

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HOWARD INDUSTRIES, INC.
Petitioner,

v.

CAPSA SOLUTIONS LLC

Patent Owner.

U.S. Patent No. 7,594,668
Filing Date: August 18, 2008
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Case No. IPR2023-01274

DECLARATION OF MR. RONALD B. KEMNITZER

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3. [3b] a base configured to be movable in at least a rearward direction; and 34
4. [3c] a height adjustment mechanism for adjusting the height of the work platform relative to the base, ...35
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8. [3g] wherein the height adjustment mechanism comprises: a stationary casing connected to the base; a telescoping casing connected to the work platform and configured to move relative to the stationary casing; 41
9. [3h] at least two drawer slides disposed between the stationary casing and the telescoping casing; 43
10. [3i] a driver configured to releasably lock the telescoping casing relative to the stationary casing; and 44
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5. [3d] wherein the base includes a portion that projects from the height adjustment mechanism in a forward direction that is substantially opposite to the rearward direction, ...	72

6.	[3e] wherein the work platform includes a portion that projects from the height adjustment mechanism in the forward direction, the compartments are disposed in the portion of the work platform that projects from the height adjustment mechanism in the forward direction, and the compartments are configured to permit a user facing in the rearward direction to access an item within the compartments, ...	74
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9.	[3h] at least two drawer slides disposed between the stationary casing and the telescoping casing;	83
10.	[3i] a driver configured to releasably lock the telescoping casing relative to the stationary casing; and	84
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7.	[4f] a driver configured to releasably lock the telescoping casing relative to the stationary casing; and	95
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9.	[4h] wherein the base includes a portion that projects from the height adjustment mechanism in a forward direction that is substantially opposite to the rearward direction, ...	95
10.	[4i] wherein the work platform includes a portion that projects from the height adjustment mechanism in the forward direction, the compartment is disposed in the portion of the work platform that projects from the height adjustment mechanism in the forward direction, and the compartment is configured to permit a user facing in the rearward direction to access an item within the compartment,.....	96
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I. INTRODUCTION

1. I, Ronald B. Kemnitzer, submit this declaration to state my opinions on the matter described below.

2. I have been retained on behalf of Howard Industries, Inc. (“Howard”) as an independent expert for the above-identified inter partes review proceeding involving U.S. Patent No. 7,594,668 (“the ’668 Patent”). Although I am being compensated for my time in connection with this IPR at my standard hourly consulting rate and reimbursed for reasonable out-of-pocket expenses, no part of my compensation depends on the outcome of this proceeding, and I have no other interest in this proceeding.

3. I have been asked to provide my technical review, analysis, insights, and opinions regarding the ’668 Patent and the above-noted references that form the basis for the invalidity grounds set forth in the Petition for Inter Partes Review of the ’668 Patent.

II. QUALIFICATION

4. I believe that I am well qualified to serve as a technical expert in this matter based upon my educational and work experience. I have a Bachelor’s and a Master’s Degree in Industrial Design and I have served as a practicing industrial designer for over forty years. I have received twenty design and utility patents. I have served as a staff industrial designer for corporations such as Black & Decker

Manufacturing Company and Sunbeam Appliance Company and for several design consulting offices. I owned and operated my own design consulting office for eighteen years which served a variety of clients representing a wide range of product categories and industries. My clients included: Medi-Flex Hospital Products, ScriptPro, LLC., Bushnell Sports Optics, Sprint PCS, Fixtures Furniture Company, Paoli Furniture Company, Virco Manufacturing Company, B&E Aerospace, Cramer Sports Products, Select Brands Appliances, Sunbeam Appliance Company, Rival Appliance Company, and others.

5. Based on my background and experience in industrial design, I believe that I am qualified to testify as an expert with respect to the height-adjustable medical carts described and claimed in the '650 and '688 Patents. Of particular relevance to this case, I have substantial direct experience in designing products that utilize the manufacturing processes, components, and materials of the designs at issue in this matter. Additionally, I have substantial experience designing fully adjustable products for the commercial furniture, computer, and healthcare industries.

6. I have also served as a full-time industrial design educator for over thirty-five years. I have held tenured positions at Michigan State University, the Kansas City Art Institute, the University of Kansas, and currently serve as Professor Emeritus of Industrial Design at the Virginia Polytechnic Institute and State

University. I have taught approximately 700 undergraduate and graduate design and engineering students who now occupy industrial design positions in consulting offices and in nearly every industry and market segment. In addition to the core industrial design courses, I have taught special classes in industrial design studio, manufacturing materials and processes, design research, and ergonomics/human behavior.

III. MATERIALS CONSIDERED

7. In forming my opinions, I have reviewed the following documents and any other documents cited in this declaration:

Exhibit #	Description
1001	U.S. Patent No. 7,594,668 (“’668 patent”)
1002	Prosecution File History of U.S. Patent No. 7,594,668
1003	Prosecution File History of U.S. Patent Application No. 10/783,030 (’668 Parent Application)
1006	U.S. Patent Publication No. 2002/0044059 to Reeder et al. (“Reeder”)
1007	U.S. Patent No. 5,682,825 to Manner (“Manner”)
1008	U.S. Patent Publication No. 2002/0145088 to Santoro et al. (“Santoro”)
1009	RESERVED
1010	U.S. 6,493,220 to Clark (“Clark”)
1011	U.S. 4,440,096 to Rice (“Rice”)
1012	<i>Capsa Solutions LLC v. Howard Indus. Inc.</i> , No. 2:22-cv-00065-HSO-BWR, Dkt. 42-1, Joint Claim Construction Chart (S.D. Miss Apr. 26, 2023)
1013	Claim Construction Order for U.S. Patent No. 8,215,650 in <i>Rubbermaid Inc. v. Ergotron, Inc.</i> , No. 3:12-cv-416-RJC-DSC, Dkt. 42 (W.D. N.C. Mar. 11, 2014)
1014	U.S. Patent No. 4,715,295 to Hartman (“Hartman”)
1015	U.S. Patent No. 5,806,943 to Dell (“Dell”)
1016	U.S. Patent No. 5,408,940 to Winchell (“Winchell”)
1017	European Patent Specification EP 0 680 433 B1 to Foster (“Foster”)

Exhibit #	Description
1018	U.S. Patent No. 5,518,310 to Ellman (“Ellman”)
1019	U.S. Patent Publication No. 2003/0084828 to Gillis (“Gillis”)
1020	U.S. Patent Publication No. 2002/0013640 to Phoon
1021	U.S. Patent No. 5,564,803 to McDonald
1022	U.S. Patent No. 4,790,611 to Craner
1023	U.S. Patent No. 5,598,789 to Jonker
1024	Camloc Motion Control Ltd., <i>Understanding the Basics of Gas Spring Application</i> , (Apr. 1, 2019), https://www.techbriefs.com/component/content/article/tb/supplements/md/features/articles/34117
1025	German Patent Application DE 102 56 419 A1 (with English certified translation)
1026	U.S. Patent No. 5,870,647 to Nada
1027	U.S. Patent No. 6,595,144 to Doyle
1028	U.S. Patent No. 6,119,605 to Agee
1029	Howard Industries, Inc.’s Preliminary Claim Construction Reply Brief, <i>Capsa Solutions LLC v. Howard Indus. Inc.</i> , No. 2:22-cv-00065-HSO-BWR, Dkt. 46, (S.D. Miss May 26, 2023)
1030	Howard Industries, Inc.’s Preliminary Claim Construction Reply Brief, <i>Capsa Solutions LLC v. Howard Indus. Inc.</i> , No. 2:22-cv-00065-HSO-BWR, Dkt. 48, (S.D. Miss June 16, 2023)
1031	Capsa’s Preliminary Claim Construction Brief, <i>Capsa Solutions LLC v. Howard Indus. Inc.</i> , No. 2:22-cv-00065-HSO-BWR, Dkt. 45, (S.D. Miss May 26, 2023)
1032	Capsa’s Preliminary Claim Construction Reply Brief, <i>Capsa Solutions LLC v. Howard Indus. Inc.</i> , No. 2:22-cv-00065-HSO-BWR, Dkt. 47, (S.D. Miss June 16, 2023)

IV. RELEVANT LEGAL STANDARDS

8. In preparing this declaration and forming my opinions, I am relying on certain legal principles that counsel explained to me. My understanding of these concepts is summarized below.

9. I have been asked to provide my opinions regarding whether claims 3-4 (“the Challenged Claims”) of the ’668 Patent are unpatentable, either because

they are anticipated or would have been obvious to a person having ordinary skill in the art (“POSITA”) at the time of the alleged invention, in light of the prior art. I have been advised and understand that prior art includes all analogous art, and that two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. It is my opinion that the Challenged Claims would have been anticipated or obvious to a person having ordinary skill in the art at the time of the ’668 Patent invention.

10. In forming my opinions expressed below, in addition to my knowledge and experience based upon my work in the field of industrial and product design, I have considered the documents listed in the Table in Section III above.

11. I have been advised and understand that a dependent claim is a patent claim that refers back to another patent claim. I have been informed and understand that a dependent claim includes all of the limitations of the claim to which it refers.

12. I have been advised and understand that there are two ways in which prior art may render a patent claim unpatentable. First, the prior art can “anticipate” the claim. Second, the prior art can make the claim “obvious” to a person of ordinary skill in the art. I understand that for an invention claimed in a patent to be patentable,

it must not be anticipated and must not be obvious based on what was known before the invention was made.

13. I have been advised and understand that a patent claim is unpatentable as anticipated under 35 U.S.C. § 102 if each element of that claim is present either explicitly or inherently in a single prior art reference. I have also been advised and understand that, to be an inherent disclosure, the prior art reference must necessarily disclose the limitation. The fact that the reference might practice or contain a claimed limitation is insufficient to establish that the reference inherently teaches the limitation.

14. I have been advised and understand that a claimed invention is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. I have also been advised and understand that the obviousness analysis takes into account factual inquiries, including the level of ordinary skill in the art, the scope and content of the prior art, and the differences between the prior art and the claimed subject matter.

15. I have further been advised and understand that the Supreme Court has recognized several rationales for combining references or modifying a reference to show obviousness of claimed subject matter. Some of these rationales include the

following: (a) combining prior art elements according to known methods to yield predictable results; (b) simple substitution of one known element for another to obtain predictable results; (c) use of a known technique to improve a similar device (method, or product) in the same way; (d) applying a known technique to a known device (method, or product) ready for improvement to yield predictable results; (e) choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; and (f) some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

16. When considering the issue of obviousness, I have been advised and understand that I should consider (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in the art; and (4) evidence of secondary indicia of nonobviousness. I have been informed that secondary indicia of nonobviousness include (i) “long-felt need” for the claimed invention, (ii) commercial success attributable to the claimed invention, (iii) unexpected results of the claimed invention, and (iv) “copying” of the claimed invention by others.

A. LEVEL OF ORDINARY SKILL

17. In rendering the opinions set forth in this declaration, I have been asked to consider the ’668 Patent’s claims and the prior art through the eyes of a

person of ordinary skill in the art. I understand that a person of ordinary skill in the art is determined by considering (1) the type of problems encountered in the art, (2) prior art solutions to those problems, (3) the rapidity with which innovations are made, (4) the sophistication of the technology, and (5) the educational level and years of experience level of those working in the pertinent field.

18. I understand that I must evaluate the '668 Patent from the perspective of a person of ordinary skill in the art. That is, the '668 Patent must be evaluated through the eyes of a person with ordinary skill in the relevant art at the time of the invention of this patent. It is my opinion that such a person of ordinary skill in the art as related to the '668 Patent would have at least a four-year college degree in mechanical engineering, biomedical engineering, industrial design, or a closely related field and at least one year of experience in product development and design for commercial workstations and work platforms. Additional education could substitute for professional experience, and significant work experience could substitute for formal education.

19. Based on my educational background and experience, such as my experience with product and industrial design (*see* paragraphs 4-6), I am qualified as at least a person of ordinary skill in the art with respect to the '668 Patent. Thus, I am familiar with the knowledge of the person of ordinary skill in the art at the time of the '668 Patent invention. I am able to opine on how a person of ordinary skill in

the art would have understood the disclosure and claims of the '668 Patent, the disclosures of the prior art, the motivation to combine the prior art, and what combinations would have been obvious and not have been obvious to one of ordinary skill in the art.

B. CLAIM CONSTRUCTION

20. I have been informed that in an *inter partes* review proceeding, claim terms should be construed under the same standard applied in federal district court cases. Under this standard, I have been informed that claim terms are generally given their ordinary and customary meaning as understood by one of ordinary skill in the art in light of the specification and the prosecution history pertaining to the patent. I understand, however, that claim terms are generally not limited by the embodiments described in the specification.

21. I understand that in addition to the claims, specification, and prosecution history, other evidence may be considered to ascertain the meaning of claim terms, including textbooks, encyclopedias, articles, and dictionaries. I have been informed that this additional evidence is often less significant and less reliable than the claims, specification, and prosecution history.

22. I have also been informed that claims should only be construed to the extent necessary to resolve any controversy.

23. Based on my review of these materials and my personal knowledge and experience, I have considered the plain and ordinary meaning of each term of the '668 Patent as it would have been understood by one skilled in the art at the time of the '668 Patent invention. I apply the plain and ordinary meaning of each claim term throughout this declaration, however I note two issues for completeness.

24. I understand Howard has argued the term “an actuator for controlling the driver” is indefinite. Ex. 1012, 3-4; Ex. 1029, 36-40; Ex. 1030, 28-32. Patent Owner claims this term is not indefinite and should be construed as “a mechanism to activate or control equipment, e.g., by use of pneumatic, hydraulic, or electronic signals.” Ex. 1012, 3-4. I adopt Patent Owner’s construction of “actuator for controlling the driver” for the purposes of this proceeding.

25. Second, I understand Howard has argued that the term “work surface” should be construed as “a curved surface at the top of a cart large enough to dispense medication or hold work papers.” Ex. 1012, 8-9. Patent Owner advocates for the plain and ordinary meaning. *Id.* I evaluate grounds for both constructions in my analysis and comments below.

V. THE CHALLENGED CLAIMS ARE UNPATENTABLE

26. Based on my review of the materials set forth above, including my application of the knowledge of a person of ordinary skill in the art, it is my opinion

that claims 3-4 of the '668 Patent are rendered obvious to one of ordinary skill in the art.

27. In particular, it is my opinion that claims 3-4 of the '668 Patent are either anticipated or would have been rendered obvious to one of ordinary skill in the art, based on the grounds shown below:

<i>Clark Obviousness Grounds</i>		
Ground 1A/B	Claim 3	Clark in view of Manner and Santoro (1A) or Clark in view of Manner, Santoro, and Gillis (1B) renders claim 3 obvious.
Ground 2A/B	Claim 4	Clark in view of Manner (2A) or Clark in view of Manner and Gillis (2B) renders claim 4 obvious.

<i>Reeder Obviousness Grounds</i>		
Ground 3A/B	Claim 3	Reeder in view of Manner and Santoro (3A) or Reeder in view of Manner, Santoro, and Gillis (3B) renders claim 3 obvious.
Ground 4A/B	Claim 4	Reeder in view of Manner (4A) or Reeder in view of Manner and Gillis (4B) renders claim 4 obvious.

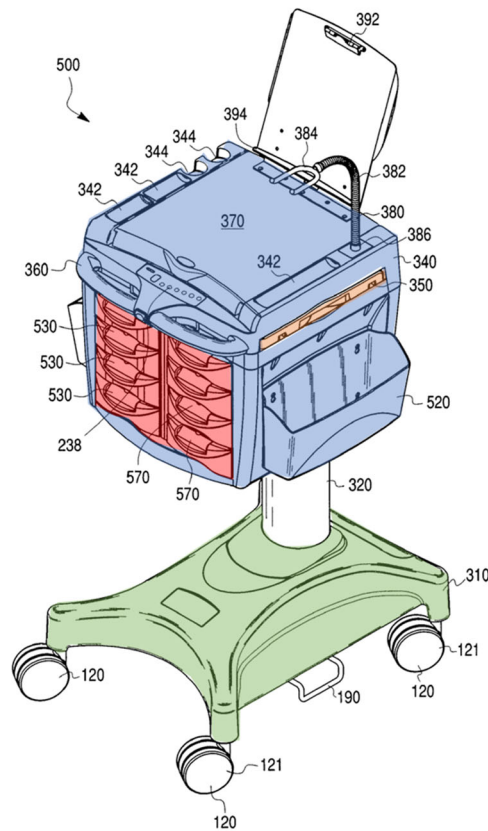
A. The '668 Patent

1. Overview of the '668 Patent

28. The '668 patent describes a medical cart that “includes a work platform having a work surface and at least one compartment, a base, and a height adjustment mechanism for adjusting the height of the work platform relative to the

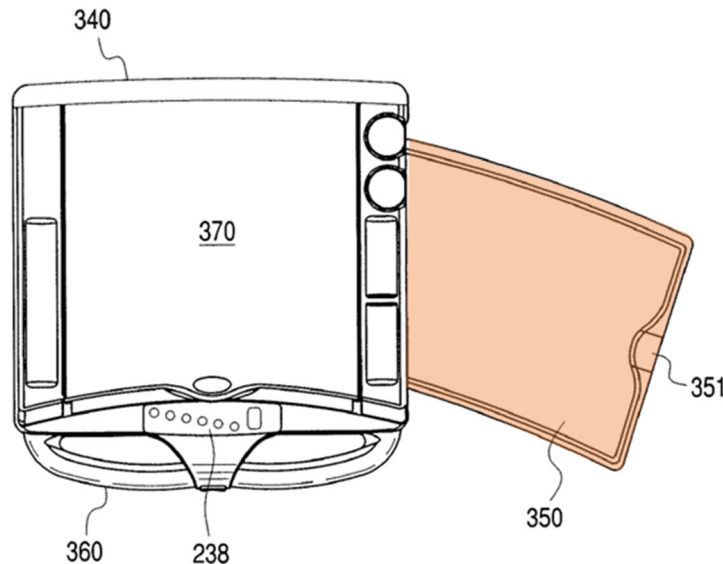
base.” ’668 patent, Abstract. The patent depicts medical cart 500 in Figure 1, which includes work platform 340, compartments 530, base 310, and work surface 350:

Fig. 1



’668 patent, Fig. 1 (annotated). Work surface 350 is further illustrated in Figure 4A:

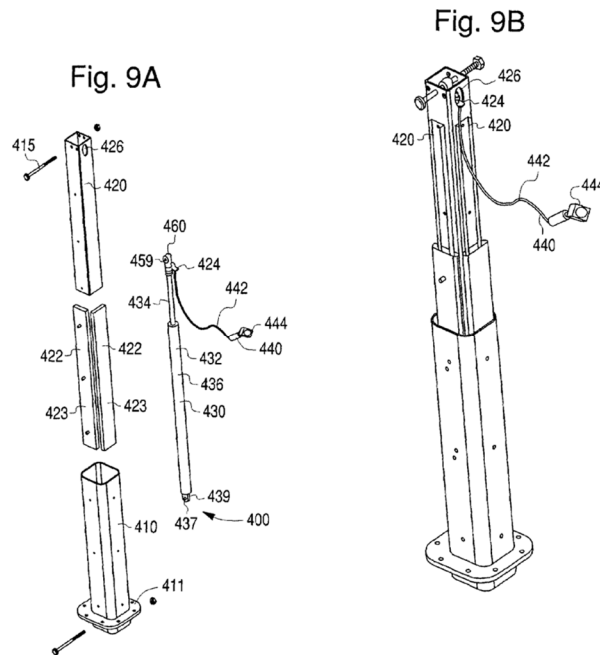
Fig. 4A



Id., Fig. 4A. The '668 patent includes a height adjustment mechanism that “enables a standing user to ergonomically raise and lower the work platform 340.” *Id.*, 8:25-28.

