

**IN THE UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF ILLINOIS
SPRINGFIELD DIVISION**

THE GSI GROUP, INC.,)	
)	
Plaintiff,)	
)	
v.)	No. 05-3011
)	
SUKUP MANUFACTURING CO.,)	
)	
Defendant.)	

OPINION

JEANNE E. SCOTT, U.S. District Judge:

This matter comes before the Court on the following Motions for Partial Summary Judgment:

1. Plaintiff GSI Group, Inc.’s (GSI) Motion for Partial Summary Judgment for Infringement of GSI’s Burner Cone Patent by Sukup’s Frustoconical Burner Cone Heater (d/e 431) (Motion 431);
2. Defendant Sukup Manufacturing Company’s (Sukup) Motion for Summary Judgment of Invalidity of U.S. Patent 5,400,525 (d/e 449) (Motion 449); and
3. Defendant Sukup’s Motion for Summary Judgment of Non-Infringement of U.S. Patent No. 5,400,525 (d/e 450) (Motion 450).

For the reasons set forth below, the Court allows Motion 450, allows Motion 431 in part, but denies Motions 449. U.S. Patent 5,400,525 (525 Patent), covers a cone (“Burner Cone” or “Flame Cone”) that is inserted in the burner of a heater to improve efficiency. Sukup Unsealed Exhibits (d/e 461), Exhibit 23, 525 Patent.¹ Sukup has failed to show that it is entitled to summary judgment on the invalidity of the 525 Patent; thus, the validity of the 525 Patent remains an issue for trial.² If the 525 Patent is valid, Sukup has established that Sukup’s current heater design does not infringe on the Patent. GSI has established that Sukup previously sold a heater that literally infringed on the 525 Patent if the 525 Patent is valid. GSI is not entitled to a partial judgment of infringement because the validity of the 525 Patent has not been resolved.

STATEMENT OF FACTS

The Patent and Trademark Office (PTO) issued the 525 Patent on March 28, 1995. The claimed invention covered by the 525 Patent is a

¹As discussed below, the Flame Cone may be truncated. A truncated cone is a geometric shape called a frustum. A frustum is that part of a solid, such as a cone or pyramid, between two parallel planes cutting the solid. American Heritage Dictionary of the English Language (4th ed. 2000), at 708. GSI repeatedly uses the term “frustoconical” in its submissions to the Court, but the terms “frustoconical” and “frustum” do not appear in the 525 Patent.

²GSI has not sought partial summary judgment on the validity of the 525 Patent.

heater for a grain bin. The heater consists of a blower that blows air through a cylindrical housing. A burner located in the housing heats the air that passes through the housing. The heated air is then directed under the floor of a grain bin. The heated air rises through perforations in the floor and dries the grain in the bin. According to the 525 Patent, the prior art included a flame diverter (Diverter) placed around the burner. The Diverter consisted of perforated slats formed into a conical shape with openings between the slats. The smaller end of the Diverter ringed the burner, and then the conical shape opened away from the burner to the larger end of the Diverter. The Diverter generally directed the flame in one direction. The perforations in the Diverter's slats and the spaces between the slats allowed air to flow through the Diverter in order to be heated. Attached as Appendix A is a depiction of prior art from the 525 Patent.

The 525 Patent explained that an area of low pressure (identified as "L.P." in Appendix A) developed in the center of the Diverter. The low pressure area resulted in inefficient and incomplete consumption of fuel by the burner. The claimed invention of the 525 Patent was the insertion of the Flame Cone. The smaller end of the Flame Cone was placed next to the burner inside of the Diverter. The slopes of the conical sides of the Flame

Cone and the Diverter were generally the same, leaving a gap between the Flame Cone and the Diverter. The Flame Cone eliminated the low pressure area that existed in the prior art and diverted the flames into the gap between the Flame Cone and the Diverter. According to the 525 Patent, this diversion of the flames resulted in complete consumption of the fuel, and so, a more efficient burner. Attached as Appendix B is a diagram from the 525 Patent of the invention with the Flame Cone.

