

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. 8,215,650

Filing Date: July 20, 2011

Issue Date: July 10, 2012

Case No. IPR2023-01275

DECLARATION OF MR. RONALD B. KEMNITZER

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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. 8,215,650 (“the ’650 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 ’650 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 ’650 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. 8,215,650 (“the ’650 patent”)
1002	Prosecution File History of U.S. Patent No. 8,215,650
1005	Reserved
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	Reserved
1009	U.S. Pub. No. 2003/0084828 to Gillis (“Gillis”)
1010	U.S. 6,493,220 to Clark (“Clark”)
1011	U.S. Patent No. 4,715,295 to Hartman (“Hartman”)
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. 5,806,943 to Dell (“Dell”)
1015	U.S. Patent No. 5,518,310 to Ellman (“Ellman”)
1016	U.S. Patent Publication No. 2002/0013640 to Phoon
1017	U.S. Patent No. 5,564,803 to McDonald

Exhibit #	Description
1018	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
1019	German Patent Application DE 102 56 419 A1 (with English certified translation)
1020	U.S. Patent No. 5,870,647 to Nada
1021	U.S. Patent No. 6,595,144 to Doyle
1022	U.S. Patent No. 6,119,605 to Agee
1023	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)
1024	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)
1025	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)
1026	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)
1027	U.S. Patent No. 6,578,501 to Moore
1028	U.S. Patent No. 6,883,439 to Moore

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 1-3 and 5-6, and 8 (“the Challenged Claims”) of the ’650 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 '650 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 '650 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 '650 Patent from the perspective of a person of ordinary skill in the art. That is, the '650 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 '650 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 '650 Patent. Thus, I am familiar with the knowledge of the person of ordinary skill in the art at the time of the '650 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 '650 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 '650 Patent as it would have been understood by one skilled in the art at the time

of the '650 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. 1023, 36-40; Ex. 1024, 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.” *Id.*, 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 1-3 and 5-6, and 8 of the '650 Patent are rendered obvious to one of ordinary skill in the art.

27. In particular, it is my opinion that claims 1-3 and 5-6, and 8 of the '650 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/1B	Clark in view of Manner (1A) or Clark in view of Manner and Gillis (1B) renders obvious claims 1-3, 5, and 8.
Ground 2A/B	Clark in view of Manner and Hartman (2A) or Clark in view of Manner, Hartman, and Gillis (2B) renders obvious claim 6.

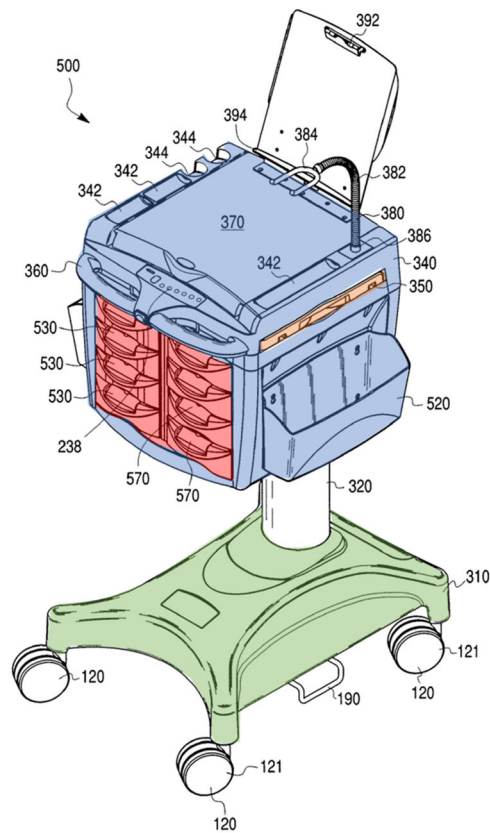
<i>Reeder Obviousness Grounds</i>	
Ground 3A/3B	Reeder in view of Manner (3A) or Reeder in view of Manner and Gillis (1B) renders obvious claims 1-3, 5-6, and 8.