29. Each of independent claims 3 and 4 include a height adjustment mechanism that comprises a stationary casing, a telescopic casing, a driver configured to releasably lock the telescoping casing relative to the stationary casing, and an actuator for controlling the driver. *Id.*, 15:15-27, 15:34-45. Claim 3 additionally requires “at least two drawer slides disposed between the stationary casing and the telescopic casing.” *Id.*, 15:19-20. The specification explains the driver “includes a gas driven piston 432 which, in turn, includes a body portion 436 and a telescoping strut 434.” *Id.*, 8:52-53. Driver 430 “is controlled by an actuator 440 to which is connected by a connector 442.” *Id.*, 8:54-55. The '668 patent depicts the

height adjustment mechanism 400, including the gas driven piston 430 and actuator 440, in figures 9A and 9B:



Id., Figs. 9A-9B. The specification describes a process where a user pushes button 444 of the actuator and then pushes down or lifts the work platform to lower or raise the work platform before releasing the button to lock it at a given position. *See id.*, 9:1-37. The work platform 340 “may be releasably locked at any position between the lowest position and the height [sic] position by releasing the button 444.” *Id.*, 9:31-35. The ’668 patent further describes that the actuator “may be provided in a front portion of the medical cart 500.” *Id.*, 9:1-2.

30. Independent claims 3 and 4 of the ’668 patent vary only slightly from each other. The work platform of claim 3 includes “compartments for containing items” whereas the work platform of claim 4 contains “at least one compartment for

containing an item.” *Id.*, 14:62-63, 15:29-31. The height adjustment mechanism of claim 3 includes “at least two drawer slides disposed between the stationary casing and the telescoping casing,” but the height adjustment mechanism of claim 4 does not include drawer slides. *Id.*, 15:15-23, 15:34-45. Independent claims 3 and 4 are otherwise the same. *See id.*, 14:61-15:58.

2. Prosecution History

31. The ’668 patent issued from a continuation application where, prior to examination, the applicant filed a preliminary amendment canceling all pending claims and adding the now-issued claims. Ex. 1002, 108-115. In its remarks to the preliminary amendment, the Applicant indicated that the new claims “correspond to the allowed claims...from the parent application (U.S. Application No. 10/783,030)” (the “’030 application”). *Id.*, 115. The claims were allowed in the next action by the Examiner and the patent subsequently issued. *Id.*, 84, 87-92.

32. During prosecution of the ’668 patent’s parent application, the Examiner discussed U.S. 6,721,178 (“the ’178 reference”). The Examiner explained that the ’178 reference teaches a cart with a work platform, at least one compartment, a base, a height adjustment mechanism configured to position the work platform at a plurality of heights, a stationary casing, a telescoping casing, a driver and an actuator. Ex. 1003, 44-45. According to the Examiner, the ’178 reference failed to teach “the actuator as being positioned above the compartment.” *Id.*, 45. The

Examiner found it would have been obvious “to provide the actuator at a location above the compartment” or “located on the work platform” in view of the ’178 reference in combination with George (WO 03/013307 A1) or Rice (U.S. 4,440,096). *Id.*, 9, 12-13. The Examiner cited Rice’s actuator control 30 which is depicted at the front edge of Rice’s work platform 18:

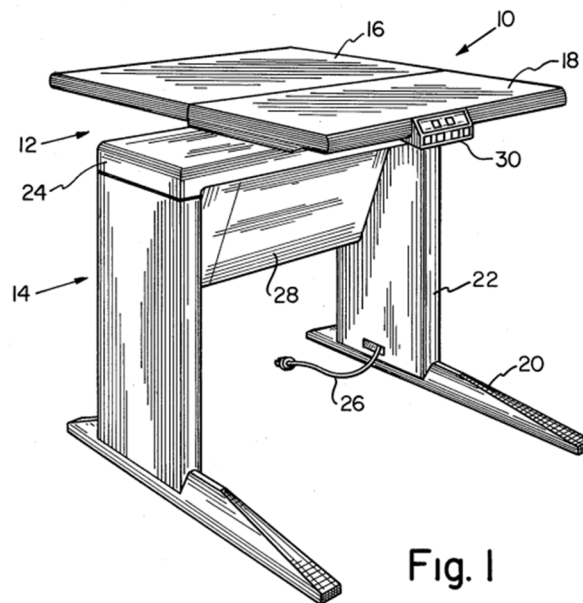


Fig. 1

Rice, Fig. 1.

VI. GROUND 1: CLAIM 3 IS UNPATENTABLE OVER CLARK, MANNER, AND SANTORO [AND GILLIS, GROUND 1B]

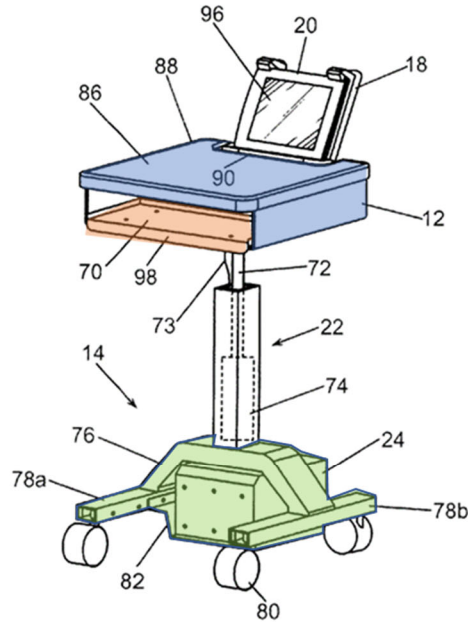
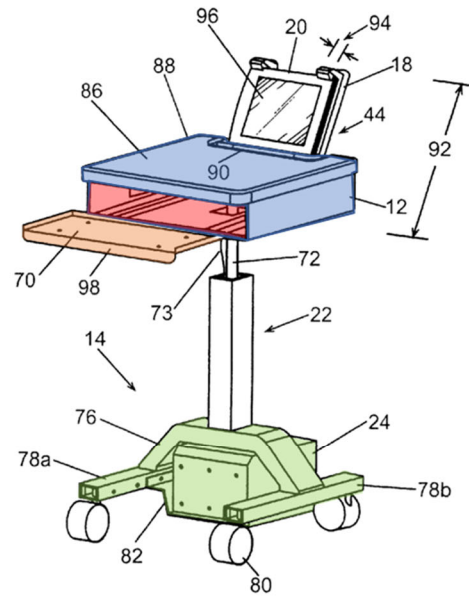
A. Overview of the Combination

1. Clark

33. Clark discloses a “mobile workstation [that] includes an adjustable-height horizontal tray and a pull-out keyboard tray mounted beneath the horizontal tray to support a keyboard.” Clark, Abstract. Clark notes that its “[w]ireless

computer terminals are particularly well-suited to medical care environments, such as hospitals, doctors' offices, and nursing homes." *Id.*, 1:15-17. Clark's medical cart enables a "medical practitioner making the rounds [to] push the mobile workstation from room to room and use the same computer terminal when attending each patient." *Id.*, 2:63-65.

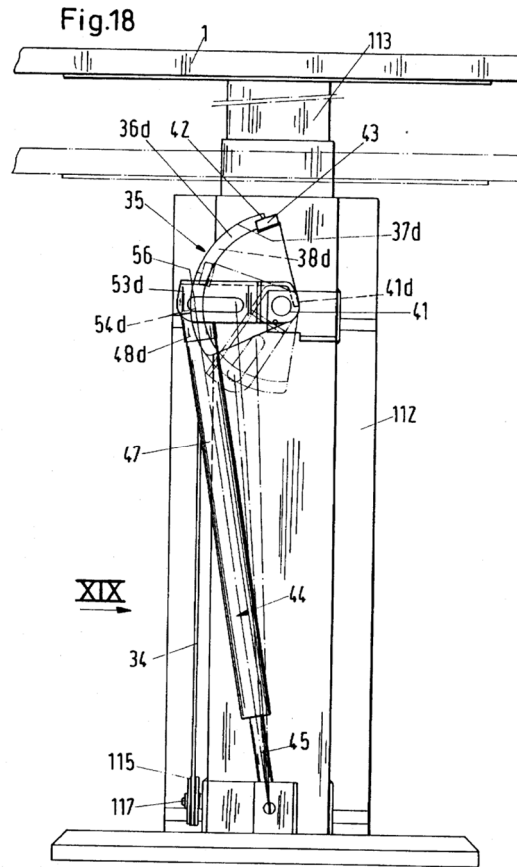
34. Clark discloses several embodiments of a height adjustable cart. For example, Clark discloses a "mobile workstation 10 [that] includes an adjustable-height horizontal tray 12 supported by a chassis 14." *Id.*, 8:53-55. The chassis 14 includes a dolly assembly 16 and "a vertical beam 22 connecting the horizontal tray 12 to the dolly assembly." *Id.*, 8:50-62. The vertical beam 22 includes "a gas-spring height adjustment mechanism for adjusting the length of the beam and, thus, the height of the horizontal tray 12 above the dolly assembly 14." *Id.*, 8:63-66. The workstation also includes a "pull-out keyboard tray 70 [which] slides from an inner position, as shown in Fig. 4A, to an outer position, shown in Fig. 4B." *Id.*, 11:40-45. Clark depicts a docking station 18 on the work platform, and Clark notes that "[a]lternatively, the docking station 18 could be supported in a substantially horizontal position, for example by a drawer or pull-out tray located above or under the horizontal tray 12." *Id.*, 10:30-33.

**Fig. 4A****Fig. 4B**

Clark, Figs. 4A and 4B (annotated); *see also id.*, Figs. 1, 2A-D, 8, 9A-D, 10A-B, 12A-C, 16-20.

2. Manner

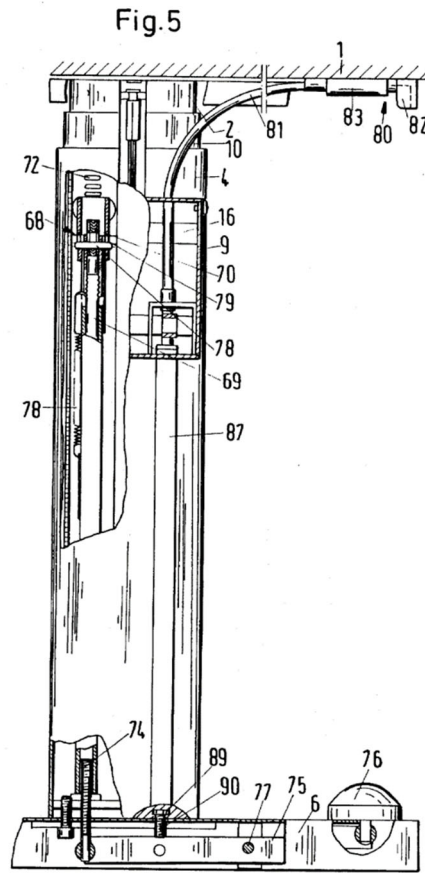
35. Manner discloses a height-adjustable worktable with a support frame and at least one telescopic column. Manner, Abstract. In an embodiment, Manner discloses a work table with “one single column 112 as a support frame.” *Id.*, 15:1-3. The column includes a gas spring 44 with a piston rod 45. *Id.*, 15:8-10. The tabletop may be lowered after releasing an arresting device, which “results in the piston rod 45 to be pushed into the gas spring 44 so that the counterforce is correspondingly increased.” *Id.*, 15:62-67. This enables a user to “lower the tabletop 1 without exerting great forces.” *Id.*, 16:8-9.



Manner, Fig. 18.

36. Manner employs an arresting device “to be able to arrest the tabletop 1 at the selected level relative to the table frame.” Manner, 8:38-40. The tabletop 1 “is lowered after releasing the arresting device” which “results in the piston rod 45 to be pushed into the gas spring 44.” *Id.*, 15:62-67. Manner teaches that the arresting device may be activated “from any desired position at the worktable” using “actuating device 80.” *Id.*, 9:17-23. Actuating device 80 may be “the only actuating device of the worktable.” *Id.*, 9:19-22. The “actuating device 80 comprises a Bowden pull 81 which ... is guided to the edge of the table top 1 facing the user of the work table.” *Id.*, 9:24-26. The actuator’s holder 83 “can be connected at any desired

location to the table top 1 so the actuating device 80 can be easily activated by the user.” *Id.*, 9:33-35. Manner illustrates the actuator 80 positioned by its holder 83 at the edge of the table 1 facing the user:



Manner, Fig. 5.

3. Santoro

37. Santoro describes a “height adjustable work station main frame [that] includes a pair of telescoping, adjustable legs.” Santoro, Abstract. Santoro depicts the work station main frame and the telescoping legs 12 and 14:

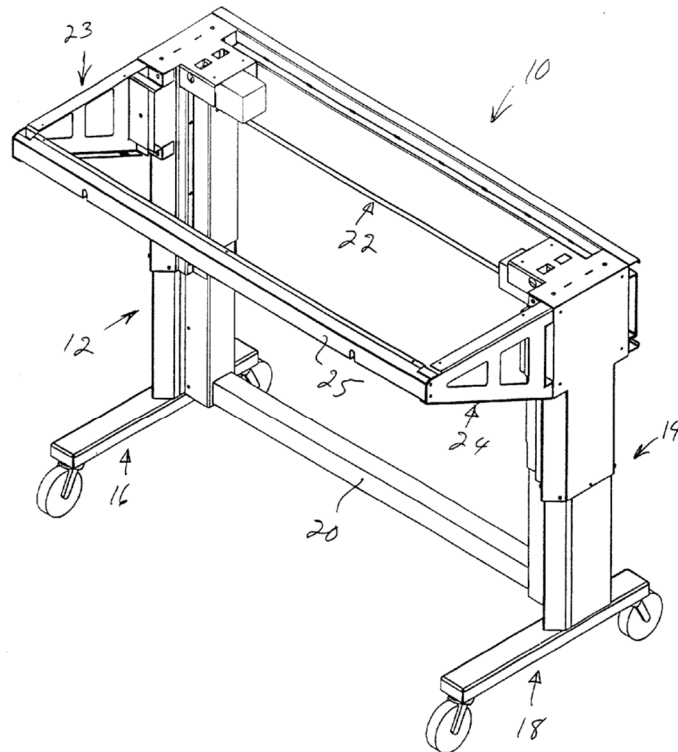
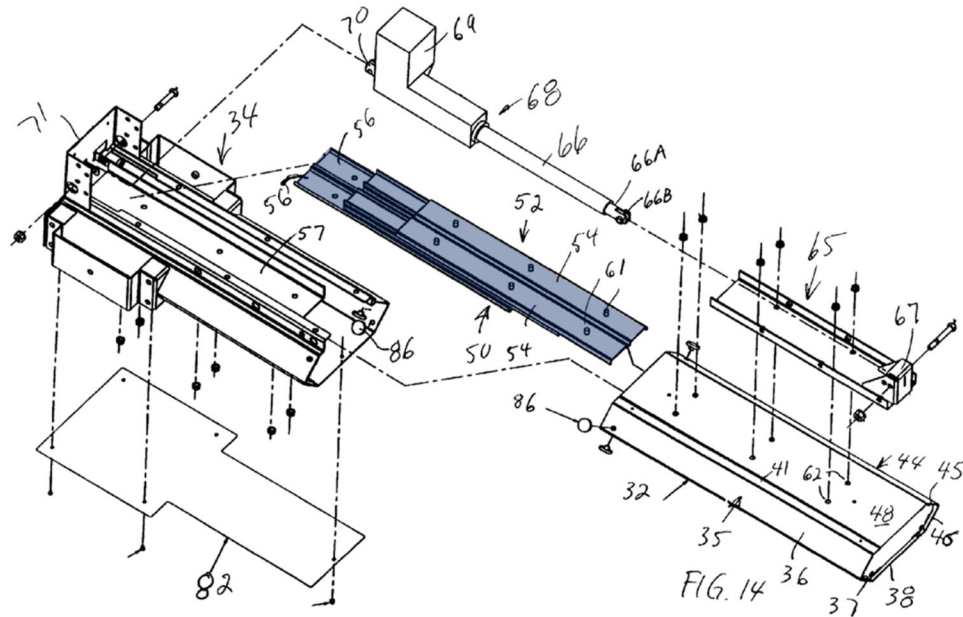


FIG 1

Id., Fig. 1, [0033]. Santoro's telescopic legs include an inner leg 32 and an outer leg 34.

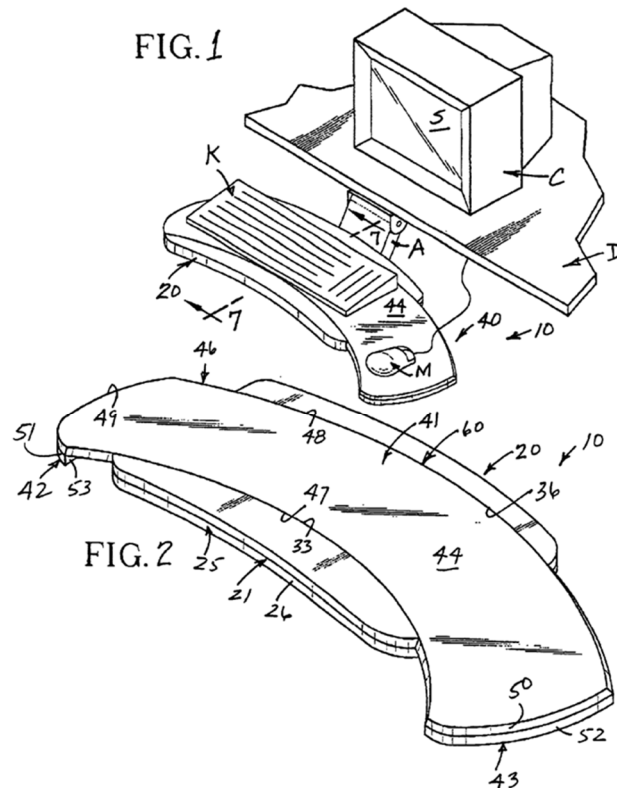
38. Each telescoping leg includes “[a] pair of conventional slide mechanisms generally designated respectively 50 and 52...operationally mounted between the inner leg 32 and the outer leg 34.” *Id.*, [0036]. The slide mechanisms include “a first side member 54, a central member 55, and a second side member 56” and “rows of ball bearings between the respective side members and center member” which “are well known to those skilled in the art of drawer slides.” *Id.* Santoro explains that “[f]ore and aft stability is increased by the...laterally aligned bearing slide assemblies.” *Id.*, Abstract.