The 525 Patent had three claims. Claim 1 stated that the burner had a Diverter, “comprising a cone-shaped structure diverging outwardly from said burner . . . , said diverter having a plurality of spaced openings therein for permitting air moved by said blower to pass therethrough. . . .” 525 Patent, at 7. Claim 1 then stated that the improvement on the prior art consisted of:

a flame cone having an apex and an outer base spaced axially from said apex with the slope of said flame cone being generally similar to the slope of said diverter, said apex of said flame cone being positioned proximate said burner on the inside of said diverter so that there is a gap between the inside face of said diverter and the outer surface of said flame cone so as to provide a path for the burning fuel to travel from said burner outwardly . . . thereby to result in more complete combustion of said fuel.

Id. Claim 2 stated that the gap between the Diverter and the Flame Cone,

"ranges between about 1 inch and about 6 inches." Id.

Claim 3 stated, in part, that the invention resulted in, "at least partially confining said burning fuel within said housing into a gap formed between the inside face of said diverter and a flame cone . . . thereby to result in said flame burning with a blue color thus indicating that said fuel is being substantially completely combusted." Id.

Twenty years earlier the PTO issued U.S. Patent No. 3,881,863 (863 Patent). Sukup Unsealed Exhibits, Exhibit 19, 863 Patent. The 863 Patent covered a dual fuel burner designed to be installed as a heater in an air ventilation system. The burner was called a dual fuel burner because it was designed to use either liquid or gaseous fuel. The covered invention was specifically designed to burn fuel completely so that the burner would not produce toxic gases such as carbon monoxide. As a result, the heated air passing directly through the burner would be safe for humans to breathe. The claimed invention was also designed to work effectively with varying rates of fuel consumption in order to allow variable heating of the air within the ventilation system.

Attached as Appendix C is a copy of the diagram of the covered invention from the 863 Patent. The 863 Patent had a conically shaped

perforated Flame Basket, rather than a Diverter, which extended out from the burner.³ The 863 Patent also had a cone, called a Diffuser, placed at the large end of the Flame Basket with its point facing into the Flame Basket toward the burner located at the small end of the Flame Basket. At low levels of fuel consumption, the flame would be contained in the center of the Flame Basket underneath the Diffuser. At high levels of fuel consumption, the flame would hit the Diffuser and be forced out toward the walls of the Flame Basket as the flame exited the heater. The Diffuser (in combination with a metal ring at the large end of the Flame Basket and the heated air that flows through the final ring of perforations located at the large end of the Flame Basket) would force the flame that exited the heater to curve inwardly. Attached as Appendix D is a diagram showing the flame from either low or high fuel consumption. The flame at low fuel consumption is represented by small flames located at the perforations in the Flame Basket, marked as “14a” on Appendix D. The flame at high fuel consumption is shown by the depiction of flames extending out of the end of the heater, marked as “14” on Appendix D.

³The Flame Basket is also referred to in the 863 Patent as a burner cone. To avoid confusion, the Court uses the term Flame Basket.

In 1999, Sukup started selling a grain bin heater. Sukup studied the GSI heater design, including the claim invention covered by the 525 Patent. Sukup's design of its heater was the same as the GSI design covered by the 525 Patent. Motion 431, Exhibit 8, Expert Witness Report of Randall Sheley, at 8-16. Sukup sold these heaters until March 2005.

Thereafter, Sukup redesigned its heater. Sukup removed the Flame Cone from within the Diverter. In its place, Sukup inserted 3 round metal plates separated from each other by metal spacers. The plates were parallel with each other. Each plate was slightly larger than the one beneath it. All three plates were centered on the same axis, forming a tiered, or "wedding cake" design (hereinafter Wedding Cake Insert). Attached as Appendix E is a depiction of the Wedding Cake Insert. Sukup Sealed Exhibits (d/e 460), Exhibit 122, Wedding Cake Design Drawing. The Wedding Cake Insert was inserted in the center of the Diverter next to the burner, in lieu of the Flame Cone. Some space existed between the Diverter and the edge of each plate in the Wedding Cake Insert. The diameters of the plates of the Wedding Cake Inserts were close to the profile of the slope of the slats of the Diverter. GSI's Opposition to Sukup's Motion for Summary Judgment of Non-Infringement of U.S. Patent 5,400,525 (d/e 450) (d/e

511) (GSI Opposition to Motion 450), Exhibit 2, Deposition of Randall Pooch (Pooch Deposition), at 31.

