Filed on behalf of Bomtech Electronics, Co. Ltd.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Bomtech Electronics, Co. Ltd.
Petitioner

v.

Medium–Tech Medizingeräte GmbH
Patent Owner

Case No. To be Assigned
U.S. Patent No. 6,505,530

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 6,505,530

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I. INTRODUCTION

Petitioner Bomtech Electronics, Co. Ltd. ("Bomtech") petitions the United States Patent Office to institute an *inter partes* review of claims 1–20 of U.S. Patent No. 6,505,530 to Adler, titled "Ink Application Device For Tattooing Or For Making Permanent Make-Up" ("the '530 Patent"). Ex. 1002. The '530 Patent is assigned to Medium-Tech Medizingeräte GmbH ("Patent Owner").

II. MANDATORY NOTICES PURSUANT TO 37 C.F.R. § 42.8

A. Real Party-In-Interest (37 C.F.R. § 42.8(b)(1))

Petitioner certifies that Bomtech is the real party–in–interest.

B. Related Matters (37 C.F.R. § 42.8(b)(2))

The '530 Patent is asserted against Petitioner in *MT. Derm GmbH v. Bomtech Electronics Co. Ltd., et. al.*, filed on May 17, 2013 (1:13-cv-2933) (E.D.N.Y.). Ex. 1001.

Concurrently with this Petition, Bomtech is also filing a Petition for *Inter Partes* Review of U.S. Patent No. 6,345,553 ("the '553 Patent"). Ex. 1003. The '530 Patent was filed as a continuation of the '553 Patent, but it is in fact a Continuation-In-Part (CIP) application containing new matter, as discussed in § VI. B. of this Petition.

C. Lead and Backup Counsel (37 C.F.R. § 42.8(b)(3))

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D. Notice of Service (37 C.F.R. § 42.8(b)(4))

Please direct all correspondence to lead counsel at the above address. Petitioner consents to email service at drobinson@hdp.com, afussner@hdp.com, and klee@hdp.com.

III. PAYMENT OF FEES (37 C.F.R. § 42.103)

The Petitioner authorizes the Patent and Trademark Office to charge Deposit Account No. 08-0750 for the fees set in 37 C.F.R. § 42.15(a) for this Petition for *Inter Partes* Review, and further authorizes payment for any additional fees to be charged to this Deposit Account.

IV. REQUIREMENTS UNDER 37 C.F.R. § 42.104

A. Grounds for Standing (37 C.F.R. § 42.104(a))

Petitioner certifies that (1) the '530 Patent is available for *inter partes* review; (2) Petitioner is not barred or estopped from requesting *inter partes* review of any claim of the '530 Patent on the grounds identified in this Petition; and (3)

the Patent Owner served Bomtech with a complaint alleging infringement of the '530 Patent on September 30, 2013, and this Petition is thus filed less than one year after the date on which Bomtech was served with "a complaint." See Ex. 1001.

B. Identification of Challenge (37 C.F.R. § 42.104(b))

Bomtech requests cancellation of claims 1–20 of the '530 Patent on the following Grounds:

Ground 1: Claims 10–18 are unpatentable as anticipated under 35 U.S.C. § 102(b) by German Utility Model Publication No. DE 299 19 199 U1 to Adler ("DE '199"). Ex. 1004.

Ground 2: Claims 1–3, 7–12 and 16–20 are unpatentable as anticipated under 35 U.S.C. § 102(b) and § 102(e) by U.S. Patent No. 6,033,421 to Theiss. Ex. 1005.

Ground 3: Claims 1–3 and 7–20 are unpatentable as anticipated under 35 U.S.C. § 102(b) by Taiwanese Patent No. TW326643B to Zhan. Ex. 1006.

Ground 4: Claims 2, 4–6, 11 and 13–15 are unpatentable as obvious under 35 U.S.C. § 103(a) based on Theiss in view of U.S. Patent No. 4,671,277 to Beuchat. Ex. 1007.

Ground 5: Claims 7, 8, 16 and 17 are unpatentable as obvious under 35 U.S.C. § 103(a) based on Theiss in view of U.S. Patent No. 4,582,060 to Bailey. Ex. 1008.

Ground 6: Claims 1–3 and 7–20 are unpatentable as obvious under 35 U.S.C. § 103(a) based on Theiss in view of Zhan.

Ground 7: Claims 9 and 18 are unpatentable as obvious under 35 U.S.C. § 103(a) based on Theiss in view of U.S. Patent No. 4,796,624 to Trott. Ex. 1009.

Ground 8: Claims 9 and 18 are unpatentable as obvious under 35 U.S.C. § 103(a) based on Theiss in view of U.S. Patent No. 5,704,914 to Stocking. Ex. 1010.

Ground 9: Claims 9 and 18 are unpatentable as obvious under 35 U.S.C. § 103(a) based on Theiss in view of U.S. Patent No. 5,580,030 to Proni. Ex. 1011.

Ground 10: Claims 1 and 19 are unpatentable as obvious under 35 U.S.C. § 103(a) based on U.S. Patent No. 5,586,473 to Chou (Ex. 1017) in view of Bailey.

Ground 11: Claim 10 is unpatentable as obvious under 35 U.S.C. § 103(a) based on Chou in view of Bailey, and further in view of Theiss.

C. List of Cited Prior Art

The earliest possible priority date of the '530 Patent is Oct. 22, 1999, *i.e.*, the filing date of German priority document, DE 299 19 199 U1. Ex. 1004. However, the priority date of claims 10–18 is no earlier than the actual filing date of the '530 Patent (*i.e.*, Feb. 12, 2002) as discussed in § VI. All prior art documents relied on herein are § 102(b) statutory prior art, and Theiss is partly § 102(e) prior art.

Prior Art Relied on	**Statutory Ground**	**Claims to be Cancelled**
DE '199 published on Jan. 20, 2000 (Ex. 1004)	§ 102(b)	Claims 10–18
Theiss, filed on Jul. 11, 1997 and issued on Mar. 7, 2000 (Ex. 1005)	§ 102(e)	Claims 1–9 & 19–20
	§ 102(b)	Claims 10–18
Zhan, issued on Feb. 11, 1998 (Ex. 1006)	§ 102(b)	All claims
Beuchat, issued on Jun. 9, 1987 (Ex. 1007)	§ 102(b)	All claims
Bailey, issued on Apr. 15, 1986 (Ex. 1008)	§ 102(b)	All claims
Trott, issued on Jan. 10, 1989 (Ex. 1009)	§ 102(b)	All claims
Stocking, issued on Jan. 6, 1998 (Ex. 1010)	§ 102(b)	All claims
Proni, issued on Dec. 3, 1996 (Ex. 1011)	§ 102(b)	All claims
Chou, issued Dec. 5, 1995 (Ex. 1017)	§ 102(b)	All claims

V. TECHNICAL OVERVIEW

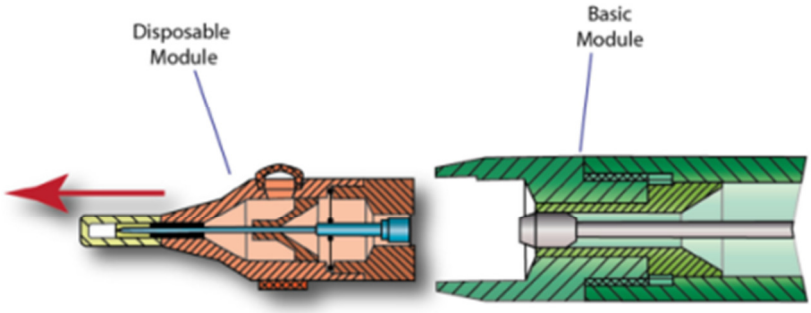
A. Tattoo Devices of the '530 Patent

The '530 Patent relates to an ink application device for tattooing or for applying permanent make-up ("PMU"). The '530 Patent states that "[t]he manual device according to the invention achieves the special hygienic conditions necessary for applying tattoos or PMUs with simple handling procedures to ensure sterility of the elements contacting the customer's skin." Ex. 1002, col. 3, lines 10–14 (emphasis added).

To achieve the goal, the '530 Patent provides an ink application device comprising "at least two modules releasably connected to one another, wherein one of the modules is formed as a reusable base module with an integrated needle

drive, and the other module is a sterilized disposable module in which all components of the manual device capable of being infected by bodily fluids of a customer are integrated." Ex. 1002, col. 2, lines 20–25. The "disposable module" limitation is recited in all claims of the '530 Patent.

The meaning of "disposable module" in the claims of the '530 Patent is informed by Patent Owner's litigation positions in prior enforcement efforts. Specifically, Patent Owner initiated on Jan. 27, 2012 U.S. International Trade Commission (ITC) Investigation No. 337-TA-832 pursuant to the provisions of Section 337 of the Tariff Act against three manufacturers of tattoo devices. Ex. 1012, Complaint. The following drawing was submitted by Patent Owner in the ITC Investigation to illustrate how the essential limitation, "disposable module" is separated from the basic module. Ex. 1013, Complainants' Initial Markman Brief, page 18.



B. Level of Ordinary Skill in The Art

Patent Owner argued in the above-mentioned ITC Investigation that "one of ordinary skill in the art at the time of the '530 [P]atent invention would be 'a

mechanical engineer or the like familiar with mechanism design and fluidic handling mechanisms, having a Bachelor's degree in engineering or its equivalent and about two to four years of experience.'" Ex. 1014, ITC Order No. 21: Claim Construction, page 5.

For purposes of this proceeding, Petitioner agrees that this is the level of ordinary skill for the technology described and claimed in the '553 Patent. Petitioner's Expert witness, Matthew Stein, also agrees. Ex. 1022, ¶ 12.

VI. PRIORITY DATE OF THE '530 PATENT

A. The '530 Patent

The '530 Patent was filed as a continuation of Ser. No. 09/671,650, filed on Sep. 28, 2000 (now issued as U.S. 6,345,553) which claims priority to German Patent Application No. DE 299 19 199 U1, filed on Oct. 22, 1999. Ex. 1003 and 1004. However, the effective priority date of claims 10–18 is no earlier than the filing date of the '530 Patent (*i.e.*, Feb. 12, 2002) because the Patent Owner's actions during prosecution estop any claim of priority to the '553 Patent and DE '199. The prosecution history for the '530 patent is attached as Ex. 1015.

B. Effective Priority Date of Claims 10–18 in View of Prosecution History of the '530 Patent

The term "sealing means", which is currently recited in Claim 10, was not described in any of the original specifications of the '530 Patent, the '553 Patent

and DE '199. The term was first introduced with an amendment during prosecution of the '530 Patent. Ex. 1015, Amendment dated Sep. 9, 2002, page 16. In the Amendment, Patent Owner argued that:

> "the resilient diaphragm element is not an essential element. In other words, this element does not need to be a separate element diaphragm. Sealing can be done with a number of structural elements including a material composition that causes the sealing rather than a separate element." Ex. 1015, Amendment dated Sep. 9, 2002, pages 8–9 (emphasis added).

Thus, Patent Owner is estopped from asserting that "sealing means" was intended to cover only "a diaphragm" for any purposes.

C. "Sealing Means" Not Supported by the '553 Patent and DE '199

As asserted by Patent Owner, the term "sealing means" of the '530 Patent is not limited to a diaphragm; rather, it embraces a number of various structural elements that cause sealing. However, the term "sealing means" is mentioned nowhere in the '530 and '553 Patents and DE '199. In fact, the only description that is possibly pertinent to "sealing means" is "a diaphragm." As discussed above, the scope of "sealing means" is much broader than "a diaphragm," embracing a number of structural elements. Patent Owner is estopped from making any different assertions. It is clear that the "sealing means" is new matter which is not supported by any of the '553 Patent and DE '199. Thus, claims 10–18 of the '530

Patent are not entitled to the priority date of either the '553 Patent or DE '199, and DE '199 (published on Jan. 20, 2000) is "§ 102(b) prior art" against claims 10–18 of the '530 Patent. Claims 10–18 are anticipated by DE '199 describing all the limitations of claims 10–18.

