatable flicker element includes an elongate rod defined by an axis thereof about which the rod is rotatable.

		
	a plurality of paddle elements located in respective predetermined locations on the rod, each said paddle element comprising at least one body portion having at least one reflective surface thereon, said at least one reflective surface comprising a central region that is substantially centrally located on said at least one reflective surface and a perimeter region at least partially located around the central region, the perimeter region substantially	A plurality of paddle elements are located in respective predetermined locations on the rod. Each said paddle element includes at least one body portion having at least one reflective surface thereon. Said at least one reflective surface includes a central region that is substantially centrally located on said at least one reflective surface. A perimeter region at least partially is located around the central region. The perimeter region substantially defines a perimeter plane. 

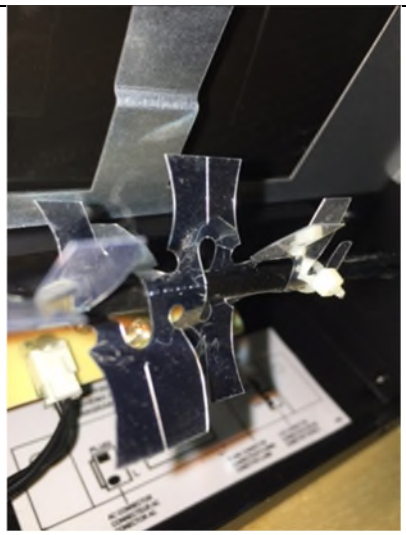
	defining a perimeter plane;	
	the paddle elements being located to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from said at least one light source from said at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis, to provide the images of flickering flames on the screen;	The paddle elements are located to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from said at least one light source from said at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis. The paddle elements provide the images of flickering flames on the screen.  Flame elements create images of flickering flame 
	said at least one body portion comprising a first side and an	Said at least one body portion includes a first side and an opposed second side thereof, and at least a selected one of the first and second sides that include said at least one reflective surface.

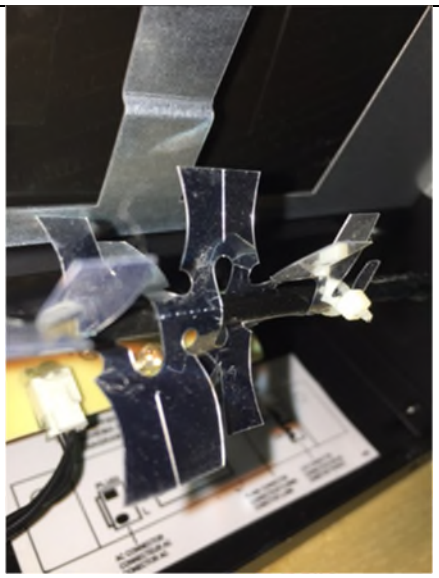
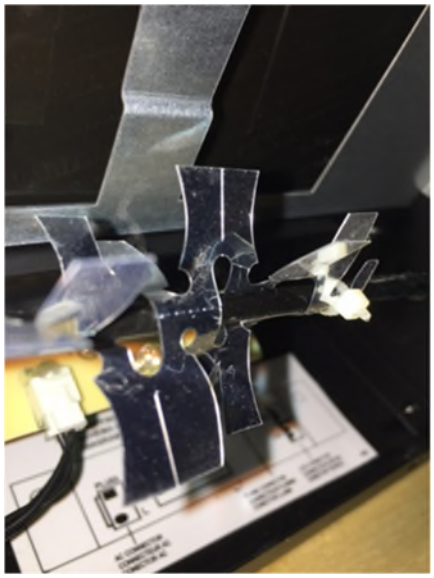
	opposed second side thereof, and at least a selected one of the first and second sides comprising said at least one reflective surface; and	
	the central region on the first side being at least partially convex relative to the perimeter region on the first side and the central region on the second side being at least partially concave relative to the perimeter region on the second side.	The central region on the first side is at least partially convex relative to the perimeter region on the first side. The central region on the second side is at least partially concave relative to the perimeter region on the second side. 
3.	A flame simulating assembly according to claim 2 in which:	Preamble.
	each said paddle element comprises two body portions connected by a	Each said paddle element includes two body portions connected by a bridge portion.

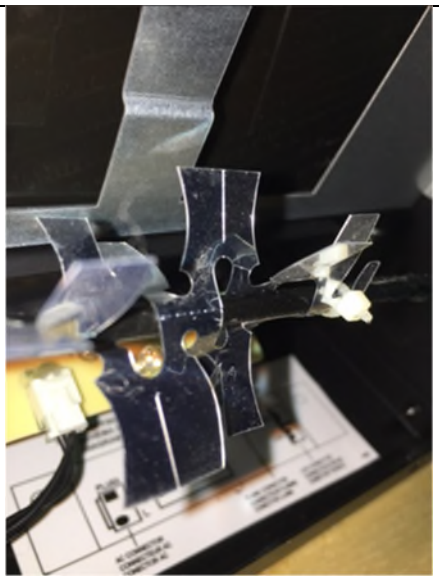
	bridge portion;	
	the bridge portion comprises an inner connector and a pair of outer connectors located on opposite sides of the inner connector.	The bridge includes an inner connector and a pair of outer connectors located on opposite sides of the inner connector. 
4.	A flame simulating assembly according to claim 2 in which the rod comprises at least one main portion thereof.	The rod includes at least one main portion.

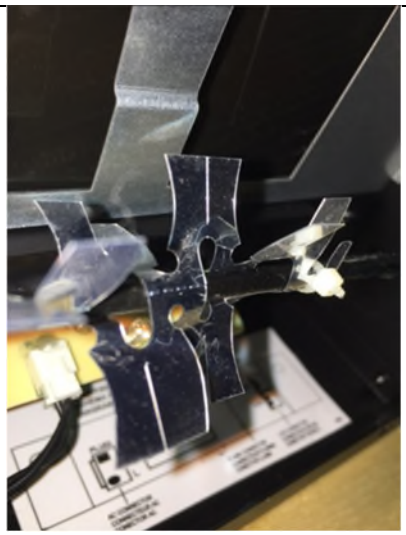
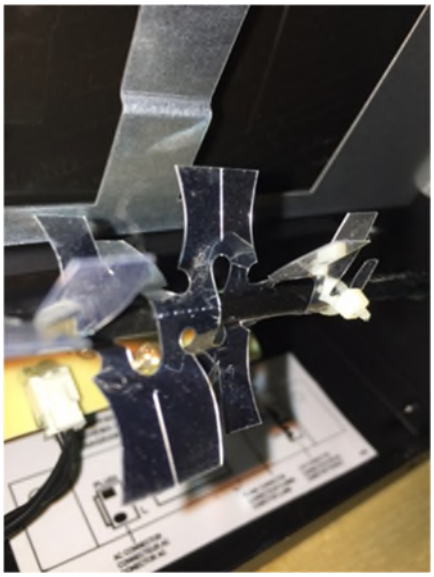
		
13.	A method of providing images of flames comprising:	The Accused Products embody a method of providing images of flames.[3]
	(a) providing at least one light source for producing light;	At least one light source for producing light is provided. 
	(b) providing a rotatable flicker element comprising:	A rotatable flicker element is provided.

