

**United States Court of Appeals
for the Federal Circuit**

TRADING TECHNOLOGIES INTERNATIONAL, INC.,

Appellant,

v.

IBG LLC, INTERACTIVE BROKERS LLC,

Appellees,

UNITED STATES,

Intervenor.

Appeal from the Patent Trial and Appeal Board of the United States Patent and Trademark Office in case no. CBM2016-00090, Administrative Patent Judges Sally C. Medley, Meredith C. Petravick, and Jeremy M. Plenzler

**COMBINED PETITION FOR PANEL REHEARING AND REHEARING
EN BANC OF APPELLANT
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UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Trading Technologies International, Inc. v. IBG LLC et al.

Case No. 18-1489

CERTIFICATE OF INTEREST

Counsel for the:

(petitioner) (appellant) (respondent) (appellee) (amicus) (name of party)

Trading Technologies International, Inc.

certifies the following (use "None" if applicable; use extra sheets if necessary):

1. Full Name of Party Represented by me	2. Name of Real Party in interest (Please only include any real party in interest NOT identified in Question 3) represented by me is:	3. Parent corporations and publicly held companies that own 10% or more of stock in the party
Trading Technologies International, Inc.	Trading Technologies International, Inc.	None

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court (**and who have not or will not enter an appearance in this case**) are:

LEE SULLIVAN SHEA & SMITH LLP: Cole B. Richter (formerly of McDonnell, Boehnen, Hulbert & Berghoff, LLP);

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP: Erika H. Arner, Cory C. Bell, Rachel L. Emsley, Joshua L. Goldberg, Kevin Rodkey.

FORM 9. Certificate of Interest

Form 9
Rev. 10/17

5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. *See* Fed. Cir. R. 47. 4(a)(5) and 47.5(b). (The parties should attach continuation pages as necessary).

Please see attached.

2/14/2018

Date

/s/ Leif R. Sigmond, Jr.

Signature of counsel

Leif R. Sigmond, Jr.

Printed name of counsel

Please Note: All questions must be answered

cc: Counsel of Record via ECF

Reset Fields

FORM 9. Certificate of Interest, Continued

5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. See Fed. Cir. R. 47, 4(a)(5) and 47.5(b). (The parties should attach continuation pages as necessary).

**Trading Techs. Int'l, Inc. v. BGC Partners, Inc.*, No. 1:10-cv-00715 (N.D. Ill. Feb. 3, 2010) (Kendall, J.);

*Appeal No. 2017-2565 from a final written decision in CBM2016-00031, *TradeStation Grp., Inc. v. Trading Techs. Int'l, Inc.* (filed Feb. 9, 2016) involving an additional TT patent, U.S. Patent No. 7,813,996;

* Appeal Nos. 2017-1732, -1766, -1769 from a final written decision in CBM2015-00161, *TradeStation Grp., Inc. v. Trading Techs. Int'l, Inc.* (filed July 20, 2015) involving an additional TT patent, U.S. Patent No. 6,766,304;

* Appeal Nos. 2017-2052, -2053 from a final written decision in CBM2015-00182, *IBG LLC v. Trading Techs. Int'l, Inc.* (filed Sept. 11, 2015) involving an additional TT patent, U.S. Patent No. 6,772,132;

* Appeal No. 2017-2054 from a final written decision in CBM2015-00181, *IBG LLC v. Trading Techs. Int'l, Inc.* (filed Sept. 11, 2015) involving an additional TT patent, U.S. Patent No. 7,676,411;

* Appeal No. 2017-2257 from a final written decision in CBM2015-00179, *IBG LLC v. Trading Techs. Int'l, Inc.* (filed Sept. 2, 2015) involving an additional TT patent, U.S. Patent No. 7,533,056;

* Appeal No. 2017-2323 from a final written decision in CBM2015-00172, *TradeStation Grp., Inc. v. Trading Techs. Int'l, Inc.* (filed Aug. 12, 2015) involving an additional TT patent, U.S. Patent No. 7,783,556;

* Appeal No. 2017-2621 from a final written decision in CBM2016-00051, *TradeStation Grp., Inc. v. Trading Techs. Int'l, Inc.* (filed Mar. 29, 2016) involving an additional TT Patent, U.S. Patent No. 7,904,374;

* Appeal No. 2018-1063 from a final written decision in CBM2016-00032, *IBG LLC v. Trading Techs. Int'l, Inc.* (filed Feb. 9, 2016) involving an additional TT Patent, U.S. Patent No. 7,212,999;

* Appeal No. 2018-1105 from final written decision in CBM2016-00009, *IBG LLC v. Trading Techs. Int'l, Inc.* (filed Oct. 23, 2015) involving an additional TT Patent, U.S. Patent No. 7,685,055;

* Appeal No. 2018-1302 from a final written decision in CBM2016-00054, *IBG LLC v. Trading Techs. Int'l, Inc.* (filed Apr. 12, 2016) involving an additional TT Patent, U.S. Patent No. 7,693,768;