VII. UNPATENTABLE LIMITATIONS OF THE '553 PATENT

A. Common Limitations of the '553 and '530 Patents

The '553 and '530 Patents share common limitations as shown below:

Claim 1 of The '530 Patent	Claim 1 of The '553 Patent
Common Limitations	
An ink application device, comprising:	An ink application device, comprising:
a basic module, having - a handle - an integrated needle drive	a basic module having - a handle - an integrated needle drive
a disposable module, having - an outer housing, - a needle, - a needle nozzle, - a portion that can contact the integrated needle drive	a sterilized disposable module, having - a housing, - a needle, - a needle nozzle, - a portion that can contact the integrated needle drive
Non–common limitations	
- the needle being movable relative to the outer housing, - an ink receiving portion, - means for allowing simultaneous removal	- a resilient diaphragm, - a bearing element, - the needle, the diaphragm, the bearing element and the housing form a unit that is detachable from the basic module

The common limitations shown above were found to be unpatentable during the prosecution of the '553 Patent (*i.e.*, the parent patent prosecution).

B. Prosecution History of the '553 Patent

B1. U.S. PTO § 102(b) Rejections Against Claims 1 and 31

The original application of the '553 Patent included only two independent claims (*i.e.*, claims 1 and 31). Original claim 1 was drawn to:

> "1. An ink application device for tattooing or for making permanent make–up, comprising:
>
> a basic module having a handle and an integrated needle drive; and
>
> a sterilized disposable module having a needle disposed therein, a needle nozzle disposed on one end of the sterilized disposable module, and another end of the sterilized disposable module having a portion that is connectable to the integrated needle drive,
>
> whereby all components of the device that could be infected by the bodily fluids of a use are integrated into the sterilized disposable module." Ex. 1016.

The other independent claim (*i.e.*, claim 31) was directed to the "sterilized disposable module" as recited in claim 1.

During prosecution of the '553 Patent, the U.S. Patent Office rejected original claims 1 and 31 under 35 U.S.C. § 102(b) as being anticipated by U.S.

Patent No. 5,586,473 to Chou. Ex. 1017, Office Action dated May 3, 2001, page 4. But original dependent claims 11 and 34 were indicated as being allowable if rewritten in independent form. *Id.* at page 6. Both allowable dependent claims 11 and 34 recited a "resilient diaphragm."

In response to the Office Action, claims 11 and 34 were rewritten into allowable independent claims in Patent Owner's response. Ex. 1016, Amendment dated September 4, 2001. Also, Patent Owner amended rejected independent claims 1 and 31 to recite "a bearing element." *Id.* However, these amendments and Patent Owner's arguments were not successful in convincing the Examiner to withdraw the rejections of claims 1 and 31.

B2. Notice of Allowance Due to Addition of "Resilient Diaphragm"

A telephonic interview occurred on September 25, 2001 between the Examiner and Patent Owner's representative. Ex. 1016, Notice of Allowability dated September 19, 2001, page 2. During the interview, Patent Owner's representative authorized the Examiner to add "through a resilient diaphragm" to the rejected independent claims 1 and 31 in order to obtain allowance. *Id.* In the Notice of Allowability dated Sep. 19, 2001, the Examiner allowed the application with four independent claims 1, 11, 31 and 34, which are now issued claims 1, 10, 27 and 29, respectively. *Id.* Each independent claim of the '553 Patent thus recites

"***through a resilient diaphragm***", *i.e.*, the specific limitation that permitted Patent Owner to overcome the rejections and obtain allowance of the application. *Id.*

In view of the prosecution history of the '553 Patent, then, the only arguably novel/patentable limitation of independent claims 1, 10, 27 and 29 is "a resilient diaphragm". As will be further discussed in this Petition, Petitioner shows that this limitation (like other limitations of the claims) is not novel or non-obvious over prior art. §§ IX. B., C., F., G., H. and I., *infra*.

Unlike claims 1, 10, 27 and 29 of the '553 Patent, claim 1 of the '530 Patent does not include the limitation, "a resilient diaphragm". Instead, claim 1 recites the limitation, "means for allowing simultaneous removal of the entire disposable module from the basic module". All components of claim 1 of the '530 Patent, except for "means for allowing simultaneous removal of the entire disposable module from the basic module" are found in claim 1 of the '553 Patent. Thus, in view of the prosecution history of the '553 Patent, the only arguably patentable limitation of claim 1 of the '530 Patent is "means for allowing simultaneous removal of the entire disposable module from the basic module". Petitioner also shows that this limitation (like other limitations of the claims) is not novel or non-obvious over prior art. §§ IX. A., B. and C., *infra*.

C. Prosecution History of the '530 Patent

During prosecution of the '530 Patent, the U.S. Patent Office rejected original independent claims 1, 10 and 19 under 35 U.S.C. § 102(b) as being anticipated by Chou. Ex. 1017. In response to the Office Action, Patent Owner identified three distinguishable limitations, *i.e.*, (1) the needle being movable relative to the outer housing as recited in claim 1, (2) sealing means as recited in claim 10, and (3) simultaneously removing the entire disposable module from the basic module as recited in claim 19. Ex. 1015, Response to Office Action dated Feb. 12, 2002, pages 10–11. The Patent Owner's response is consistent with the prosecution history of the '553 Patent in which "a resilient diaphragm" was found to be the only patentable feature. In other words, the limitations of claims 1, 10 and 19 of the '530 Patent other than those three limitations identified above are known conventional components. Thus, the three limitations above are the only arguably patentable features in claims 1, 10 and 19 of the '530 Patent. Petitioner also shows that these limitations are not novel over prior art. See §§ IX. A., B. and C., *infra*.

VIII. PROPOSED CLAIM CONSTRUCTION

A. Claim Construction

Unless otherwise addressed herein, the terms of the '530 Patent's claims are to be given their broadest reasonable interpretation, as understood by one of

ordinary skill in the art in view of the '530 Patent's specification. See 37 C.F.R. § 42.100(b).

Petitioner's proposed claim construction below is offered only to comply with 37 C.F.R. § 42.100(b) and for the sole purpose of this Petition and, thus, does not necessarily reflect appropriate claim constructions to be used in litigation and other proceedings where a different claim construction standard applies.

B. Claim Construction in ITC Investigation No. 337-TA-832 Initiated by Patent Owner

During a *Markman* hearing of ITC Investigation on Jan. 4, 2013 regarding interpretation of claims 1–3, 7, 8, 19 and 20 of the '530 Patent, Patent Owner argued and agreed to the following claim construction for three disputed claim terms, *i.e.* (1) "means for allowing simultaneous removal of the entire disposable module from the basic module", (2) "integrated needle drive", and (3) "simultaneously removing the entire disposable module from the basic module". Ex. 1014, ITC Order 21, pages 7, 8, 19 and 26.

Claim Term	Construction
"means for allowing simultaneous removal of the entire disposable module from the basic module"	The term is interpreted as a means–plus–function limitation under 35 U.S.C. §112, ¶ 6: **Function:** allowing simultaneous removal of the entire disposable module from the basic module **Structure:** (1) a rear housing part 1 of the disposable module that is connected to, and detachable from, the basic module, as shown in Figures 1 and 2 of the '530 Patent; (2) an optional magnetic connection between elements 10 and 31, as shown in Figure 2 and discussed at col. 4, lines, 26–34; and (3) an optional clamping device provided in the basic module to connect the needle.
"integrated needle drive"	Needle drive incorporated into the basic module
"simultaneously removing the entire disposable module from the basic module"	Removing the entire disposable module in a single step

Petitioner agrees with the ITC claim construction above, particularly the construction of the means–plus–function limitation.

C. The Term "Diaphragm" of Claims 9 and 18

In addition to the terms determined by the ITC Investigation above, there is one remaining term to be construed. Claims 9 and 18 are dependent claims reciting an ink application device "further comprising a diaphragm disposed between the ink receiving portion and the basic module." Ex. 1002 (emphasis added). This Petition includes a section regarding lack of novelty or obviousness of the

limitation "diaphragm", and claim construction of the term would be important for the patentability assessment. For the reasons explained below, the broadest reasonable interpretation of this term is "a resilient structure ensuring substantially no ink leakage from the ink tank of a disposable module."

C.1. Intrinsic Evidence

The terms of the '530 Patent's claims are to be given their broadest reasonable interpretation, and the broadest descriptions provided in the specification of the '530 Patent should be thus given great weight in determining the broadest reasonable interpretation of the term "diaphragm". The original specification of the '530 Patent provides two types of descriptions on a diaphragm, *i.e.*, (1) broad, general descriptions provided in "Summary of The Invention" section and (2) specific descriptions on preferred embodiments as illustrated in Figures 1 to 6 as described in "Detailed Description of The Preferred Embodiments" section.

(1) "Summary of The Invention" section of the '530 Patent provides the following broad, general descriptions:

> "A sealing diaphragm provided, according to the preferred embodiments, between the basic and disposable module ensures that no ink leaks from the ink tank of the disposable module and enters the basic module… In addition, the diaphragm also prevents the

> penetration of impurities, germs or bacteria which may adhere to the basic module, into the sterile disposable module." Ex. 1003, col. 3, lines 1–9 (emphasis added).

(2) "Detailed Description of The Preferred Embodiments" section describes preferred embodiments of a diaphragm. For example, Detailed Description depicts "the diaphragm 5" of Figures 1 and 2, as follows:

> "[t]he diaphragm 5 has a substantially centrally arranged opening for the needle 3, and the opening is provided with a sealing bead or lip 32. The sealing bead or lip 32 is disposed around the needle shaft. The resiliency of the diaphragm 5 enables movement of the needle 3 within a required stroke interval. The slidable seat of the sealing bead or lip 32 of the diaphragm 5 on the needle shaft 13 allows relief of the diaphragm in the rest position." Ex. 1003, col. 4, lines 16–23.

The descriptions above are merely illustrations of a preferred embodiment, and the broadest reasonable interpretation of the term "diaphragm" is not limited to that specific embodiment. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 69 USPQ2d 1801 (Fed. Cir. 2004).

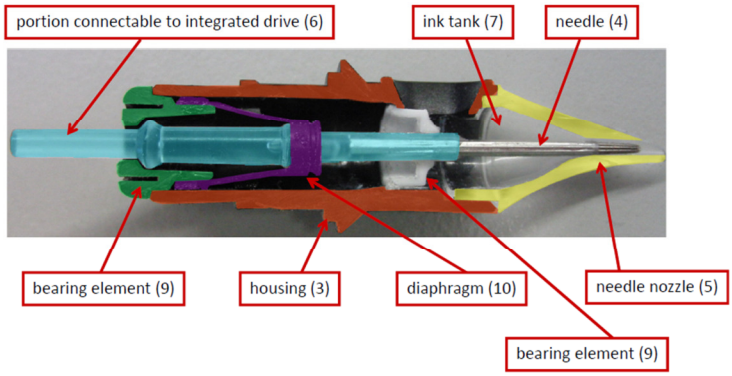
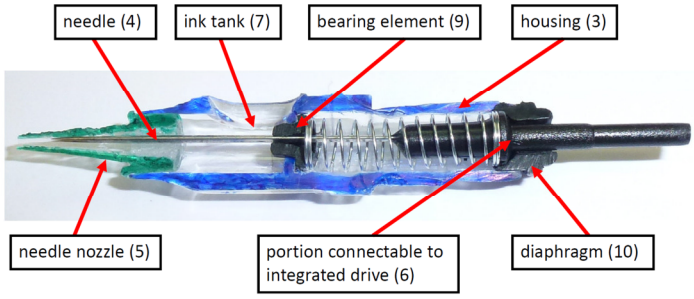
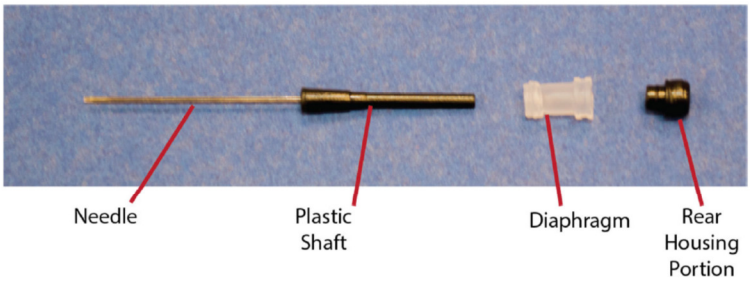
Therefore, the broadest reasonable interpretation of the term "diaphragm", as understood by one of ordinary skill in the art, would be determined by (1) broad, general descriptions in "Summary of The Invention" section, without being limited

to (2) specific embodiments such as "the diaphragm 5" as illustrated by Figures 1–6 and/or "the diaphragm 5" as described by "Detailed Description of The Preferred Embodiments" section.