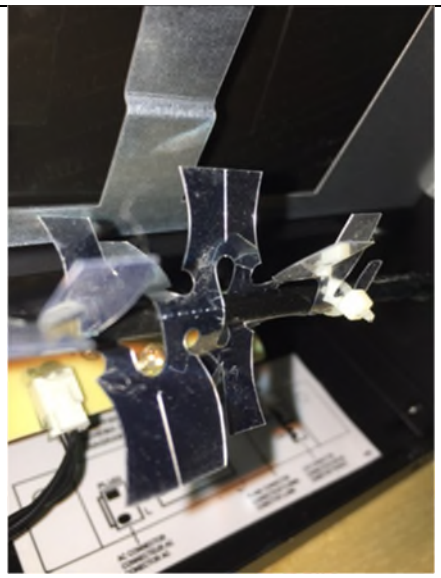
[3] At this stage Dimplex takes no position as to whether the preamble is limiting.

		 
	an elongate rod defined by an axis thereof;	An elongate rod is defined by an axis thereof.

		
	a plurality of paddle elements located in respective predetermined locations on the rod, each said paddle element comprising at least one body portion with at least one reflective surface thereon, said at least one reflective surface being formed to comprise a substantially planar region substantially defining a perimeter plane and a non-planar region;	A plurality of paddle elements is located in respective predetermined locations on the rod. Each said paddle element includes at least one body portion with at least one reflective surface thereon. Said at least one reflective surface is formed to include a substantially planar region substantially defining a perimeter plane and a non-planar region. 
	the paddle elements being located to position the perimeter plane	The paddle elements are located to position the perimeter plane substantially perpendicular to the axis.

	substantially perpendicular to the axis;	
	(c) providing a screen for displaying a plurality of images of flames thereon;	A screen is provided for displaying a plurality of images of flames thereon. 
	(d) positioning the rod with the axis thereof substantially parallel to the screen, to locate said at least one reflective surface intermittently in a path of the light from said at least one light source,	The rod is positioned with the axis thereof substantially parallel to the screen, to locate said at least one reflective surface intermittently in a path of the light from said at least one light source.

	for reflecting the light from said at least one light source to the screen as the flicker element rotates relative to the screen;	
	(e) rotating the flicker element about the axis; and	The flicker element rotates about the axis. 
	(f) when the flicker element is rotating, directing the light from said at least one light source to said at least one reflective surface intermittently, to intermittently provide a first reflected light reflected from the	When the flicker element is rotating, light is directed from said at least one light source to said at least one reflective surface intermittently, to intermittently provide a first reflected light reflected from the planar region and a second reflected light reflected from the non-planar region to the screen to provide the images of flames. Images including respective portions thereof are formed by the first reflected light and the second reflected light. The first reflected light has a different intensity on the screen relative to the second reflected light.

	planar region and a second reflected light reflected from the non-planar region to the screen to provide the images of flames, said images comprising respective portions thereof formed by the first reflected light and the second reflected light, the first reflected light having a different intensity on the screen relative to the second reflected light.	

20. Summarizing, the Accused Products include a flame simulating assembly that includes at least one light source for producing light, a screen to which the light from the at least one light source is directed, to provide a plurality of images of flickering flames thereon, a rotatable flicker element that includes an elongate rod defined by an axis thereof about which the rod is rotatable, a plurality of paddle elements located in respective predetermined locations on the rod, each paddle element including at least one body portion having at least one reflective surface thereon, the at least one reflective surface including a central region that is

substantially centrally located on the at least one reflective surface and a perimeter region at least partially located around the central region, the perimeter region substantially defining a perimeter plane, the paddle elements being located to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from the at least one light source from the at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis, to provide the images of flickering flames on the screen, the at least one body portion including a first side and an opposed second side thereof, and at least a selected one of the first and second sides including the at least one reflective surface, and the central region on the first side being at least partially convex relative to the perimeter region on the first side and the central region on the second side being at least partially concave relative to the perimeter region on the second side.

21. The Accused Products provide images of flames that include (a) providing at least one light source for producing light, (b) providing a rotatable flicker element that includes an elongate rod defined by an axis thereof, a plurality of paddle elements located in respective predetermined locations on the rod, each paddle element including at least one body portion with at least one reflective surface thereon, the at least one reflective surface being formed to include a substantially planar region substantially defining a perimeter plane and a non-

planar region, the paddle elements being located to position the perimeter plane substantially perpendicular to the axis, (c) providing a screen for displaying a plurality of images of flames thereon, (d) positioning the rod with the axis thereof substantially parallel to the screen, to locate the at least one reflective surface intermittently in a path of the light from the at least one light source, for reflecting the light from the at least one light source to the screen as the flicker element rotates relative to the screen, (e) rotating the flicker element about the axis, and (f) when the flicker element is rotating, directing the light from the at least one light source to the at least one reflective surface intermittently, to intermittently provide a first reflected light reflected from the planar region and a second reflected light reflected from the non-planar region to the screen to provide the images of flames, the images including respective portions thereof formed by the first reflected light and the second reflected light, the first reflected light having a different intensity on the screen relative to the second reflected light.

22. Defendant is directly infringing at least the Asserted '229 Patent Claims literally, or under the doctrine of equivalents, under 35 U.S.C. § 271(a) by using, offering to sell, selling and distributing in the United States, including, on information and belief, in the Southern District of Florida, and importing into the United States, including into the Southern District of Florida, the Accused Products. Further, Defendant is domiciled in this District.

23. In violation of 35 U.S.C. § 271 (b), Defendant is indirectly infringing at least the Asserted '229 Patent Claims either literally, or under the doctrine of equivalents. By promoting the sale of and selling the Accused Products to its ultimate customers, including the provision of instructions that teach the method claims of the '229 Patent, Defendant actively aided such customers to directly infringe the '229 Patent, and, as a result of those promotions and sales such customers have directly infringed the Asserted '229 Patent Claims. Defendant has been either willfully blind, or knew or should have known that its actions would induce actual infringement, either literally or under the doctrine of equivalents.

24. Given the parties' history of patent litigation, given Twin-Star's and its counsel's purchase in November of 2018 of Dimplex fireboxes constructively marked with Dimplex's '229 patent, and the parties' negotiation of their Confidentiality, Tolling and Standstill Agreement, dated February 25, 2020, during which time Dimplex counsel advised Twin-Star's counsel that it had patent claims to assert against Twin-Star, Defendant had both constructive and, on information and belief, actual knowledge of the '229 Patent. Accordingly, Defendant's acts of infringement are wanton, malicious, deliberate, and in bad faith.

25. By its wrongful acts, Defendant has caused and unless restrained by the Court, will continue to cause serious irreparable injury and damage to Dimplex, including diversion of customers, lost sales and lost profits.

COUNT II

INFRINGEMENT OF THE '433 PATENT

26. Dimplex incorporates each of the preceding paragraphs 1-25 as if fully set forth herein.

27. On information and belief, Defendant sells products, including, but not limited to, the Accused Products, that infringe claims 1-17 the '433 Patent ("the Asserted '433 Patent Claims").

28. Defendant either knew or should have had prior knowledge of the '2433 Patent given its lengthy history of patent litigation with Dimplex. As to the litigation history, Dimplex filed the first patent infringement case, asserting its patents against Twin-Star in the Northern District of Illinois on May 20, 2004, Docket No. 04-cv-3533. Dimplex filed its second patent infringement case asserting its patents against Twin-Star in the Eastern District of Michigan on October 21, 2013, Case No. 13-cv-14415. Indeed, this is the parties' fifth patent case; in three of such cases, including this one, Dimplex asserted its patents and in two of the cases, Twin-Star asserted its patents. On information and belief, as a result of the parties' many patent cases, they both paid attention to the other's intellectual property.

29. Further, as to the '433 patent specifically, Defendant had actual knowledge of the '433 patent because of its purchase in November, 2018, along

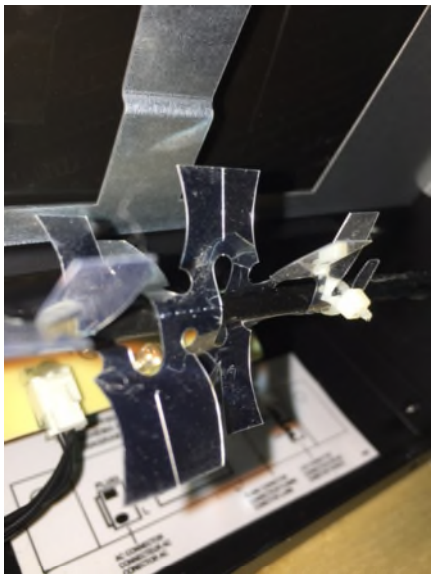
with its counsel's purchase in November, 2018, of Dimplex products identifying protection under the '433 Patent. As noted by the Federal Circuit, patent marking puts infringers on constructive notice, and allows patent owners to potentially collect damages from the time of constructive notice. *See Rembrandt Wireless Technologies, LP v. Samsung Electronics Co. Ltd*., 853 F.3d 1370, 1383-4 (Fed. Cir. 2017).

30. Moreover, in the context of the parties' negotiation of their Confidentiality, Tolling and Standstill Agreement, dated February 25, 2020, Dimplex warned Twin-Star that Dimplex has unasserted patent infringement claims to bring against Twin-Star. Accordingly, Twin-Star should be deemed to have had actual knowledge that it was infringing at least one claim of the '229 patent by no later than February 25, 2020.