Sukup's expert Hall opined that the Wedding Cake Insert created multiple areas in which the flames burn:

The Sukup [Wedding Cake Insert] creates irregular stepped regions that provide for multiple regions of turbulence, mixing and low pressure behind the three stacked orifice plates this design promotes mixing of fuel and air to provide more complete burning of the fuel.

Sukup Unsealed Exhibits, Exhibit 64, Supplemental Report of Dr. Jerry lee Hall dated December 5, 2006, at 15 ¶ 3. GSI's expert Harman Towne opined that the Wedding Cake Insert was equivalent to the claimed invention covered by the 525 Patent. GSI's Opposition to Motion 450, Exhibit 1, Report of Harmon L. Towne dated October 30, 2006 (Towne Report), at 48-49. Sukup's representative Randall Pooch stated in his deposition that installation of the Wedding Cake Insert resulted in a flame similar to the blue flame that resulted from the design previously used by Sukup. Pooch Deposition, at 32. The combustion was almost as effective as the prior design. Id.

ANALYSIS

At summary judgment, the movant must present evidence that

demonstrates the absence of a genuine issue of material fact. Celotex Corp. v. Catrett, 477 U.S. 317, 323-24 (1986). The Court must consider the evidence presented in the light most favorable to the non-moving party. Any doubt as to the existence of a genuine issue for trial must be resolved against the movant. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986). Once a movant has met its burden, the non-moving party must present evidence to show that issues of fact remain with respect to an issue essential to its case, and on which it will bear the burden of proof at trial. Celotex Corp., 477 U.S. at 322; Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp., 475 U.S. 574, 586 (1986).

Sukup moves for summary judgment on the invalidity of the 525 Patent. Sukup argues that the 525 Patent is either anticipated by the 863 Patent or rendered obvious by the 863 Patent. 35 U.S.C. §§ 102(b) & 103. In order to anticipate the 525 Patent, the 863 Patent must include every element of the claims of the 525 Patent. Juicy Whip, Inc. v. Orange Bang, Inc., 292 F.3d 728, 737 (Fed.Cir. 2002). When viewed favorably to GSI, the 863 Patent does not include every element of the 525 Patent. The 863 Patent contemplates that at low fuel levels, the flame will be isolated in the center of the Flame Basket under the Diffuser. The 525 Patent was

designed to always force the flames away from the center of the Diverter. Thus, the invention covered by the 863 Patent did not anticipate every element covered by the 525 Patent, at least when the evidence is viewed favorably to GSI.

In the alternative, Sukup argues that the 863 Patent renders the 525 Patent obvious. An invention cannot be patented if, “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103. An issue of obviousness arises when the patent combines elements that were known in the field, “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” KSR Intern. Co. v. Teleflex, Inc., __U.S.__, 127 S.Ct. 1727, 1739 (2007). The factual question is whether a person of ordinary skill in the art would readily recognize and be able to combine the existing elements in the manner set forth in the invention to be patented. The Supreme Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of

ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id., at 1740. The resolution of this issue may be complex and fact-intensive:

Often it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

Id.

In making this analysis, the Court must consider the invention as a whole rather than in individual components. Ruiz v. A.B. Chance Co., 357 F.3d 1270, 1275 (Fed.Cir. 2004). The Court must also analyze evidence of secondary considerations which include the commercial success of the claimed invention, and the existence of a long recognized need for the claimed invention. These secondary considerations provide circumstantial evidence regarding the obviousness of the item. Minnesota Min. and Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1573 (Fed.Cir. 1992).