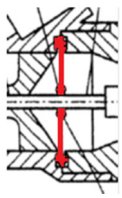
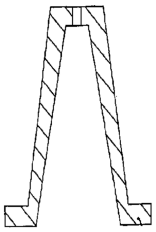
In view of the original specification of the '530 Patent, the broadest reasonable interpretation of the term "resilient diaphragm" would be "a resilient structure ensuring substantially no ink leakage from the ink tank of the disposable module."

C.2. Extrinsic Evidence

Such interpretation would be consistent with Patent Owner's previous arguments made for enforcement of the '553 and '530 Patents. In various proceedings by Patent Owner for patent enforcement, Patent Owner's infringement assertions were not limited to structures that are similar to the "diaphragm 5" of Figures 1–6. Rather, Patent Owner asserted that the following structures ensuring substantially no ink leakage would be embraced by the term "diaphragm," as summarized below. Ex. 1018–1020.

Documents	**Drawings Presented by Patent Owner**
Ex. 1018, Exhibit 10 of ITC Complaint	
Ex. 1019, Exhibit 38 of ITC Complaint	
Ex. 1020, ITC Complainants' Pretrial Brief dated Apr. 12, 2013	

Notably, the structures shown above, which were alleged by Patent Owner to correspond to "a diaphragm" of the '553 and '530 Patents, are not similar to the diaphragm 5 of Figures 2–5 of the '553 and '530 Patents, as shown below.

Intrinsic Evidence			**Extrinsic Evidence**		
Fig. 2, 3	Fig. 4	Fig. 5	Ex. 1018	Ex. 1019	Ex. 1020
					

Patent Owner asserted that the term "diaphragm" of the '553 and '530 Patents embraces various resilient structures as long as the structures are designed to prevent ink leakage from the ink tank of the disposable module.

C.3. Proposed Claim Construction

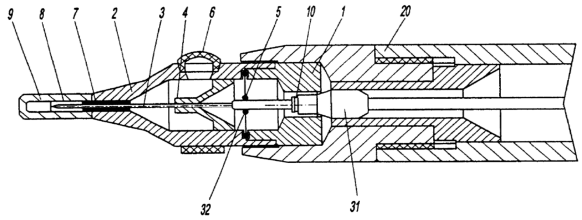
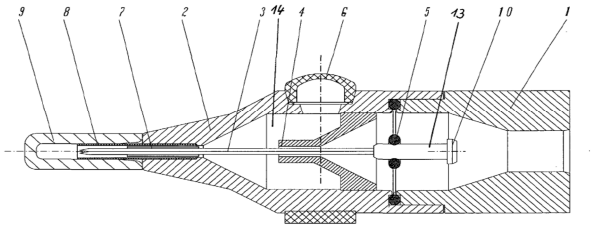
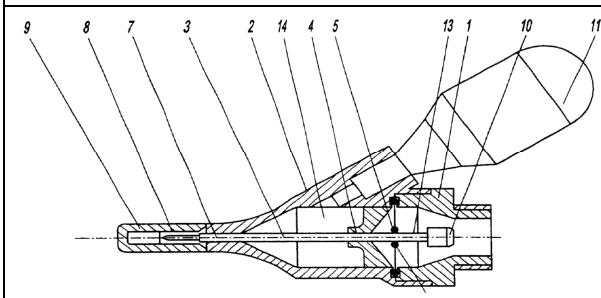
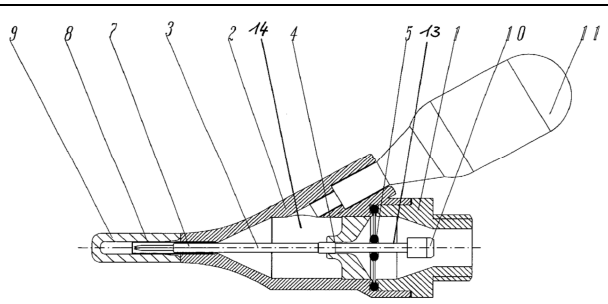
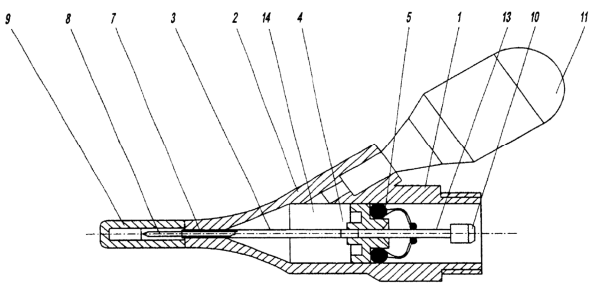
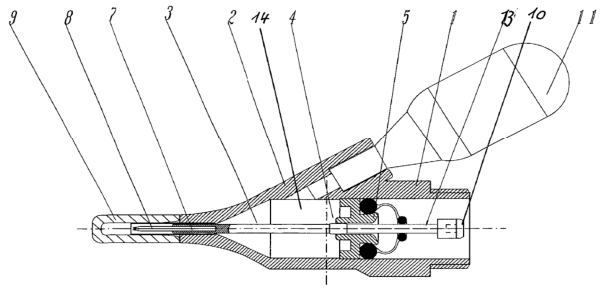
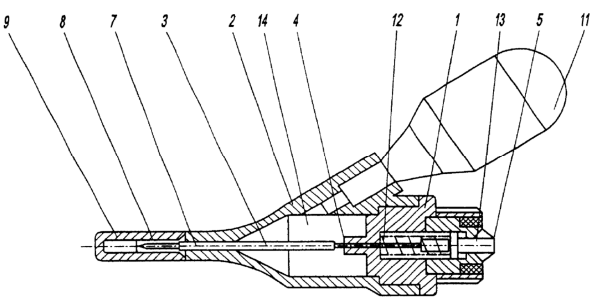
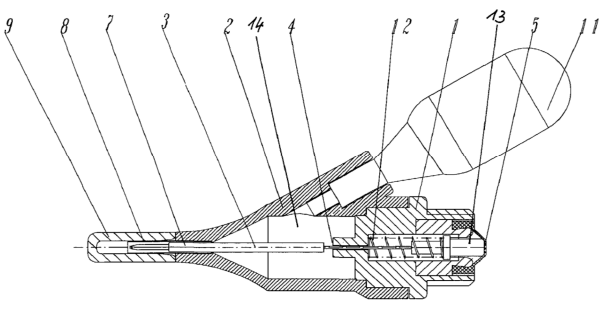
In view of the intrinsic and extrinsic evidence above, the broadest reasonable interpretation of the term, "resilient diaphragm" would be "a resilient structure ensuring substantially no ink leakage from the ink tank of a disposable module."

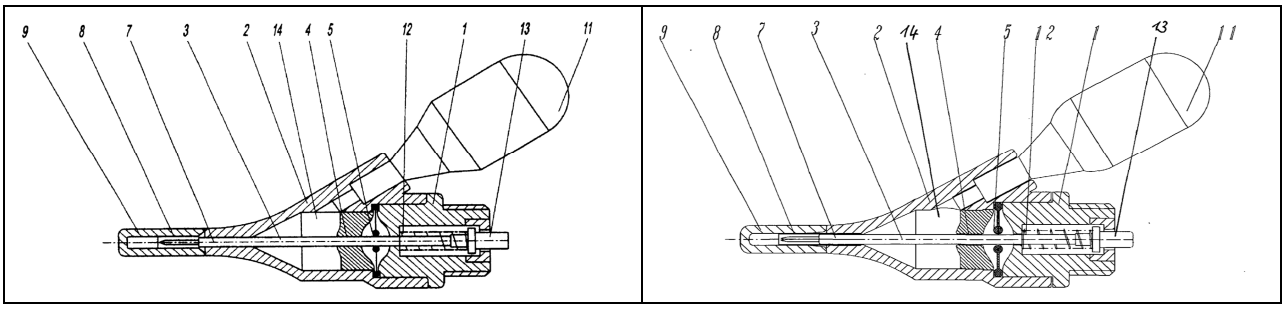
IX. IDENTIFICATION OF GROUNDS FOR UNPATENTABILITY (37 C.F.R. § 42.104(b))

A. Ground 1: Claims 10–18 are unpatentable as anticipated under 35 U.S.C. § 102(b) by DE '199

As discussed in § VI, above, claims 10–18 of the '530 Patent reciting "sealing means" are not entitled to the priority date of either the '553 Patent or DE '199. Thus, DE '199 published on Jan. 20, 2000 is "§ 102(b) prior art" against claims 10–18 of the '530 Patent filed on Feb. 12, 2002.

DE ‘199 discloses all claim limitations of the ink application device as recited in claims 10–18. Figures 1–5 of DE ‘199 illustrate the same embodiments as those illustrated in Figures 2–6 of the ‘530 Patent, as shown in the following comparison table. Ex. 1002 and 1004.

The ’530 Patent, Fig. 2–6	**DE ’199, Fig. 1–5**
	
	
	
	



In addition, the table below shows how each limitation of claim 10 is met by DE '199.

Claim 10	**DE '199**
An ink application device for tattooing or for making permanent make–up, comprising:	"A hand–held ink application device for tattooing and/or for making permanent make-up comprising …" Ex. 1004, English translation, claim 1.
a basic module having a handle and an integrated needle drive; and	"[A] handle, a needle drive, a needle…" Ex. 1004, English translation, claim 1.
a disposable module having a housing that includes	"[T]he other is a sterilized disposable module…" Ex. 1004, English translation, claim 1.
a needle disposed therein,	"The disposable module is provided with a housing …" Ex. 1004. "[A]a needle nozzle, and a protective cap…" Ex. 1004, English translation, claim 1.
an ink receiving portion around the needle disposed inside the housing,	"[W]herein the disposable module includes an ink tank." Ex. 1004, English translation, claim 2.
a needle nozzle disposed on one end of the disposable module,	"[T]he needle movement through the bearing 4 transports the ink." Ex. 1004, English translation, p. 4, lines 9–10.
another end of the disposable module	"A magnet 10 attached at the distal end of

having a portion that is connectable to the integrated needle drive and	the needle shaft 13 secures a non-positive connection of the needle 3 with the drive…" Ex. 1004, English translation, p. 5, lines 27–28.
a bearing element disposed inside the housing and supporting the needle in the housing	"A thermoplastic injection molded needle 3 is doubly supported within the element by a sealing and bearing element 4 and by a bearing sleeve 7." Ex. 1004, English translation, p. 4, lines 7–8.
so that the needle, the ink receiving portion, the bearing element and the housing form a unit that is detachable from the basic module, and	"[A]ll components of the device that could be infected by the bodily fluids of a user are integrated." Ex. 1004, English translation, claim 1.
sealing means disposed between the ink receiving portion and the basic module for preventing liquids from reaching the basic module;	"[T]he ink tank of the disposable module is sealed off from the base module by means of a resilient diaphragm." Ex. 1004, English translation, claim 11.
whereby components of the device that could be infected by the bodily fluids of a user are integrated into the disposable module.	"[A]ll components of the device that could be infected by the bodily fluids of a user are integrated." Ex. 1004, English translation, claim 1.

DE '199 provides not only the identical drawings (shown above) but also detailed descriptions about the same embodiments as illustrated in Figures 1–5. Therefore, the identical drawings and descriptions anticipate each of dependent claims 11–18 as well.

B. Ground 2: Claims 1–3, 7–12 and 16–20 are unpatentable as anticipated under 35 U.S.C. § 102(b) or § 102(e) by US 6,033,421

B.1. Theiss is Un-removable § 102(e) Prior Art

US 6,033,421 to Theiss was cited by U.S. Patent Office but was not discussed in an Office Action. Ex. 1015, Office Action dated May 8, 2002. Theiss was filed on Jul. 11, 1997 and issued on Mar. 7, 2000. Thus, Theiss is § 102(e) prior art against the '530 Patent as well as § 102(b) prior art against claims 10–18 of the '530 Patent.