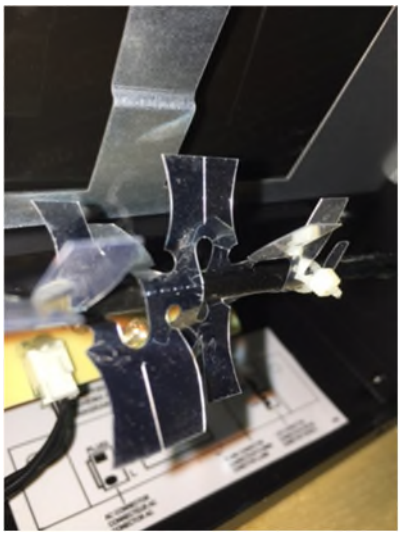
31. In the alternative, taking into account the prior assertion of patent infringement during negotiations with Twin-Star, and Twin-Star's purchase of Dimplex's products whose packaging indicates they are covered by U.S. patents, Twin-Star had a subjective belief of a high probability that its product infringes one or more of Dimplex's patents, and deliberately refused to review the patents listed on Dimplex's website to avoid learning of its infringement. Thus, Twin-Star exhibited willful blindness vis-à-vis Dimplex's '433 Patent.

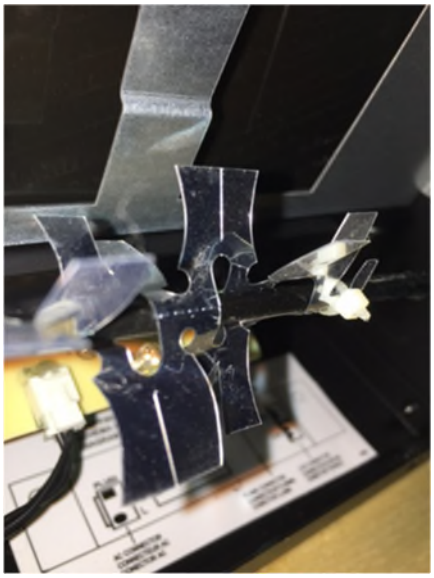
32. Finally, at a minimum, Twin-Star had actual knowledge that it was infringing at least one claim of the '433 patent at least as early as August 18, 2020, when counsel for Twin-Star received by email a copy of the original Complaint filed in this action.

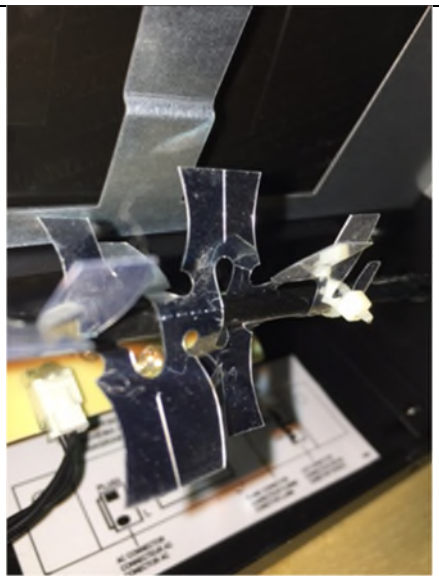
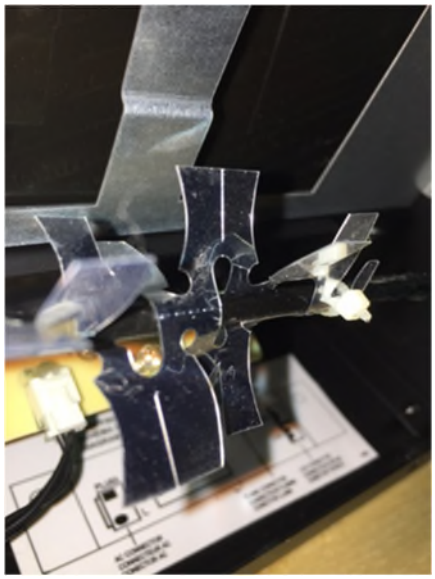
33. The following claim charts, necessarily preliminary because they are provided in advance of any discovery, summarize the nature of the infringement:

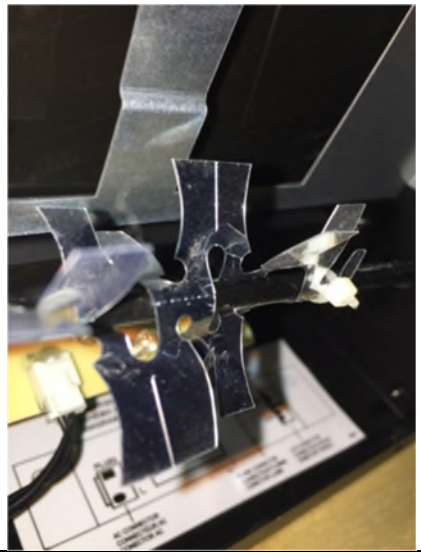
'433 Patent Claim	Claim Limitation	Element of Infringing Product
1.	A flame simulating assembly comprising:	The Accused Products include a flame simulating assembly.[4]
	at least one light source for producing light;	At least one light source produces light. 
	a screen to which the light from said at least one light source is directed, to provide a plurality of images	A screen to which the light from said at least one light source is directed, provides a plurality of images of flickering flames thereon

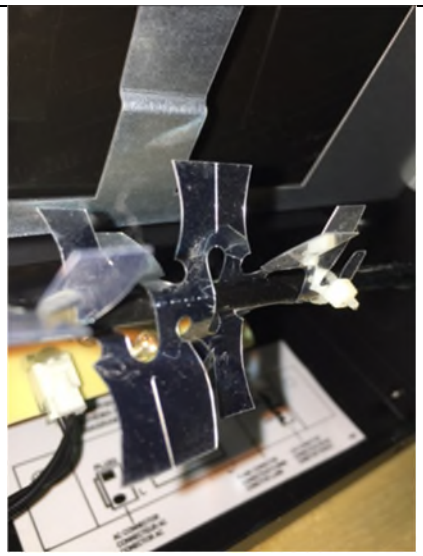
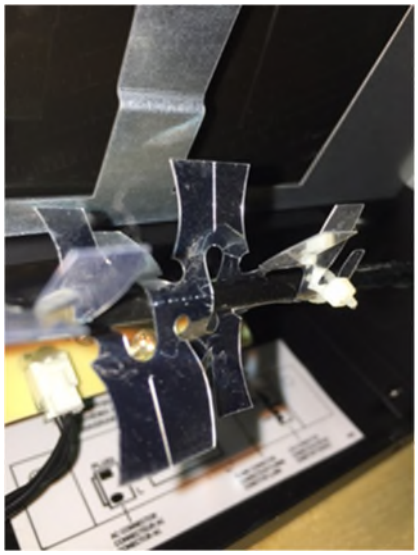
[4] At this stage Dimplex takes no position as to whether the preamble is limiting.

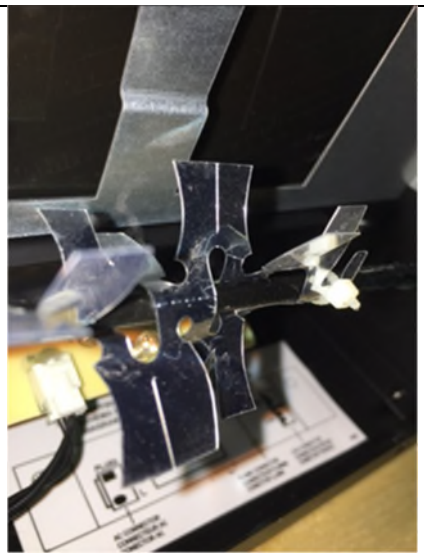
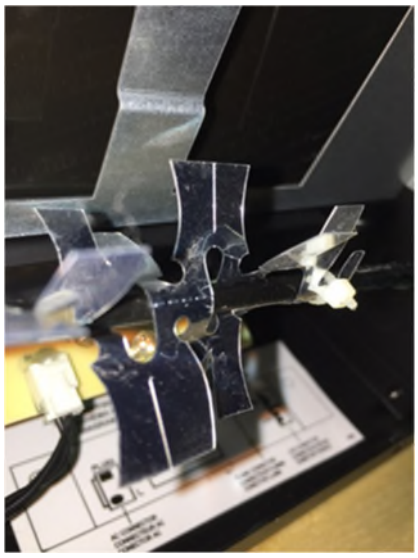
	of flickering flames thereon;	
	a rotatable flicker element comprising:	The Accused Products include a rotatable flicker element. 