There are similarities between the two patents. Both are designed to consume fuel completely and efficiently; both use an outer conical shape (either a Flame Basket or Diverter) to direct the flame and to allow air to flow through the heater; and both use another cone-shaped device to divert flames out to the walls of the Diverter or Flame Basket. There are differences in the elements of these two designs and the methods of achieving the desired purposes. The Diffuser in the 863 Patent is a true cone; the Flame Cone in the 525 Patent can be a truncated cone. The Diffuser is not designed to always force flames out of the area in the center of the Flame Basket; at low fuel combustion levels, the flames remain contained inside the Flame Basket underneath the Diffuser. The Flame Cone is designed to always force the flames away from the center of the area within the Diverter. The Diffuser is designed to force flames that exit the heater to curve inwardly. The Flame Cone is not designed for this purpose. Given the differences in design elements and the differences in the purposes of the two designs, the question of whether the 525 Patent was obvious is an issue of fact.⁴ Motion 449 is therefore denied.

⁴Sukup also mentions in passing in its argument that the 525 Patent is rendered obvious by the combination of the teachings from the 863 Patent and U.S. Patent 1,441,008. Motion 449, at 15-16, 20. This argument is not well-developed, and Sukup

Sukup argues that the Flame Cone covered by the 525 Patent cannot be a truncated cone, but must be a cone that extends to a point. Sukup argues that Claim 1 of the 525 Patent, quoted above, refers to the Flame Cone having an “apex”. Sukup cites a dictionary definition that states that “apex” means the highest point or the vertex of something; thus, Sukup argues, the Flame Cone, by definition, has a tip and cannot be truncated. Defendant Sukup Manufacturing Company’s Response to Plaintiff’s Motion for Partial Summary Judgment for Infringement of U.S. Patent 5,400,525 (d/e 431) (d/e 522), at 9, 15-17. GSI cites a dueling dictionary definition of “apex” to mean the highest part of something, especially one forming a point. Motion 431, at 10. GSI then argues that the term apex may refer to the top of something and does not always mean that the object comes to a point.

The meaning of a term in a patent claim is an issue of law. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir. 1995). In interpreting claim language, the Court looks first to the intrinsic evidence, consisting of the claims, the specifications and the prosecution history.

offers no evidence regarding how the a person of ordinary skill in the art would find the 525 Patent obvious in view of these two patents. The Court, therefore, will not address this argument further.

Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir. 1996).

In this case, the intrinsic evidence from the 525 Patent shows that the Flame Cone can be truncated. The claims state that: (1) the slope of the conical sides of the Flame Cone is generally the same as the slope of the Diverter so as to create the gap through which the flames are diverted; (2) the top, or apex, of the Flame Cone is next to the burner; and (3) the gap between the Flame Cone and the Diverter may vary from one to six inches. The description of the Diverter states that the small end of the Diverter goes around the burner and then opens outwardly from the burner. This means that the conical shape of the Diverter does not come to a point; instead, the smaller end of the Diverter is a circle large enough to go around the burner. Thus, the Diverter is a truncated cone. In order for the side of the Flame Cone and the Diverter to have the same slope and to maintain a gap as small as one inch, the shape of the Flame Cone would need to be substantially similar to the shape of the Diverter, and so, would need to be a truncated cone. Otherwise, the slopes of the sides of the Flame Cone and the Diverter would not be the same or the gap could not be as small as one inch. Thus, based on the intrinsic evidence, the 525 Patent covers a Flame Cone that can be a truncated cone with a circular smaller end next to the

burner that is substantially similar to the shape of the end of the Diverter encircling the burner.⁵ The Diffuser described in the 863 Patent, however, is not truncated. This difference between the two patents, and the other differences discussed above, create an issue of fact concerning whether the 863 Patent rendered the 525 Patent obvious.

Sukup also asks for summary judgment that its current Wedding Cake Insert does not infringe on the 525 Patent, even if the 525 Patent is valid. The determination of infringement is a two-step process. The Court must determine the scope of the claim, and the properly construed claim must be compared to the accused item to determine whether all of the claim limitations are present, either literally or by a substantial equivalent. Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1247-48 (Fed.Cir. 1998). The construction of the claim language is a legal issue. The comparison of the claim language to the accused item is a factual issue. Dynacore Holdings Corp. v. U.S. Philips Corp., 363 F.3d 1263, 1273 (Fed.Cir. 2004).

The Court agrees that the Wedding Cake Insert does not infringe.

⁵The Flame Cone shown in Appendix B, taken from the specifications of the 525 Patent, shows the Flame Cone as a truncated cone.