A 35 U.S.C. § 102(e) rejection may be overcome by antedating the filing date of the reference by submitting an affidavit or declaration under 37 CFR § 1.131 or by submitting an affidavit or declaration under 37 CFR § 1.132 establishing that the relevant disclosure is the applicant's own work. However, this exception is not applicable to Theiss.

This is because the earliest possible priority date of the '530 Patent is the filing date of DE'199, *i.e.*, Oct. 22, 1999 (as discussed above, Petitioner's position is that the '530 Patent is not entitled to this earliest possible priority date). Whether or not the '530 Patent is entitled to the earliest possible priority date, the filing date of Theiss (*i.e.*, Jul. 11, 1997) is more than 2 years prior to the earliest possible priority date. Also, Theiss is an application "by another." Therefore,

Theiss cannot be removed as prior art by an affidavit or declaration under 37 CFR §§ 1.131 and 1.132.

B.2. Lack of Novelty of Claim 1

Theiss discloses all claim limitations of claim 1 including the arguably patentable feature, "means for allowing simultaneous removal of the entire disposable module from the basic module". The claim chart below shows how each limitation of claim 1 is disclosed by Theiss.

Claim 1	Theiss
An ink application device for tattooing or for making permanent make–up, comprising:	"The present invention relates generally to tattooing and, more particularly, to an improved tattoo machine…" Ex. 1005, col. 1, lines 6–8 (emphasis added) and Fig. 1–3.
a basic module having a handle and an integrated needle drive; and	"Drive unit 10 includes an electric motor 14 having a drive shaft 16." Ex. 1005, col. 4, lines 14–15 (emphasis added) and Fig. 1–3.
a disposable module including	"The tattoo machine 8 includes two major sub–assemblies: a drive unit, generally 10, and a replaceable driven grip tube, generally 12." Ex. 1005, col. 4, lines 12–13 (emphasis added) and Fig. 3.
an outer housing substantially surrounding a needle which is supported at one end of the disposable module by a needle nozzle and	"Tip section 52 is then press fitted onto the distal end of section 44, so that a needle carried by connector 36 extends through the bore of tip section 52." Ex. 1005, col. 4, lines 62–64 (emphasis added) and Fig. 3.
which is supported at another end of the disposable module	"Rotation of drive shaft 16 and cam 18 causes cam follower 34 to ride along cam face 20." Ex. 1005,

by a portion that can contact the integrated needle drive,	col. 5, lines 1–2 (emphasis added) and Fig. 3.
the needle being movable relative to the outer housing, and	"As the portion of cam face 20 closest to the distal end of the tattoo machine approaches cam follower 34, needle connector 36 is pushed toward the distal end of the tattoo machine, pushing the tip of the needle out of opening." Ex. 1005, col. 5, lines 2–6 (emphasis added) and Fig. 3.
an ink receiving portion disposed around the needle, and	"Tip section 52 also includes a pigment reservoir 56 for introducing pigment into the interior of tip section 52 and into contact with a needle (not shown) attached to needle attachment surface 36." Ex. 1005, col. 4, lines 45–48 (emphasis added) and Fig. 3.
means for allowing simultaneous removal of the entire disposable module from the basic module.	"The driven grip tube is designed to be easily insertable into the receiving bore of the drive unit housing to position the needle bar for engagement by the cam, thus permitting the ready substitution of different needles during use of the device…" Ex. 1005, col. 2, lines 17–21 (emphasis added) and Fig. 3.

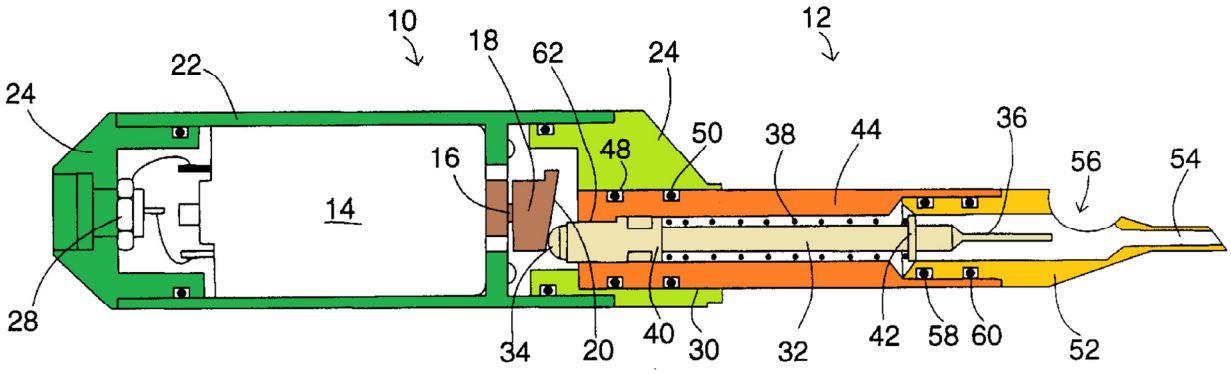
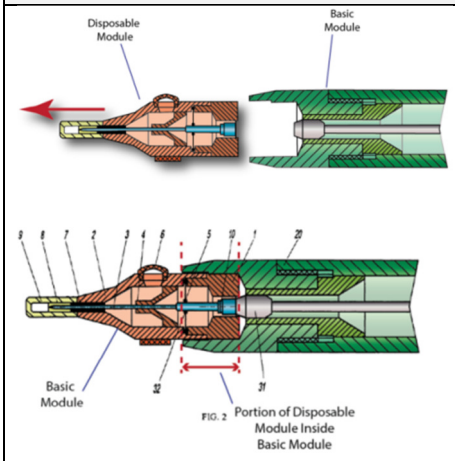
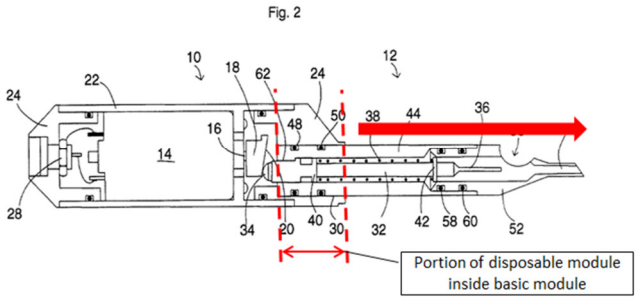
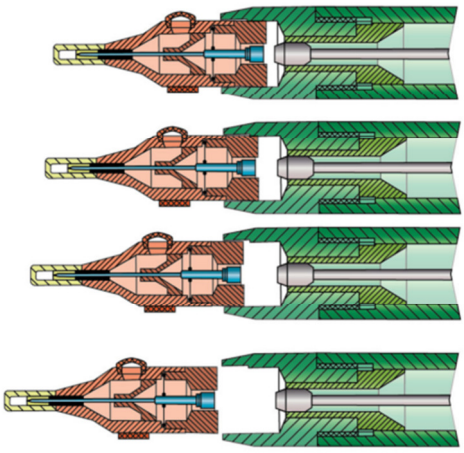
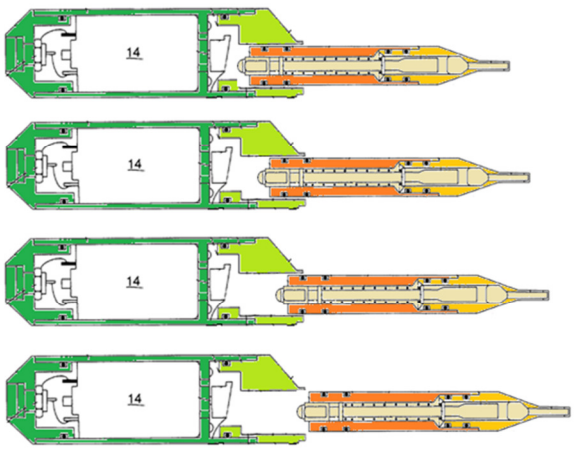


FIG. 3 of Theiss

As mentioned in § VII. C., Patent Owner argued in the ITC Investigation that "means for allowing simultaneous removal of the entire disposable module from the basic module" corresponds to "a rear housing part 1 of the disposable module that is connected to, and detachable from, the basic module, as shown in Figures 1 and 2 of the '530 Patent." Ex. 1013, Complainants' Initial Markman Brief. Patent Owner further provided the illustrations provided on the left column of the following table to show how the "means for allowing simultaneous removal" work. *Id.*, pages 5, 18, 21 and 22. The following table also shows a tattoo device illustrated in Theiss for side-by-side comparison. Ex. 1005, Fig. 2, annotated.

The '530 Patent	Theiss
	





As can be seen above, Theiss discloses "means for allowing simultaneous removal of the entire disposable module from the basic module", *i.e.*, a disposable module that is connected to, and detachable from, a basic module. The disposable module 12 of Theiss is simultaneously removed in the same manner as Patent Owner explained in the ITC Investigation. Further, teachings of Theiss would have enabled a person of ordinary skill in the art to practice the invention of claims, without undue experimentation. This is confirmed by Petitioner's expert, Matthew Stein. Ex. 1021, ¶ 19. Therefore, Theiss anticipates the ink application device of claim 1.

B.3. Lack of Novelty of Claim 10

The claim chart below shows how each limitation of claim 10 is disclosed by Theiss.

Claim 10	Theiss
An ink application device for tattooing or for making permanent make-up, comprising:	"The present invention relates generally to tattooing and, more particularly, to an improved tattoo machine…" Ex. 1005, col. 1, lines 6–8 (emphasis added) and Fig. 1–3.
a basic module having a handle and an integrated needle drive; and	"Drive unit 10 includes an electric motor 14 having a drive shaft 16." Ex. 1005, col. 4, lines 14–15 (emphasis added) and Fig. 1–3.
a disposable module having a housing that includes	"The tattoo machine 8 includes two major sub-assemblies: a drive unit, generally 10, and a replaceable driven grip tube, generally 12." Ex. 1005, col. 4, lines 12–13 (emphasis added) and Fig. 3.
a needle disposed therein,	"In use, a needle is attached, *e.g.*, by soldering, to needle connector 36." Ex. 1005, col. 4, lines 59–60.
an ink receiving portion around the needle disposed inside the housing,	"Tip section 52 also includes a pigment reservoir 56 for introducing pigment into the interior of tip section 52 and into contact with a needle (not shown) attached to needle attachment surface 36." Ex. 1005, col. 4, lines 45–48 (emphasis added) and Fig. 3.
a needle nozzle disposed on one end of the disposable module,	"Tip section 52 is then press fitted onto the distal end of section 44, so that a needle carried by connector 36 extends through the bore of tip section 52." Ex. 1005, col. 4, lines 62–64 (emphasis added) and Fig. 3.
another end of the disposable module having a portion that is connectable to the integrated needle drive and	"Rotation of drive shaft 16 and cam 18 causes cam follower 34 to ride along cam face 20." Ex. 1005, col. 5, lines 1–2 (emphasis added) and Fig. 3.
a bearing element disposed	"The needle connector may be or different

inside the housing and supporting the needle in the housing	configurations, depending upon the type of needle used, and the manner of attachment." Ex. 1005, col. 2, lines 28–30 (emphasis added) and Fig. 3.
so that the needle, the ink receiving portion, the bearing element and the housing form a unit that is detachable from the basic module, and	"The driven grip tube is designed to be easily insertable into the receiving bore of the drive unit housing to position the needle bar for engagement by the cam, thus permitting the ready substitution of different needles during use of the device…" Ex. 1005, col. 2, lines 17–21 (emphasis added) and Fig. 3.
sealing means disposed between the ink receiving portion and the basic module for preventing liquids from reaching the basic module;	"A snug fit between bore 30 and grip section 44 is achieved with O-rings 48 and 50, reducing vibration and preventing fluid penetration." Ex. 1005, col. 4, lines 37–40 (emphasis added). "In addition, the isolation of driven grip tube 10 from drive unit 12 due to its construction and the use of pairs of O-rings 48, 50 and 56, 58, minimizes the transmission of fluids into the drive unit, facilitating cleaning." Ex. 1005, col. 5, lines 26–29 (emphasis added) and Fig. 3.
whereby components of the device that could be infected by the bodily fluids of a user are integrated into the disposable module.	The whereby clause is not a structural limitation, but merely a description about the function of the device. "The driven grip tube is designed to be easily insertable into the receiving bore of the drive unit housing to position the needle bar for engagement by the cam, thus permitting the ready substitution of different needles during use of the device…" Ex. 1005, col. 2, lines 17–21 (emphasis added) and Fig. 3.