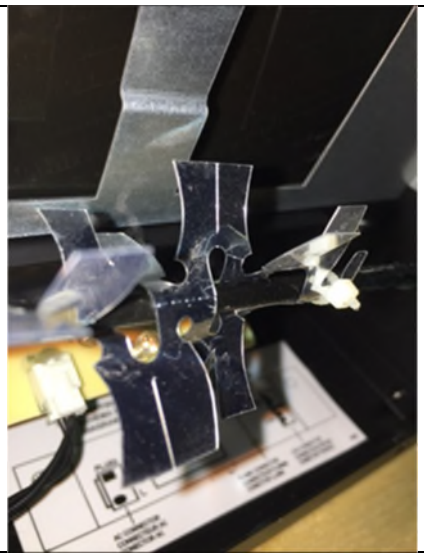
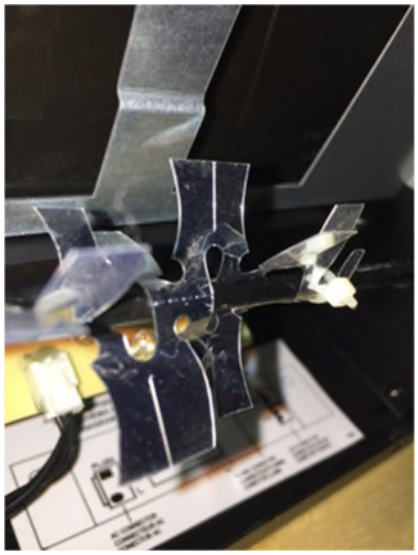
		
	an elongate rod defined by an axis thereof about which the rod is rotatable;	An elongate rod is defined by an axis thereof about which the rod is rotatable. 
	a plurality of paddle elements located in respective predetermined locations on the rod, each said paddle element comprising at least one body portion	A plurality of paddle elements are located in respective predetermined locations on the rod. Each said paddle element includes at least one body portion having at least one reflective surface thereon. Said at least one reflective surface includes a central region and a perimeter region at least partially located around the central region. The perimeter region at least partially defines a perimeter plane.

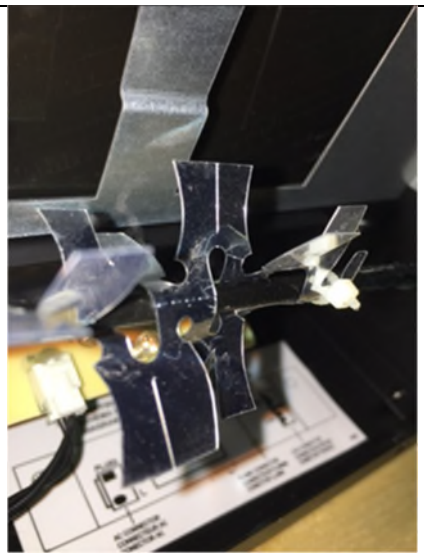
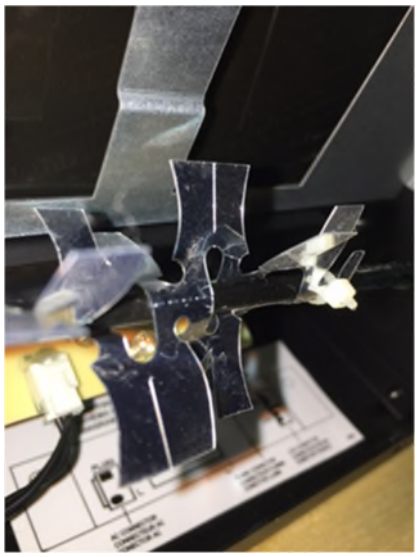
	having at least one reflective surface thereon, said at least one reflective surface comprising a central region and a perimeter region at least partially located around the central region, the perimeter region at least partially defining a perimeter plane;	
	the paddle elements being located in the respective predetermined locations therefor to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from said at least one light source from said at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis, to provide the images of flickering flames	The paddle elements are located in the respective predetermined locations therefor to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from said at least one light source from said at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis. The paddle elements provide the images of flickering flames on the screen. 

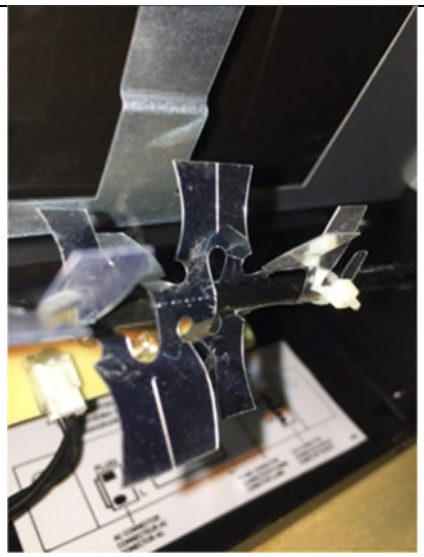
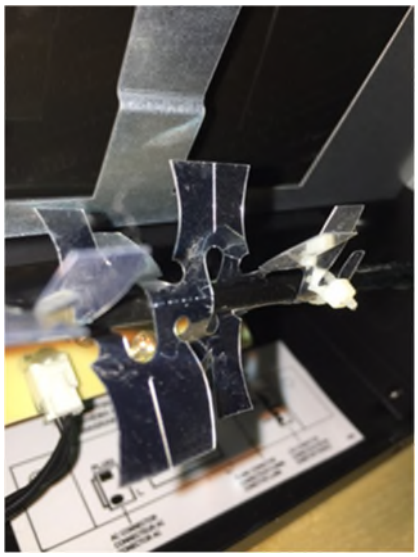
	on the screen;	
	the central region being substantially non-planar and the perimeter region being at least partially planar, to cause the light reflected therefrom to the screen as the flicker element rotates to have varying intensity at the respective predetermined regions on the screen; and	The central region is substantially non-planar and the perimeter region being at least partially planar, to cause the light reflected therefrom to the screen as the flicker element rotates to have varying intensity at the respective predetermined regions on the screen. 
	the perimeter region comprising at least one middle part and at least one side part, said at least one middle part being at least partially defined by at least one channel partially separating said at least one	The perimeter region includes at least one middle part and at least one side part. Said at least one middle part is at least partially defined by at least one channel partially separating said at least one middle part and said at least one side part.

	middle part and said at least one side part.	
2.	The flame simulating assembly according to claim 1 in which:	Preamble.
	said at least one side part comprises a first side part and a second side part;	Said at least one side part includes a first side part and a second side part. 
	said at least one channel comprises first and second channels; and	Said at least one channel includes first and second channels.

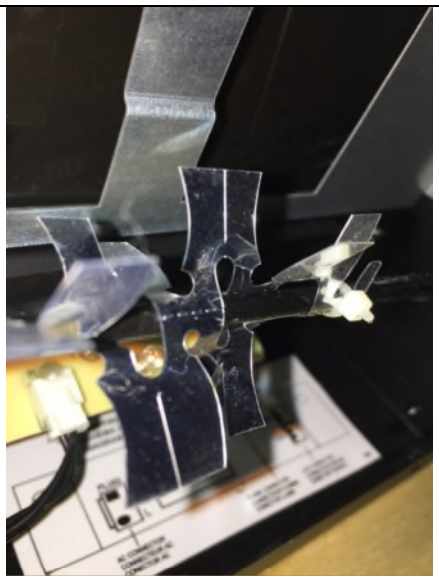
		
	said at least one middle part is at least partially defined by the first and second channels, the first channel being located between said at least one middle part and the first side part, and the second channel being located between said at least one middle part and the second side part.	Said at least one middle part is at least partially defined by the first and second channels. The first channel is located between said at least one middle part and the first side part. The second channel is located between said at least one middle part and the second side part. 
3.	The flame simulating assembly according to claim 2 in which, in at least a selected one of the paddle elements, the first and second side	At least a selected one of the paddle elements includes the first and second side parts substantially coplanar relative to each other.