* Appeal No. 2018-1438 from a final written decision in CBM2016-00087, *IBG LLC v. Trading Techs. Int'l, Inc.* (filed June 3, 2016) involving an additional TT Patent, U.S. Patent No. 7,412,416;

* Appeal No. 2018-1443 from a final written decision in CBM2016-00086, *TradeStation Techs., Inc. v. Trading Techs. Int'l, Inc.* (filed June 7, 2016) involving an additional TT Patent, U.S. Patent No. 7,818,247;

* CBM2016-00040, *IBG LLC v. Trading Techs. Int'l, Inc.* (filed Feb. 25, 2016) (joined with the CBM2015-00172 proceeding); and

* CBM2016-00035, *IBG LLC v. Trading Techs. Int'l, Inc.* (filed Feb. 17, 2016) (joined with the CBM2015-00161 proceeding).

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RULE 35(b) STATEMENT

Based on my professional judgment, I believe the panel decision is contrary to at least the following decisions of the Supreme Court of the United States and/or precedent of this Court: *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208 (2014); *Bilski v. Kappos*, 561 U.S. 593 (2010); *Diamond v. Chakrabarty*, 447 U.S. 303 (1980); *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999 (Fed. Cir. 2018); *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014).

Based on my professional judgment, this appeal raises precedent-setting questions of exceptional importance, including: Did the panel contradict this Court's and Supreme Court precedent by finding the claims-at-issue subject to CBM jurisdiction and "abstract" under § 101, where the claims-at-issue are substantively the same as claims directed to a mechanical/technological tool and are only different than such claims in form, because the claimed tool is constructed from GUI elements rather than physical/mechanical elements?

Date: August 15, 2019

By: /s/ Michael D. Gannon
Michael D. Gannon

**ATTORNEY OF RECORD FOR
TRADING TECHNOLOGIES
INTERNATIONAL, INC.**

I. TT’S CLAIMED LADDER TOOL INVENTION SOLVED TECHNICAL PROBLEMS AND IS INDISTINGUISHABLE FROM A MECHANICAL TOOL MAKING IT CLEARLY PATENT-ELIGIBLE AND NOT SUBJECT TO CBM JURISDICTION

U.S. Patent No. 7,725,382 (“the ’382 patent”), the subject of this petition, is part of a family of related patents directed to different aspects of the Ladder Tool invention (described below). Appx66, 1:6-14; Appx8949-8950. TT’s first-issued Ladder Tool patents are U.S. Patents Nos. 6,766,304 (“the ’304 patent”) and 6,772,132 (“the ’132 patent”). Appx54, at [63]. The ’382, ’132, ’304 patents and some related patents (*e.g.*, U.S. Patent Nos. 7,676,411 (“the ’411 patent”), 7,693,768 (“the ’768 patent”) and 7,813,996 (“the ’996 patent”)) are TT’s core Ladder Tool patents, which share a specification and claim aspects of the structure, makeup and construction of the tool discussed below, providing classic technical benefits.

A. The Claimed Ladder Tool Solves Specific Technical Problems

The patent’s Fig. 2 exemplifies conventional prior-art order-entry screens:

		201	202	203	204	205			
	Contract	Depth	BidQty	BidPrc	AskPrc	AskQty	LastPrc	LastQty	Total
1	AAPL	•	1200	104.87	104.88	2000	104.90	489	9697
2			626	104.85	104.91	815			
3			500	104.82	104.92	600			
4			500	104.81	104.94	2456			
5			200	104.79	104.97	800			

Appx61; Appx9750; Appx8936-8938. Pre-invention, experts and persons-of-ordinary-skill-in-the-art (POSAs) considered these optimal, because they met all technical design criteria for order-entry screens. *Id.*

These criteria are: (1) conserving screen real-estate (traders use space-consuming interfaces, *e.g.*, charts, news-feeds, etc.); and (2) displaying the most important information — the best bid/ask prices/quantities representing the current market — at designated locations. Appx8938-8939. In conventional screens (including Fig. 2 (above)), the best bid/ask prices/quantities are always displayed at designated locations, whether that be side-by-side or vertically. Appx8936-8937. This enabled users to quickly find mission-critical information, like indicators used by pilots in airplanes and doctors in medical devices. Using single action order-entry, these screens were considered accurate/fast at the inside market. Appx8937-8938.

Engineers made incremental improvements, but the concept remained consistent until the Ladder Tool invention. Almost twenty years after its release, use of the invention (which was widely copied, Appx8987-9022) is growing. Appx8972-8973.

The lead inventor (Harris Brumfield) was a visionary, and one of the world's largest traders — at times processing over 20% of Bund futures contracts. Appx8959-8960. Conventional screens presented him a technical accuracy

problem with single-action order entry, which POSAs did not appreciate or necessarily accepted. *See* Appx8969. That is, the price levels associated with order-entry locations could unpredictably change under users' cursors at the moment the market changed — causing orders to be sent with incorrect price parameters. Appx8957-8962. For most, the conventional screens' benefits outweighed this unperceived nuisance, but Mr. Brumfield perceived the problem because his large trading volume made the errors massive and unacceptable.