Patent Owner asserted during the '530 Patent prosecution that the term "sealing means" of claim 10 is not merely limited to "a diaphragm," but embraces a number of structural elements that cause sealing. Theiss describes a disposable module having O-rings 48, 50 and 56, 58 disposed between the ink receiving portion and the basic module. Ex. 1005, col. 5, lines 26–29 and Fig. 3. Theiss states that the O-rings are for "reducing vibration and preventing fluid penetration." Ex. 1005, col. 4, lines 37–40 (emphasis added).

Alternatively, even without the Patent Owner's own admission, the terms of the '530 patent's claims are to be given their broadest reasonable interpretation, and thus, "sealing means" would embrace various structures preventing fluid penetration. Theiss discloses that "O-rings 48 and 50, reducing vibration and preventing fluid penetration" Ex. 1005, col. 4, lines 37–40 (emphasis added) and "the use of pairs of O-rings 48, 50 and 56, 58, minimizes the transmission of fluids into the drive unit, facilitating cleaning." Ex. 1005, col. 5, lines 26–29 (emphasis added). Therefore, O-rings of Theiss anticipates the "sealing means" of claim 10. For the reasons above, Theiss anticipates the ink application device of claim 10. Because Theiss includes an enabling disclosure of all other limitations in claim 10 (Stein Declaration, Ex. 1021, ¶ 69), Theiss anticipates claim 10.

B.4. Lack of Novelty of Claim 19

Claim 19 is an independent claim drawn to a method of using an ink application device. The method of claim 19 does not include any novel method features, simply relying on the apparatus features of an ink application device comprising a disposable module. For the same or similar reasons discussed above in §§ IX. B1 and B2, claim 19 is anticipated by Theiss, and the claim chart below shows how each limitation of claim 1 is disclosed by Theiss.

Claim 19	Theiss
A method of using an ink application device for tattooing or for making permanent make-up, comprising the steps of:	"The present invention relates generally to tattooing and, more particularly, to an improved tattoo machine…" Ex. 1005, col. 1, lines 6–8 (emphasis added) and Fig. 1–3.
providing a basic module having a handle and an integrated needle drive;	"Drive unit 10 includes an electric motor 14 having a drive shaft 16." Ex. 1005, col. 4, lines 14–15 (emphasis added) and Fig. 1–3.
providing a disposable module including an outer housing substantially surrounding a needle which is supported at one end of the disposable module by a needle nozzle and which is supported at another end of the disposable module by a portion that can contact the integrated needle drive, an ink receiving portion disposed around the needle,	"Tip section 52 is then press fitted onto the distal end of section 44, so that a needle carried by connector 36 extends through the bore of tip section 52." Ex. 1005, col. 4, lines 62–64 (emphasis added) and Fig. 3. "Rotation of drive shaft 16 and cam 18 causes cam follower 34 to ride along cam face 20." Ex. 1005, col. 5, lines 1–2 (emphasis added) and Fig. 3. "The tip section also includes a pigment receiving opening or reservoir…" Ex. 1005, col. 2, lines 49–51 (emphasis added) and Fig. 3.
applying ink to a surface; and	"The present invention relates generally to

	tattooing… for introducing a pigment beneath the skin to produce a tattoo or other design." Ex. 1005, col. 1, lines 6–8 (emphasis added).
simultaneously removing the entire disposable module from the basic module directly following an application of ink using the ink application device.	"The driven grip tube is designed to be easily insertable into the receiving bore of the drive unit housing to position the needle bar for engagement by the cam, thus permitting the ready substitution of different needles during use of the device…" Ex. 1005, col. 2, lines 17–21 (emphasis added), and Fig. 3.

According to Patent Owner's own assertion, the term "simultaneously removing the entire disposable module from the basic module" means "removing the entire disposable module in a single step". Theiss discloses, among other things, insertion, removal and substitution of "[t]he driven grip tube" that corresponds to "a disposable module" of claim 19. Ex. 1005, col. 2, lines 17–21 and Fig. 3. Thus, Theiss anticipates the step of "simultaneously removing the entire disposable module from the basic module directly following an application of ink using the ink application device" of claim 19. Further, teachings of Theiss would have enabled a person of ordinary skill in the art to practice the invention of claims, without undue experimentation. This is confirmed by Petitioner's expert , Matthew Stein. Ex. 1021, ¶ 64.

B.5. Lack of Novelty of Claims 2 and 11

Each of claims 2 and 11 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10)–namely that "***the ink receiving portion has a volume sufficient for one application of ink.***"

The U.S. Patent Office Action dated May 3, 2001 states that "[r]egarding a volume sufficient to…, it is noted that the recitation that an element is 'sufficient' to perform a given function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense…" Ex. 1016, Office Action of May 3, 2001, page 5 (emphasis added).

Figures 2 and 3 of Theiss illustrate a tattoo device comprising "a pigment reservoir 56" for introducing pigment into the interior of tip section 52. A person having ordinary skill would understand that the pigment reservoir 56 of Theiss has a volume sufficient for one application, as confirmed by the Stein Declaration. Ex. 1021, ¶ 27. Therefore, Theiss anticipates the ink application device of claims 2 and 11.

B.6. Lack of Novelty of Claims 3 and 12

Each of claims 3 and 12 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10)–namely that "***the needle is disposed at least partially in said ink receiving portion so that during operation of the device, needle movement transports ink through the needle nozzle***."

Theiss discloses that the "[t]ip section 52 also includes a pigment reservoir 56 for introducing pigment into the interior of tip section 52 and into contact with a needle (not shown) attached to needle attachment surface 36." Ex. 1005, col. 4, lines 45–48 (emphasis added). In other words, Theiss also discloses that the needle is disposed at least partially in the pigment reservoir 56 so that needle movement transports ink through the needle nozzle. Stein Declaration, Ex. 1021, ¶ 28. Therefore, Theiss anticipates the ink application device of claims 3 and 12.

B.7. Lack of Novelty of Claims 7 and 16

Each of claims 7 and 16 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10)–namely that "***the portion that can contact the integrated needle drive is the needle shaft.***"

Theiss discloses that "[n]eedle bar 32 is then inserted into grip section 44 so that cam follower 34 protrudes from proximal end of the bore of section 44." Ex. 1005, col. 4, lines 60–62, and "since cam follower 34 is in continuous contact with cam face 20…" Ex. 1005, col. 5, lines 9–10. In other words, the cam follower 34 contacts cam face 20 which is a part of the integrated needle drive, and the cam follower 34, alone or along with needle bar 32, corresponds to the needle shaft. This is confirmed by Petitioner's expert. Stein Declaration, Ex. 1021, ¶ 29. Therefore, Theiss anticipates the ink application device of claims 7 and 16.

B.8. Lack of Novelty of Claims 8 and 17

Each of claims 8 and 17 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10)–namely that "***the needle shaft is cylindrical***."

The cam follower 34, alone or along with needle bar 32, corresponds to the needle shaft, and the cam follower 34 and the needle bar 32 as illustrated in Fig. 3 are cylindrical. This is confirmed by Petitioner's expert. Stein Declaration, Ex. 1021, ¶ 30. Therefore, claims 8 and 17 are anticipated by Theiss.

B.9. Lack of Novelty of Claims 9 and 18

Each of claims 9 and 18 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10)–namely that "***further comprising a diaphragm disposed between the ink receiving portion and the basic module***."

In view of the broadest reasonable interpretation as discussed above in § VIII. B., the diaphragm of claims 9 and 18 embraces "any structure ensuring substantially no ink leakage from the ink tank of the disposable module and additionally preventing the penetration of impurities, germs or bacteria which may adhere to the basic module, into the sterile disposable module."

Theiss discloses that the use of pairs of O-rings 48, 50 and 56, 58, minimizes the transmission of fluids into the drive unit, facilitating cleaning. Ex. 1005, col. 4, lines 37–40 and col. 5, lines 26–29. The O-ring is a structure ensuring that no ink

leaks from the ink tank of the disposable module and enters the basic module. In other words, the O-ring of Theiss performs the same function (*i.e.*, prevention of fluid leakage) in the same way (*i.e.*, use of a resilient sealing member placed between the basic module and the disposable module) to yield the same result (*i.e.*, providing a sanitary tattoo device). Thus, claims 9 and 17 are anticipated by Theiss.

B.10. Lack of Novelty of Claim 20

Claim 20, which depends from independent claim 19, recites that "***further comprising the step of: replacing another disposable module on the basic module to allow another application of ink.***" The added limitation is inherent to the use of a device comprising a disposable module, and thus, does not involve any novel feature.

Also, whether or not the limitation is inherent, Theiss still discloses that "[t]he driven grip tube is designed to be easily insertable into the receiving bore of the drive unit housing to position the needle bar for engagement by the cam, thus permitting the ready substitution of different needles during use of the device." Ex. 1005, col. 2, lines 17–21 (emphasis added). Therefore, Claim 20 is anticipated by Theiss.

C. Ground 3: Claims 1–3 and 7–20 are anticipated under 35 U.S.C. § 102(b) by TW326643B (Zhan)

C.1. Lack of Novelty of Claims 1, 10 and 19

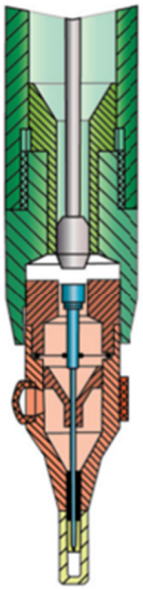
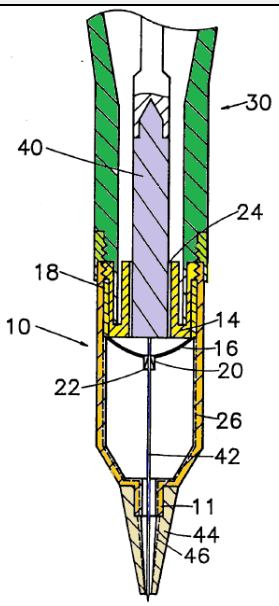
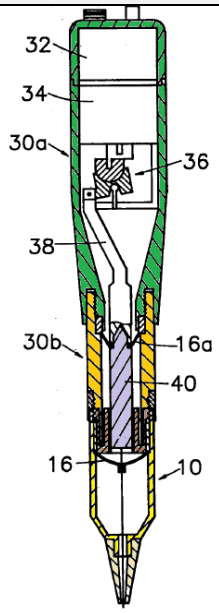
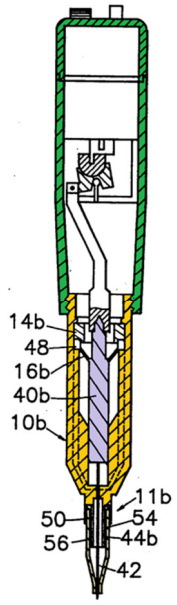
TW326643B to Zhan is § 102(b) statutory prior art that has never been cited by the U.S. Patent Office or Patent Owner. Zhan relates to automatic dye supplying tattooing machines. Ex. 1006, English translation, p. 2, line 2. The tattoo apparatus of Zhan comprises a main body 30 and a dye cartridge 10 that contains a flexible sealing element 16 (*i.e.*, a diaphragm). Ex. 1006 and Figures 1–7.

The claim chart below shows how each limitation of claim 1 is disclosed by Zhan.