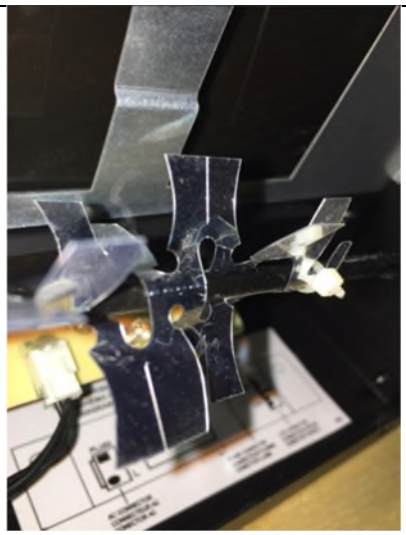
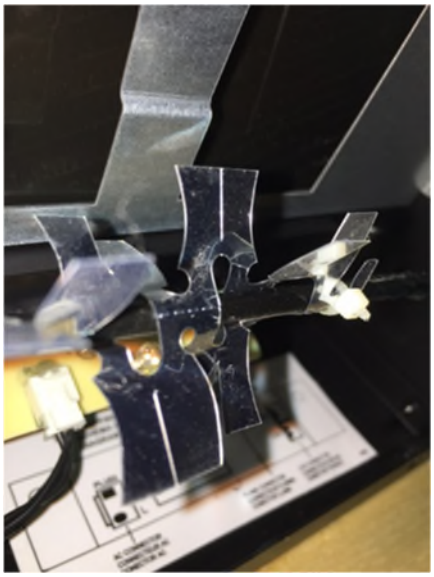
	parts are substantially coplanar relative to each other.	
4.	The flame simulating assembly according to claim 1 in which, in at least a selected one of the paddle elements, said at least one middle part is non-planar.	In at least a selected one of the paddle elements, said at least one middle part is non-planar. 
5.	The flame simulating assembly according to claim 3 in which, in at least a selected one of the paddle elements, said at least one middle part is non-	In at least a selected one of the paddle elements, said at least one middle part is non-coplanar with said at least two side parts.

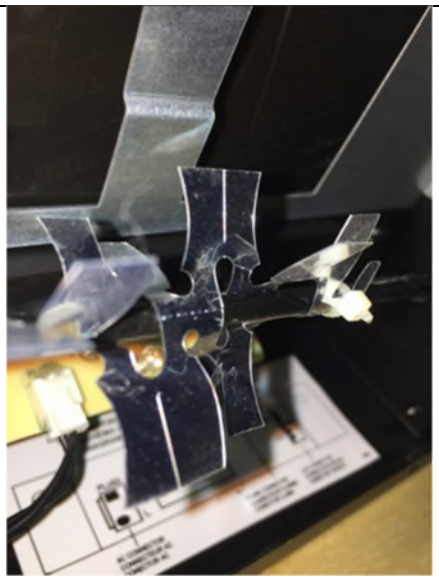
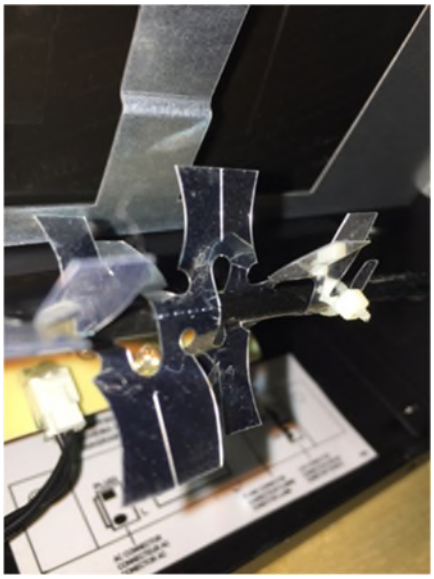
	coplanar with said at least two side parts.	
6.	The flame simulating assembly according to claim 3 in which, in at least a selected one of the paddle elements, said at least two side parts and said at least one middle part are non-coplanar.	In at least a selected one of the paddle elements, said at least two side parts and said at least one middle part are non-coplanar. 
7.	The flame simulating assembly according to claim 1 in which, in at least a selected one of the paddle elements, said at least one middle	In at least a selected one of the paddle elements, said at least one middle part and said at least one side part are substantially coplanar.

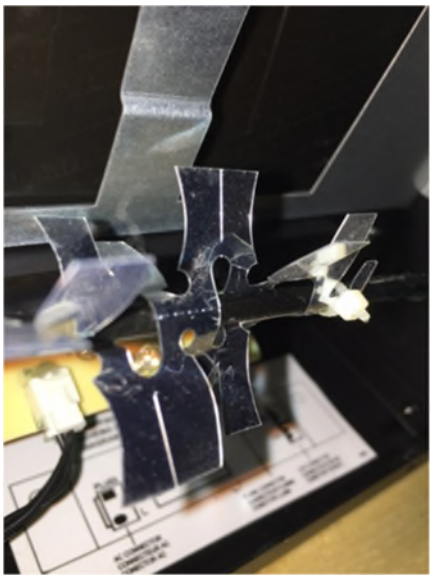
	part and said at least one side part are substantially coplanar.	
8.	The flame simulating assembly according to claim 1 in which, in at least a selected one of the paddle elements, said at least one middle part and said at least one side part are substantially non-coplanar.	In at least a selected one of the paddle elements, said at least one middle part and said at least one side part are substantially non-coplanar. 
9.	A flame simulating assembly comprising:	The Accused Products include a flame simulating assembly.[5]
	at least one light source for producing light;	At least one light source for producing light is provided.

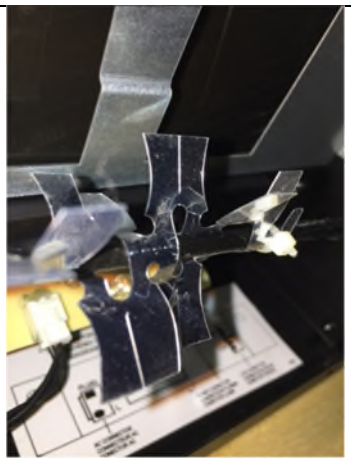
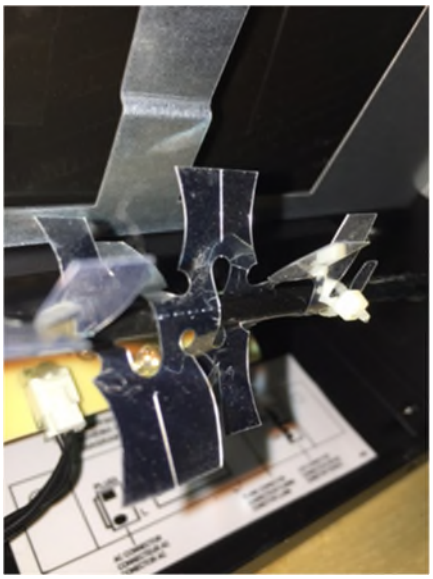
[5] At this stage Dimplex takes no position as to whether the preamble is limiting.

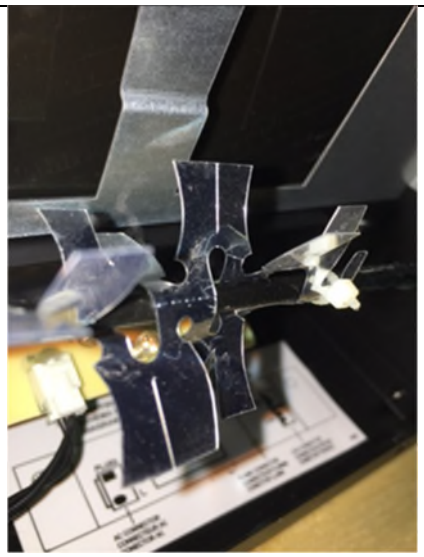
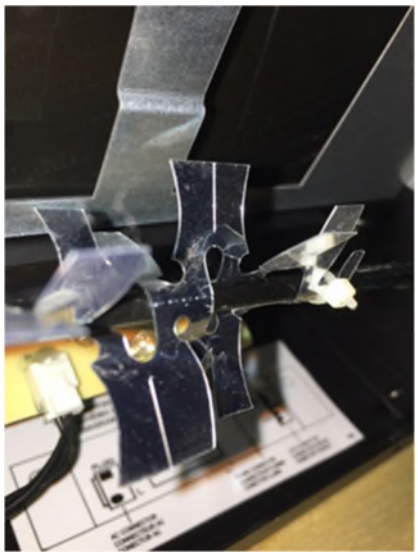
		
	a screen to which the light from said at least one light source is directed, to provide a plurality of images of flickering flames thereon;	A screen to which the light from said at least one light source is directed, provides a plurality of images of flickering flames thereon. 
	a rotatable flicker element comprising:	The Accused Products include a rotatable flicker element.