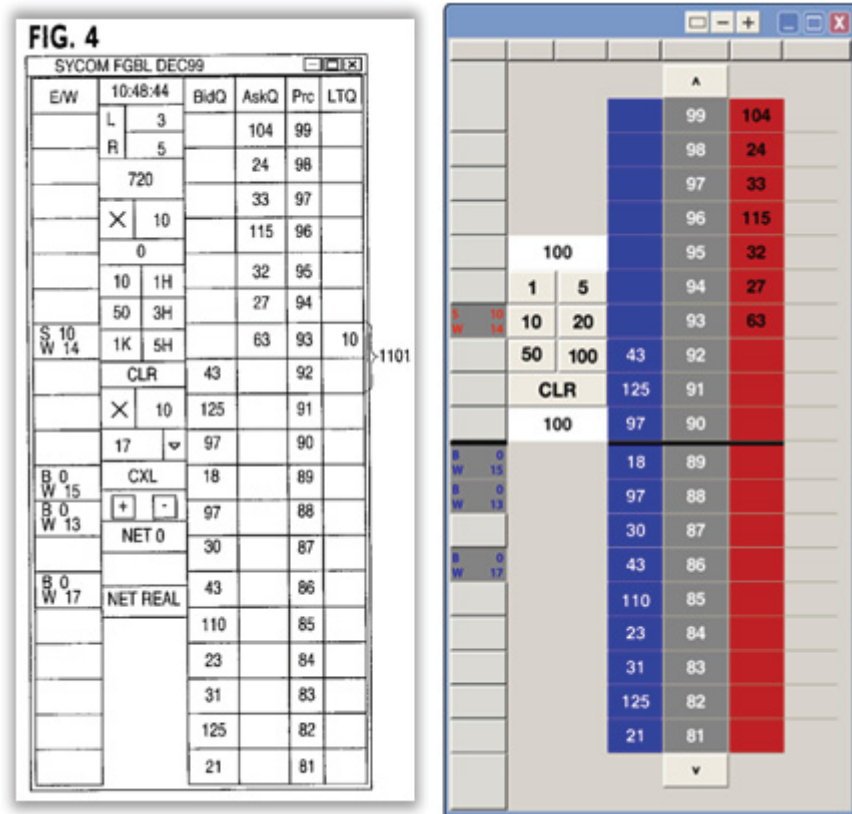
Not only did he uniquely perceive this technical-accuracy problem, Mr. Brumfield conceived and worked to create an innovative solution. Appx8964-8973. He retained TT's consulting business to confidentially construct a prototype. *Id.* After much work/testing, the invention addressed the speed/accuracy problem, and more. *Id.* Mr. Brumfield assigned TT the invention, requiring that TT obtain patent protection and develop a product (MD_Trader) — a revolutionary order-entry tool that saved TT.¹ *Id.* The invention not only provided great benefits to users, it benefited exchanges and everyone, increasing volume and improving market performance. Appx8983-8984. For example, the invention “was a significant factor contributing to the electronic volume growth at the CME.” Appx9833 (Scott Johnston, CME CIO).

¹ TT was losing money pre-invention.

The invention also provides a more efficient tool for tracking and/or cancelling pending orders (*i.e.*, working/entered orders). Appx8960. Pre-invention, conventional wisdom was to display working orders in a separate window, which failed to display working order indicators relative to the inside market or other pending orders. Appx8942-8944. To cancel orders, such screens required multiple time-consuming actions and diverted attention away from the market indicators/order-entry GUI. *Id.*; Appx8960-8962.

B. The Ladder Tool Is A Specifically Structured Technological Tool Providing A Solution To Technical Problems

The figures below illustrate the invention: a figure from the patent on the left and MD_Trader on the right:



The Ladder Tool patents have claims of slightly different scopes, capturing different inventive aspects of the tool. Generally, the invention is a tool that combines structural GUI elements that users interact with (substantively no different than mechanical/structural elements). Due to the state of technology, the commercial version/preferred embodiment was a tool constructed of GUI structural elements. Unlike controversial software patents, the '382 patent does not merely claim a result or performing on a computer a previously manual process. Pre-

invention, the claimed tool did *not exist* — *in either mechanical or GUI form*.

BB 66-68.²

The invention improves accuracy without sacrificing speed (& vice versa):

The figures below illustrate a technical speed/accuracy problem caused by conventional screens. Appx8957-8965. With single-action order-entry, the price values associated with order-entry locations would unpredictably change at the moment a user clicks — causing orders to be sent with incorrect prices. *Id.*

At T1, the user starts to click on displayed price level 175, but between T1/T2 (when the click is completed), the value unpredictably changed to 180. This is the unrecognized problem mentioned above suffered by most traders pre-invention.