A. The '650 Patent

1. Overview of the '650 Patent

28. The '650 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.” '650 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



'650 patent, Fig. 1 (annotated). Work surface 350 may move relative to the work platform to an extended position:

Fig. 4A

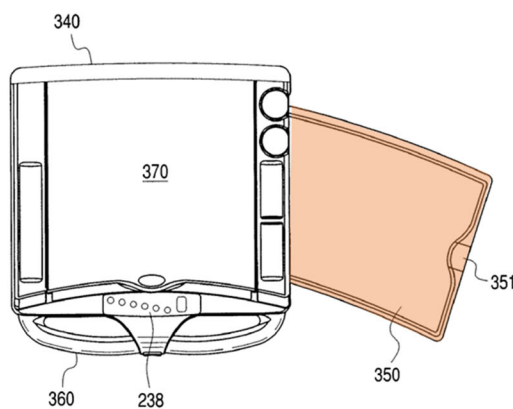
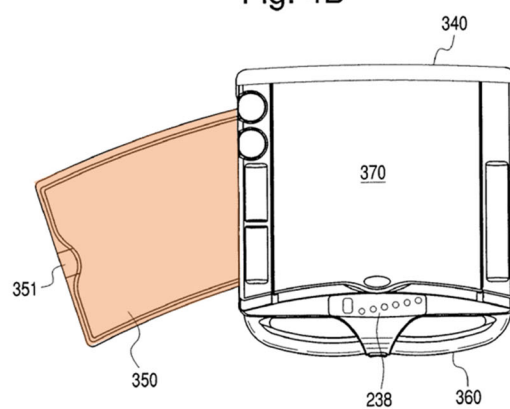
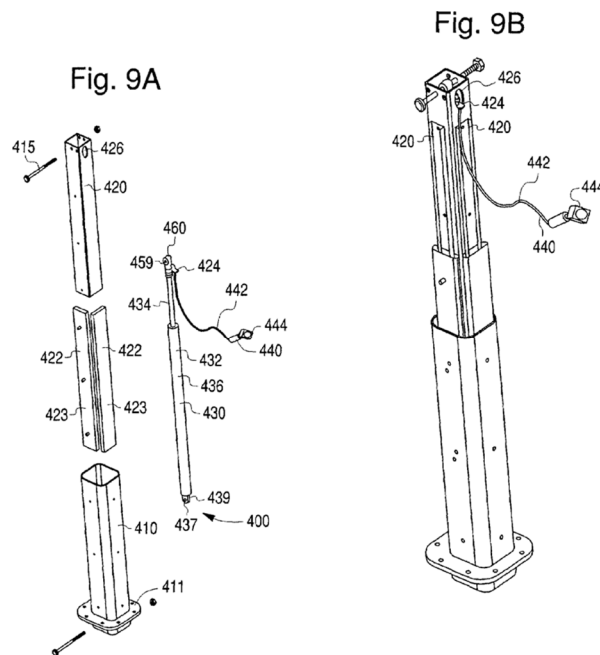


Fig. 4B



Id., Figs. 4A-B; 6:6-20. The '650 patent includes a height adjustment mechanism that “enables a standing user to ergonomically raise and lower the work platform 340.” *Id.*, 8:26-28.

29. Independent claim 1 includes include a work platform with at least one compartment and a work surface. *Id.*, 14:21-25. The work surface is disposed above a top of the at least one compartment, and it is movable from an extended position to a non-extended position. *Id.*, 14:24-25, 14:49-51. Claim 1 also includes a height adjustment mechanism with a driver configured to releasably position the work platform and an actuator for controlling the driver. *Id.*, 14:28-35. 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 '650 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. *See id.*, 9:1-38. 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 ’650 patent further describes that the actuator “may be provided in a front portion of the medical cart 500.” *Id.*, 9:1-2.

2. Prosecution History

30. The application that became the ’650 patent was filed as a continuation application with new claims. Ex. 1002, 205-269. The Examiner issued a non-final office action rejecting all claims over U.S. Patent No. 6,721,178, (“the ’178 reference”), in combination with one or more other references. *Id.*, 154-170. The Examiner found that the ’178 reference taught all elements of independent claim

1, except for “the actuator disposed above the compartment and on the portion of the work platform which projects in a forward direction.” *Id.*, 156-57.