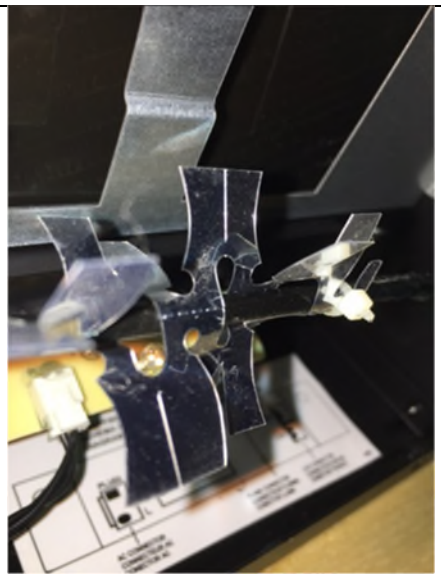
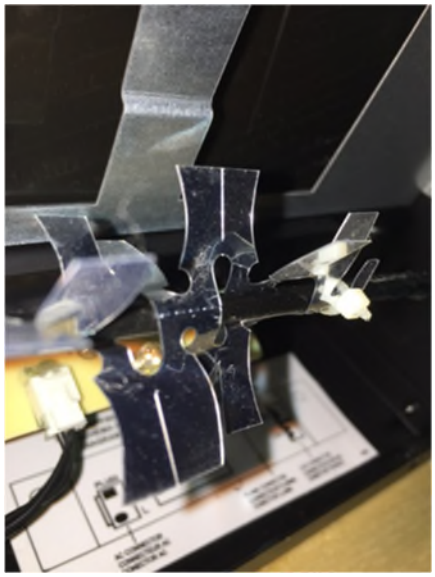
		
	an elongate rod defined by an axis thereof about which the rod is rotatable;	The rotatable flicker element includes a rod that is rotatable. 
	a plurality of paddle elements located in respective predetermined locations on the rod, each said paddle element comprising at least one body portion having at least one reflective surface	A plurality of paddle elements is located in respective predetermined locations on the rod. Each said paddle element includes at least one body portion having at least one reflective surface thereon. Said at least one reflective surface includes a central region and a perimeter region at least partially located around the central region. The perimeter region at least partially defines a perimeter plane.

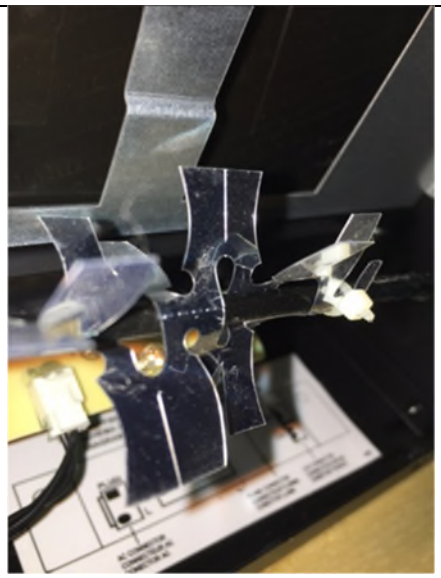
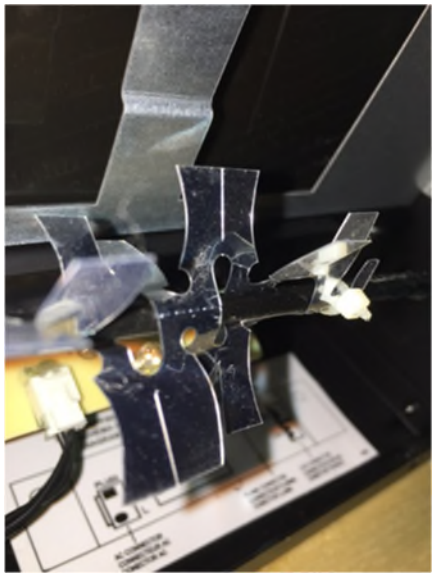
	thereon, said at least one reflective surface comprising a central region and a perimeter region at least partially located around the central region, the perimeter region at least partially defining a perimeter plane;	
	the paddle elements being located in the respective predetermined locations therefor to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from said at least one light source from said at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis, to provide the images of flickering flames	The paddle elements are located in the respective predetermined locations therefor to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from said at least one light source from said at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis, to provide the images of flickering flames on the screen. 

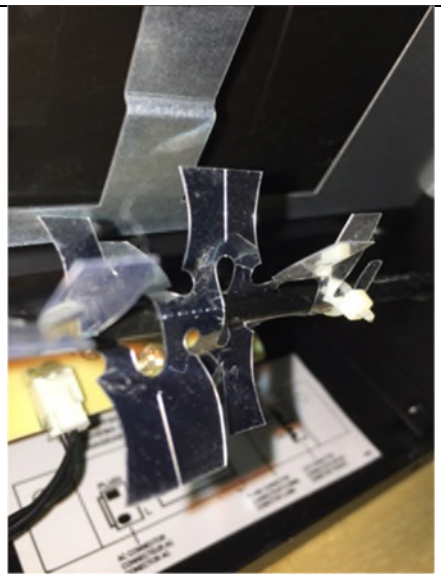
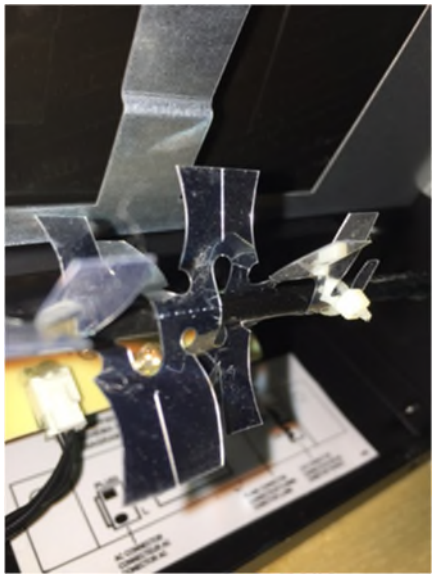
	on the screen;	
	said at least one body portion comprising a first side and an opposed second side thereof, and at least a selected one of the first and second sides comprising said at least one reflective surface;	Said at least one body portion includes a first side and an opposed second side thereof. At least a selected one of the first and second sides includes said at least one reflective surface. 
	the central region on the first side being at least partially convex relative to the perimeter region on the first side and the central region on the second side being at least partially concave	The central region on the first side is at least partially convex relative to the perimeter region on the first side and the central region on the second side being at least partially concave relative to the perimeter region on the second side.

	relative to the perimeter region on the second side; and	
	the perimeter region comprising at least one middle part and at least one side part, said at least one middle part being at least partially defined by at least one channel separating said at least one middle part and said at least one side part.	The perimeter region includes at least one middle part and at least one side part. Said at least one middle part is at least partially defined by at least one channel separating said at least one middle part and said at least one side part. 
10.	The flame simulating assembly according to claim 9 in which:	Preamble.
	each said paddle element comprises two body portions connected by a bridge portion;	Each said paddle element includes two body portions connected by a bridge portion.

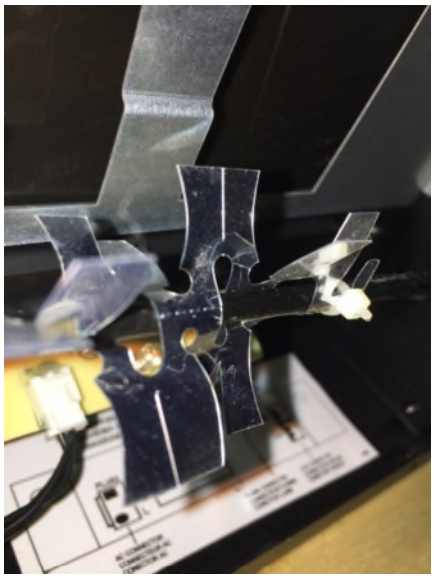
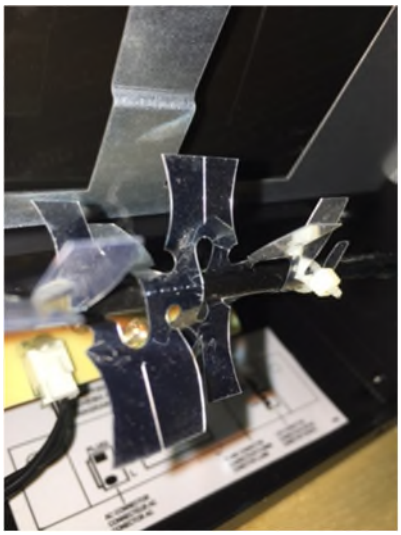
		
	the bridge portion comprises an inner connector and a pair of outer connectors located on opposite sides of the inner connector.	The bridge includes an inner connector and a pair of outer connectors located on opposite sides of the inner connector. 
11.	The flame simulating assembly according to claim 9 in which the rod comprises at least one rod body thereof.	The rod includes at least one rod body.