² “BB” citations are to Dkt. 36.

T1

Contract	Depth	BidQty	BidPrc	AskPrc	AskQty	LastPrc	LastQty	Total
		80	111170	111175	345			
		1120	111165	111180	167			
		578	111160	111185	265			
		349	111155	111190	52			
		58	111150	111195	144			

T2

Contract	Depth	BidQty	BidPrc	AskPrc	AskQty	LastPrc	LastQty	Total
		478	111175	111180	67			
		466	111170	111185	245			
		85	111165	111190	743			
		337	111160	111195	1044			
		164	111155	111200	73			



This one-tick inaccuracy caused a \$1,562.50 error. *Id.* The Ladder Tool invention reduces the problem's occurrence by combining a static price axis with an order entry region having locations corresponding to price levels along the axis for sending trade orders to the exchange.

The invention surprisingly improved visualization of market changes:

Another unperceived (pre-invention) technical problem with conventional order-entry screens was poor visualization of market changes. Because they displayed constantly changing best bid/ask prices and quantities, they did not provide a good measure/visualization of the extent/direction the market was changing. The invention's construction solves this unrecognized problem with the movement of inside market indicators to reflect market changes. This provided a surprising technical benefit of better visualization. Appx8963-8964. This went against

conventional wisdom, and was viewed as anathema because mission critical indicators are moving around and even out of view. Appx9040-9041.

The '382 independent claims (and dependent claims of related patents³) focus on the structure of the Ladder Tool that displays working order indicators relative to other market data (*e.g.*, inside market indicators or other working order indicators). The invention also improves visualization. Appx8955-8957.

The invention improves usability/efficiency by combining working order indicators with the order-entry GUI; permitting users to more quickly and efficiently manage/track working orders. *Id.*; Appx8960-8962; Appx8942-8944. The single-action order entry provided by the '382 dependent claims combined with the other claim elements further improve order-entry speed without sacrificing accuracy (like the tool provided by the '132/'304/'411/'996/'768 independent claims).

The invention does not merely arrange data on a screen. Perhaps that could be argued of certain conventional screens, but not the Ladder Tool because the independent/dependent claims require a combination of elements that form a tool, no different (for § 101 purposes) than an improved hammer or surgical tool (made

³ *E.g.*, claim 6 of the '768 patent, claim 26 of the '132 patent, claim 16 of the '304 patent, claim 9 of the '411 patent, and claim 14 of the '996 patent.

of known materials). The same applies to an improved Judge's gavel (e.g., U.S. Patent No. 2,755,833). For these, arguing abstractness would be frivolous.

C. The Ladder Tool Invention Was Revolutionary

The evidence showing the revolutionary nature and technical benefits of the anything-but-abstract inventive tool is overwhelming/indisputable. *E.g.*, Appx8975-9037. It shows the tool addresses classic technical problems of speed, accuracy, efficiency, and usability, and was met with significant initial skepticism. Appx8810-8811; Appx8819-8820; Appx8824-8826; Appx8834; Appx9207-9208; Appx8957-8960; Appx8975-8977. The evidence's significance/volume was noted by the Court, and admitted by IB, during oral argument in *IBG LLC v. Trading Techs. Int'l, Inc. (IBG I)*, 757 F. App'x 1004 (Fed. Cir. 2019), regarding the '132/'304/'411/'996 patents:

The Court: They [TT] had a lot of objective evidence, or indicia, a lot. . . . This is, *it's really up there*, it's, it's *among the cases with the most, the largest amount of objective indicia of non-obviousness that I've ever seen. It's a lot.*

IB Counsel: *It is a lot.*

Recording of Oral Argument at 21:13, *Trading Techs. Int'l, Inc. v. Interactive Brokers LLC*, No. 2017-2054 (argued Feb. 7, 2019), available at <http://oralarguments.cafc.uscourts.gov/default.aspx?fl=2017-2054.mp3> (emphasis added). This evidence included testimony from many third-party witnesses

praising/describing the revolutionary nature/concrete benefits of the invention, Appx9804-9874, and applies equally to the '382/'768 patents. As just one example, Mr. Zellinger (a well-known executive with over forty years' experience in the field) testified under oath that "MD Trader was the first application designed to be used as a true trading *tool* [Due to its advantages, the invention] spread like wildfire." Appx9872-9874 (emphasis added). Like others, Mr. Zellinger signed this declaration in 2004, years before the current creative § 101 arguments were a glimmer in defense attorneys' imaginations. The following are just examples of testimony praising the invention: it was "ingenious," an "invaluable *tool*," a "significant departure," and created a "paradigm change." Appx8978-8980 (emphasis added) (internal quotations omitted). All of this is significant objective evidence of the truth, entitled to special weight based on common sense.