Claims 1 and 3 of the 525 Patent state that the Flame Cone is a cone. As explained above, the cone can be truncated. The Wedding Cake Insert, however, is neither a cone nor a truncated cone. Claim 2 of the 525 Patent states that the gap between the Flame Cone and the Diverter is one to six inches. The use of the Wedding Cake Insert does not create a gap of one to six inches between itself and the Diverter. There is no defined space of a uniform width. Rather, the Wedding Cake Insert has completely open spaces between the three plates. The Wedding Cake Insert does not infringe on any of the Claims in the 525 Patent.

GSI argues that reference to a “cone” in the claims of the 525 Patent does not need to be a cone or a truncated cone. GSI relies on a statement in the preferred embodiment section of the 525 Patent that the Flame Cone, “is preferably (but not necessarily) a cone-shaped member having a slope or conical angle generally the same as the slope of the conical-shaped flame diverter.” 525 Patent, at 6. GSI argues that the quoted parenthetical comment, “but not necessarily,” indicates that the Flame Cone does not need to be a cone. GSI also relies on its Expert Towne’s opinion that the term “cone” in the 525 Patent does not mean a cone or truncated cone, but also included a “cone-shaped structure.” GSI Opposition to Motion 450,

Exhibit 1, Towne Report, at 43, 47-48. The Court disagrees. The meaning of the claim is an issue of law. Markman, 52 F.3d at 979. The intrinsic evidence in the patent provides guidance on the meaning of terms in a claim, such as cone. Vitronics Corp., 90 F.3d at 1582. As explained above, the intrinsic evidence from the 525 Patent claims shows that the Flame Cone can be a truncated cone, rather than a true cone, in order to maintain the parallel slopes and create the gap for efficient fuel consumption.⁶ The parenthetical comment, “but not necessarily,” is consistent with the fact that the cone can be truncated. The parenthetical comment does not indicate that the term “cone” in the claims means any object inserted in a diverter. The use of the term “cone” has some meaning. In this case, the term means a cone or a truncated cone. The Wedding Cake Insert is not a cone.

GSI argues that the Wedding Cake Insert infringes on the 525 Patent under the doctrine of equivalents. An accused device infringes on a patent under the doctrine of equivalents if the device is substantially equivalent to

⁶Even the dictionary definition relied on by Towne states that a cone is a “plane or solid figure.” Towne Report, at 43 (quoting the Oxford Dictionary of English). The Flame Cone is a solid figure; the Wedding Cake Insert is not and so does not literally infringe. The reference to a plane figure is not relevant because the flame cone is three dimensional.

each element of a claim in the patent. Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co., 520 U.S. 17, 29-30 (1997). Claim 1 states that the invention is the combination of a Diverter and a Flame Cone placed next to the burner that provides a path for the burning fuel between the Flame Cone and the Diverter. The Wedding Cake Insert, in combination with a Diverter, does not provide a path for the burning fuel. The Wedding Cake Insert leaves space between the plates that is open for the full width of the Diverter. Because the Wedding Cake Insert does not provide a path for burning fuel, it is not equivalent to Claim 1.

Towne's opinion to the contrary does not create an issue of fact. Towne provides no basis for his opinion that the Wedding Cake Insert provides a path for the burning fuel. An expert's opinion must have a proper basis. Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 147 (1999); Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 593 (1993). Towne provides no explanation of the evidence on which he relied, or the methodology that he employed to reach his conclusion that a series of three plates, with open spaces between the plates, create a path for the flames. Since Towne has failed to provide the proper basis for his opinion, the opinion on this particular issue is not admissible and does not create an

issue of fact.

Claim 2 states that the gap between the Flame Cone and the Diverter is one to six inches. The Wedding Cake Insert leaves spaces that are open for the full width of the Diverter. There is no gap of one to six inches. The Wedding Cake Insert is not equivalent to the elements of Claim 2. GSI expert Towne's assertion that such a gap exists is counterfactual and is not competent to create an issue of fact. See Towne Report, at 46.