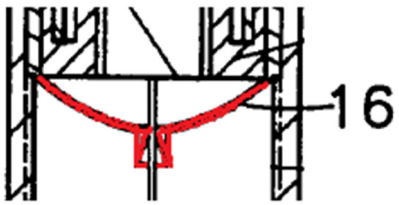
Claim 1	Zhan
An ink application device for tattooing or for making permanent make-up, comprising:	"The invention is an automatic dye supplying (eyebrow) tattooing machine." Ex. 1006, English translation, p. 2, line 2, Fig. 1–7.
a basic module having a handle and an integrated needle drive; and	"Inside the tattooing machine's main body 30 there are a power supply device 32, a motor 34, an eccentric transmission 36, a shaft 38 and a clamping needle holder 40…" Ex. 1006, English translation, p. 5, lines 9–11 and Fig. 1–7.
a disposable module including an outer housing substantially surrounding a needle which is supported at one end of the disposable	"The dye cartridge 10, regardless of its shape and material, has an intruding tube 11 at its bottom end and an opening 12 on its top end; the bottom end of the intruding tube 11 is pre-sealed with an enclosure 15 with a pre-cut line…" Ex. 1006, English translation, p. 5, lines 13–15(emphasis added) and Fig. 1–7.

module by a needle nozzle and	
which is supported at another end of the disposable module by a portion that can contact the integrated needle drive,	"After completion of the above-mentioned assembly, the motor 34, via the eccentric transmission 36, the shaft 38 and the clamping needle holder 40, can drive a tattoo needle 42 to make linear reciprocating motion…" Ex. 1006, English translation, p. 6, lines 11–13 (emphasis added) and Fig. 1–7.
the needle being movable relative to the outer housing, and	"[T]he motor 34, via the eccentric transmission 36, the shaft 38 and the clamping needle holder 40, can drive a tattoo needle 42 to make linear reciprocating motion…" Ex. 1006, English translation, p. 6, lines 11–13 (emphasis added) and Fig. 1–7.
an ink receiving portion disposed around the needle, and	"[T]he dye cartridge can be in any shapes or materials, its bottom is pre-sealed, the dye can be pre–filled through the top opening…" Ex. 1006, English translation, p. 3, line 31 to p.4, line 1 (emphasis added) and Fig. 1–7.
means for allowing simultaneous removal of the entire disposable module from the basic module.	"Before a tattoo or eyebrow operation, attach the dye cartridge 10 to the main body of the tattooing machine 30, by clicking, screwing or other attachment means…" Ex. 1006, English translation, p. 6, lines 3–4 (emphasis added) and Fig. 1–7.

For the reasons above, claim 1 is anticipated by Zhan. The following table shows a preferred embodiment of the '530 Patent (*i.e.*, Fig. 2) and three embodiments of Zhan (*i.e.*, Figs. 3, 4 and 6) illustrating a tattoo device with a disposable unit comprising a diaphragm. The embodiments of Zhan illustrate a disposable "dye cartridge 10" that can be attached to the "main body 30" as a single unit.

Fig. 2 of the '530 Patent	Fig. 3 of Zhan	Fig. 4 of Zhan	Fig. 6 of Zhan
			

Each of Figs. 3, 4 and 6 of Zhan above depicts an embodiment of a tattoo machine comprising a basic module 30 (colored GREEN) and a disposable unit 10 (colored YELLOW) containing a "flexible sealing element 16" which corresponds to "sealing means" of the '530 Patent. The "flexible sealing element 16" of Zhan is reproduced below for better understanding where the "flexible sealing element" is colored RED.



Zhan teaches that the tattoo machine comprising the simultaneously removable disposable unit is designed to achieve "blocking the body fluid from backflow" and prevention of "virus transmission." Ex. 1006, p. 3, lines 22–28. Zhan also provides an enabling disclosure such that the person of ordinary skill in the art would have been able to practice the invention of claim 1, without undue experimentation. Stein Declaration, Ex. 1021, ¶ 69. Therefore, each of claims 1, 10 and 19 is not novel over Zhan.

C.2. Lack of Novelty of Claims 2, 3, 7–9, 11, 12, 16–18 and 20

The claim chart below shows how each limitation of dependent claims 2, 3, 7–9, 11, 12, 16–18 and 20 is disclosed by Zhan.

The '530 Patent	Zhan
Claims 2 and 11: "***the ink receiving portion has a volume sufficient for one application of ink.***"	"[A]llowing pre–filled sufficient dye inside the (eyebrow) tattooing machine, eliminating the needs to interrupt the tattooing operation for dye refills…" Ex. 1006, English translation, p. 3, lines 13–15 (emphasis added).
Claims 3 and 12: "***the needle is disposed at least partially in said ink receiving portion so that during operation of the device, needle movement transports ink through the needle nozzle***."	"[T]he flexible sealing element 16 oscillates with the needle 42, producing a squeezing effect that allows a proper amount of outflow of the dye." Ex. 1006, English translation, p. 6, lines 20–22 (emphasis added).
Claims 7 and 16: "***the portion that can contact the integrated needle drive is the needle shaft.***"	"[T]he motor 34, via the eccentric transmission 36, the shaft 38 and the clamping needle holder 40, can drive a tattoo

	needle 42 to make linear reciprocating motion…" Ex. 1006, English translation, p. 6, lines 11–13 (emphasis added) and Fig. 1–7.
Claims 8 and 17: "***the needle shaft is cylindrical***."	The needle holder 40 is cylindrical. See Fig. 1–7.
Claims 9 and 18: "***further comprising a diaphragm disposed between the ink receiving portion and the basic module***."	"At the same time, the flexible sealing element 16 segments the dye cartridge 10 and the main body 30 of tattooing machine into two independent spaces, and can totally block backflow of dye and body fluid into the main body 30…" Ex. 1006, English translation, p. 6, lines 22–24 (emphasis added) and Fig. 1–7.
Claim 20: "***further comprising the step of: replacing another disposable module on the basic module to allow another application of ink.***"	"After the completion of a tattoo or eyebrow operation, the dye cartridge 10 (together with the flexible sealing element 16, the fixing ring 14), the needle 42, and the needle sleeve 44 can be detached from the main body 30 of the tattooing machine to be discarded…" Ex. 1006, English translation, p. 6, lines 27–30 (emphasis added).

As shown in the claim chart above, each of claims 9 and 18 is anticipated by Zhan disclosing "the flexible sealing element" (*i.e.*, diaphragm). The "flexible sealing element 16" of Zhan is essentially identical to and patentably indistinguishable from the "diaphragm" of the '530 Patent.

As shown by the Stein Declaration, a person having ordinary skill in the art in 1999 would understand that the "flexible sealing element 16" of Zhan is a

diaphragm because both the "diaphragm" of the '530 Patent and the "flexible sealing element" of Zahn have the same structure (*i.e.*, a membranous member made of resilient material having a substantially centrally arranged opening for the needle) operating in the same manner (*i.e.*, enabling movement of the needle within a required stroke interval) for the same purposes (*i.e.*, prevention of the penetration of bodily fluids, Impurities and germs). Ex. 1021, ¶¶ 35 and 36.

Specifically, Zhan discloses that the flexible sealing element 16 "is made of a non-toxic and elastic material" and "oscillates with the needle 42, producing a squeezing effect that allows a proper amount of outflow of the dye." Ex. 1006, English translation, p. 3, lines 13–15 and p. 5, lines 17–19. Zhan further discloses that the simultaneously removable disposable unit containing a flexible sealing element is designed to achieve "blocking the body fluid from backflow" and prevention of "virus transmission." Ex. 1006, English translation, p. 3, lines 22–28. Also, Zhan provides an enabling disclosure such that the person of ordinary skill in the art would have been able to practice the invention of claims 9 and 18 without undue experimentation. Stein Declaration, Ex. 1021, ¶ 69. Thus, claims 9 and 18 are anticipated by Zhan.

D. Ground 4: Claims 2, 4–6, 11 and 13–15 are unpatentable as obvious under 35 U.S.C. § 103(a) over Theiss in view of U.S. 4,671,277 (Beuchat)

D.1. Obviousness of Claims 2 and 11

Each of claims 2 and 11 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10) **–** namely that "***the ink receiving portion has a volume sufficient for one application of ink***.**"**

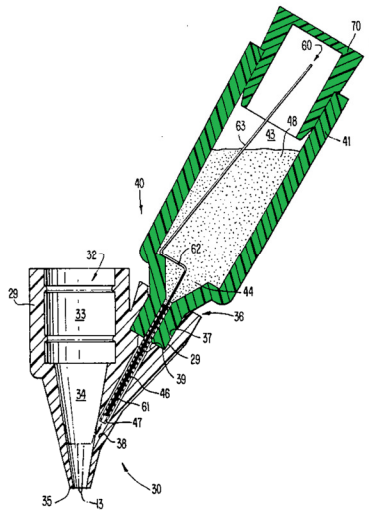
As indicated by the U.S. Patent Office, this recitation is not a positive limitation but only requires the ability to so perform. Regardless, it is common sense to design an ink receiving portion to have a volume sufficient for one application of ink.

Also, such functional feature was known in the art prior to the '530 Patent. US 4,671,277 to Beuchat relates to an automatic pigment dispenser adapted for a device used for implanting a pigment in the skin. Ex. 1007, col. 1, lines 6–10. Beuchat discloses that "[i]t is another object of this invention to provide a reservoir for use in such controlled dispensing wherein the reservoir contains sufficient pigment to perform the entire procedure without requiring the operator to stop and refill the reservoir with additional (sic) aqueous pigment." Ex. 1007, col. 2, lines 40–45 (emphasis added). As stated by Beuchat, it is inconvenient and unsanitary to have an ink reservoir that requires "refill" during a tattoo operation, and a person having ordinary skill in the art would have been strongly motivated to have an ink reservoir having a volume sufficient for one application of ink as taught by Beuchat. Therefore, Theiss in view of Beuchat renders obvious claims 2 and 11.

D.2. Obviousness of Claims 4 and 13

Each of claims 4 and 13 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10) – namely that "***further comprising a separate ink module attachable to an opening in the disposable module for filling the ink receiving portion, the separate ink module having a quantity of sterile ink sufficient for one application.***"

Use of "a separate ink module" attachable to a tattoo device was known in the art. Beuchat discloses that "[s]till more particularly, this invention relates to a disposable adapter for attachment to a head of a pigment-implanting unit, wherein the adapter houses the pigment reservoir and transfer tube in an angled relationship with the axis of the reciprocating needle to control the dispensing of pigment to the needle." Ex. 1007, col. 1, lines 13–20 (emphasis added); see also Fig. 3 reproduced below.



Therefore, Theiss in view of Beuchat renders obvious claims 4 and 13 because this is a simple substitution of one known element for another to obtain predictable results.

D.3. Obviousness of Claims 5 and 14

Each of claims 5 and 14 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10) – namely that "***the separate ink module includes an outlet for discharging ink with each needle stroke***."

As shown in Fig. 3 of Beuchat above, the pigment reservoir 40 includes an outlet for discharging ink. Also, Beuchat discloses that "[a] pigment reservoir 40, provided as a separate piece, includes a body 41 acting as a pigment reservoir with an outer chamber 43 defined by a circular cross section and a conically shaped inner chamber 44 terminating at its lower end in an opening 46 for receiving a transfer tube 47 in a press–fit relationship." Ex. 1007, col. 5, lines 13–18 (emphasis added). Beuchat further discloses that "a controlled amount of pigment is provided to the reciprocating needle 13." Ex. 1007, col. 5, lines 49–50 (emphasis added).

According to Beuchat, the separate ink reservoir comprising an opening is designed to provide a controlled amount of pigment, and the limitation of claims 6 and 15, "outlet" is for "discharging ink with each needle stroke." A person having ordinary skill in the art would have been motivated to combine Theiss and Beuchat

to lead to the subject matter of claims 5 and 14. Therefore, Theiss in view of Beuchat renderes obvious claims 5 and 14.

D.4. Obviousness of Claims 6 and 15

Each of claims 6 and 15 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10)–namely that "***the separate ink module includes an outlet for discharging ink into the ink receiving portion***."