D. The Ladder Tool Patents Were Rigorously Examined

Whatever may be said of software-related patents generally, TT's core Ladder Tool patents underwent extremely thorough examinations. From 2000-04, the parent '132/'304 applications were examined in the toughest PTO art unit — the often criticized "business method" art unit Class 705. *E.g.*, '132 patent, at [52]. The term "business method" was a misnomer — not all applications examined there claimed a "business method" — it was a catchall for applications directed to inventions with downstream financial-related applications (*e.g.*, the Ladder Tool).

The art unit's allowance rate was 11% when the '132/'304 patents were examined — amongst the PTO's lowest. Dennis Crouch, *Updated Business Method Patent Statistics*, Patently-O (May 4, 2005), https://patentlyo.com/patent/2005/05/updated_business.html (11% allowance rate in class 705 for 2004). “Business method” unit applications, including those leading to the '132/'304 patents, were subject to a special Quality Review Program (“second set of eyes”). *Id.*; Appx9034-9036.⁴ Rarely, if ever, is it reported that “business method” applications endured more rigorous examinations than most others. In addition to surviving the USPTO's rigorous examination and the scrutiny of many courts; comparable claims were also allowed by the EPO (where the law bans “business method patents”). In allowing comparable claims, the EPO stated,

[T]he subject-matter of claim 1 solves a technical problem which is to improve the operability of the system . . . increasing the accuracy for placing orders. In fact, this problem is independent from the business aspects of the claims. . . .The solution is to use metadata to create a field of static values (prices). The other measures (bids and asks) are moved relative to the static field. This assures both speed and accuracy. . . . [T]his solution is new and inventive.

⁴ These patents have dependent claims directed to similar working-order indicators and single-action cancellation like the '382 independent claims.

EP Application No. 1319211, 08-27-2004 Annex to the Communication, at 5-6.⁵

Importantly, inventions need **NOT** be revolutionary to merely be eligible for patenting.

E. The Claimed Ladder Tool (While Preferably Constructed Of GUI Elements), Is Substantively No Different Than A Mechanical Tool

The validity and eligibility of the parent '132/'304 patents have been repeatedly upheld, including by this Court. *IBG I*, 757 F. App'x at 1008; *Trading Techs. Int'l, Inc. v. CQG, Inc.*, 675 F. App'x 1001, 1006 (Fed. Cir. 2017). This Court found the '132/'304 claims “require a specific, structured [GUI] paired with a prescribed functionality directly related to the [GUI]’s structure that is addressed to and resolves a specifically identified problem in the prior state of the art.” *CQG*, 675 F. App'x at 1004. In other words, the claims are indistinguishable from claims to a mechanical device, which by definition are § 101 eligible. This Court correctly found the patents “are directed to improvements in existing [GUI] *devices* that have no ‘pre-electronic trading analog,’ and recite more than “‘setting, displaying, and selecting” data”” and “solve problems of prior [GUI] *devices* in the context of . . . speed, accuracy and usability.” *Id.* (emphasis added) (internal

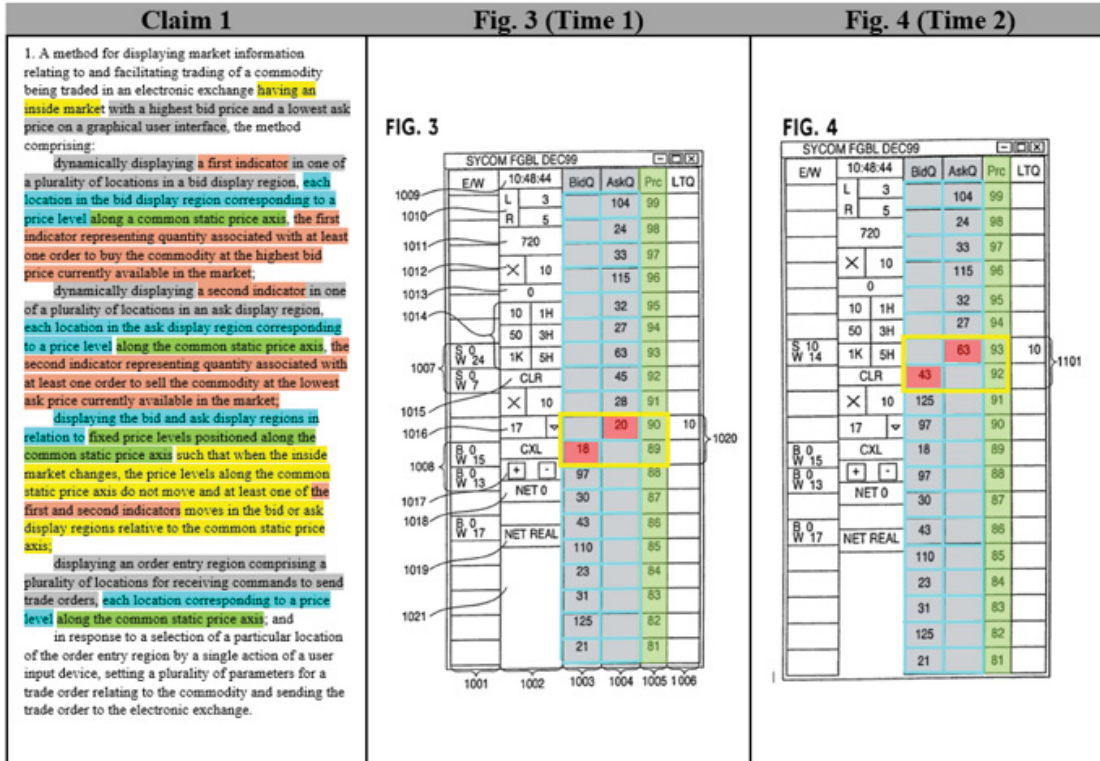
⁵ These claims are substantively the same as the '132/'304 claims and the patents also provide for working order indicators and single action cancellation. EP 1319211 at claims 18-21; *see also* EP 3171251 (independent claim reciting entered order indicators and cancellation).