Santoro, Fig. 14 (annotated).

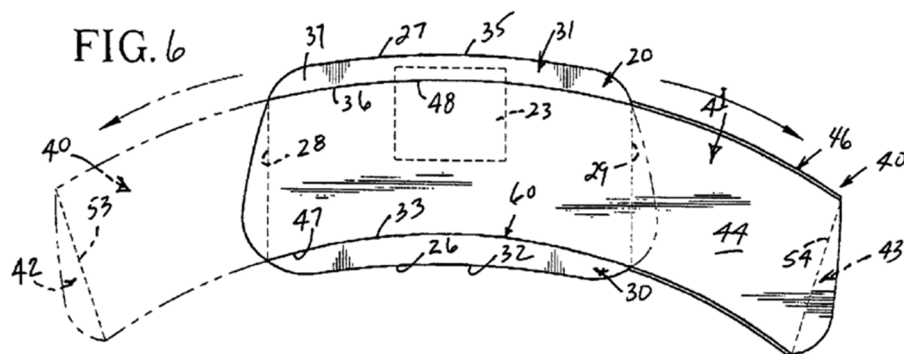
4. Gillis

39. Gillis discloses “a tray for supporting multiple input devices, such as a keyboard and a mouse, on substantially a common plane.” Gillis, [0001]. Gillis’s tray is “formed as a base and slide member” that is “disposed in a groove opening upwardly through a top surface.” *Id.*, [0020]. The “groove 60 is of arcuate configuration”. *Id.*, [0034]. Gillis’s tray 10, slidable member 40 and groove 60 may support a keyboard and mouse as depicted in Figs 1 and 2:



Gillis, Figs. 1-2.

40. Gillis's slidable member 40 may slide in either a left or rightward direction because the "groove 60 and the top member 41 effect accurate sliding movement of the slidable member 40 between the left-hand and right-hand limits illustrated in phantom outline and solid lines in FIG. 6:"



Id., [0035], Fig. 6.

B. RATIONALE FOR COMBINING CLARK, MANNER, AND SANTORO [AND GILLIS GROUND 1B]

1. The References are Analogous Art

41. The references are analogous art to the '668 patent because they are in the same field of endeavor: height adjustable workstations. The '668 patent describes that it is a medical cart having a work platform, a work surface “and a height adjustment mechanism for adjusting the height of the work platform relative to the base.” '668 patent, Abstract.

42. **Clark** discloses a mobile workstation that includes “a gas-spring height adjustment mechanism for adjusting the length of the beam and, thus, the height of the horizontal tray 12.” Clark, 8:50-62. Clark explains its height adjustable tray “avoids back strain or other lifting problems that could otherwise be encountered by operators using the mobile workstation 10.” *Id.*, 10:5-8. Clark depicts a telescoping vertical beam 22 as part of its height adjustment mechanism. *Id.*, 8:63-9:10, Figs. 2A-D.

43. **Manner** discloses a “height-adjustable work table” with “at least one telescoping column.” Manner, Abstract. Manner’s tabletop may be adjusted in height, which “results in the piston rod 45 to be pushed into the gas spring 44 so that the counterforce is correspondingly increased.” *Id.*, 15:62-67. This enables a user to “lower the table top 1 without exerting great forces.” *Id.*, 16:8-9.

44. **Santoro** describes a “height adjustable work station main frame [that] includes a pair of telescoping, adjustable legs.” Santoro, Abstract. Santoro’s “leg assembly includes inner and outer legs which are received in sliding telescoping relation.” Santoro, [0011].

45. Because all references generally disclose height-adjustable work platforms and work surfaces with telescoping supports, in my opinion, a POSITA would have found them combinable with a reasonable expectation of success.

2. Combining Clark, Manner, and Santoro [and Gillis, Ground 1B]

46. In my opinion, Clark discloses the majority of features of the ’668 patent including a height adjustable medical cart with telescopic sections, a work platform, a work surface, and a driver, but it does not expressly disclose (1) an actuator disposed on the portion of the work platform that projects in the forward direction, or (2) drawer slides disposed between the stationary casing and the telescoping casing.

47. Clark’s gas spring driver is controlled by a release lever 42 that extends through “an opening in the side of a horizontal tray.” Clark, 10:51-62. Clark also discloses that the docking station “could be supported by a drawer” instead of resting on the top of the horizontal tray. *Id.*, 10:30-37. In my opinion, a POSITA implementing the drawer embodiment recited in Clark would have recognized the interior drawer contents would compromise the functionality of the lever 42, for

example, by preventing actuation or unintentionally activating lever 42. Even without the drawer, contents stored in Clark's cavity would also interfere with actuation of the activating lever 42. Moreover, a POSITA implementing the drawer embodiment recited in Clark would have recognized a hole in the side of the horizontal tray would compromise the functionality of the drawer because the interior drawer contents would be accessible from the side through the hole, and security of health information (medical histories, test results, prescriptions, etc.), as well as the medications themselves, was a common concern in the medical cart industry. Ex. 1020, [0004]-[0005]; Ex. 1021, 1:35-55. A POSITA would have been motivated to reposition the actuator to another location on the work platform to implement the drawers recited in Clark.

48. In my opinion, a POSITA would have readily understood that Manner discloses information on implementing actuators for gas springs at flexible locations on a work platform. Like Clark and the '668 patent, Manner discloses a height-adjustable work platform with a telescopic column. Manner, 1:5-7. Manner provides implementation details of the internal components to the telescopic column that support the height adjustment functionality of Manner's work platform. For example, Manner explains that the column includes "a gas spring 44" the operation of which enables the user to "lower the table top 1 without exerting great force." Manner, 15:8-10, 15:61-16:9. Manner also explains how release of an arresting

device controls the gas spring because releasing it “results in the piston rod 45 to be pushed into the gas spring 44 so that the counterforce is correspondingly increased.” *Id.*, 15:62-67. Manner describes an actuating device 80 for releasing the arresting device that “can be connected at any desired location to the table top 1 so that [it] can be easily activated by the user.” *Id.*, 9:33-35. For example, Manner shows and describes the actuating device 80 high and facing the user. *See, e.g., id.*, Figs. 5, 12. Manner’s actuating device 80 comprises a Bowden pull 81 positioned on the edge of its work table. *Id.*, 9:24-26. A POSITA would have been motivated by Manner’s teaching to make the actuator “easily activated by the user” and would have looked to substitute Clark’s lever actuator with Manner’s actuator.

49. A POSITA would have recognized Manner’s Bowden pull actuator as a suitable substitute for the lever actuator 42 disclosed in Clark. Manner expressly states these two actuators may be substituted for each other. Manner, 9:17-31. To this end, a POSITA would have been motivated to implement the Bowden pull actuator in Manner to control Clark’s gas-spring height adjustment mechanism to provide flexibility in locating the actuator and to ensure operation of Clark’s drawer embodiments.

50. Additionally, it is my opinion that a POSITA would have recognized the importance of providing drawer slides as described in Santoro into the height adjustment mechanism. As Santoro notes, its slide mechanisms were “conventional

slide mechanisms” and “well known to those skilled in the art of drawer slides.”

Santoro, [0036]. For example, U.S. Patent Nos. 4,790,611 and 5,598,789 each depict height adjustable work platforms that implement drawer slides, further indicating such devices were well known. Ex. 1022 4:37-5:17; Ex. 1023, 3:4-28. A POSITA would have recognized the importance of reducing binding between the sections of Reeder’s telescoping column and would have looked to slides as in Santoro to reduce binding between sliding telescopic components. Foster recognizes the problem of a gas spring “coming into contact with or otherwise binding up” during its operation. Foster, [0056]. It was common to implement slides and rollers in height adjustment mechanisms to reduce binding of the device during operation. For example, Winchell teaches including “rollers 51 and 52” in its height adjustment mechanism “to prevent binding during operation.” Winchell, 6:24-37. Such techniques were wholly conventional to a POSITA at the ’668 patent’s priority date.

51. A POSITA would have had a reasonable expectation of success in combining these features because the prior art recognized that height adjustable work platforms include weight-compensation devices employing gas springs. Manner, 1:13-33, 2:26-28, 7:6-15, 7:60-67, 15:8-12, 15:62-16:23. The prior art expressly recognized its benefits when used in “smaller work tables, especially in the computer field.” *Id.*, 1:29-33. The combination would have involved combining known prior art elements (a height-adjustable medical cart, a gas spring, drawer

slides, and a Bowden pull actuator on the front of a work platform) according to known methods (all employed in height adjustable work platforms with telescoping columns) to yield predictable results.

52. **For Ground 1B**, it would also have been obvious for a POSITA to modify the keyboard tray in Clark to incorporate Gillis's slidable tray 10, enabling Reeder's keyboard tray to move in a leftward or rightward direction along an arcuate path. The modification would involve the simple substitution of the slidable member 40 and groove 60 of Gillis's keyboard tray 10 with Clark's keyboard tray to obtain the predictable result of a keyboard that could extend toward the user and then slide in either a rightward or leftward direction along an arcuate path. A POSITA would have been motivated to incorporate Gillis's slideable tray "for accommodating both left-handed and right-handed people" who may use a computer mouse in either a left or right hand. Gillis, [0001].

C. Claim 3

1. [3pre] A cart comprising:

53. It is my opinion Clark discloses [3pre] because it discloses a cart in the form of "[a] mobile workstation includes an adjustable-height horizontal tray and a pull-out keyboard tray mounted beneath the horizontal tray to support a keyboard." Clark, Abstract, *see also id.*, 1:7-12, 2:59-67, 3:23-59, 4:5-11.

54. Clark explains “[t]he present invention may be embodied in a mobile workstation that includes an adjustable-height horizontal tray and a vertically-mounted docking station mounted to the horizontal tray.” *Id.*, 5:65-6:12; *see also id.*, 6:25-31, 6:42-7:18; 8:35-52; 13:28-37; 15:10-23; 22:18-27; 25:15-28.

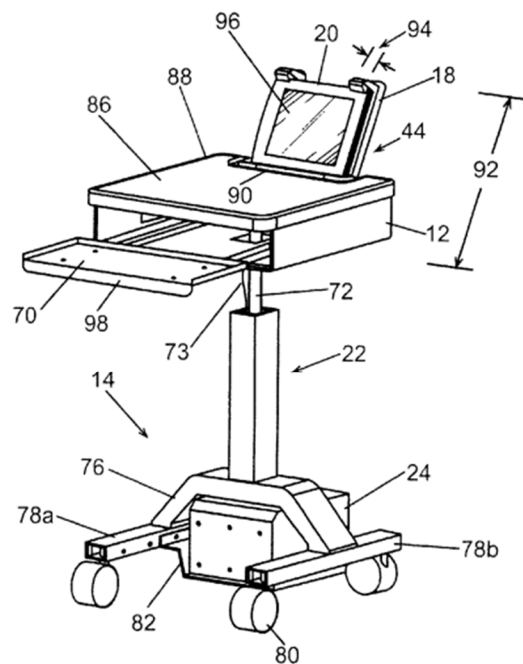


Fig. 4B

Clark, Fig. 4B; *see also id.*, Figs. 1, 2A-D, 4A, 8, 9A-10B, 12A-C, 16-20.

55. Clark’s implementation of a cart or workstation comports with the disclosure of the ’668 patent. The ’668 patent explains that it describes a medical cart with a work platform. *See* ’668 patent, Abstract. Medical carts are used in a hospital environment to aid health professionals in, for example, dispensing medication. *See id.*, 1:40-58. Clark’s disclosure also relates to medical carts and

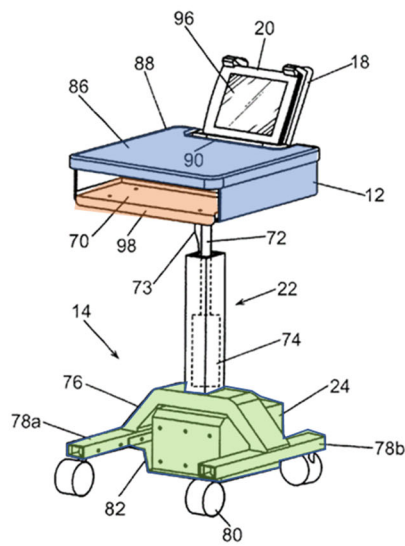
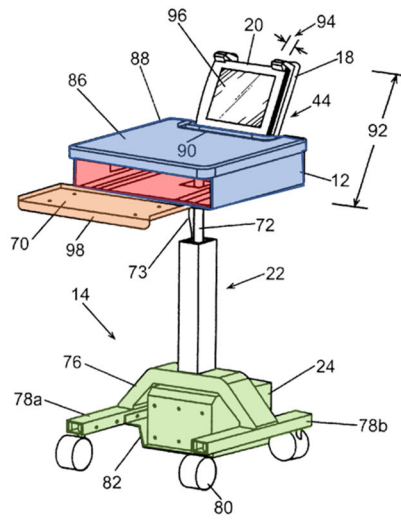
provides for “[a] medical practitioner making the rounds can push the mobile WorkStation from room to room and use the same computer terminal when attending each patient.” Clark, 2:63-64.

2. [3a] a work platform including a work surface and compartments for containing items;

56. It is my opinion that Clark discloses and/or renders obvious element [3a].

57. Clark discloses a work platform including a work surface and compartments for containing items. Clark discloses a work platform in the form of horizontal tray 12. Clark explains “FIGS. 2A-2D are a series of side views of the mobile workstation 10 illustrating the operation of an adjustable height horizontal tray 12 and the tiltable docking station 18.” Clark, 9:50-61. Clark’s “top side of the horizontal tray 12 defines a substantially horizontal work surface 86, which is bordered by a raised edge guard 88.” *Id.*, 11:67-12:26. Clark discloses a work surface in the form of a pull-out keyboard tray 70. “The pull-out keyboard tray 70 slides from an inner position, shown in FIG. 4A, to an outer position, shown in FIG. 4B.” Clark, 11:40-45.

58. Clark teaches a compartment within the work platform in the form of a cavity below the work surface 86 and above the pullout keyboard tray 70. *See* Clark, Fig. 4A-B (annotated):

**Fig. 4A****Fig. 4B**

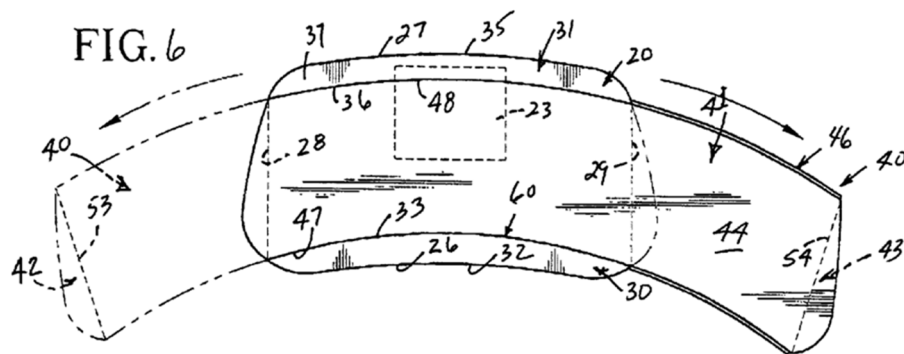
59. Though not shown in the figures, Clark explains that the cavity may be a drawer. *Id.*, 10:30-33 (“Alternatively, the docking station 18 could be supported in a substantially horizontal position, for example **by a drawer** or pull-out tray **located above or under the horizontal tray 12.**”). Clark also explains the pull-out tray could alternatively be located above or under the horizontal tray 12, demonstrating the flexible nature of the positioning of the work surface and compartments in Clark within the work platform. *Id.*

60. Though Clark expressly discloses a single compartment, it would have been obvious for a POSITA to subdivide the cavity in Clark with multiple drawers, or to implement more than one drawer “above or under the horizontal tray 12.” Clark, 10:30-33. Implementing multiple drawers in medical carts was routine. *Id.*; Reeder, Figs 30, 32; Ellman, 2:18-24, Figs 1-2. A POSITA would have been

motivated to do so to improve the ability to organize unlike items in separate storage compartments.

61. **For Ground 1B**, if the Board finds the work surface should be construed as “a curved surface at the top of a cart large enough to dispense medication or hold work papers,” it is my opinion that Clark combined with Gillis renders obvious this limitation.

62. Gillis discloses a work surface configured to move in a leftward or rightward direction along an arcuate path that faces the forward direction. Gillis discloses a tray 10 with a slidable member 40 that may slide in either a left or rightward direction in groove 60. Gillis, [0001], [0020], [0031]-[0035], Figs. 1, 2, and 6. Gillis expressly discloses its “groove 60 is of a arcuate configuration” and that “groove 60 and the top member 41 effect **accurate sliding movement** of the slidable member 40 between the left-hand and right-hand” sides of the tray. *Id.*, [0034], [0035]. As can be seen in Figure 6, the slidable member slides along an arcuate path:



Id., Fig. 6.

63. It would have been obvious to modify the slidable keyboard tray in Clark to incorporate a slidable member 40 and groove 60 so that the keyboard tray would move in a leftward or rightward direction along an arcuate path as taught by Gillis. The modification would involve the simple substitution of the slidable member 40 and groove 60 of Gillis's keyboard tray 10 with Clark's keyboard tray to obtain the predictable result of a keyboard that could extend toward the user and then slide in either a rightward or leftward direction along an arcuate path. In such a combination, Gillis's slideable member 40 would have fit within Clark's cavity below the work surface 86. It would have been well within the ordinary skill of a POSITA to size Clark's cavity below the work surface 86 of Clark to implement the slideable member 40 in place of Clark's pull-out keyboard tray 70. A POSITA would have been motivated to incorporate Gillis's slideable tray "for accommodating both left-handed and right-handed people" who may use a computer mouse in either a left or right hand. Gillis, [0001].

3. [3b] a base configured to be movable in at least a rearward direction; and

64. It is my opinion that Clark discloses element [3b].

65. Clark discloses a base configured to be movable in at least a rearward direction with its dolly assembly. Clark explains the "dolly assembly includes an arched cross-beam 76 that connects to two horizontal runner beams 78a—b. Two

casters, represented by the caster 80, are connected to the bottom sides of each horizontal runner beam 78a—b.”). Clark, 11:59-63; *see also id.*, 16:26-30.