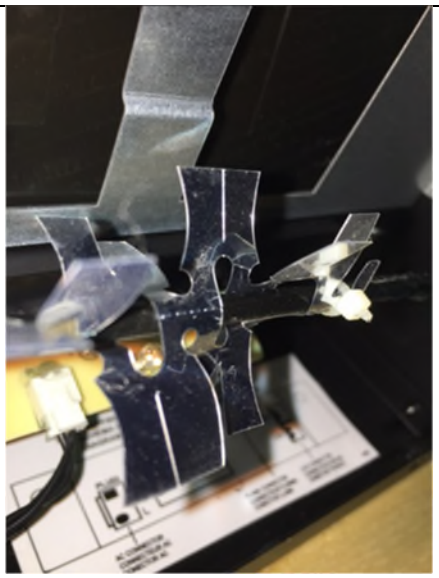
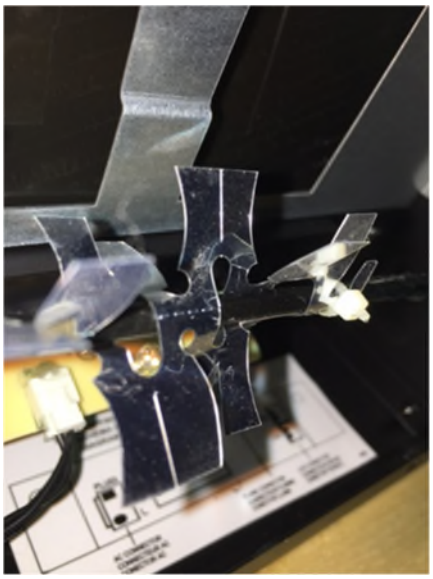
		
12.	The flame simulating assembly according to claim 9 in which the rod comprises a plurality of mounting elements located on said at least one rod body for positioning the paddle elements in the respective predetermined locations therefor.	The rod includes a plurality of mounting elements located on said at least one rod body for positioning the paddle elements in the respective predetermined locations therefor. 
13.	The flame simulating assembly according to claim 12 in which the mounting elements are spaced	The mounting elements are spaced substantially equidistant apart from each other along said at least one rod body.

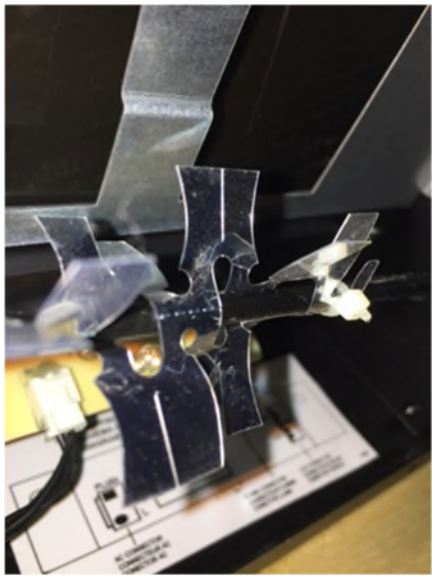
	substantially equidistant apart from each other along said at least one rod body.	
14.	The flame simulating assembly according to claim 13 in which each said mounting element comprises at least one first region formed for engagement with the inner connector, to position the paddle elements in the respective predetermined locations therefor.	Each said mounting element includes at least one first region formed for engagement with the inner connector, to position the paddle elements in the respective predetermined locations therefor. 
15.	The flame simulating assembly according to claim 13 in which said at least one first region is	Said at least one first region is substantially planar.

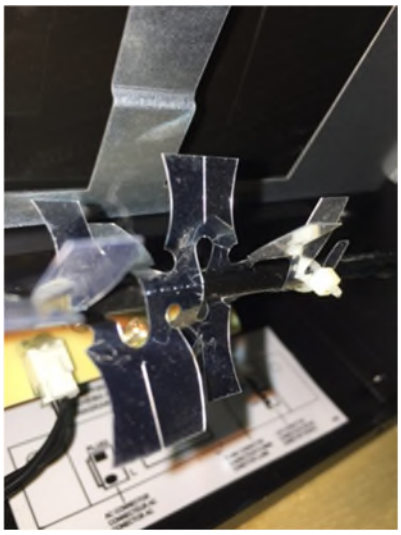
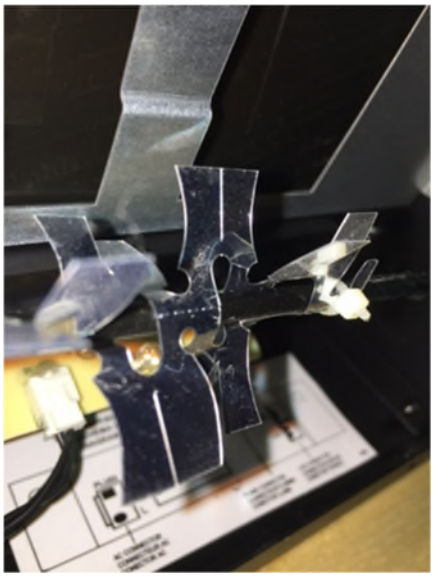
	substantially planar.	
16.	The flame simulating assembly according to claim 14 in which said at least one first region of each said mounting element is located at a predetermined position located radially relative to each other, for positioning the paddle elements in the respective predetermined locations therefor.	Said at least one first region of each said mounting element is located at a predetermined position located radially relative to each other, for positioning the paddle elements in the respective predetermined locations therefor. 
17.	A method of providing images of flames comprising:	The products embody a method of providing images of flames.[6]
	providing at least	A light source is provided.

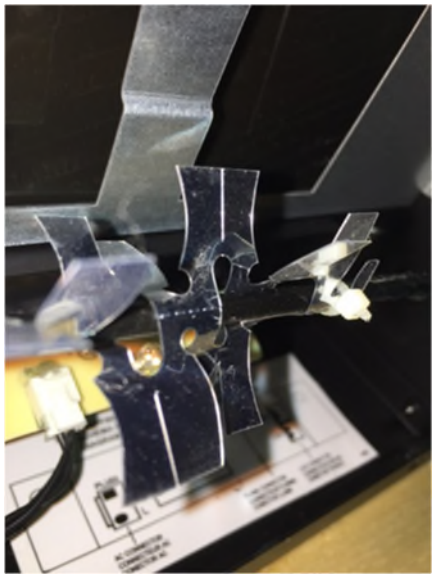
[6] At this stage Dimplex takes no position as to whether the preamble is limiting.

	one light source for producing light;	
	providing a rotatable flicker element comprising:	The Accused Products include a rotatable flicker element. 
	an elongate rod defined by an axis thereof;	An elongate rod is defined by an axis thereof.

		
	a plurality of paddle elements located in respective predetermined locations on the rod, each said paddle element comprising at least one body portion with at least one reflective surface thereon, said at least one reflective surface being formed to comprise a substantially planar region at least partially defining a perimeter plane and a non-planar region, the perimeter region comprising at least one middle part and at least one	A plurality of paddle elements is located in respective predetermined locations on the rod. Each said paddle element includes at least one body portion with at least one reflective surface thereon. Said at least one reflective surface is formed to include a substantially planar region at least partially defining a perimeter plane and a non-planar region. The perimeter region includes at least one middle part and at least one side part. Said at least one middle part is at least partially defined by at least one channel separating said at least one middle part and said at least one side part. 