As mentioned above, the pigment reservoir 40 of Beuchat includes an outlet for discharging ink as shown in Fig. 3. Also, Beuchat discloses that "[a] pigment reservoir 40, provided as a separate piece, includes a body 41 acting as a pigment reservoir with an outer chamber 43 defined by a circular cross section and a conically shaped inner chamber 44 terminating at its lower end in an opening 46 for receiving a transfer tube 47 in a press-fit relationship." Ex. 1007, col. 5, lines 13–18 (emphasis added). Beuchat further discloses that "[t]he body 29 of the adapter member 30 further defines an obliquely inclined chamber 36 having an outer chamber portion 37 which communicates with an inner chamber portion 38 which terminates at its lower end in the wall of the chamber 34 of the axially aligned chamber 32." Ex. 1007, col. 5, lines 3–8 (emphasis added). T

According to Beuchat, the separate ink reservoir comprising an opening is designed to communicate with an inner chamber portion, and the limitation of claims 6 and 15, "outlet" is for "discharging ink into the ink receiving portion." A

person having ordinary skill in the art would have been motivated to combine Theiss and Beuchat to lead to the subject matter of claims 6 and 15. Therefore, Theiss in view of Beuchat renders obvious claims 6 and 15.

E. Ground 5: Claims 7, 8, 16 and 17 are unpatentable as obvious under 35 U.S.C. § 103(a) over Theiss in view of U.S. 4,582,060 (Bailey)

E.1. Obviousness of Claims 7 and 16

Each of claims 7 and 16 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10) – namely that "***the portion that can contact the integrated needle drive is the needle shaft***." The '530 Patent describes that "[a] magnet 10 attached at the distal end of the needle shaft 13 secures a non-positive connection of the needle 3 with the drive (not shown) in the basic module when the disposable module is connected to the basic module." Ex. 1002, col. 4, lines 26–30 (emphasis added).

The underlying independent claims 1 and 10 are anticipated by Theiss as shown in § IX. B., above. To the extent that Theiss does not explicitly disclose the additional limitation of claims 7 and 16 (Petitioner believes it does), US 4,582,060 to Bailey teaches the limitation.

Bailey relates to a tattooing tool comprising a housing and a needle assembly removably attached to the housing. Bailey discloses that "a tattooing device is provided including a housing, a needle retainer in the housing**,** a drive means in the housing for reciprocating the needle retainer with respect to the

housing, and a needle/cone assembly removably attached to the housing." Ex. 1008, col. 1, lines 43–48 (emphasis added) and Fig. 1.

A needle retainer of Bailey, which corresponds to the needle shaft of the '530 Patent, contacts the drive means corresponding to the integrated needle drive. A person having ordinary skill in the art would have been motivated to modify Theiss to have a needle shaft contacting the integrated needle drive in accordance with the teaching by Bailey. Therefore, Theiss in view of Bailey renders obvious claims 7 and 16.

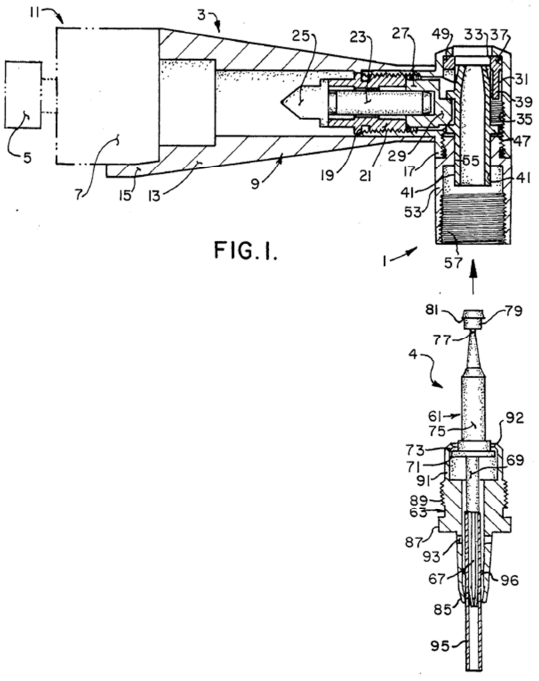


FIG. I.

E.2. Obviousness of Claims 8 and 17

Each of claims 8 and 17 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10)–namely that "***the needle shaft is cylindrical***."

Bailey discloses that "[t]he needle assembly 61 includes a needle carrier 65 and three needles 67 carried by the carrier 65. The carrier 65 has a thin tubular forward part 69, an annular shoulder 71, a rearwardly-facing abutment 73, a body part 75, a thin frangible neck 77, and a cap part 79 having a rim 81." Ex. 1008, col. 3, lines 63–68 and Fig. 1. Bailey teaches a needle assembly which is cylindrical. Therefore, Theiss in view of Bailey renders obvious claims 8 and 17.

F. Ground 6: Claims 1–3 and 7–20 are unpatentable as obvious under 35 U.S.C. § 103(a) by Theiss in view of Zhan.

To the extent that Theiss does not anticipate claims 1–3, 7, 8, 10–12, 16, 17, 19 and 20 (Petitioner believes it does), it would have been obvious for a person having ordinary skill to combine Theiss and Zahn to lead to each of the claims above.

Also, to the extent that Theiss does not disclose a "diaphragm disposed between the ink receiving portion and the basic module" of claims 9 and 18 (Petitioner believes it does), it would have been obvious for a person having ordinary skill to combine the "flexible sealing element" of Zhan with the tattoo device comprising a disposable module of Theiss. As discussed in § VIII. C., above, the "flexible sealing element" of Zhan is essentially identical to and

patentably indistinguishable from the diaphragm of the '530 Patent, as confirmed by the Stein Declaration. Ex. 1021, ¶¶ 38 and 68.

The combination of Theiss and Zhan would have been obvious to a person having ordinary skill because there was teaching, suggestion and motivation to combine the references. Particularly, prevention of ink leakage and viral contamination was a well-known problem to be solved in the art, as evidence by Theiss, Zhan, Trott and Chou. Ex. 1005, col. 2, lines 17–21, Ex. 1006, English translation, p. 6, lines 27–30, Ex. 1009,col.3, lines 10–12 and Ex. 1017, col. 3, lines 1–20. In fact, Theiss, Zhan, Trott and Chou are all designed to address the well-known problem, as confirmed by the Stein Declaration, Ex. 1021, ¶¶ 73, 80 and 99.

Theiss teaches use of O-rings to minimize the transmission of fluid into the drive unit, facilitating cleaning (Ex. 1005, col. 5, lines 27–29), and Zhan teaches a replaceable needle unit comprising a flexible sealing element for blocking a body fluid from backflow (Ex. 1006, English translation, p.3, lines 22–28). Given the teachings, suggestions and motivations provided by Theiss and Zhan, it is a mere substitution of one element for another well-known in the field, and the combination produces predictable results (*e.g.*, prevention of contamination), as confirmed by the Stein Declaration. Ex. 1021, ¶¶ 74 and 75. Therefore, Theiss in view of Zhan renders claims 9 and 18 obvious. Stein Declaration. Ex. 1021, ¶ 77.

G. Ground 7: Claims 9 and 18 are obvious under 35 U.S.C. § 103(a) over Theiss in view of U.S. 4,796,624 (Trott)

Each of claims 9 and 18 adds the identical limitation to underlying independent claims (*i.e.*, claims 1 and 10)–namely that "***further comprising a diaphragm disposed between the ink receiving portion and the basic module***."

The '530 Patent provides a disposable module comprising a diaphragm to ensure that "no ink leaks from the ink tank of the disposable module… the reusable basic module is not exposed to bodily fluids and can be reused without having to be sterilized." Ex. 1002, col. 3, lines 3–6. However, use of a diaphragm for hygienic purposes was well known in the art prior to the '530 Patent. See §§ IX. F. and G., above.

The underlying independent claims 1 and 10 are anticipated by Theiss as shown in § IX. B., above, and the additional limitation of claims 9 and 18 is disclosed by U.S. 4,796,624 to Trott. Trott relates to a PMU apparatus which "may be instructed to be a low-cost, disposable apparatus for use with a single pigmented liquid… also specifically designed to be easily sterilized and to be transported in a sterile container." Ex. 1009, col.3, lines 9–12 (emphasis added). To achieve the goal, Trott provides a PMU apparatus comprising "a seal" which corresponds to a diaphragm of claims 9 and 18. Specifically, Trott states that "[t]he seal 96 insures that the liquid 11 within the reservoir 68 does not enter the interior

cavity 26 of the body member 14." Ex. 1009, col. 5, lines 62–64 (emphasis added) and Fig. 4 (annotated).

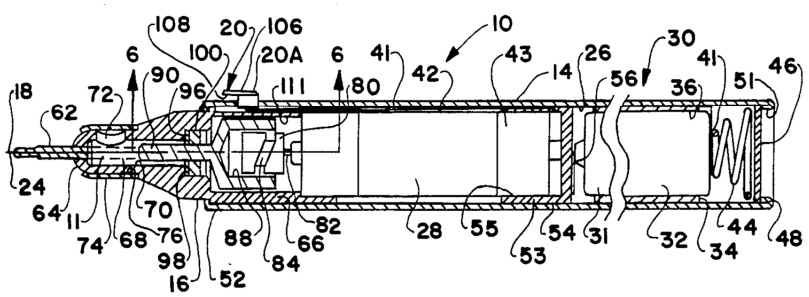
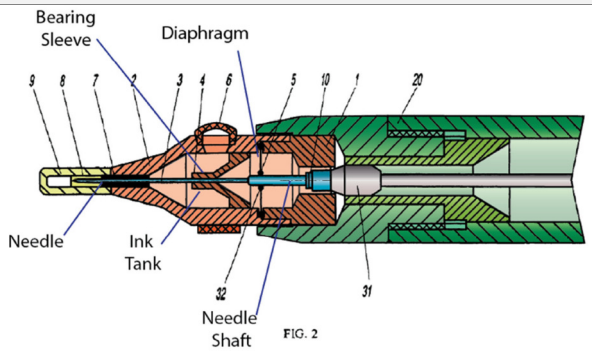
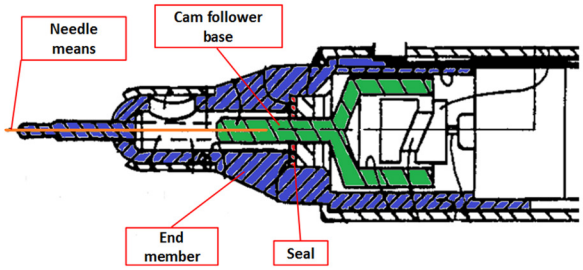


FIG. 4

The following table shows a preferred embodiment of the '530 Patent (Fig. 2) and an embodiment of Trott (Fig. 4).

Fig. 2 of The '530 Patent	**Fig. 4 of Trott**
	

As shown in Fig. 4 above, Trott discloses a seal disposed as required by claims 9 and 18, *i.e.*, "disposed between the ink receiving portion and the basic module." Notably, the term "seal" used in Trott is a generic term embracing a diaphragm. Stein Declaration, Ex. 1021, ¶ 47. In other words, the term "seal" as used in Trott is not limited to a particular embodiment and is intended to describe an element having the same function and/or the same mechanism as those of the

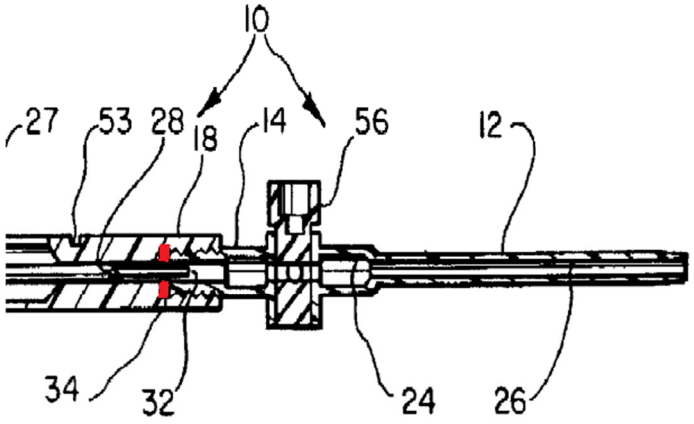
diaphragm of the '530 Patent. Thus, the seal of Trott is essentially identical to and patentably indistinguishable from the diaphragm as illustrated in the '530 Patent. Therefore, Trott discloses a diaphragm as recited in claims 9 and 18.