Claim 3 of the 525 Patent states that the Flame Cone at least partially confines the flame in the gap between the Flame Cone and the Diverter resulting in a blue flame that indicates complete combustion of the fuel. The Wedding Cake Insert does not confine the flame between the Wedding Cake Insert and the Diverter. Rather, the Wedding Cake Insert leaves spaces that are open for the full width of the Diverter into which the flame may spread. The Wedding Cake Insert is not equivalent to Claim 3.

Again, Towne's opinion to the contrary again does not create an issue of fact. Towne misstates the elements of Claim 3. Towne opines that the Wedding Cake Insert is substantially equivalent to the Flame Cone because the Wedding Cake Insert "performs substantially the same function as the cone (to provide a path for the burning fuel to travel from the burner

outwardly toward the housing walls) in substantially the same way” GSI Opposition to Motion 450, Exhibit 1, Towne Report, at 49. Claim 3 of the 525 Patent does not say that the claim covers devices that “provide a path.” As quoted above, Claim 3 covers devices, “at least partially confining said burning fuel within said housing into a gap formed between the inside face of said diverter and a flame cone” Id. at 47. Towne’s opinion regarding infringement of Claim 3 under the doctrine of equivalents, therefore, is not relevant and does not create an issue of fact. The Wedding Cake Insert does not infringe on the 525 Patent.

GSI asks for partial summary judgment on the fact that Sukup’s original design infringed on the 525 Patent. The Court agrees that the Sukup original design was identical to the claimed invention covered by the 525 Patent. Thus, if the 525 Patent is valid, Sukup’s original design infringed on that Patent. The validity of the 525 Patent, however, is still an issue of fact. Sukup again argues that the Flame Cone covered by the 525 Patent cannot be truncated. The Court rejects this argument for the reasons set forth above.

THEREFORE, Plaintiff GSI Group, Inc.’s Motion for Partial Summary Judgment for Infringement of GSI’s Burner Cone Patent by Sukup’s

Frustoconical Burner Cone Heater (d/e 431) is ALLOWED in part and DENIED in part; the Court enters partial summary judgment in favor of GSI Group, Inc. and against Sukup Manufacturing Co. to the extent that the Court determines, pursuant to Rule 56(d)(1), that Sukup's original grain bin heater design infringed on U.S. Patent 5,400,525, if that patent is determined to be valid, but the Motion (d/e 431) is otherwise DENIED. Fed. R. Civ. P. 56(d)(1). Defendant Sukup Manufacturing Company's Motion for Summary Judgment of Invalidity of U.S. Patent 5,400,525 (d/e 449) is DENIED. Defendant Sukup's Motion for Summary Judgment of Non-Infringement of U.S. Patent No. 5,400,525 (d/e 450) is ALLOWED. The Court enters partial summary judgment in favor of Sukup Manufacturing Co. and against GSI Group, Inc. to the extent that the Court determines that Sukup Manufacturing Co.'s current Wedding Cake Insert design for its grain bin heater does not infringe on U.S. Patent No. 5,400,525.

IT IS THEREFORE SO ORDERED.

ENTER: October 8, 2008

FOR THE COURT:

s/ Jeanne E. Scott
JEANNE E. SCOTT
UNITED STATES DISTRICT JUDGE

APPENDIX A

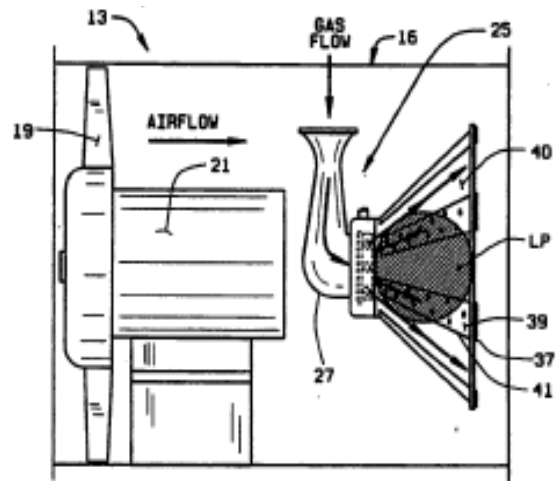


FIG. 2
PRIOR ART

Sukup Unsealed Exhibits (d/e 461), Exhibit 23, 525 Patent, at 3

APPENDIX B

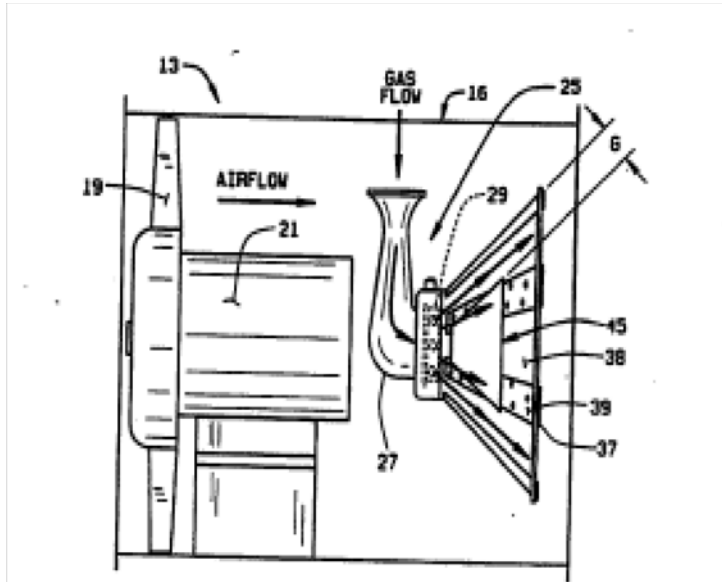
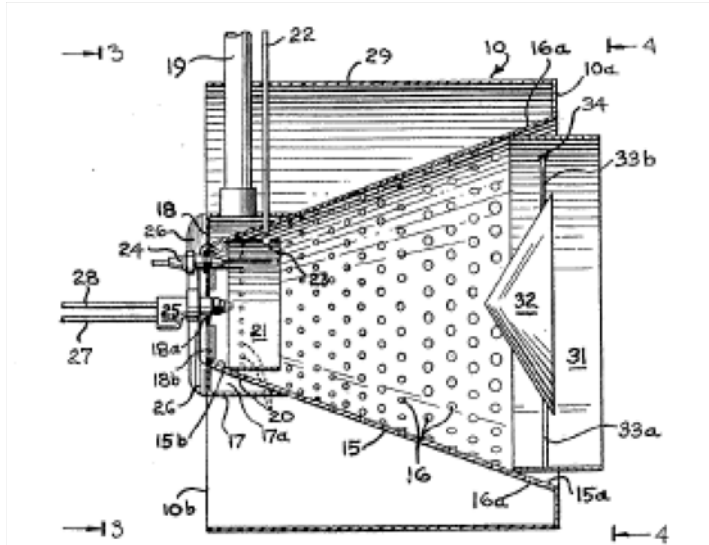


FIG. 3

S u k u p
Exhibits (d/e
23, 525

U n s e a l e d
461), Exhibit
Patent, at 4.