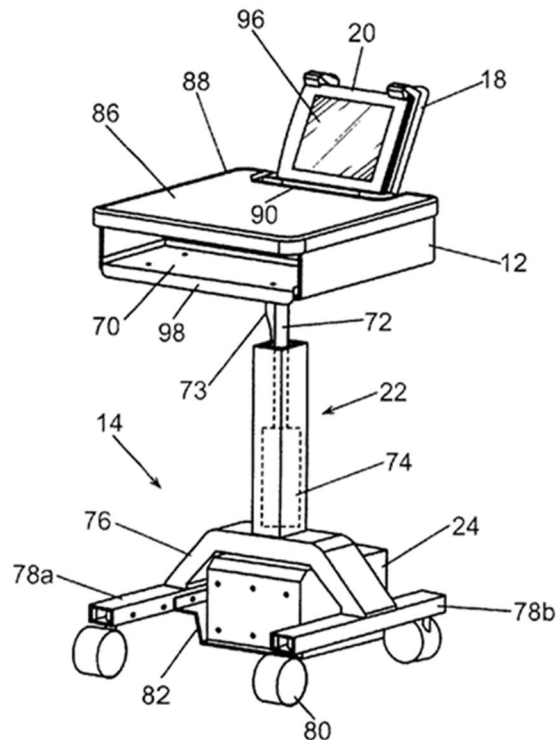


Fig. 4A

Clark, Fig. 4A.

31. The Examiner relied on U.S. Patent No. 4,440,496 to Rice to teach the location of the actuator in rejecting claim 1. Ex. 1002, 156-57.

32. The Applicant and the Examiner conducted a telephone interview to discuss the rejection. *Id.*, 149-52. The Applicant proposed amending independent claim 1 to require “the work surface [be] disposed above a top of the at least one compartment” and to introduce the limitation “wherein the work surface is movable

relative to a remainder of the work platform from an extended position to a non-extended position.” *Id.*, 152. The Applicant responded to the Office Action by amending the claims with the new limitations discussed in the interview. *Id.*, 131-32. In its remarks, the Applicant explained that “the space below the surface 86 and above the keyboard tray 70 of [the ’178 reference] is considered to be the compartment of claim 1” but **“there is no moveable work surface located above the space.”** *Id.*, 138 (emphasis added). The claims were then allowed. *Id.*, 121.

VI. GROUND 1: CLAIMS 1-3, 5 AND 8 ARE UNPATENTABLE OVER CLARK IN VIEW OF MANNER [AND GILLIS, GROUND 1B]

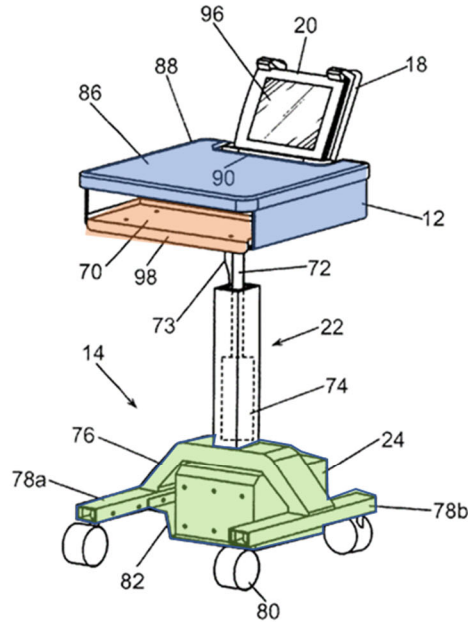
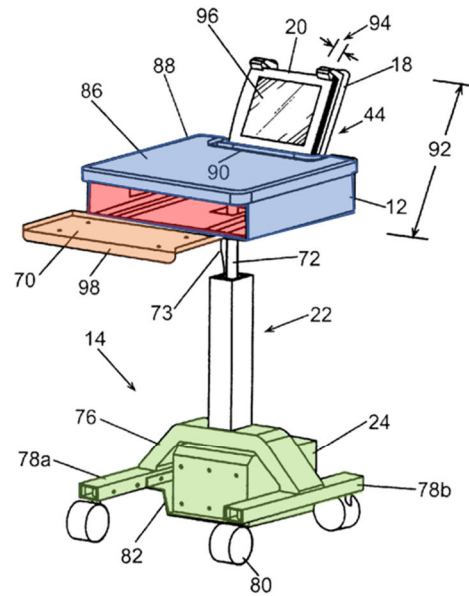
A. Overview of the Combination

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 medical cart 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.