quotations and alterations omitted in part). The same applies to the highly related '382/'768 claims.

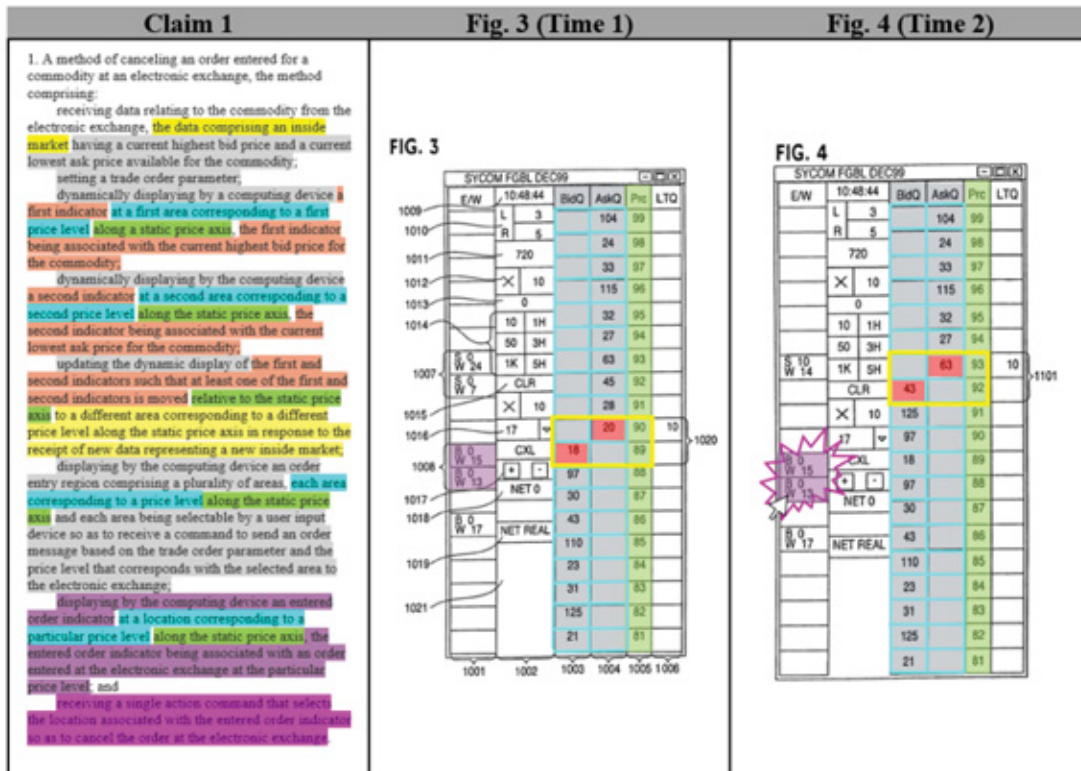
This Court later adopted *CQG's* reasoning in *Data Engine*, a precedential decision finding GUI claims patent eligible, and explained the claims-at-issue comported with the '132/'304 claims at issue in *CQG*. 906 F.3d at 1009.

Recently, this Court found the '132/'304/'411/'996 patent claims are directed to a technological invention under “any reasonable meaning of that term” and thus not subject to CBM jurisdiction. *IBG I*, 757 F. App'x at 1008. Although the claims of the '132/'304/'411/'996 patents differ from one another, the differences are irrelevant to § 101/CBM issues, as the Court found.