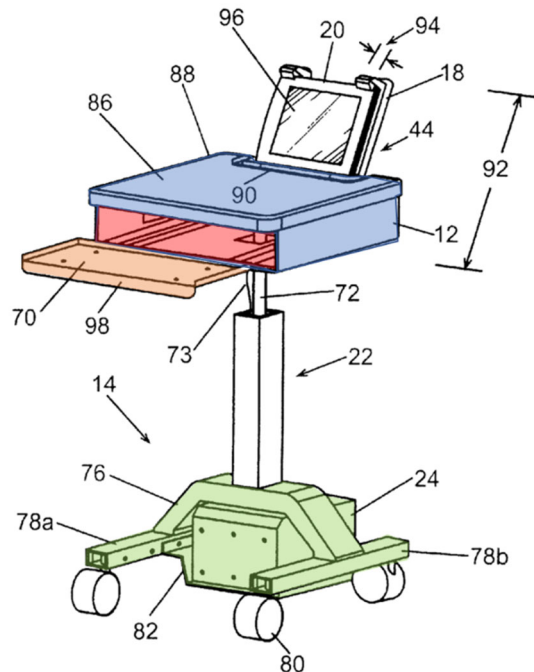


Fig. 4B

Clark, Fig. 4B (annotated). A POSITA would have understood casters attached to the bottom of Clark’s dolly assembly enabled the base to be movable in at least a rearward direction (i.e., away from a user facing the computer screen.).

4. [3c] a height adjustment mechanism for adjusting the height of the work platform relative to the base,

66. In my opinion, Clark discloses element [3c].

67. Clark discloses a height adjustment mechanism in the form of a vertical beam 22, a gas-spring height adjustment mechanism 74, and shaft 72. Clark explains its embodiment has “vertical beam 22 [that] includes a gas-spring height adjustment mechanism for adjusting the length of the beam and, thus, the height of

the horizontal tray 12 above the dolly assembly 14. Clark, 8:63-9:10. “[S]haft 72 connects to the gas-spring height adjustment mechanism 74 that allows adjustment of the height of the horizontal tray 12. The gas-spring height adjustment mechanism 74, which is located at the bottom of the vertical beam 22, sits on top of the dolly assembly 16.” *Id.*, 11:54-58.

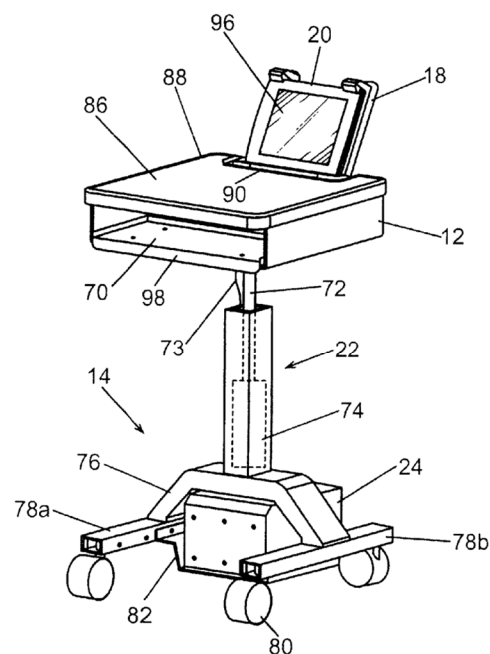


Fig. 4A

Clark, Fig. 4A.

68. The '668 patent similarly describes its height adjustment mechanism as including a driver 430 that includes a gas driven piston 432. '668 patent, 8:29-55.

5. [3d] wherein the base includes a portion that projects from the height adjustment mechanism in a forward direction that is substantially opposite to the rearward direction,

69. In my opinion, Clark discloses element [3d].

70. As can be seen in Figure 4A, Clark's base includes a portion, runner beam 78a, that projects from the height adjustment mechanism (vertical beam 22, a gas-spring height adjustment mechanism 74, and shaft 72) in a forward direction that is substantially opposite to the rearward direction:

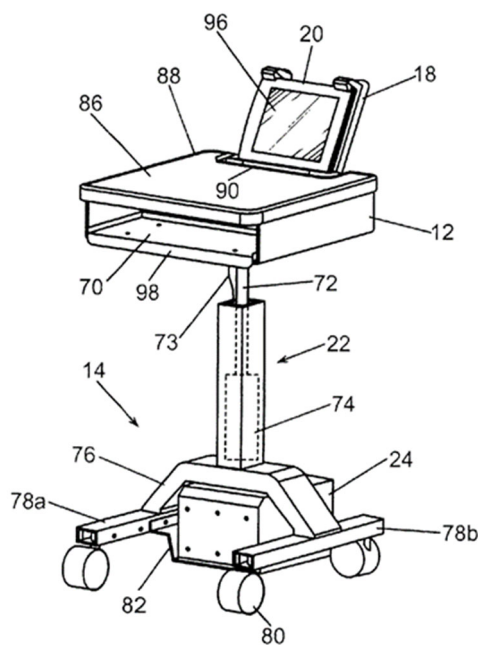


Fig. 4A

Clark, Fig. 4A; *see also id.*, 11:59-63.

6. [3e] wherein the work platform includes a portion that projects from the height adjustment mechanism in the forward direction, the compartments are disposed in the portion of the work platform that projects from the height adjustment mechanism in the forward direction, and the compartments are configured to permit a user facing in the rearward direction to access an item within the compartments,

71. It is my opinion that Clark discloses this element.

72. For example, Clark's Figure 4A depicts a portion of work platform 12 projecting in a forward direction from height adjustment mechanism 74:

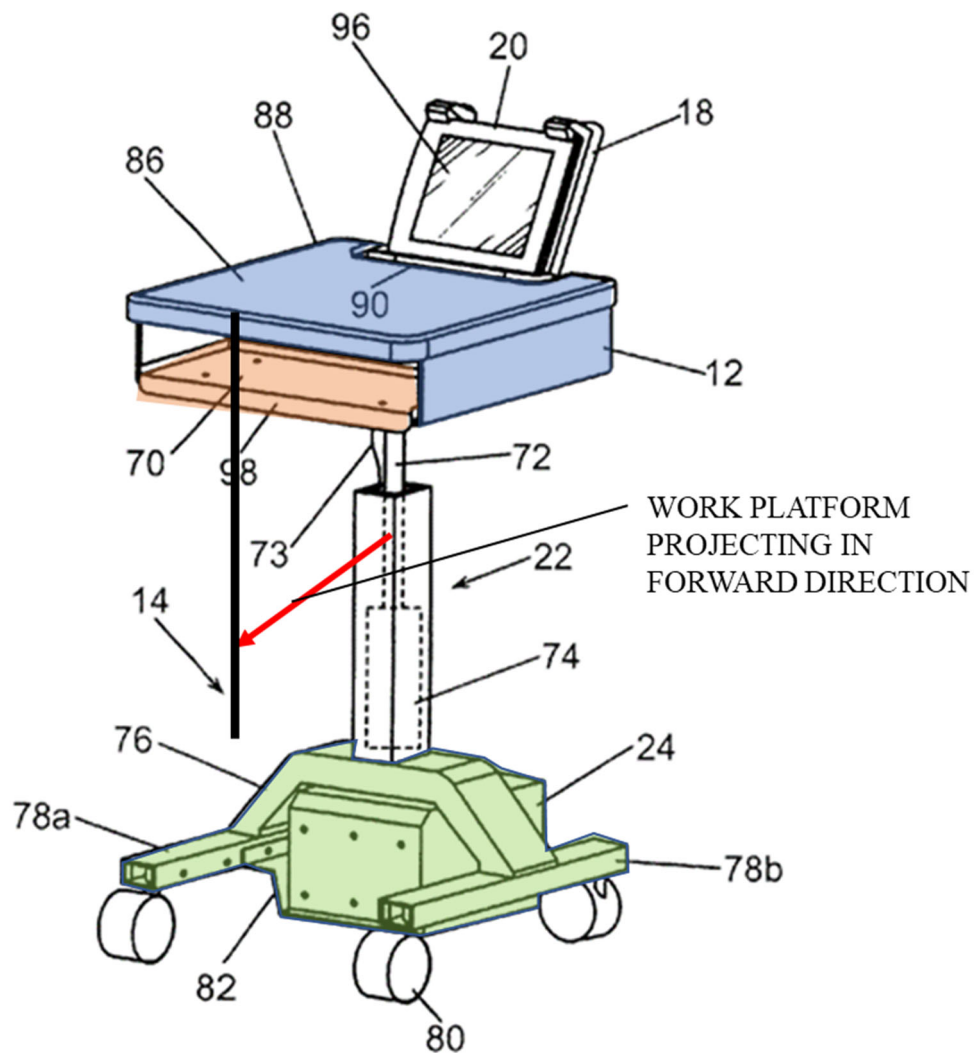


Fig. 4A

Clark. Fig. 4A (annotated). The compartment shown below horizontal work surface 86 is disposed in the portion of the work platform that projects, relative to the height adjustment mechanism, in the forward direction, because it extends to the forward side of the height adjustment mechanism within the work platform. The

compartments are configured to permit a user facing in the rearward direction to access an item within the compartments because the compartment is open on the side facing the user when the user faces the computer.

7. **[3f] wherein the height adjustment mechanism is configured to releasably lock the work platform at a plurality of heights,**

73. In my opinion, Clark discloses element [3f].

74. When discussing the prior art, Clark discloses “[a] locking mechanism [that] selectively prevents the leveling tray from moving vertically.” Clark, 1:61-63. Clark’s height adjustment mechanism can be positioned at multiple heights. *See id.*, 4:5-11 (explaining each embodiment includes “a mechanism for altering the length of the vertical beam and maintaining the tray at a number of selectable distances from the dolly assembly.”)

75. Clark’s height adjustment mechanism releasably locks the work platform at a plurality of heights. Clark explains “[o]nce the horizontal tray 12 is at a desired height, represented by the height shown in FIG. 2B, **the operator releases the lever 42, which locks the tray at the desired height.** With this type of mechanism, the operator can quickly and easily place the horizontal tray 12 at virtually any height within the adjustment range of the gas-spring height adjustment mechanism.” *Id.*, 9:63-10:8 *see also id.*, 9:53-10:8, 14:65-15:10. When describing raising the platform, Clark explains “[t]he operator then lifts a release lever 42,

which releases a stop in the gas-spring height adjustment mechanism in the vertical beam. The operator then raises or lowers the horizontal tray 12 while holding the release lever 42 in a raised position.” *Id.*, 9:56-60.

76. Clark’s height adjustment mechanism releasably locks the work platform in the same way as described in the ’668 patent. *See* ’668 patent, 9:13-16 (“If the button 444 is released while the work platform 340 is being lowered, the work platform 340 will be releasably locked at the height at which the button 444 is released.”), 9:31-35 (describing a similar process for raising the work platform).

8. **[3g] wherein the height adjustment mechanism comprises: a stationary casing connected to the base; a telescoping casing connected to the work platform and configured to move relative to the stationary casing;**

77. It is my opinion that Clark discloses element [3g].

78. Clark discloses a stationary casing connected to the base. The casing is visible below vertical beam 22 when Clark’s work platform is in an elevated position:

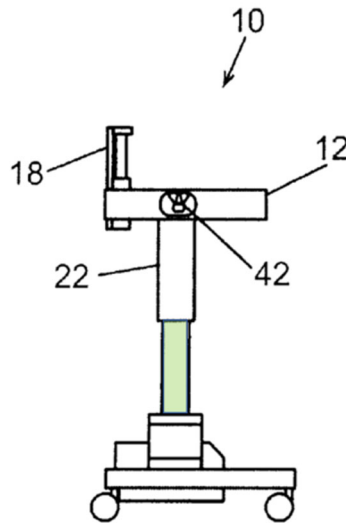
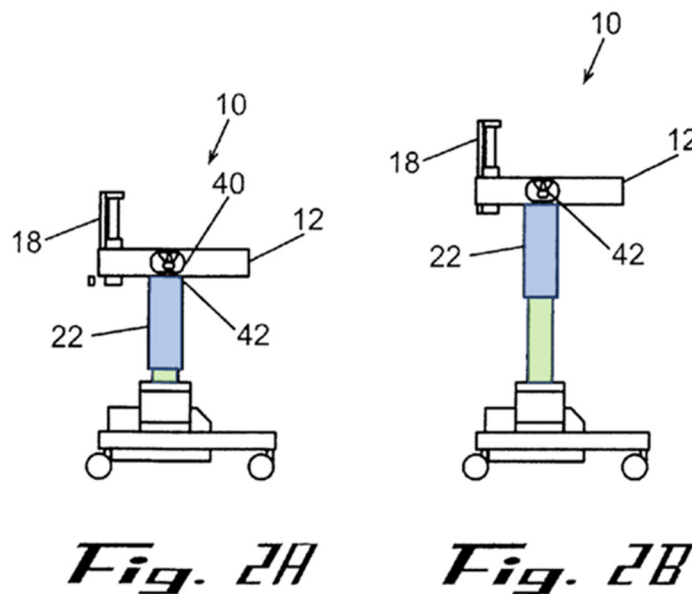


Fig. 2B

Clark, Fig. 2B (annotated); *see also id.*, Figs. 9A-9D and 12A-12C (discloses a similar stationary casing).

79. Clark discloses a **telescoping casing** connected to the work platform and configured to move relative to the stationary casing. Clark's **vertical beam 22** is a **telescopic casing** and moves relative to the stationary casing connected to the base. This relationship is shown in Figs. 2A-2D, which "illustr[ate] the operation of an adjustable height horizontal tray 12 [the work platform] and the tiltable docking station 18" *Id.*, 9:51-53.



Clark, Fig. 2A-2B (annotated). Clark's vertical beam 22 is connected to the work platform. *See* Clark, 8:63-66 ("The vertical beam 22 includes a gas-spring height adjustment mechanism for adjusting the length of the beam and, thus, the height of the horizontal tray 12 above the dolly assembly 14.").

9. [3h] at least two drawer slides disposed between the stationary casing and the telescoping casing;

80. In my opinion, Clark combined with Santoro discloses element [3h].

81. Clark does not expressly disclose drawer slides, but Santoro does. Santoro describes "[a] pair of **conventional slide mechanisms** generally designated respectively 50 and 52 in FIG. 6 are operationally mounted between the inner leg 32 and the outer leg 34." Santoro, [0036], Fig. 6. Santoro's slide mechanisms are "operationally mounted between the inner leg 32 and the outer leg 34" which are

components of Santoro's telescoping leg 14, a part of Santoro's height adjustable workstation. *Id.*, [0028], [0033]-[0034], [0036]. Santoro's "slide mechanisms 50, 52 each include a first side member 54, a central member 55, and a second side member 56, all of which are elongated in a vertical direction." *Id.*, [0036]. Santoro's slide mechanisms include "rows of ball bearings" and "are well known to those skilled in the art of drawer slides." *Id.* In the same way, the '668 patent describes its drawer slides as "drawer rails 423 and corresponding rail runners 425" that may include "ball bearings to facilitate movement." '668 patent, 8:39-51;

82. In my opinion, it would have been obvious to combine Clark with Santoro, and a POSITA would have been motivated to do so for the reasons identified in Section VI.B. Both Clark and Santoro describe height adjustable platforms with telescoping sections. Santoro explains that drawer slides in its height adjustment features are "conventional slide mechanisms" meaning the feature would have been well known to one of ordinary skill in the art. A POSITA would have been motivated to include drawer slides as shown in Santoro into a medical cart as described in Clark to reduce friction and enable free movement between the telescoping sections of Clark's height adjustment mechanism. Such a modification would also result in quieter operation for less patient disturbance.

10. [3i] a driver configured to releasably lock the telescoping casing relative to the stationary casing; and

83. It is my opinion that Clark discloses element [3i].

84. Clark discloses a driver configured to releasably lock the telescoping casing relative to the stationary casing. Clark discloses a driver in the form of a gas spring height adjustment mechanism and its shaft. Clark discloses **“a gas-spring height adjustment mechanism** for adjusting the length of the beam and, thus, the height of the horizontal tray 12 above the dolly assembly 14.” Clark 8:63-9:10. Clark’s **“shaft 72** connects to the **gas-spring height adjustment mechanism 74** that allows adjustment of the height of the horizontal tray 12. The gas-spring height adjustment mechanism 74, which is located at the bottom of the vertical beam 22, sits on top of the dolly assembly 16.” *Id.*, 11:50-58.

85. Clark’s driver is configured to releasably lock the telescoping casing relative to the stationary casing. Clark explains that “[a]ssistance provided by the gas-spring height adjustment mechanism allows the operator to change the height of the horizontal tray 12 with little effort. Once the horizontal tray 12 is at a desired height, represented by the height shown in FIG. 2B, **the operator releases the lever 42, which locks the tray at the desired height.**” *Id.*, 9:63-10:8 *see also id.*, 9:53-10:8, 14:65-15:10. The ’668 patent offers a similar disclosure of its driver as Clark’s height adjustment mechanism which “includes a gas driven piston 432 which, in turn, includes a body portion 436 and a telescoping strut 434.” ’668 patent, 8:52-55. The ’668 patent releasably locks the work platform in a similar way as described in the Clark. *See* ’668 patent, 9:13-16, 9:31-35.

86. The terms “gas spring” and “gas-driven piston” are used interchangeably in the patents cited in this matter. Principally, a gas spring is the same as a mechanical coil spring: a device for storing energy. A gas spring, however, stores energy by compressing the gas contained inside, rather than using straining material that makes up a coil spring. Gas springs are commonly used to support, lift, or dampen the opening and closing of various applications such as car trunk lids, office chairs, desks, and other devices. Ex. 1024.

87. In some contexts, the term “gas driven piston” may refer to a piston mechanism in which a gas is used as the driving force. In this setup, the gas is typically compressed and released to provide the necessary energy to move the piston. The gas can be stored in a pressure vessel or generated on-demand using a gas generator. Gas-driven pistons find applications in internal combustion engines, pneumatic systems, and various other mechanical systems where controlled movement or actuation is required.

88. While in some contexts the definitions of these terms may be different, it is my opinion that Clark and the ’668 patent are referencing the same device. Both refer to a piston component that assists in the raising and lowering of a medical cart work surface. Neither refer to internal combustion engines. Accordingly, it is my opinion that a POSITA would consider the term “gas-driven piston” of the ’668 patent, to comport with the configuration and function of Clark’s gas spring.

11. [3j] an actuator for controlling the driver, and

89. It is my opinion that Clark discloses element [3j].

90. Clark discloses an actuator for controlling the driver in the form of a release lever 42. Clark explains “[t]o raise the tray, the operator places his or her hand through an opening 40 in the side of the horizontal tray 12. The operator then lifts a **release lever 42**, which releases a stop in the gas-spring height adjustment mechanism in the vertical beam. The operator then raises or lowers the horizontal tray 12 while holding the release lever 42 in a raised position.” Clark, 9:50-62; *see also id.*, 10:50-62, 12:20-44, 13:50-65. The release lever controls the driver because lifting it “releases a stop in the gas-spring height adjustment mechanism.” *Id.*

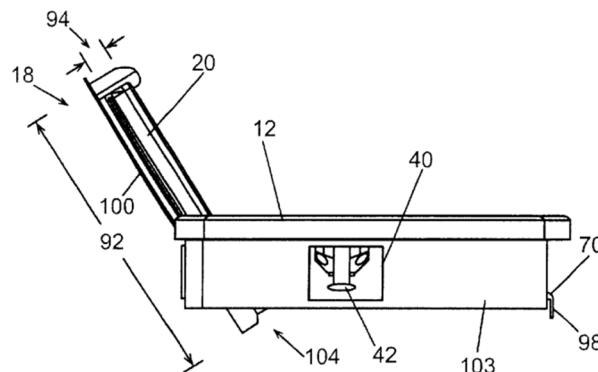


Fig. 5A

Clark, Fig. 5A; *see also id.*, Figs. 2A-2D, 5A-5B, 8.