Theiss teaches use of O-rings to minimize the transmission of fluid into the drive unit, facilitating cleaning. Ex. 1005, col. 4, lines 37–40. The seal of Trott is used for the same purpose. The O-ring of Theiss and the seal of Trott were known to be interchangeable, and a person having ordinary skill would have easily switched for the predictable results (*e.g.*, prevention of contamination), as confirmed by the Stein Declaration. Ex. 1021, ¶¶ 81 and 82. For the reasons above, Theiss in view of Trott renders claims 9 and 18 obvious.

H. Ground 8: Claims 9 and 18 are obvious under 35 U.S.C. § 103(a) over Theiss in view of U.S. 5,704,914 (Stocking)

Claims 9 and 18 are obvious over Theiss in view of US 5,704,914 to Stocking. Use of "a diaphragm" in a sanitary medical/cosmetic device for sealing was well known in the art. For example, Stocking relates to catheter assemblies "for preventing the spillage of a biological liquid, such as blood, from such assemblies during and after use…" Ex. 1010, col. 1, lines 9–12 (emphasis added). Stocking discloses that "[a] liquid sealing means, preferably in the form of a flexible, resilient diaphragm or septum 34, through which a hypodermic needle such as the needle 27 can be passed..." Ex. 1010, col. 4, lines 24–26 (emphasis

added). Fig. 4 of Stocking illustrates an embodiment of a catheter assembly comprising a "diaphragm 34", as reproduced below.



Stocking further states that "[a] flexible, resilient diaphragm or septum 84, preferably containing a slit similar to the slit 36 in the diaphragm 34 of the previous example, forms a liquid sealing means which is affixed to the proximal end of the threaded end portion 83." Ex. 1010, col. 6, line 67–col. 7, line 4 (emphasis added). In view of the teachings of Theiss and Stocking, it is a mere substitution of one element (*i.e.*, diaphragm) for another (*i.e.*, O-ring), and the combination produces predictable results (*e.g.*, prevention of contamination), as confirmed by the Stein Declaration. Ex. 1021, ¶¶ 87 and 88. Therefore, Theiss in view of Stocking, renders claims 9 and 18 obvious.

I. Ground 9: Claims 9 and 18 are obvious under 35 U.S.C. § 103(a) over Theiss in view of U.S. 5,580,030 (Proni)

Claims 9 and 18 are obvious over Theiss in view of US 5,580,030 to Proni. Use of "a diaphragm" in a sanitary medical/cosmetic device for sealing was well

known in the art. For example, Proni relates to "a diaphragm fluid flow control assembly which seals against fluid leakage prior to insertion of, during insertion and while inserted, and after removal of a hollow blunt plastic tube or needle." Ex. 1011, col. 1, lines 5–8 (emphasis added). Proni discloses that "[i]t is an object of the present invention to provide a self–sealing, fluid–tight, perforated diaphragm easily penetrable by a moderately sharp or blunt–ended plastic tube or needle so as to form a fluid–tight seal with the tube or needle when inserted through the diaphragm." Ex. 1011, col. 1, lines 59–63 (emphasis added). Fig. 2 of Proni illustrates an embodiment of a diaphragm fluid flow control assembly comprising a diaphragm in an engaged position with a needle, as shown below.

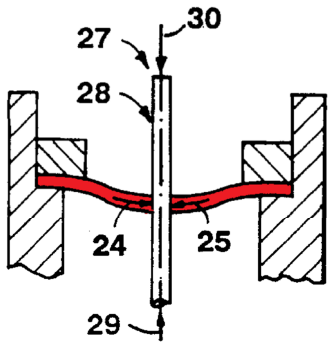


FIG. 2

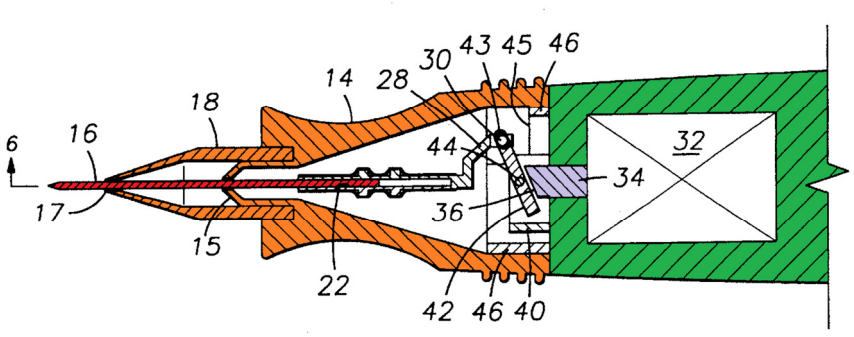
In view of the teachings of Theiss and Proni, it is a mere substitution of one element (*i.e.*, diaphragm) for another (*i.e.*, O-ring), and the combination produces predictable results (*e.g.*, prevention of contamination), as confirmed by the Stein

Declaration. Ex. 1021, ¶¶ 93 and 94. Therefore, Theiss in view of Proni renders claims 9 and 18 obvious.

J. Ground 10: Claims 1 and 19 are obvious under 35 U.S.C. § 103(a) over U.S. 5,586,473 to Chou in view of Bailey

As discussed in § VII. C., Chou was cited by U.S. Patent Office to reject original independent claims 1, 10 and 19 as well as their dependent claims under 35 U.S.C. § 102(b). Ex. 1015, Office Action dated Feb. 12, 2012, page 3. With regard to novelty of original claims 1 and 19, Patent Owner identified two arguably distinguishable limitations over Chou, *i.e.*, (1) the needle being movable relative to the outer housing as recited in claim 1 and (2) simultaneously removing the entire disposable module from the basic module as recited in claim 19. Ex. 1015, Response to Office Action dated Sep. 9, 2002, pages 10–11.

Fig. 5 of Chou illustrates the following tattoo device.



Bailey discloses both missing limitations identified above, and claims 1 and 19 would have been obvious over Chou in view of Bailey.

As to the first limitation, *i.e.*, "the needle being movable relative to the outer housing," Baily discloses that "[t]he cam lug 29 reciprocates the retaining tube 41 at approximately 15,000 cycles per minute, thereby causing the needles 67 to be driven into and out of the frustoconical part 85." Ex. 1008, col. 4, lines 61–65 (emphasis added) and Fig. 1 (reproduced below).

As to the second limitation, *i.e.*, "simultaneously removing the entire disposable module from the basic module," Bailey discloses that "a tattooing device is provided including a housing, a needle retainer in the housing, a drive means in the housing for reciprocating the needle retainer with respect to the housing, and a needle/cone assembly removably attached to the housing." Ex. 1008, col. 1, lines 44–48 (emphasis added) and Fig. 1 (reproduced below).

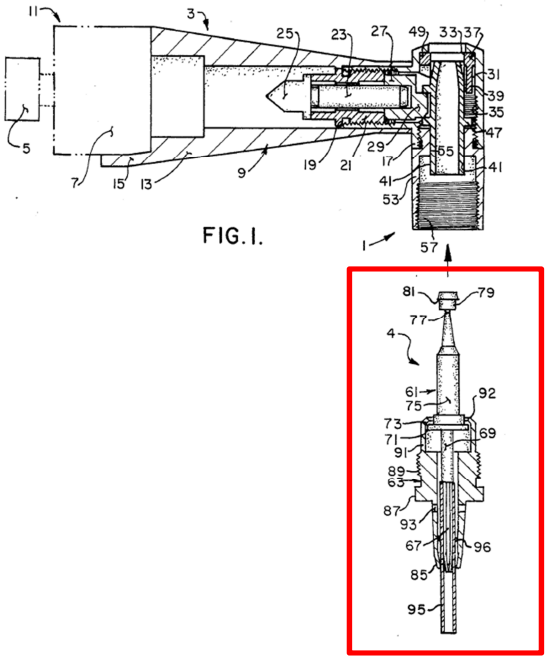


FIG. I.

Both Chou and Bailey are designed to provide "sanitary" tattoo devices containing disposable parts, and a person having ordinary skill would have been motivated to combine Chou and Bailey to improve sanitation of a tattoo device. In other words, a person having ordinary skill would have modified Chou to include the missing features, *i.e.*, (1) the needle being movable relative to the outer housing and (2) a simultaneously removable disposable module from the basic module in accordance with the teachings from Bailey, as confirmed by the Stein Declaration. Ex. 1021, ¶¶ 99 and 100. Therefore, Chou in view of Bailey renders claims 1 and 19 obvious.

K. Ground 11: Claim 10 is obvious under 35 U.S.C. § 103(a) over Chou in view of Bailey, and further in view of Theiss

As shown in § IX. I., above, Chou in view of Bailey teaches all limitations of claim 10 except for the limitation, "sealing means." Use of sealing means for PMU devices was well known in the art prior to the '530 Patent, as evidenced by a number of prior art publications cited in this Petition, *i.e.*, Theiss, Zhan, Trott, Stocking and Proni. See § IX. E., F. and G., above. A person having ordinary skill would have been motivated to combine Chou in view of Bailey with Theiss to improve sanitation of a tattoo device, as confirmed by the Stein Declaration. Ex. 1021, ¶¶ 105 and 106.

Therefore, Chou in view of Bailey, and further in view of Theiss renders claim 10 obvious.

X. CONCLUSION

Based on the showing above that claims 1–20 are unpatentable, Petitioner requests institution of *Inter Partes* Review of the '530 Patent.

Dated: November 11, 2013

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Certification of Service

Pursuant to 37 C.F.R. §§ 42.6(e) and 42.105, this is to certify that I caused a true and correct copy of the **PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 6,505,530 (and accompanying exhibits Bomtech 1001–1022)** to be served via FedEx, next day delivery, on Patent Owner at the following correspondence address of record for the subject patent, on this 11th day of November, 2013:

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APPENDIX 2. EXHIBIT LIST

Exhibit No.	Document Name
Ex. 1001	Complaint – *MT. Derm GmbH v. Bomtech Electronics Co. Ltd.*, filed May 17, 2013 (1:13–cv–2933)
Ex. 1002	U.S. Patent No. 6,505,530 ("'530 Patent")
Ex. 1003	U.S. Patent No. 6,345,553 ("'553 Patent")
Ex. 1004	DE 299 19 199 U1 to Adler with Certified English Translation ("DE '199")
Ex. 1005	U.S. Patent No. 6,033,421 to Theiss ("Theiss")
Ex. 1006	Taiwan Patent No. TW326643B to Zhan with Certified English Translation ("Zhan")
Ex. 1007	U.S. Patent No. 4,671,277 to Beuchat ("Beuchat")
Ex. 1008	U.S. Patent No. 4,582,060 to Bailey ("Bailey")
Ex. 1009	U.S. Patent No. 4,796,624 to Trott ("Trott")
Ex. 1010	U.S. Patent No. 5,704,914 to Stocking ("Stocking")
Ex. 1011	U.S. Patent No. 5,580,030 to Proni ("Proni")
Ex. 1012	U.S. ITC Investigation No. 337–TA–832, Complaint
Ex. 1013	U.S. ITC Investigation No. 337–TA–832, Complainants' Initial Markman Brief, dated November 16, 2012
Ex. 1014	U.S. ITC Investigation No. 337–TA–832, Order 21: Construing the Terms of The Asserted Claims of the Patent at Issue, dated February 8, 2013
Ex. 1015	File History of U.S. Patent No. 6,505,530
Ex. 1016	File History of U.S. Patent No. 6,345,553
Ex. 1017	U.S. Patent No. 5,472,449 to Chou ("Chou")
Ex. 1018	U.S. ITC Investigation No. 337–TA–832, Exhibit 10 of ITC Complaint

Ex. 1019	U.S. ITC Investigation No. 337–TA–832, Exhibit 38 of ITC Complaint
Ex. 1020	ITC Complainants' Pretrial Brief, dated Apr. 12, 2013
Ex. 1021	Declaration of Matthew Stein
Ex. 1022	Resume of Matthew Stein