Yet, different panels of this Court recently found the '382/'768 patents are CBM patents and § 101 ineligible, ***even though the '382/'768 claims are indistinguishable from the '132/'304/'411/'996 claims for CBM/§ 101 purposes.*** *Trading Techs. Int'l, Inc. v. IBG LLC (IBG IV)*, 767 F. App'x 1006, 1007 (Fed. Cir. 2019); *Trading Techs. Int'l, Inc. v. IBG LLC (IBG V)*, 771 F. App'x 493 (Fed. Cir. 2019). Following are claim charts showing the indistinguishable for 101/CBM purposes claims 1 of the '382/'304 patents:



'304 Patent [CQG Found Eligible and IBG I Found Technological]



'382 Patent [Panel Found Ineligible and Not Technological]

IBG IV/V are irreconcilable with *IBG I, CQG*, this Court/Supreme Court precedent and common sense.⁶ The literal scope of each core Ladder Tool patent's claims differs slightly — but all are directed to the structure, makeup and construction of a tool that addresses classic technical problems. The '382/'768 patents' claimed tools are indistinguishable from a mechanical tool. The consequences of such inventions being ineligible for patent consideration are far-reaching. Logically, this would result in countless mechanical tools, *e.g.*, surgical tools, being ineligible as well.

Not all GUI or computer-related inventions are equal for 101 purposes. There is a spectrum, with some inventions merely displaying known data in routine/conventional ways on one end. Various cases have found such claims ineligible. In *DDR*, this Court upheld eligibility of claims merely directed to using

⁶ *Trading Techs. Int'l, Inc. v. IBG LLC (IBG II)*, 921 F.3d 1084 (Fed. Cir. 2019), is not relevant here. The Friesen patents-at-issue there are unrelated to the '382 patent, and the Court viewed them as routinely displaying information. *Id.* at 1092. Even though the '374 patent-at-issue there is from the same family as the '382 patent, the Court viewed it as too broad. *Id.* at 1091 (finding '374 claimed invention “provide[s] no indication to a user of market information . . . and the graphical locations simply could be “black boxes” with . . . *no information provided to the user.*” (first alteration in original)). The '382 claims here do provide enough structural detail about the tool. *Trading Techs. Int'l, Inc. v. IBG LLC (IBG III)*, 921 F.3d 1378, 1383 (Fed. Cir. 2019), is likewise irrelevant—addressing another unrelated patent, which the Court viewed as merely directed to calculating/displaying P/L information in a routine/conventional way. TT is not presently seeking review of *IBG II /III*.

well-known hyperlinks in e-commerce websites to maintain the same look/feel as a host cite. 773 F.3d at 1257. Display-related claims have also been found eligible — like the claims-at-issue in *Data Engine* and *Core Wireless*. But, to be clear, the Ladder Tool claims fall on the spectrum’s **CLEARLY** eligible side (far beyond those at-issue in *Data Engine/Core Wireless/DDR*) — they are indistinguishable from mechanical-tool claims. It is inconceivable that claims directed to a mechanical tool’s construction (*e.g.*, screw driver or surgical tool) be found ineligible. It is indisputable that a claim to a mechanical tool (*e.g.*, a compass, screw driver, artificial horizon instrument or mechanical surgical instrument) is not abstract. *See, e.g.*, Appx8908-8909; Appx9206-9207. Any arguments to the contrary are frivolous. Yet, in substance, that is what IB has argued.

At a high level, the claimed Ladder Tool invention combines structural GUI elements that make up the construction of a tool that provides users with, *inter alia*, (i) a more efficient/accurate mechanism/tool for placing and cancelling orders on an electronic exchange, and (ii) a better and more efficient/useable view of market changes. The claims require a tool combining together these elements. That the preferred embodiment happens to be constructed from structural elements of a GUI is a red herring. An analogous tool could be constructed with mechanical components. Despite the invention being a GUI tool, IB attempts to create

confusion because the invention is computer implemented. Herein, to avoid confusion, TT accurately refers to the claimed invention as a tool.

More specifically, the individual claimed structural elements of the tool are: (a) a static price scale (the static price axis); (b) best bid/ask indicators that move along the static price scale in response to market changes; (c) indicators representing working orders pending at the exchange provided/displayed along the static price scale, constructed to be selected via a single-action command of a user input device that causes an order cancellation message (like an object) to be sent to the electronic exchange to cancel the order represented by that indicator; and (d) order-entry regions (like buttons) corresponding to different price levels along the static price scale. Dependent claims further add the structure of single action order-entry. Appx71-73, at 12:21-16:6.

II. A TEST THAT FOCUSES ON “IMPROVING THE TRADER” HIGHLIGHTS THE CONFUSION REGARDING CBM AND PATENT ELIGIBILITY

In *IBG IV*, a panel of this Court found the '768 patent subject to CBM jurisdiction and ineligible because it felt the claims “focus[] on improving the trader, not the functioning of the computer.” 767 F. App'x at 1007 (alteration in

original) (internal quotations omitted).⁷ This flawed analysis from *IBG II/III* is presumptively why the Court affirmed the Board’s decision regarding the ’382 patent in *IBG V*. This reasoning is in direct conflict with precedent, and will unwittingly/unnecessarily cause serious harm to the patent system. It will engender baseless attorney arguments that inventions such as mechanical or GUI tools used by surgeons to save patients’ lives are “abstract” because they “improve the surgeon.” It is doubtful that the same attorneys would have the chutzpah to make such arguments to the patients’ families or tell doctors to not use such “abstract” tools on family members in the unfortunate event they were needed. Put simply, such an argument is meritless, and yet the Panel decision was based on this faulty premise.