12. [3k] wherein the actuator is disposed above the compartments and on the portion of the work platform that projects in the forward direction.

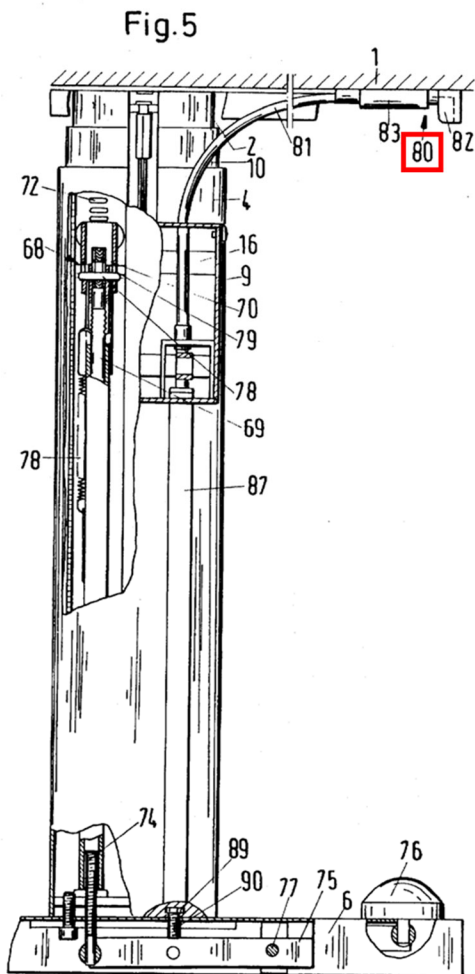
91. In my opinion, Clark combined with Manner discloses element [3k].

92. Clark discloses an actuator as discussed in element [3j], Section VI.B. Clark's actuator is disposed above the compartments. Clark teaches that compartments are located below the work platform. Clark explains, "[a]lternatively, **the docking station 18 could be supported** in a substantially horizontal position, for example **by a drawer** or pull-out tray located above or **under the horizontal tray 12.**" *Id.*, 10:23-37; *see also id.*, 15:33-36; 23:35-40. Because Clark's actuator (release lever 42) projects through a side of the work platform (horizontal tray 12) and Clark teaches a drawer "under the horizontal tray 12," *id.*, 10:23-37, Clark's actuator is disposed above the compartments.

93. Clark does not expressly teach that its actuator is disposed on the portion of the work platform that projects in the forward direction. Instead, Clark depicts its actuator on the side of the work platform. *See* Clark, Figs. 2A-2D, 5A-5B, 9A-9D, 11A-11B, and 20. It would have been obvious to modify Clark to incorporate an actuator on the portion of the work platform that projects in the forward direction.

94. Manner expressly describes its actuator 80 as positioned "to the edge of the table top 1 facing the user of the work table." Manner, 9:24-26. Manner explains that the "holder 83 [of the actuator] can be connected **at any desired location to the table top 1** so that the actuating device 80 **can be easily activated**

by the user.” Manner, 9:33-35. Manner depicts its actuator 80 at the edge of the table top 1 in Fig. 5:



Manner, Fig. 5.

95. In my opinion, it would have been obvious to combine Clark/Santoro with Manner for the reasons stated in Section VI.B. Such a combination would position Manner’s actuator at “the edge of the [work platform] facing the user. Manner, 9:24-26. The combination would employ Clark’s driver with Manner’s actuator to control the driver. A POSITA would have recognized Manner’s Bowden

pull actuator as a suitable substitute for the lever actuator disclosed in Clark. Manner expressly states these two actuators may be substituted for each other. Manner, 9:17-31. To this end, a POSITA would have been motivated to implement the Bowden pull actuator in Manner to control Clark's gas-spring height adjustment mechanism to provide flexibility in locating the actuator and to ensure operation of Clark's drawer embodiments. Furthermore, Manner provides the motivation for a POSITA to position the actuator above the compartments and on the portion of the work platform that projects in the forward direction: so that the actuating device 80 **can be easily activated by the user.**" Manner, 9:33-35. Furthermore, it was routine and well understood by a POSITA to position an actuator at the front of a work platform for ease of access by the user. Ex. 1025, [0008], Fig. 3 (depicting actuator 20); Ex. 1026, 4:6-16, Figs. 4, 10 (depicting switch 9); Ex. 1027, 3:28-56, Fig. 1 (depicting switches 105-109); Ex. 1028, 4:46-67, Fig. 1 (depicting release paddle 26).

VII. GROUND 2: CLAIM 4 IS UNPATENTABLE OVER CLARK AND MANNER [AND GILLIS, GROUND 2B]

96. Unlike claim 3, claim 4 does not include drawer slides. Claim 4 is unpatentable over Clark and Manner [and Gillis, Ground 2B]. A POSITA would have been motivated to combine Clark and Manner [and Gillis, Ground 2B] for the reasons explained in Section VI.B.

A. Claim 4

1. [4pre] 4. A cart comprising:

97. In my opinion, Clark discloses [4pre] as explained for [3pre].

Section VI.C.1.

2. [4a] a work platform including a work surface and at least one compartment for containing an item within the compartment;

98. In my opinion, Clark discloses and/or renders obvious [4a] for the reasons explained for [3a]. Section VI.C.2.

99. **For Ground 2B**, if the Board finds the work surface should be construed as “a curved surface at the top of a cart large enough to dispense medication or hold work papers,” it is my opinion that Clark combined with Gillis renders obvious this limitation as explained for [3a]. Section VI.C.2.

3. [4b] a base configured to be movable in at least a rearward direction; and

100. It is my opinion that Clark discloses element [4b] for the reasons explained for [3b]. Section VI.C.3.

4. [4c] a height adjustment mechanism for adjusting the height of the work platform relative to the base,

101. It is my opinion that Clark discloses element [4c] for the reasons explained in [3c]. Section VI.C.4.

5. **[4d] wherein the height adjustment mechanism is configured to releasably lock the work platform at a plurality of heights,**

102. It is my opinion that Clark discloses element [4d] for the reasons explained in [3f]. Section VI.C.7.

6. **[4e] the height adjustment mechanism comprising a stationary casing connected to the base; a telescoping casing connected to the work platform and configured to move relative to the stationary casing**

103. It is my opinion that Clark discloses element [4e] for the reasons explained for element [3g]. Section VI.C.8.

7. **[4f] a driver configured to releasably lock the telescoping casing relative to the stationary casing; and**

104. It is my opinion that Clark discloses element [4f] for the reasons explained for element [3i]. Section VI.C.10.

8. **[4g] an actuator for controlling the driver,**

105. It is my opinion that Clark discloses element [4g] for the reasons explained for element [3j]. Section VI.C.11.

9. **[4h] wherein the base includes a portion that projects from the height adjustment mechanism in a forward direction that is substantially opposite to the rearward direction,**

106. It is my opinion that Clark discloses element [4h] for the reasons explained for element [3d]. Section VI.C.5.

10. **[4i] wherein the work platform includes a portion that projects from the height adjustment mechanism in the forward direction, the compartment is disposed in the**

portion of the work platform that projects from the height adjustment mechanism in the forward direction, and the compartment is configured to permit a user facing in the rearward direction to access an item within the compartment,

107. It is my opinion that Clark discloses element [4i] for the reasons explained for [3e]. Section VI.C.6.

11. [4j] wherein the actuator is disposed above the compartment and on the portion of the work platform that projects in the forward direction.

108. It is my opinion that Clark combined with Manner discloses and/or renders obvious element [4j] for the reasons explained for [3k]. Section VI.C.12.

VIII. GROUND 3: CLAIM 3 IS UNPATENTABLE OVER REEDER IN VIEW OF MANNER AND SANTORO [AND GILLIS, GROUND 3B]

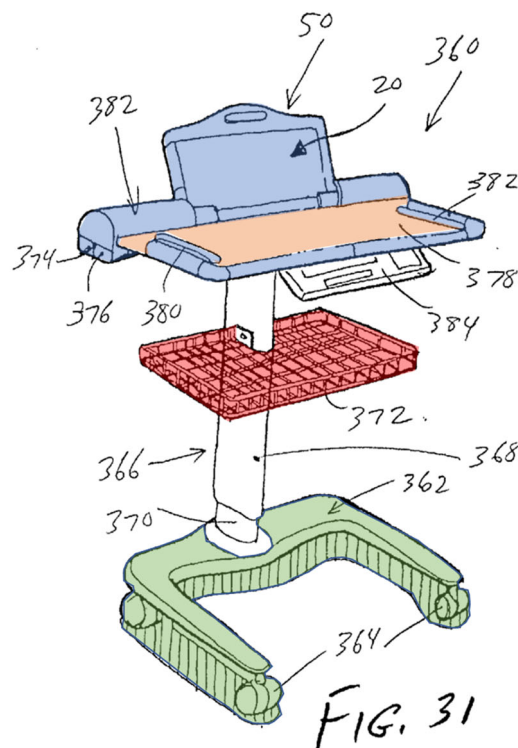
A. Overview of the Combination

1. Reeder

109. Reeder describes a medical patient monitoring system. Reeder, Abstract. Reeder's system is "configured to be used at the point of care by the caregiver in a hospital or other health care facility in order to care for patients." Reeder, [0002]. The invention "facilitates electronic data entry at the point of care" and "provides access to information at the point of care." *Id.* Embodiments of Reeder's invention may be incorporated on a "cart or other device upon which the patient rests or which the patient is associated." *Id.*, [0013]. The cart may "move

with a patient outside the room” or “remain with the patient inside the room.” *Id.*, [0022].

110. Reeder discloses multiple embodiments of its system on height adjustable medical carts. For example, Reeder depicts a cart 360 with a base 362 having casters 364, a work platform including a work surface 378, a “central pedestal” with “telescoping portions,” a storage tray 372, and controls “for raising and lowering [the] telescoping sections.” *Id.*, [0118].



Reeder, Fig. 31 (annotated).

111. In another embodiment, Reeder depicts “a portable or moveable workstation 710 having a base 712,” support members, “[a] plurality of storage

containers 718,” a base frame 720, and “[a] top surface 728 [that] is moveably coupled to base frame 720 by tracks 730,” and a “keyboard 722 [that] is movably and coupled [sic] to base frame 720 by tracks 724 so that keyboard 722 is movable from a retracted position.” *Id.*, [0147]-[0148]. Reeder’s portable workstation 710 is height adjustable “so that the caregiver can input data on the keyboard 722 in either a standing position...or seated position...” *Id.*, [0148].

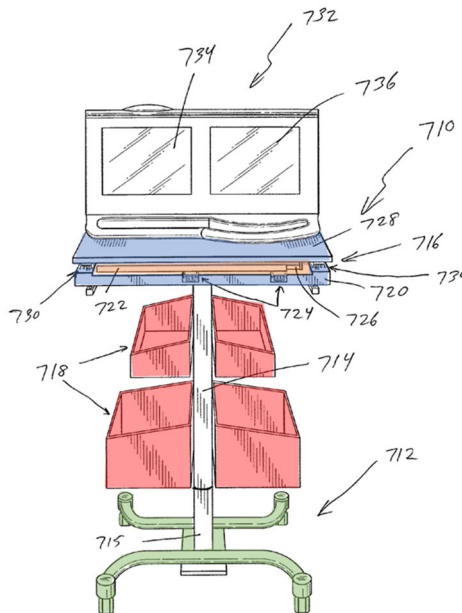


Fig. 45

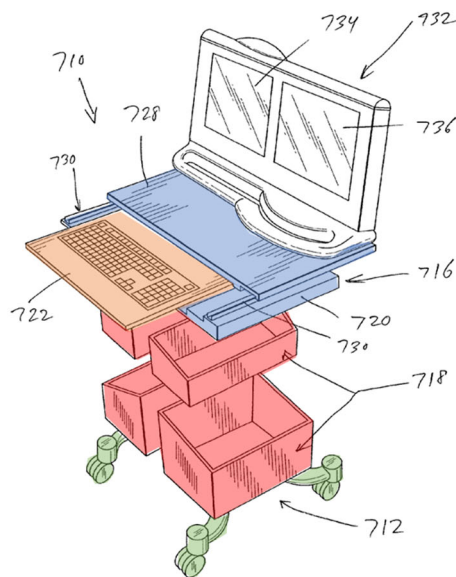


Fig. 46

Reeder, Figs. 45-46 (annotated).

B. RATIONALE FOR COMBINING REEDER, MANNER, AND SANTORO, [AND GILLIS, GROUND 3B]

1. The References are Analogous Art

112. In my opinion, the references are analogous art to the '668 patent because they are in the same field of endeavor: height adjustable work stations. The

'668 patent describes that it is a medical cart having a work platform, a work surface “and a height adjustment mechanism for adjusting the height of the work platform relative to the base.” '668 patent, Abstract.

113. **Reeder** discloses a medical cart with a base 362 having casters 364, a work platform including a work surface 378, a “central pedestal” with “telescoping portions,” a storage tray 372, and controls “for raising and lowering [the] telescoping sections.” Reeder, [0118].

114. **Manner** discloses a “height-adjustable work table” with “at least one telescopic column.” Manner, Abstract. Manner’s tabletop may be adjusted in height, which “results in the piston rod 45 to be pushed into the gas spring 44 so that the counterforce is correspondingly increased.” *Id.*, 15:62-67. This enables a user to “lower the table top 1 without exerting great forces.” *Id.*, 16:8-9.

115. **Santoro** describes a “height-adjustable work station main frame [that] includes a pair of telescoping, adjustable legs.” Santoro, Abstract. Santoro’s “leg assembly includes inner and outer legs which are received in sliding telescoping relation.” Santoro, [0011].

116. It is my opinion that because all references generally disclose height-adjustable work platforms and work surfaces with telescoping supports, a POSITA would have found them combinable with a reasonable expectation of success.

**2. Combining Reeder, Manner, and Santoro [and Gillis,
Ground 3B]**

117. In my opinion, Reeder discloses most features of the '668 patent including a height adjustable medical cart with telescopic casings, a work platform, and a work surface, but it does not expressly disclose (1) a driver, (2) an actuator disposed on the portion of the work platform that projects in the forward direction, or (3) drawer slides disposed between the stationary casing and the telescoping casing.

118. It is my opinion that Reeder at least suggests a driver because it discloses “[c]ontrols 374 and 376 are provided for raising and lowering telescoping sections 368 and 370” and that “[t]he height of center vertical support 714, 715 is adjustable” so that a caregiver can input data either seated or standing. Reeder, [0118], [0148]. In my opinion, a POSITA would have understood that Reeder’s controls must control a driver to raise and lower the telescoping sections or that certain features must enable the vertical supports to be adjustable. A POSITA would have looked to other references for additional information on implementing the height adjustable features already disclosed in Reeder.

119. A POSITA would have readily understood that Manner discloses such additional information on implementing height adjustable features for telescoping work platforms. Like Reeder and the '668 patent, Manner discloses a height-adjustable work platform with a telescopic column. Manner, 1:5-7. Manner provides

implementation details of the internal components to the telescopic column that support the height adjustment functionality of Manner's work platform. For example, Manner explains that the column includes "a gas spring 44" the operation of which enables the user to "lower the table top 1 without exerting great force." Manner, 15:8-10, 15:62-16:9. Manner also explains how release of an arresting device controls the gas spring because releasing it "results in the piston rod 45 to be pushed into the gas spring 44 so that the counterforce is correspondingly increased." *Id.*, 15:62-67. Manner describes an actuating device 80 for releasing the arresting device that "can be connected at any desired location to the table top 1 so that [it] can be easily activated by the user." *Id.*, 9:33-36.

120. In my opinion, a POSITA would have recognized the importance of employing a gas spring in a telescoping height adjustable column to compensate for the weight of the work platform when a user raised or lowered the work platform in Reeder. Such mechanisms were commonly used in height adjustment furniture in hospital or other environments. For example, Hartman teaches an overbed table for use by patients in hospitals and other health care facilities. Hartman, 1:6-10. Hartman includes a "gas spring mechanism [that] permits easy adjustment of the vertical positioning of the overbed table and provides a mechanism for securely locking the overbed table in place." *Id.*, 2:11-16, 7:1-6, 7:25-36. Similarly, Dell teaches a mobile workstation "which houses a height adjustment mechanism,

typically a piston and cylinder.” Dell, 2:57-60. Such gas springs and pistons were ubiquitous in the art. A POSITA would have understood the combination of Reeder and Manner would result in implementing a gas spring as a driver into Reeder’s telescoping height adjustable column for easy adjustment of the height of the work platform.

121. Though Reeder discloses controls 374 and 376 are provided for raising and lowering the work platform, it does not explain how the controls direct the change in height. A POSITA would have looked to other disclosures such as Manner to complete the missing implementation details. In my opinion, a POSITA would also have recognized Manner’s actuating device 80 and its associated cable and components as providing the technical disclosure to enable Reeder’s controls 374 and 376 to control raising and lowering of the telescopic sections. To this end, a POSITA would have been motivated to implement the features of the height adjustable telescopic column of Manner including the gas spring 44 and the actuator 80 into Reeder’s height adjustable medical cart, to allow for “raising and lowering telescoping sections 368 and 370.” Reeder, [0118].

122. Additionally, a POSITA would have recognized the importance of providing drawer slides as described in Santoro into the height adjustment mechanism. As Santoro notes, its slide mechanisms were “conventional slide mechanisms” and “well known to those skilled in the art of drawer slides.” Santoro,

[0036]. For example, U.S. Patent Nos. 4,790,611 and 5,598,789 each depict height adjustable work platforms that implement drawer slides, further indicating such devices were well known. Ex. 1022 4:37-5:17; Ex. 1023, 3:4-28. A POSITA would have recognized the importance of reducing binding between the sections of Reeder's telescoping column and would have looked to slides as in Santoro to reduce binding between sliding telescopic components. Foster recognizes the problem of a gas spring "coming into contact with or otherwise binding up" during its operation. Foster, [0056]. It was common to implement slides and rollers in height adjustment mechanisms to reduce binding of the device during operation. For example, Winchell teaches including "rollers 51 and 52" in its height adjustment mechanism "to prevent binding during operation." Winchell, 6:24-37. Such techniques were wholly conventional to a POSITA at the '668 patent's priority date.

123. It is my opinion that a POSITA would have had a reasonable expectation of success in combining these features because the prior art recognized that height adjustable work platforms include weight-compensation devices employing gas spring. Manner, 1:13-33, 2:26-28, 7:6-15, 7:60-67, 15:8-12, 15:62-16:23. The prior art expressly recognized its benefits when used in "smaller work tables, especially in the computer field." *Id.*, 1:30-33. The combination would have involved combining known prior art elements (a medical cart, a gas spring, drawer slides, and a Bowden pull actuator on the front of a work platform) according to

known methods (all employed in height adjustable work platforms with telescoping columns) to yield predictable results.