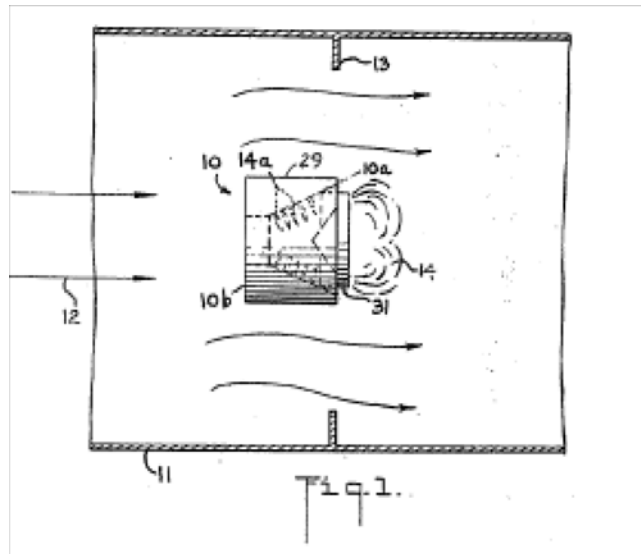
APPENDIX C



S u k u p
Exhibits (d/e
863 Patent,

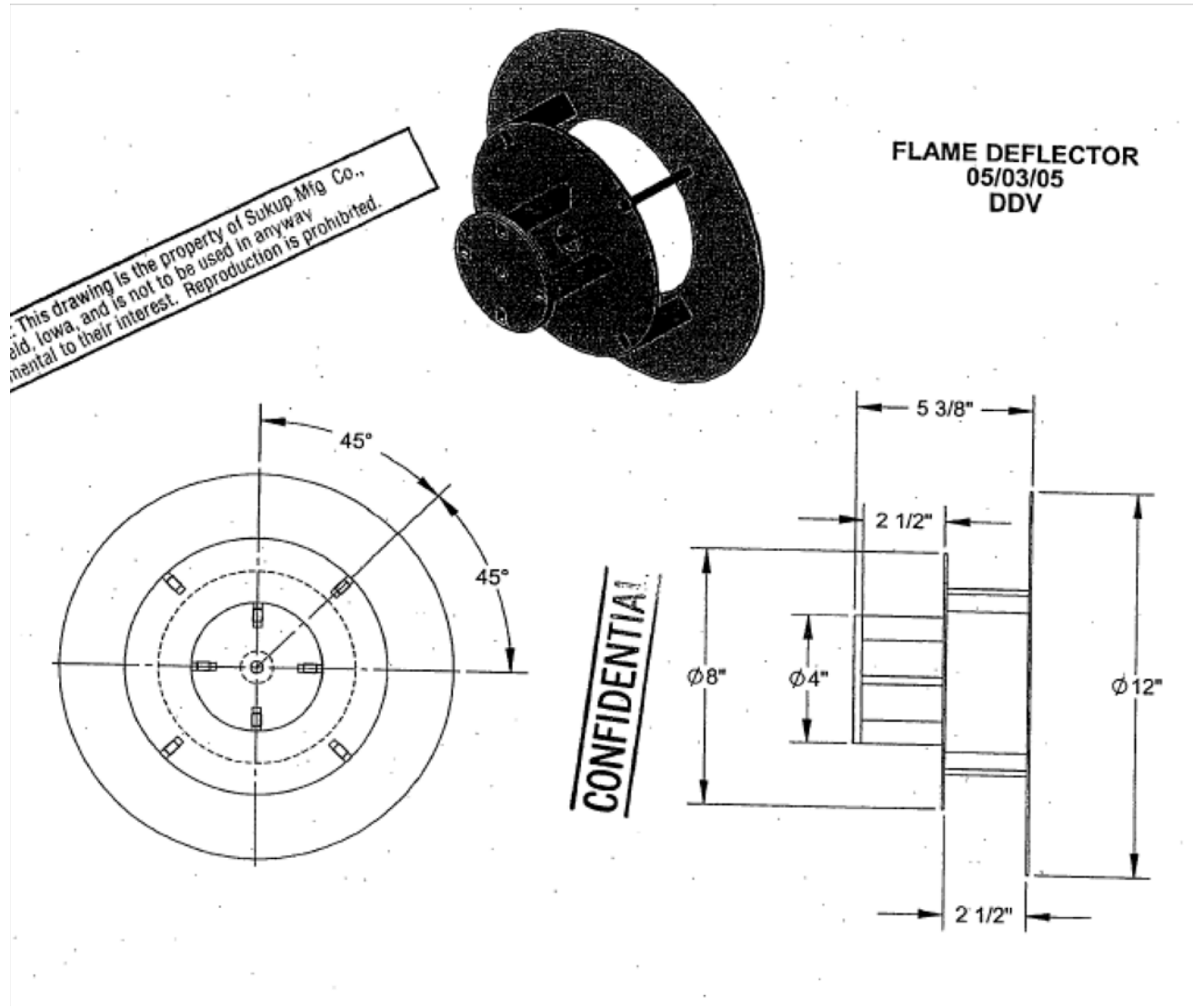
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at l.

APPENDIX D



Sukup Unsealed Exhibits (d/e 461), Exhibit 19, 863 Patent, at 1.

APPENDIX E



Sukup Sealed Exhibits (d/e 460), Exhibit 122, Wedding Cake Insert Drawing, at 3.