Ignoring the irrelevance of whether an invention improves the user, the Ladder Tool inventions do not only “improv[e] the user.” The invention is not about improving users personally — that is silly. Rather, the invention is a GUI tool that improves the computer, so that it functions better — providing indisputable classic technical benefits. Appx8810-8811; Appx8819-8820;

⁷ TT recently filed a rehearing/*en banc* request regarding the ’768 patent in *IBG IV*, but did not seek rehearing regarding the other patents-at-issue to narrow issues.

Appx8824-8826; Appx8834; Appx9207-9208; Appx8957-8960. One need not invent a new chip or piece of hardware to improve a computer.

The Ladder Tool is created by software that transforms the computer into a new tool that did not previously exist and provides real technical benefits to users. These include improved speed of order-entry without sacrificing accuracy (and vice versa). Appx8949. This alone shows the invention is concrete, technological, and not a CBM. The Court got this issue right in *CQG* and *IBG I*, but wrong in *IBG IV* and *V*. Also, any rule that dismisses inventions that provide benefits to users would be misguided and against years of precedent. *See supra* Rule 35(b) Statement. Any worthwhile invention provides benefits somehow/someway (directly or downstream) to users. If anything, it makes sense to require that claimed inventions provide a benefit to users.

In sum, the “improve the user” argument is a red herring. Panel rehearing and/or rehearing *en banc* is required to address the confusion surrounding the precedential-setting issues discussed herein for which the law is in conflict, and are of exceptional importance. Here, the issue has now reached indisputably technological inventions, indistinguishable (for § 101/CBM purposes) from mechanical/technological inventions whose patent eligibility is clear-cut.

III. UNDER THE CORRECT LEGAL STANDARD, TT’S LADDER TOOL CLAIMS ARE PLAINLY PATENT ELIGIBLE (AND TECHNOLOGICAL)

TT’s Ladder Tool and similar inventions are not abstract ideas under any reasonable meaning of the term, and *Alice* never held otherwise. Rather, the Ladder Tool is like any other tool — patent eligible under centuries-old Supreme Court law — invented in the modern computer world. *See, e.g., Rubber-Tip Pencil Co. v. Howard*, 87 U.S. 498, 507 (1874) (“An idea of itself is not patentable, but a new device by which it may be made practically useful is.”). A new device is a new device, regardless of whether it (a) exists on a wooden or computer desktop; or (b) is built from mechanical or GUI components.

The Supreme Court’s *Chakrabarty* decision is instructive here. The Court confronted the new reality brought by biotechnology: inventions built on the platform of recombinant DNA technology and the like. The Court made a simple ruling: biotechnological creations are patent eligible when they are “not nature’s handiwork,” but rather the inventor’s own — new organisms “with markedly different characteristics from any found in nature and [] having the potential for significant utility.” 447 U.S. at 310. Biotechnological innovations are often-times applications of laws of nature implemented using conventional technology — *e.g.*, utilizing a particular sequence of DNA or recombinant protein. That does not make such manmade inventions ineligible. The Ladder Tool is a manmade

interactive tool that is different-in-kind from a computer-implemented business method. *Alice* is inapposite.

GUI tools like TT's Ladder Tool are a new generation of human creation. One hundred years ago, a craftsman sketched a new design for a hammer and had a blacksmith forge it — using conventional metalworking and materials. Nearly twenty years ago, Mr. Brumfield sketched out the invention-at-issue here, *see* Brumfield Sketch – eSpeed_PTX0321 at 1, *IBG LLC v. Trading Techs. Int'l, Inc.*, No. CBM2016-00090 (P.T.A.B. Feb. 27, 2017), Ex. No. 2213, and had it constructed by TT consultants in the forge of the 21st century—to create a tangible product that saved a company and changed an industry. The claw hammer and the Ladder Tool are anything but abstract. They are patentable tools designed in the mind and built in tangible form.

CONCLUSION

For the above reasons, TT respectfully requests that the panel decision be reversed.

Respectfully submitted,

Date: August 15, 2019

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ADDENDUM

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

**TRADING TECHNOLOGIES INTERNATIONAL,
INC.,**
Appellant

v.

IBG LLC, INTERACTIVE BROKERS LLC,
Appellees

UNITED STATES,
Intervenor

2018-1489

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. CBM2016-00090.

JUDGMENT

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THIS CAUSE having been heard and considered, it is

ORDERED and ADJUDGED:

PER CURIAM (NEWMAN, DYK, and WALLACH, *Circuit Judges*).

AFFIRMED. See Fed. Cir. R. 36.

ENTERED BY ORDER OF THE COURT

July 1, 2019
Date

/s/ Peter R. Marksteiner
Peter R. Marksteiner
Clerk of Court

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

CERTIFICATE OF SERVICE

I certify that I served a copy on counsel of record on August 15, 2019

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UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

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