124. **For Ground 3B**, it is also my opinion that it would also have been obvious for a POSITA to modify the keyboard tray in Reeder to incorporate Gillis's slidable tray 10, enabling Reeder's keyboard tray to move in a leftward or rightward direction along an arcuate path. The modification would involve the simple substitution of the slidable member 40 and groove 60 of Gillis's keyboard tray 10 with Reeder's keyboard tray to obtain the predictable result of a keyboard that could extend toward the user and then slide in either a rightward or leftward direction along an arcuate path. A POSITA would have been motivated to incorporate Gillis's slideable tray "for accommodating both left-handed and right-handed people" who may use a computer mouse in either a left or right hand. Gillis, [0001];

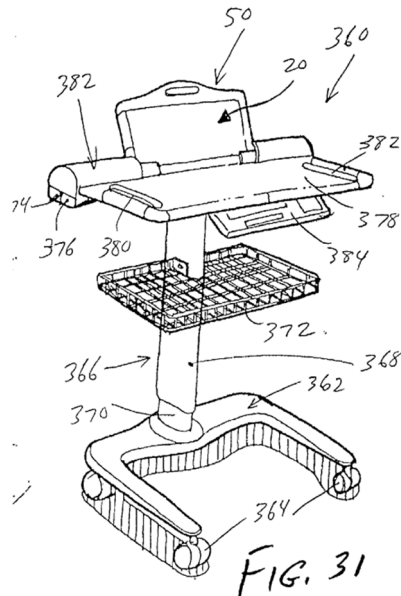
C. **Claim 3**

125. It is my opinion that Reeder, Manner, and Santoro [and Gillis, Ground 1B] render obvious claim 3.

1. **[3pre] A cart comprising:**

126. Reeder discloses [3pre] because it discloses "carts for supporting the computer system 10." Reeder, [0117]. Reeder further discloses a cart in the form of "a portable or movable workstation 710 having a base 712, a top vertical support member 714, a bottom vertical support member 715, and an upper support 716

coupled to top vertical support 714.” *Id.*, [0147]. Reeder discloses various carts, including as shown in figures 31 and 45:



Id., Fig. 31.

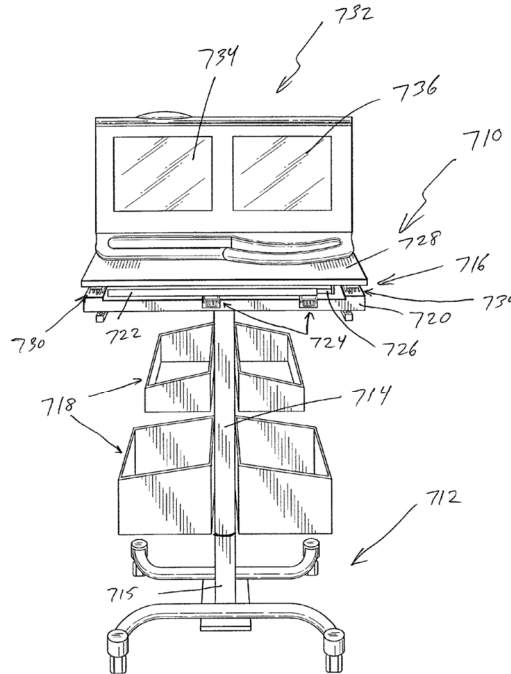


Fig. 45

Id., Fig 45; *see also id.*, Figs. 30, 32, and 46.

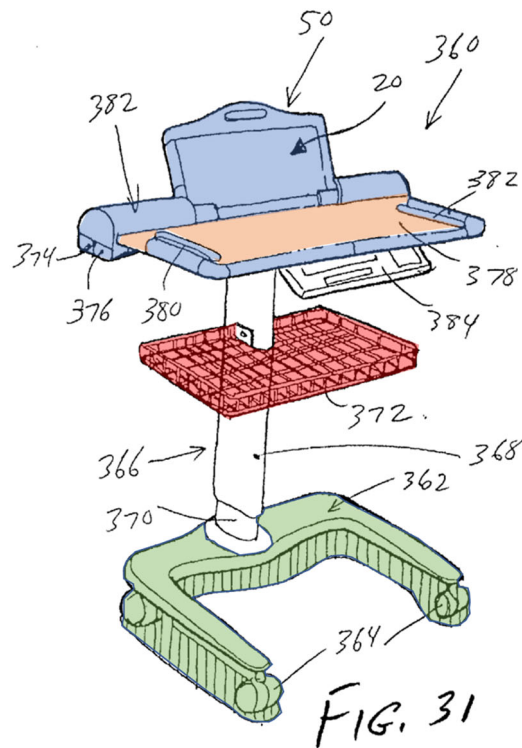
127. Reeder's implementation of a cart or work station comports with the disclosure of the '668 patent. The '668 patent explains that it describes a medical cart with a work platform. *See* '668 patent, Abstract. Medical carts are used in a hospital environment to aid health professionals in, for example, dispensing medication. *See id.*, 1:40-58.

128. Reeder's disclosure "relates to a computer system configured to be used at the point of care by the caregiver in a hospital or other health care facility in order to care for patients" and it further includes implementing the computer system on a cart. *See* Reeder, [0002], [0013].

2. [3a] a work platform including a work surface and compartments for containing items;

129. It is my opinion that Reeder discloses and/or renders obvious element [3a].

130. Reeder discloses a work platform including a work surface and compartments for containing items in multiple embodiments. For example, Reeder describes cart 360 that includes a work platform and a work surface 378. Reeder, [0118]. Work “[s]urface 378 may include an input device such as device 74 in FIG. 2 which permits the caregiver to write out information to be input into the computer 12 which is recognized by handwriting recognition software.” *Id.* Reeder’s cart 360 also includes a compartment in the form of “wire storage tray 372 [that] is coupled to telescoping section 368.” *Id.* The arrangement is depicted in Figure 31:



Reeder, Fig. 31 (annotated).

131. Reeder discloses another embodiment of a cart with a **work platform** including a **work surface** and **compartments** for containing items in workstation 710. Reeder's movable workstation 710 includes "an upper support 716 coupled to top vertical support 714. A plurality of storage containers 718 are also coupled to the top vertical support 714 below upper support 716. Upper support 716 includes a base frame 720 coupled to top vertical support 714." Reeder, [0147]. Workstation 710 includes "[a] top surface 728 [that] is movably coupled to base frame 720 by tracks 730." *Id.*, [0148]. **Work surface** in the form of "keyboard 722 [that] is movably and coupled to base frame 720 by tracks 724 so that keyboard 722 is movable from a

retracted position” and when extended “provide[s] a workstation for entering or reviewing patient data.” *Id.*, [0147]-[0148]. The arrangement is depicted in Figures 45 and 46:

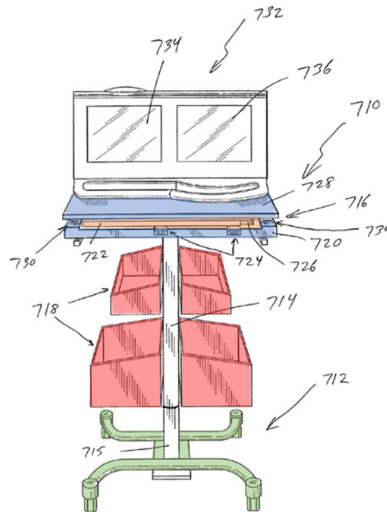


Fig. 45

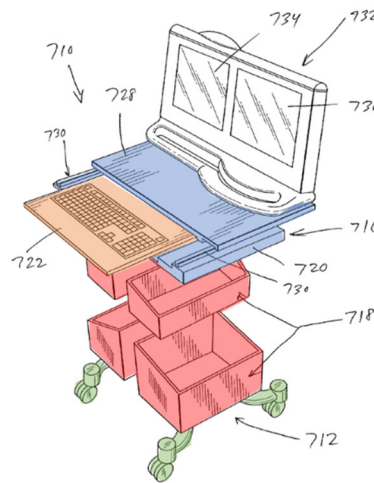
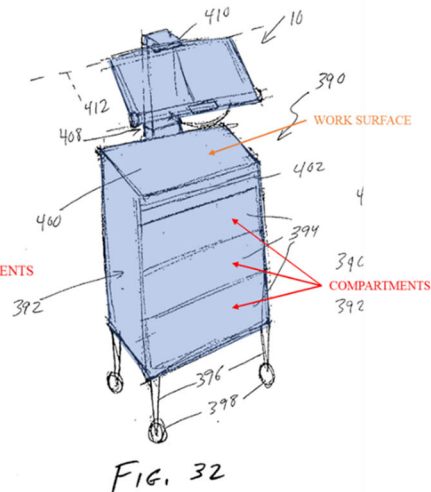
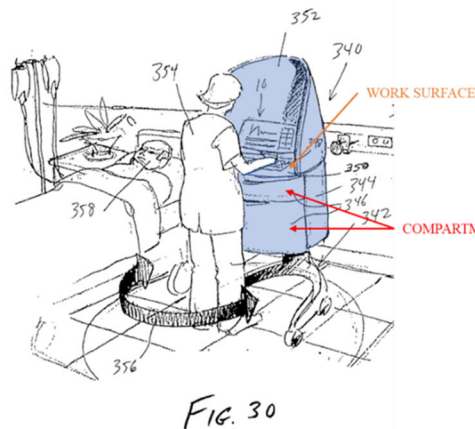


Fig. 46

Reeder, Figs. 45-46 (annotated).

132. If the claims require a compartment to be a closed container like a drawer and not a bin, then Reeder discloses or renders this obvious. Reeder explains that “cart 340 includes a base 342 and a central portion 344 coupled to the base 342. The central portion 344 includes **drawers 346**.” *Id.*, [0117]. In another embodiment Reeder illustrates “[c]art 390 [that] includes a central portion 392 having drawers 394.” *Id.*, [0119]. Reeder’s medical carts with drawers are shown in figures 30 and 32:



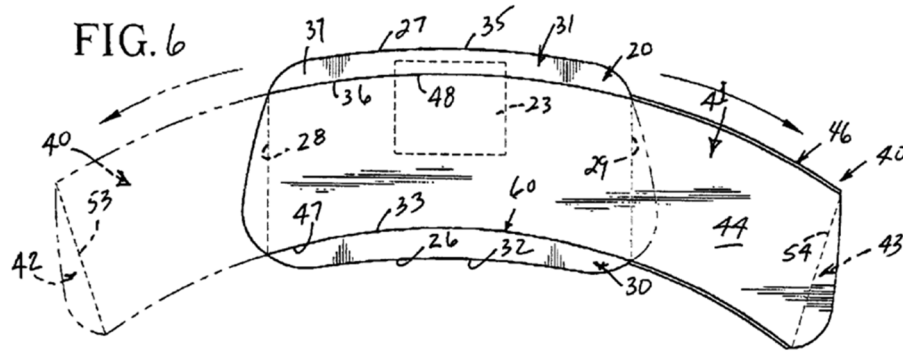
Reeder, Figs. 30, 32 (annotated).

133. In my opinion, it would have been obvious to incorporate Reeder's drawer embodiments shown in figures 30 and 32 into Reeder's "bin-style" embodiments depicted in figures 31, 45, and 46. Employing drawers in medical carts was well known in the art, as demonstrated by Reeder's other embodiments in figures 30 and 32. Indeed, Ellman, issued years before the '668 patent, demonstrates such features were routine. *Id.* Ellman depicts a mobile cart for use in surgical environments containing two pull-out drawers 23, and 24 located below a sliding pull-out shelf 25 and a top shelf 27. Ellman, 2:18-24, Figs 1-2. Implementing drawers in Reeder's embodiment would have been well within the ordinary skill of a POSITA, and such features were common and routine. A POSITA considering transitioning from bins to drawers would have understood that different users have different needs and that one would add drawers to accommodate the needs of users requiring more security, (such as the nurse shown in Figure 30 of Reeder).

Substituting “drawer” compartments for “bin-style” compartments would have been the simple substitution of one known element for another to obtain predictable results.

134. **For Ground 3B**, if the Board finds the work surface should be construed as “a curved surface at the top of a cart large enough to dispense medication or hold work papers,” it is my opinion that Reeder combined with Gillis renders obvious this limitation.

135. Gillis discloses a work surface configured to move in a leftward or rightward direction along an arcuate path that faces the forward direction. Gillis discloses a tray 10 with a slidable member 40 that may slide in either a left or rightward direction in groove 60. Gillis, [0001], [0020], [0031]-[0035], Figs. 1, 2, and 6. Gillis expressly discloses its “groove 60 is of a arcuate configuration” and that “groove 60 and the top member 41 effect **accurate sliding movement** of the slidable member 40 between the left-hand and right-hand” sides of the tray. *Id.*, [0034], [0035]. As can be seen in Figure 6, the slideable member slides along an arcuate path:



Id., Fig. 6.

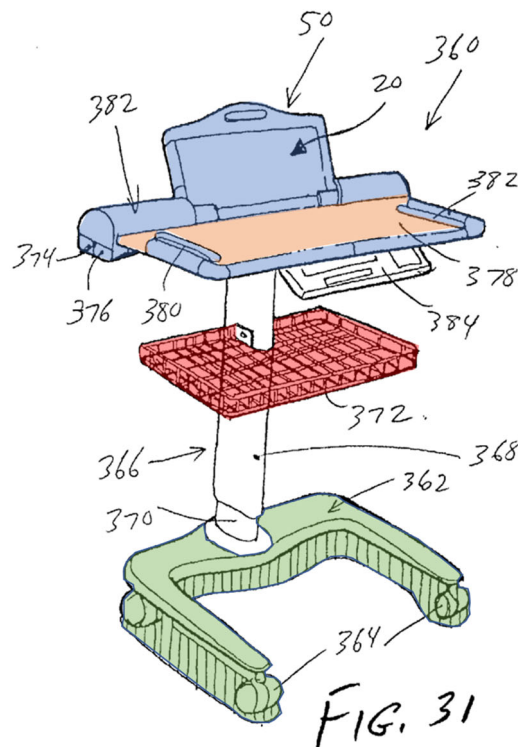
136. In my opinion, it would have been obvious to modify the slidable keyboard tray in Reeder to incorporate a slidable member 40 and groove 60 so that the keyboard tray would move in a leftward or rightward direction along an arcuate path as taught by Gillis. The modification would involve the simple substitution of the slidable member 40 and groove 60 of Gillis's keyboard tray 10 with Reeder's keyboard tray to obtain the predictable result of a keyboard that could extend toward the user and then slide in either a rightward or leftward direction along an arcuate path. A POSITA would have been motivated to incorporate Gillis's slideable tray "for accommodating both left-handed and right-handed people" who may use a computer mouse in either a left or right hand. Gillis, [0001].

3. [3b] a base configured to be movable in at least a rearward direction; and

137. It is my opinion that Reeder discloses element [3b].

138. Each of Reeder's cart embodiments discloses a base that is moveable on casters or wheels. For example, Reeder discloses that "the entire workstation 322

may be on a **mobile cart** so that the workstation 322 is **movable as a unit** within the room.” Reeder, [0116] In consideration of the embodiment of Figure 31, Reeder indicates “[c]art 360 includes **a base 362 having casters 364.**” *Id.*, [0118].



Reeder, Fig. 31 (annotated).

139. Reeder describes its workstation 710 as “a **portable or movable** workstation 710 having **a base 712,**” *id.*, [0147], and its **base 712** and wheels are visible in the figures describing the embodiment:

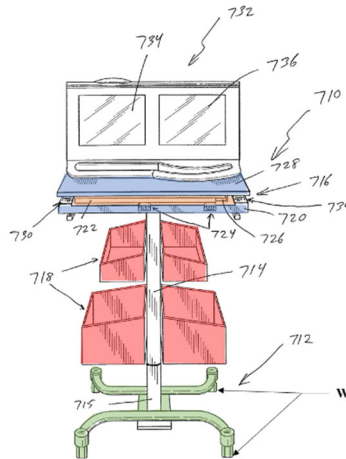


Fig. 45

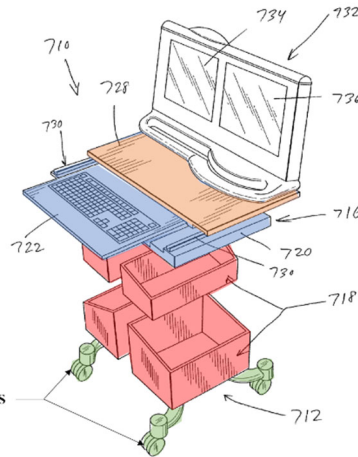


Fig. 46

Reeder, Figs. 45, 46 (annotated). Reeder's other cart embodiments also include a base and casters or wheels. *Id.*, [0117]-[0119], Figs. 30, 32, and 33. It would have been obvious to a POSITA that wheels or casters depicted in Reeder would enable the base to be movable in at least a rearward direction.

4. [3c] a height adjustment mechanism for adjusting the height of the work platform relative to the base,

140. It is my opinion that Reeder discloses element [3c].

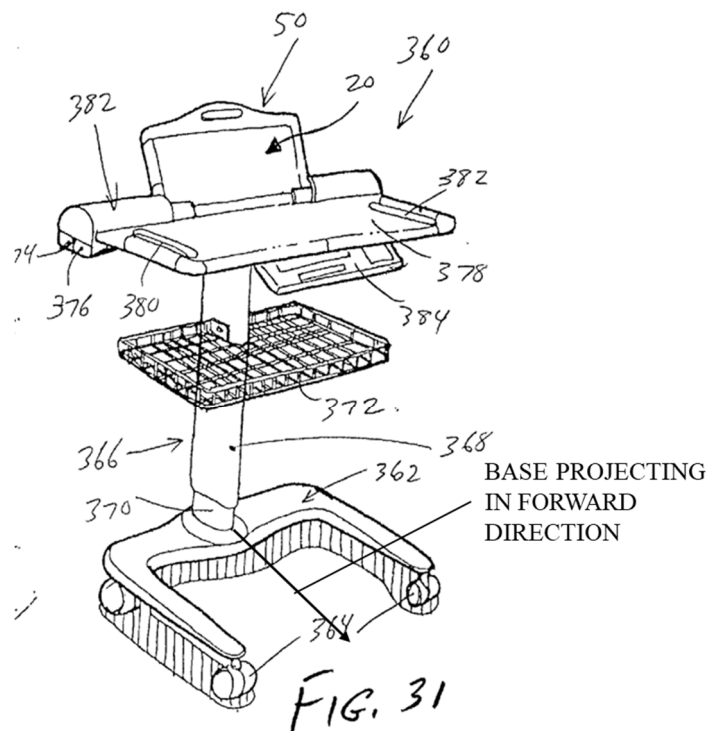
141. Reeder explains cart 360 includes a height adjustment mechanism in the form of “[a] central pedestal 366 [that] includes telescoping portions 368 and 370” with “[c]ontrols 374 and 376 [that] are provided **for raising and lowering telescoping sections 368 and 370.**” Reeder, [0118]. As for workstation 710, Reeder explains “[t]he height of center vertical support 714, 715 is adjustable so that the caregiver can input data on the keyboard 722 in either a standing position as shown in FIG. 45 or seated position as shown in FIG. 46.” *Id.*, [0148]. A POSITA would

have understood that Reeder's disclosure of raising and lowering the telescoping sections, or adjusting the height of center vertical support 714, 715 to access a keyboard in a standing or seated position discloses a height adjustment mechanism for adjusting the height of the work platform. The '668 patent similarly describes its height adjustment mechanism as "enabl[ing] a standing user or a sitting user to ergonomically raise and lower the work platform 340." '668 patent, 8:25-28.