	side part, said at least one middle part being at least partially defined by at least one channel separating said at least one middle part and said at least one side part;	
	the paddle elements being located to position the perimeter plane substantially perpendicular to the axis;	The paddle elements are located to position the perimeter plane substantially perpendicular to the axis. 
	providing a screen for displaying a plurality of images of flames thereon;	A screen is provided for displaying a plurality of images of flames thereon. 
	positioning the rod with the axis	The rod is positioned with the axis thereof substantially parallel to the screen, to locate said at least one reflective surface on each of the paddle elements intermittently in a path of the light from said at least one light

	thereof substantially parallel to the screen, to locate said at least one reflective surface on each of the paddle elements intermittently in a path of the light from said at least one light source as the rod rotates about the axis, for reflecting the light from said at least one light source to the screen as the flicker element rotates relative to the screen;	source as the rod rotates about the axis, for reflecting the light from said at least one light source to the screen as the flicker element rotates relative to the screen. 
	rotating the flicker element about the axis; and	The flicker element rotates about an axis. 
	when the flicker element is rotating, directing the light from said at least	When the flicker element is rotating, the light is directed from said at least one light source to said at least one reflective surface intermittently, to intermittently provide a first reflected light reflected from said at least one middle part. A second reflected light is reflected from said at least one side part, and a third reflected light reflected from the non-planar region to the screen to provide the images of flames. Said images include respective

	one light source to said at least one reflective surface intermittently, to intermittently provide a first reflected light reflected from said at least one middle part, a second reflected light reflected from said at least one side part, and a third reflected light reflected from the non-planar region to the screen to provide the images of flames, said images comprising respective portions thereof formed by the first reflected light and the second reflected light and the third reflected light, the first reflected light and the second reflected light having a different intensity on the screen relative to the third reflected light.	portions thereof formed by the first reflected light and the second reflected light and the third reflected light. The first reflected light and the second reflected light have a different intensity on the screen relative to the third reflected light. 

34. Summarizing, the Accused Products include a flame simulating assembly that includes at least one light source for producing light, a screen to which the light from the at least one light source is directed, to provide a plurality of images of flickering flames thereon, a rotatable flicker element that includes an elongate rod defined by an axis thereof about which the rod is rotatable, a plurality of paddle elements located in respective predetermined locations on the rod, each paddle element including at least one body portion having at least one reflective surface thereon, the at least one reflective surface including a central region and a perimeter region at least partially located around the central region, the perimeter region at least partially defining a perimeter plane, the paddle elements being located in the respective predetermined locations therefor to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from the at least one light source from the at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis, to provide the images of flickering flames on the screen, the central region being substantially non-planar and the perimeter region being at least partially planar, to cause the light reflected therefrom to the screen as the flicker element rotates to have varying intensity at the respective predetermined regions on the screen, and the perimeter region including at least one middle part and at least one side part, the at least one middle part being at least partially defined by at

least one channel partially separating the at least one middle part and the at least one side part.

35. The Accused Products include a flame simulating assembly that includes at least one light source for producing light, a screen to which the light from the at least one light source is directed, to provide a plurality of images of flickering flames thereon, a rotatable flicker element including an elongate rod defined by an axis thereof about which the rod is rotatable, a plurality of paddle elements located in respective predetermined locations on the rod, each paddle element including at least one body portion having at least one reflective surface thereon, the at least one reflective surface including a central region and a perimeter region at least partially located around the central region, the perimeter region at least partially defining a perimeter plane, the paddle elements being located in the respective predetermined locations therefor to position the perimeter plane substantially perpendicular to the axis, for intermittently reflecting the light from the at least one light source from the at least one reflective surface to predetermined regions on the screen respectively as the flicker element rotates about the axis, to provide the images of flickering flames on the screen, the at least one body portion including a first side and an opposed second side thereof, and at least a selected one of the first and second sides including the at least one reflective surface, the central region on the first side being at least partially convex relative to

the perimeter region on the first side and the central region on the second side being at least partially concave relative to the perimeter region on the second side, and the perimeter region including at least one middle part and at least one side part, the at least one middle part being at least partially defined by at least one channel separating the at least one middle part and the at least one side part.

36. The Accused Products provide images of flames that include providing at least one light source for producing light, providing a rotatable flicker element including an elongate rod defined by an axis thereof, a plurality of paddle elements located in respective predetermined locations on the rod, each paddle element including at least one body portion with at least one reflective surface thereon, the at least one reflective surface being formed to include a substantially planar region at least partially defining a perimeter plane and a non-planar region, the perimeter region including at least one middle part and at least one side part, the at least one middle part being at least partially defined by at least one channel separating the at least one middle part and the at least one side part, the paddle elements being located to position the perimeter plane substantially perpendicular to the axis, providing a screen for displaying a plurality of images of flames thereon, positioning the rod with the axis thereof substantially parallel to the screen, to locate the at least one reflective surface on each of the paddle elements intermittently in a path of the light from the at least one light source as the rod

rotates about the axis, for reflecting the light from the at least one light source to the screen as the flicker element rotates relative to the screen, rotating the flicker element about the axis, and when the flicker element is rotating, directing the light from the at least one light source to the at least one reflective surface intermittently, to intermittently provide a first reflected light reflected from the at least one middle part, a second reflected light reflected from the at least one side part, and a third reflected light reflected from the non-planar region to the screen to provide the images of flames, the images including respective portions thereof formed by the first reflected light and the second reflected light and the third reflected light, the first reflected light and the second reflected light having a different intensity on the screen relative to the third reflected light.

37. Defendant is directly infringing the Asserted '433 Patent Claims literally, or under the doctrine of equivalents, under 35 U.S.C. § 271(a) by using, offering to sell, selling and distributing in the United States, including, on information and belief, in the Southern District of Florida, and importing into the United States including into the Southern District of Florida, the Accused Products. Further, Defendant is domiciled in this District.

38. In violation of 35 U.S.C. § 271 (b), Defendant is indirectly infringing the Asserted '433 Patent Claims either literally, or under the doctrine of equivalents. By promoting the sale of and selling the Accused Products to its

ultimate customers, including the provision of instructions that teach the method claims of the '433 Patent, Defendant actively aided such customers to directly infringe the '433 Patent, and, as a result of those promotions and sales such customers have directly infringed the '433 Patent. Defendant either has been willfully blind, knew or should have known that its actions would induce actual infringement, either literally or under the doctrine of equivalents.

39. Given the parties' history of patent litigation, given Twin-Star's and its counsel's purchase in November of 2018 of Dimplex fireboxes constructively marked with Dimplex's '433 patent, and the parties' negotiation of their Confidentiality, Tolling and Standstill Agreement, dated February 25, 2020, during which time Dimplex counsel advised Twin-Star's counsel that it had patent claims to assert against Twin-Star, Defendant had both constructive and, on information and belief, actual knowledge of the '433 Patent. Accordingly, Defendant's acts of infringement are wanton, malicious, deliberate, and in bad faith.

40. By its wrongful acts, Defendant has caused and, unless restrained by the Court will continue to cause, serious irreparable injury and damage to Dimplex, including diversion of customers, lost sales and lost profits.

DEMAND FOR RELIEF

WHEREFORE, Dimplex respectfully requests that judgment be entered in its favor and against Defendant Twin-Star as follows:

a. That Defendant has infringed the '229 Patent and the '433 Patent, both directly and indirectly;

b. That Defendant and its respective agents, servants, officers, directors, employees, and all persons acting in concert with them, directly or indirectly, be temporarily and permanently enjoined from the infringement of the '229 Patent and the '433 Patent;

c. That Defendant be ordered to account for and pay to Dimplex the damages to which Dimplex is entitled as a consequence of the infringement of the '229 Patent and the '433 Patent, together with pre-judgment interest and costs;

d. That a post-judgment equitable accounting of damages be ordered for the period of infringement of the '229 Patent and the '433 Patent;

e. That Defendant be adjudged a willful infringer and ordered to pay treble damages pursuant to Title 35 United States Code § 284;

f. That this case be declared an "exceptional case" pursuant to 35 U.S.C § 285 and Dimplex be awarded its costs, disbursements and attorneys' fees; and

g. That Dimplex be awarded such other and further relief as the Court may deem just and equitable.

JURY DEMAND

Dimplex demands a jury trial on all issues triable to a jury in this matter.

Respectfully submitted,

Dated: October 20, 2020

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