5. [3d] wherein the base includes a portion that projects from the height adjustment mechanism in a forward direction that is substantially opposite to the rearward direction,

142. It is my opinion that Reeder discloses element [3d].

143. As can be seen in Figure 31, the base (362) includes a portion that projects from the height adjustment mechanism (central pedestal 366 includes telescoping portions 368 and 370) in a forward direction that is substantially opposite to the rearward direction:



Reeder, Fig. 31 (annotated). Similarly, as shown in figures 45 and 46, the base (712) includes a portion that projects from the height adjustment mechanism (center vertical Support 714, 715) in a forward direction that is substantially opposite to the rearward direction:

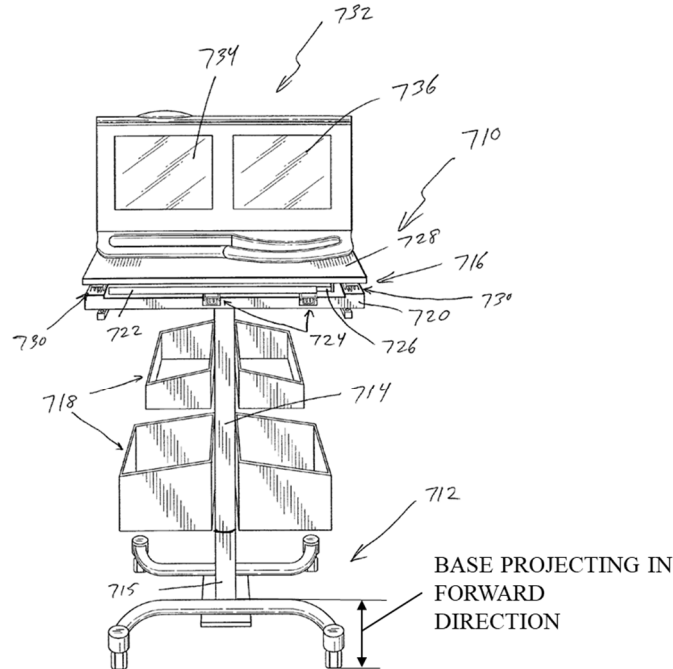


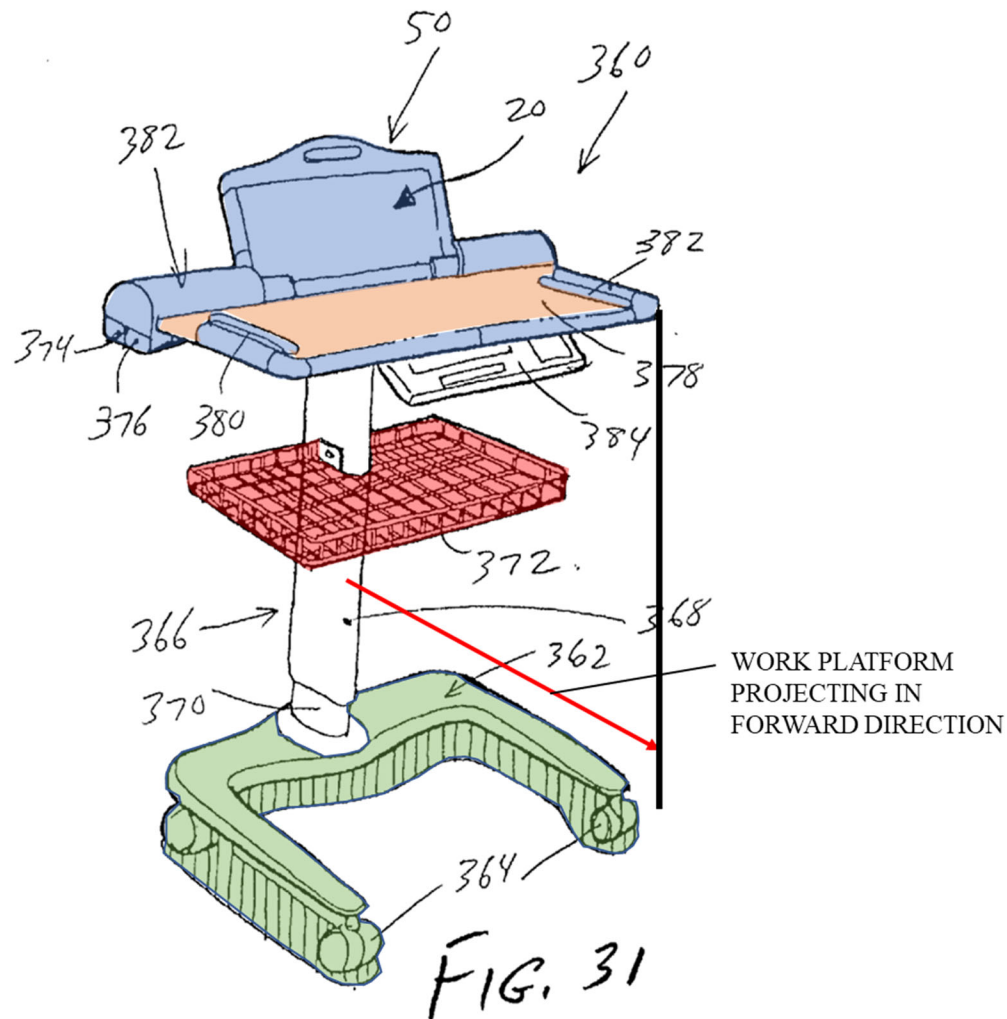
Fig. 45

Reeder, Fig. 31 (annotated); *see also* Fig. 46.

6. [3e] wherein the work platform includes a portion that projects from the height adjustment mechanism in the forward direction, the compartments are disposed in the portion of the work platform that projects from the height adjustment mechanism in the forward direction, and the compartments are configured to permit a user facing in the rearward direction to access an item within the compartments,

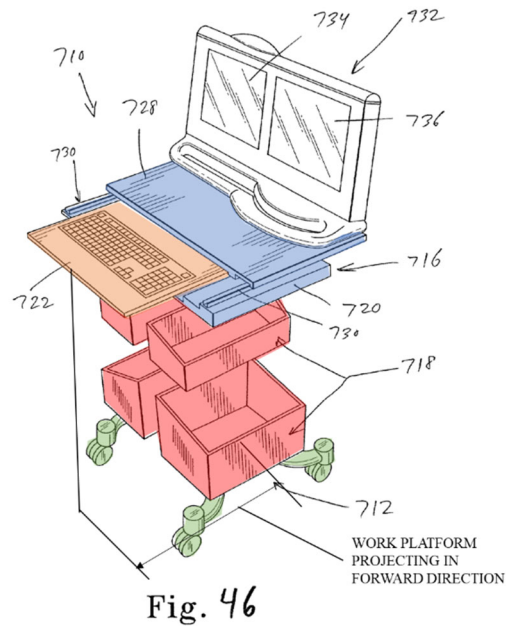
144. It is my opinion that Reeder discloses or renders obvious this element.

145. As can be seen in Figure 31, Reeder's work platform and storage tray 372, include a portion that projects from the height adjustment mechanism (central pedestal 366 includes telescoping portions 368 and 370) in the forward direction.



Reeder, Fig. 31 (annotated).

146. In the embodiment shown in figures 45 and 46, Reeder also discloses that the [work platform \(upper support 716 and base frame 720\)](#) includes a portion that projects from the height adjustment mechanism (center vertical Support 714, 715, centered on base 712) in the forward direction:



Reeder, Fig. 46 (annotated). Reeder's compartments, either the tray and basket style compartments shown in figures 31, 45, and 46, or the drawer style compartments shown in figures 30 and 32, are configured to permit a user facing in the rearward direction to access an item within the compartments. *See id.*, Figs. 30-33, 45-46.

147. To the extent Capsa argues Reeder's embodiments in figures 31, 45, and 46 do not disclose compartments that are disposed in the portion of the work platform that projects from the height adjustment mechanism in the forward direction, it would have been obvious to modify Reeder to attach compartments on the bottom side of the work platform instead of to the height adjustment mechanism. Drawers in medical carts attached below a work platform were well-known in the art of medical carts. Ellman, 2:18-24, Figs 1-2. Reeder itself discloses drawers attached below the work surface in other embodiments, such as those shown in

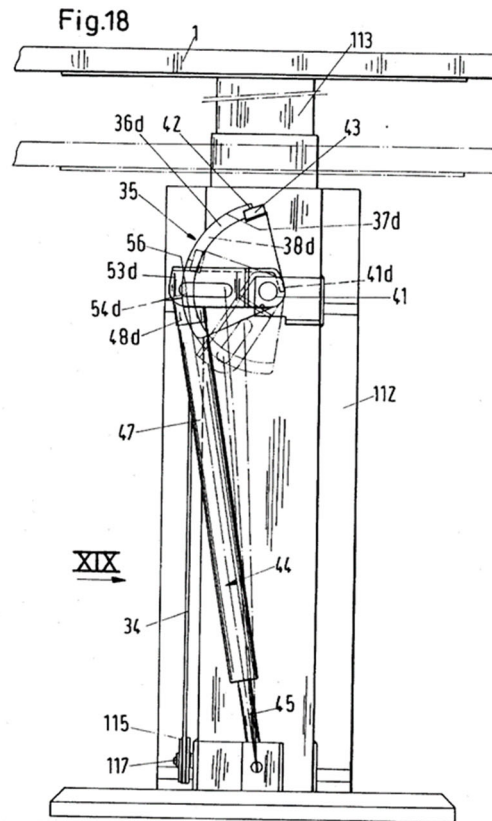
Figures 30 and 32. Reeder, Figs. 30, 32. A POSITA would have been motivated to combine the drawers below the work platform in Reeder's embodiments of Figure 30 and 32 with the height-adjustable carts of figures 31 and 45-46 to provide secure storage on the height adjustable cart. Such a modification would simply require substitution of one known element (drawers 344, 346, or 394) with another (wire storage tray 372 or storage container 718) to obtain a predictable result (drawers attached below the work platform projecting in front of the height adjustment mechanism). Such a modification would have been well within the skill of a POSITA.

7. [3f] wherein the height adjustment mechanism is configured to releasably lock the work platform at a plurality of heights,

148. It is my opinion that Reeder combined with Manner renders obvious element [3f].

149. Reeder discloses a height adjustment mechanism that can be positioned in at least a sitting position and a standing position as described in [3c], Section VIII.C.4. To the extent that Reeder does not expressly disclose that the height adjustment mechanism is configured to releasably lock the work platform at a plurality of heights, Manner does.

150. Manner describes a height adjustment mechanism including a gas spring 44 and piston rod 45, a force compensating device 35, a tensioning cable 34, an adjusting element 36d, and an arresting device (not shown):



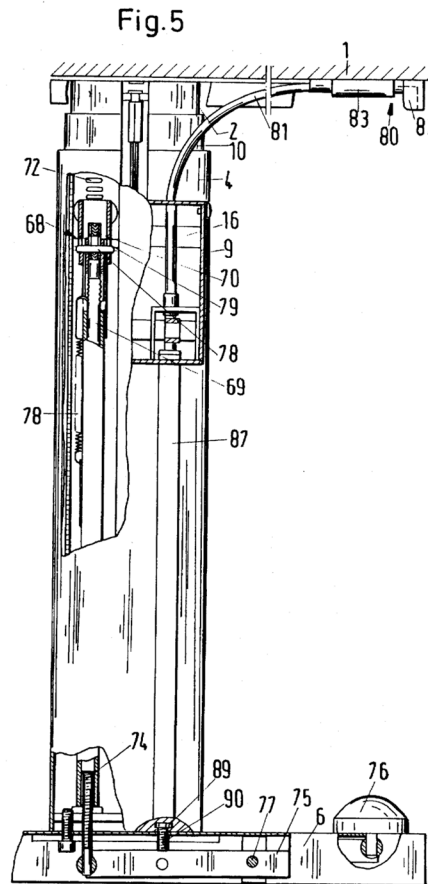
Manner, Fig. 18; *see also id.*, 15:1-16:35; *see also id.*, 15:62-65 (referring to arresting device), 16:23-27 (same). Manner explains that the “support 113 can, as disclosed in connection with previous embodiments be arrested with locking disks in the desired position relative to the column 112.” *Id.*, 15:4-7.

151. In connection with the mentioned previous embodiments, Manner describes an arresting device for releasably locking the work platform at a plurality of heights. Manner explains “the work table further comprises **at least one arresting**

device for arresting the support relative to the at least one column.” *Id.*, 2:29-45.

Manner provides an arresting device 68 “[i]n order to be able to arrest the table top 1 at the selected level relative to the table frame” and that “[s]uch arresting devices are known in general.” *Id.*, 8:38-43.

152. Manner describes its height adjustment mechanism releasably locking the work platform at a plurality of heights. Manner explains that “an actuating device in the form of an actuating member 76 is provided that projects upwardly past the stay 6 and can be easily pressed down by the user with his foot.” *Id.*, 8:56-60. The operator “suppresses the actuating member” which disengages the locking components of the height adjustment mechanism. *Id.*, 9:5-10. The user releases the actuating member “[a]s soon as the table top 1 has been adjusted at the desired height,” which locks the table top at that height. *Id.*, 9:10-16. Manner depicts its arresting device 68 and actuating device 76 in e.g., Fig 5:



Manner, Fig. 5; *see also id.*, fig. 6. Manner's description of releasing the actuating device "as soon as the table top 1 has been adjusted at the desired height" comports with the description of how the '668 patent's height adjustment mechanism releasably locks the work platform. *Id.*, 9:10-16; '668 patent 9:13-16 ("If the button 444 is released while the work platform 340 is being lowered, the work platform 340 will be releasably locked at the height at which the button 444 is released."), 9:31-35 (describing a similar process when raising the work platform).

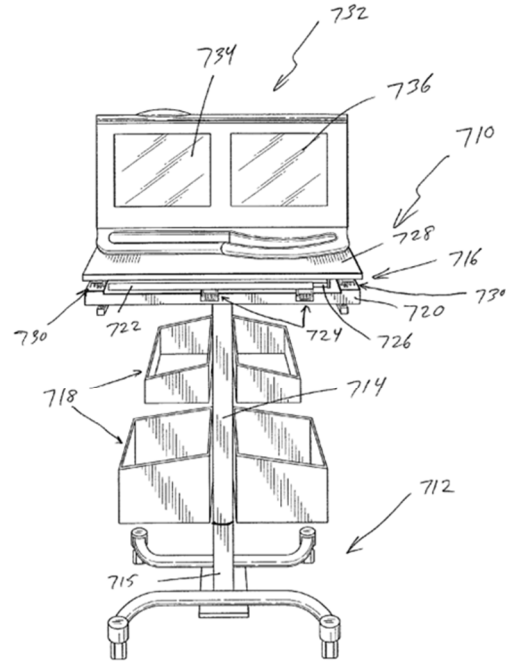
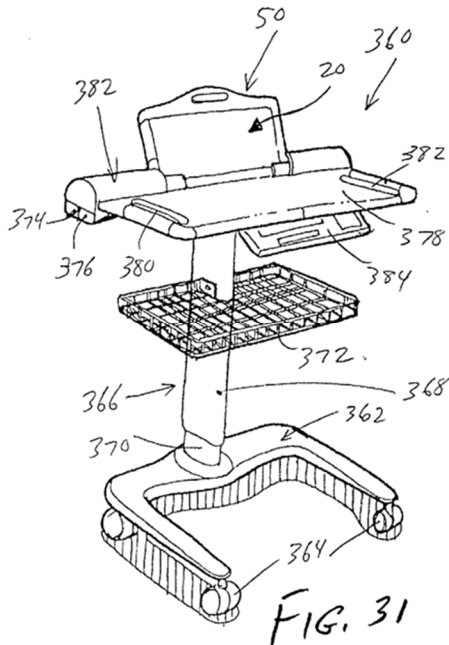
153. A POSITA would have been motivated to combine Reeder and Manner for the reasons identified in Section VIII.B and because Manner further

expands on the mechanical details of the height adjustment mechanism already described in Reeder. The combination of Reeder and Manner would generate the expected result of enabling Reeder's telescoping sections to be raised and lowered with mechanical support as disclosed by Manner, reducing the force required by an operator of Reeder's cart to change the cart height and locking the work platform in place at a desired height.

8. [3g] wherein the height adjustment mechanism comprises: a stationary casing connected to the base; a telescoping casing connected to the work platform and configured to move relative to the stationary casing;

154. It is my opinion that Reeder discloses element [3g].

155. Reeder's cart 360 includes "[a] central pedestal 366 [that] includes **telescoping portions 368 and 370.**" Reeder, [0118]. Controls "are provided for raising and lowering **telescoping sections 368 and 370.**" *Id.* Reeder's embodiment of cart 710 also discloses "**a top vertical support member 714 [and] a bottom vertical support member 715**" where "[t]he height of center vertical support 714, 715 is adjustable." *Id.*, [0147]-[0148]. Figures 31 and 45 depict the lower telescoping portion 370 and the bottom vertical support member 715 attached to the base of medical cart:



Reeder, Figs. 31, 45. Additionally, Reeder discloses its telescoping casing connected to the work platform in Figure 31, which shows **telescopic portion 368** connected to the work platform and **work surface 378**. *Id.*, [0118], Fig. 31. Similarly, Figure 45 depicts **top vertical support member 714** coupled to base frame 720 (the work platform). *Id.*, [0147]-[0148], Figs. 45-46.

156. In my opinion, a POSITA would have understood Reeder's lower casings attached to the base to be stationary because Reeder describes the work platform attached to the upper casings as height adjustable, resulting in the lower casings being stationary to allow work platform to change heights. *Id.*, [0118], [0147]-[0148].

9. [3h] at least two drawer slides disposed between the stationary casing and the telescoping casing;

157. In my opinion, Reeder and Manner combined with Santoro disclose element [3h].

158. Reeder and Manner do not expressly disclose drawer slides, but Santoro does. Santoro describes “[a] pair of **conventional slide mechanisms** generally designated respectively 50 and 52 in FIG. 6 are operationally mounted between the inner leg 32 and the outer leg 34.” Santoro, [0036], Fig. 6. Santoro’s slide mechanisms are “operationally mounted between the inner leg 32 and the outer leg 34” which are components of Santoro’s telescoping leg 14, a part of Santoro’s height adjustable workstation. *Id.*, [0028], [0033]-[0034], [0036]. Santoro’s “slide mechanisms 50, 52 each include a first side member 54, a central member 55, and a second side member 56, all of which are elongated in a vertical direction.” *Id.*, [0036]. Santoro’s slide mechanisms include “rows of ball bearings” and “are well known to those skilled in the art of drawer slides.” *Id.* In the same way, the ’668 patent describes its drawer slides as “drawer rails 423 and corresponding rail runners 425” that may include “ball bearings to facilitate movement.” ’668 patent, 8:39-51;

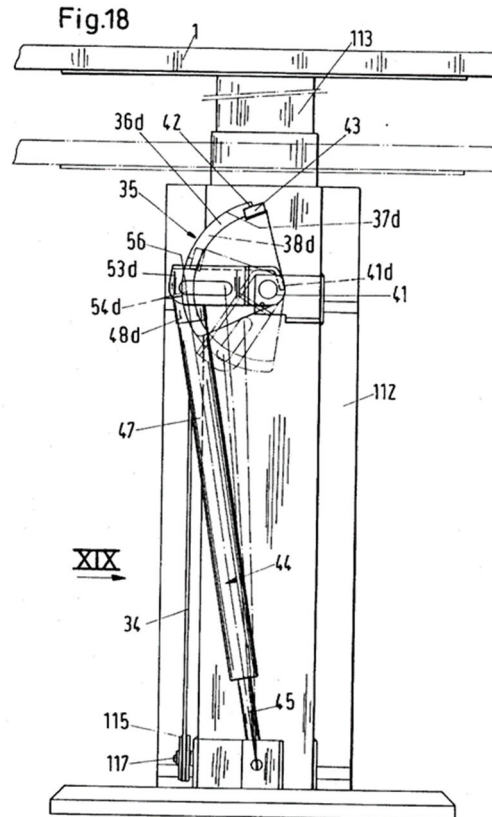
159. It is my opinion that it would have been obvious to combine Reeder and Manner with Santoro, and a POSITA would have been motivated to do so for the reasons identified in Section VIII.B. Both Reeder and Santoro describe height adjustable platforms with telescoping sections. Santoro explains that drawer slides

in its height adjustment features are “conventional slide mechanisms” meaning the feature would have been well known to one of ordinary skill in the art. A POSITA would have been motivated to include drawer slides as shown in Santoro into a medical cart as described in Reeder to reduce friction and enable free movement between the telescoping sections of Reeder’s height adjustment mechanism. Such a modification would also result in quieter operation for less patient disturbance.

10. [3i] a driver configured to releasably lock the telescoping casing relative to the stationary casing; and

160. In my opinion, Reeder combined with Manner discloses element [3i].

161. Reeder discloses that its work platform may be height adjustable, Section VIII.C.4, but Reeder does not expressly disclose a driver. Manner describes a height adjustment mechanism with a driver in the form of a gas spring 44 and piston rod 45 as part of the height adjustment mechanism:



Manner, Fig. 18; *see also id.*, 15:1-16:35.

162. Manner describes the operation of its height adjustment mechanism, where “the table top 1 is lowered after releasing the arresting device, the adjusting element 36d is rotated counterclockwise about the adjusting shaft 41d with the aid of the tensioning cable 34. This **results in the piston rod 45 to be pushed into the gas spring 44 so that the counterforce is correspondingly increased.**” *Id.*, 15:62-67. The gas spring allows the “user to lower the table top 1 without exerting great forces.” *Id.*, 16:2-9. As discussed in element [3f], Section VIII.C.7, Manner’s gas piston cooperates with arresting device 68 and an actuating device to releasably lock the telescopic casing relative to the stationary casing.

163. Manner's description of a gas spring 44 with a piston rod 45 comports with the '668 patent's disclosure of a driver that includes "a gas driven piston 432" with "a body portion 436 and a telescoping strut 434." '668 patent, 8:52-55.

164. The terms "gas spring" and "gas-driven piston" are used interchangeably in the patents cited in this matter. Principally, a gas spring is the same as a mechanical coil spring: a device for storing energy. A gas spring, however, stores energy by compressing the gas contained inside, rather than using straining material that makes up a coil spring. Gas springs are commonly used to support, lift, or dampen the opening and closing of various applications such as car trunk lids, office chairs, desks, and other devices. Ex. 1024.

165. In some contexts, the term "gas driven piston" may refer to a piston mechanism in which a gas is used as the driving force. In this setup, the gas is typically compressed and released to provide the necessary energy to move the piston. The gas can be stored in a pressure vessel or generated on-demand using a gas generator. Gas-driven pistons find applications in internal combustion engines, pneumatic systems, and various other mechanical systems where controlled movement or actuation is required.

166. While in some contexts the definitions of these terms may be different, it is my opinion that Manner and the '668 patent are referencing the same device. Both refer to a piston component that assists in the raising and lowering of a work

surface. Neither refer to internal combustion engines. Accordingly, it is my opinion that a POSITA would consider the term “gas-driven piston” of the ‘668 patent, to comport with the configuration and function of Manner’s gas spring.

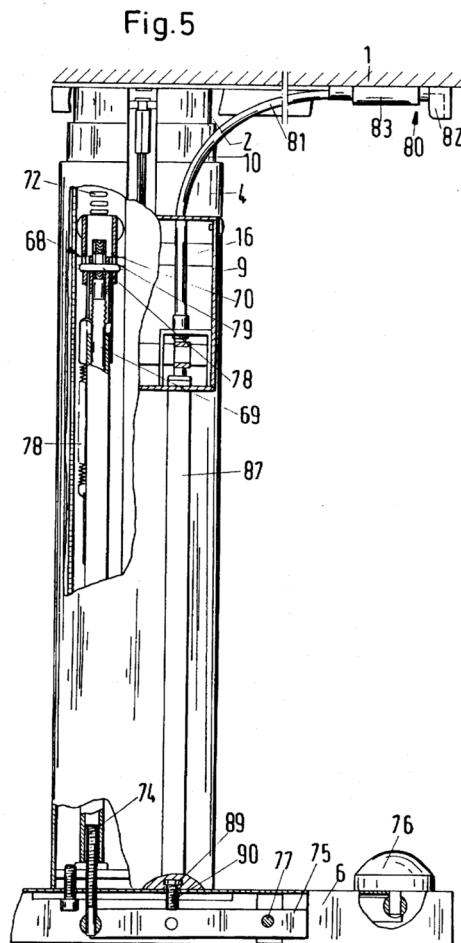
167. A POSITA would have been motivated to combine Reeder and Manner for the reasons identified in Section VIII.B and because Manner further expands on the disclosure of the mechanical details of the height adjustment mechanism already described in Reeder. Reeder implies a driver because it notes the work platform can be adjusted from a standing position or a seated position, and because it provides controls “for raising and lowering telescoping sections 368 and 370” but it does not expressly disclose the mechanism for changing the height. Reeder, [0118], [0148]. A POSITA would have looked to Manner to complete the implementation details of the height adjustment mechanism already disclosed in Reeder. The combination of Reeder and Manner would generate the expected result of enabling Reeder’s telescoping sections to be raised and lowered with a driver as disclosed by Manner, reducing the force required by an operator of Reeder’s cart to change the cart height and locking the work platform in place at a desired height.

11. [3j] an actuator for controlling the driver, and

168. It is my opinion that Reeder combined with Manner discloses element [3j].

169. Reeder discloses an actuator in the form of “[c]ontrols 374 and 376 [that] are provided for raising and lowering telescoping sections 368 and 370.” Reeder, [0118]. To the extent Reeder does not expressly disclose an actuator for controlling the driver, Manner does.

170. Manner discloses multiple actuators for controlling the driver. Manner explains that “an actuating device in the form of an actuating member 76 is provided that projects upwardly past the stay 6 and can be easily pressed down by the user with his foot.” Manner, 8:56-60. The operator “suppresses the actuating member” which disengages the locking components of the height adjustment mechanism. *Id.*, 9:5-10. The user releases the actuating member “[a]s soon as the table top 1 has been adjusted at the desired height,” which locks the table top at that height. *Id.*, 9:10-16. Manner explains that another “**actuating device 80 can be provided** in addition to the actuating member 76 or **as the only actuating device** of the work table.” *Id.*, 9:17-23. “[A]**ctuating device 80** comprises a Bowden pull 81 which according to FIG. 5 is guided to the edge of the table top 1 facing the user of the work table. The Bowden pull 81 is provided with a handle that is for example in the form of a pivotable grip 82 (FIG. 3). This grip 82 is fastened within a holder 83 that is connected to the underside of the table top 1 and is pivotable in the holder 83. *Id.*, 9:24-30. Manner depicts its actuating devices 76 and 80 in e.g., Fig 5:



Manner, Fig. 5.

171. Manner's actuator controls the driver because it releases the arresting device. Manner explains that "after releasing the arresting device, the adjusting element ... results in the piston rod 45 to be pushed into the gas spring 44 so that the counterforce is correspondingly increased." Manner, 15:62-67. In my opinion, a POSITA would understand Manner's disclosure of an actuator as an actuator for controlling the driver.

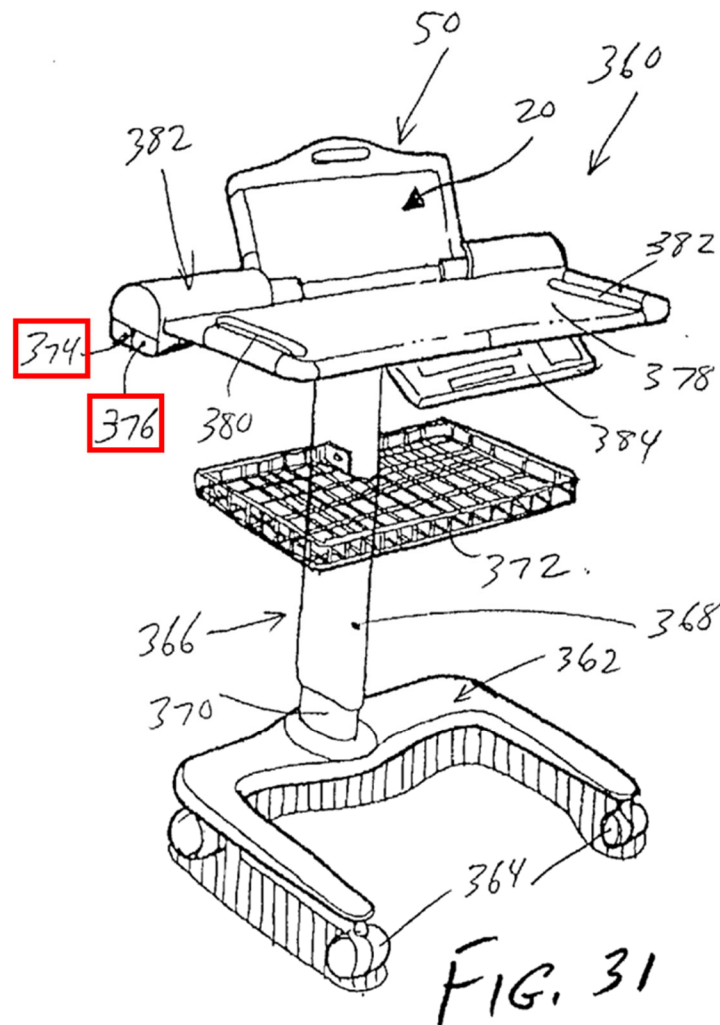
172. It is my opinion that a POSITA would have been motivated to combine Reeder and Manner for the reasons identified in Section VIII.B and because

Manner further expands on the disclosure of the mechanical details of the height adjustment mechanism already described in Reeder. Reeder discloses an actuator in the form of controls but does not expressly disclose that the controls control a driver. Reeder, [0118]. A POSITA would have looked to Manner to complete the implementation details of the actuator already disclosed in Reeder. The combination of Reeder and Manner would generate the expected result of controlling the height of the work platform with controls as described in Reeder by filling in details of how the controls can be used to release or engage Manner's driver with Manner's actuator.

12. [3k] wherein the actuator is disposed above the compartments and on the portion of the work platform that projects in the forward direction.

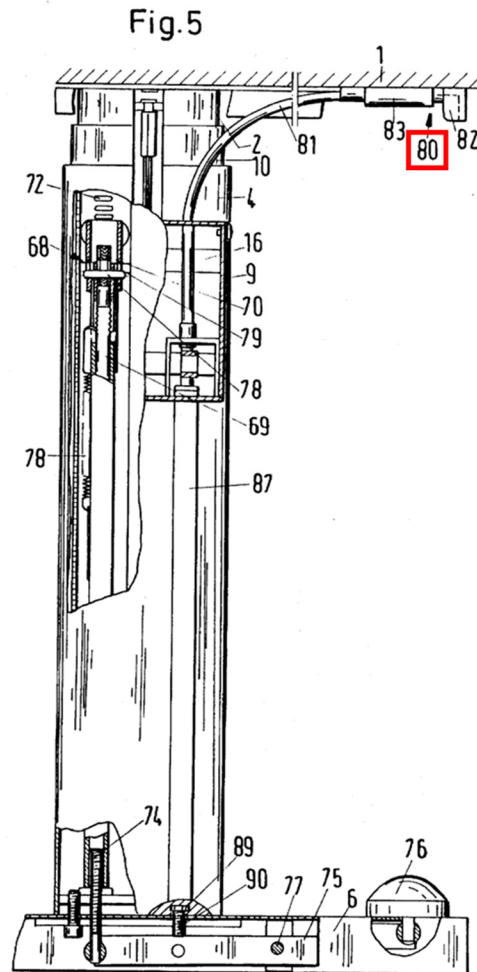
173. In my opinion, Reeder combined with Manner discloses element [3k].

174. Reeder disclose an actuator in the form of “[c]ontrols 374 and 376 [that] are provided for raising and lowering telescoping sections 368 and 370.” Reeder, [0118]. Reeder's actuator is disposed above the compartments and on the work platform in line with the height adjustment mechanism:



Reeder, Fig. 31.

175. Manner expressly describes its actuator 80 as positioned “to the edge of the table top 1 facing the user of the work table.” Manner, 9:24-26. Manner explains that the “holder 83 [of the actuator] can be connected **at any desired location to the table top 1** so that the actuating device 80 **can be easily activated**



Manner, Fig. 5.

176. Reeder discloses two handles 380 and 382 on the side edges of the work surface 378. It would be obvious to a POSITA that these handles would facilitate the movement of the cart from one location to another and also to guide the upward and downward movement of the work surface. It would have further been obvious to position Manner's actuator within reach of the user's hands while

adjusting the height of the work surface. It would have been obvious to position Manner's actuator "at the edge of the [work platform] facing the user. *Id.*, 9:24-26. The combination would employ Manner's driver and Manner's arresting device for releasably locking the work platform, and it would have been natural for a POSITA to employ Manner's actuator to control those components. Such a combination would involve combining prior art elements according to known methods to yield predictable results. Furthermore, Manner provides the motivation for a POSITA to position the actuator above the compartments and on the portion of the work platform that projects in the forward direction: so that the actuating device 80 **can be easily activated by the user.**" Manner, 9:33-36. Furthermore, it was routine and well understood by a POSITA to position an actuator at the front of a work platform for ease of access by the user. Ex. 1025, [0008], Fig. 3 (depicting actuator 20); Ex. 1026, 4:6-16, Figs. 4, 10 (depicting switch 9; Ex. 1027, 3:28-56, Fig. 1 (depicting switches 105-109); Ex. 1028, 4:46-67, Fig. 1 (depicting release paddle 26).

IX. GROUND 4: CLAIM 4 IS UNPATENTABLE OVER REEDER AND MANNER [AND GILLIS, GROUND 4B]

177. Unlike claim 3, claim 4 does not include drawer slides. Claim 4 is unpatentable over Reeder, and Manner and [Gillis, Ground 4B]. A POSITA would have been motivated to combine Reeder, and Manner and [Gillis, Ground 4B], for the reasons explained in Section VIII.B.

A. Claim 4

1. [4pre] 4. A cart comprising:

178. In my opinion, Reeder discloses [4pre] as explained for [3pre]. Section VIII.C.1.

2. [4a] a work platform including a work surface and at least one compartment for containing an item within the compartment;

179. In my opinion, Reeder discloses and/or renders obvious [4a] as explained for [3a]. Section VIII.C.2.

180. **For Ground 4B**, if the Board finds the work surface should be construed as “a curved surface at the top of a cart large enough to dispense medication or hold work papers,” it is my opinion that Reeder combined with Gillis renders obvious this limitation as explained for [3a]. Section VIII.C.2.

3. [4b] a base configured to be movable in at least a rearward direction; and

181. It is my opinion that Reeder discloses element [4b] as explained for [3b]. Section VIII.C.3.

4. [4c] a height adjustment mechanism for adjusting the height of the work platform relative to the base,

182. It is my opinion that Reeder discloses element [4c] as explained in [3c]. Section VIII.C.4.

5. **[4d] wherein the height adjustment mechanism is configured to releasably lock the work platform at a plurality of heights,**

183. It is my opinion that Reeder combined with Manner renders obvious element [4d] as explained in [3f]. Section VIII.C.7.

6. **[4e] the height adjustment mechanism comprising a stationary casing connected to the base; a telescoping casing connected to the work platform and configured to move relative to the stationary casing**

184. It is my opinion that Reeder discloses element [4e] as explained for element [3g]. Section VIII.C.8.

7. **[4f] a driver configured to releasably lock the telescoping casing relative to the stationary casing; and**

185. It is my opinion that Reeder combined with Manner discloses element [4f] as explained for element [3i]. Section VIII.C.10.

8. **[4g] an actuator for controlling the driver,**

186. It is my opinion that Reeder combined with Manner discloses element [4g] as explained for element [3j]. Section VIII.C.11.

9. **[4h] wherein the base includes a portion that projects from the height adjustment mechanism in a forward direction that is substantially opposite to the rearward direction,**

187. It is my opinion that Reeder discloses element [4h] as explained for element [3d]. Section VIII.C.5.

10. **[4i] wherein the work platform includes a portion that projects from the height adjustment mechanism in the forward direction, the compartment is disposed in the portion of the work platform that projects from the height adjustment mechanism in the forward direction, and the compartment is configured to permit a user facing in the rearward direction to access an item within the compartment,**

188. It is my opinion that Reeder discloses or renders obvious element [4i] as explained for [3e]. Section VIII.C.6.

11. **[4j] wherein the actuator is disposed above the compartment and on the portion of the work platform that projects in the forward direction.**

189. It is my opinion that Reeder combined with Manner discloses element [4j] as explained for [3k]. Section VIII.C.12.

X. CONCLUSION

190. For the reasons set forth above, in my opinion, a person of ordinary skill in the art as described above would have considered the Challenged Claims of the '668 Patent to be anticipated by or obvious over the prior art discussed above.

191. In signing this declaration, I understand that the declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I acknowledge that I may be subject to cross-examination in this case and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross-examination.

192. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Date: August 3, 2023

Respectfully Submitted,

/Ronald B. Kemnitzer/
Ronald R. Kemnitzer