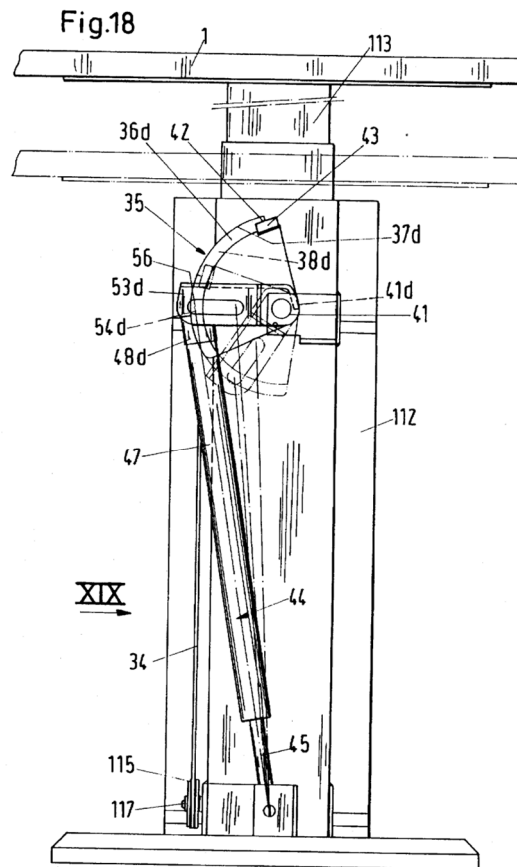
**Fig. 4A****Fig. 4B**

Clark, Figs. 4A and 4B (annotated); *see also id.*, Figs. 1, 2A-D, 8, 9A-D, 10A-B, 12A-C, 16-20. Clark expressly notes that its **moveable pull-out tray can be located above its horizontal tray**. Clark, 10:30-33 (“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.**”).

2. Manner

35. Manner discloses a height-adjustable work table 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

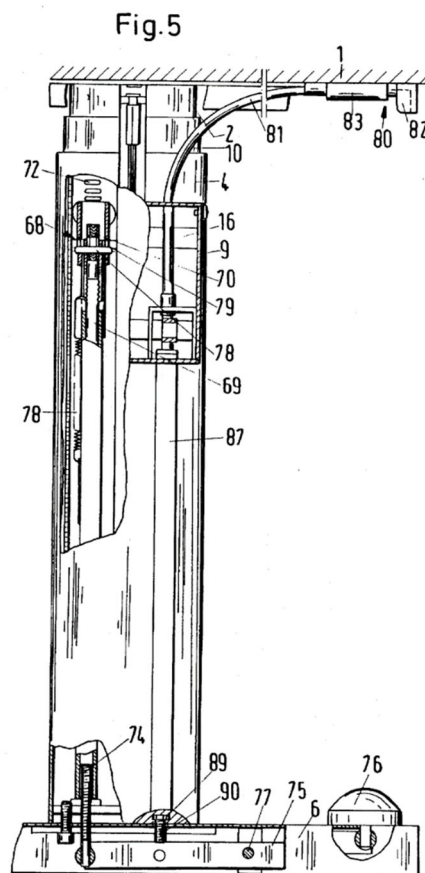
45 to be pushed into the gas spring 44 so that the counterforce is correspondingly increased.” *Id.*, 15:62-67. This enables a user to “lower the table top 1 without exerting great forces.” *Id.*, 16:8-9.



Manner, Fig. 18.

36. Manner employs an arresting device “to be able to arrest the table top 1 at the selected level relative to the table frame.” Manner, 8:38-40. The table top 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 work table” using “actuating device 80.” *Id.*, 9:17-23. Actuating device 80 may be “the only actuating

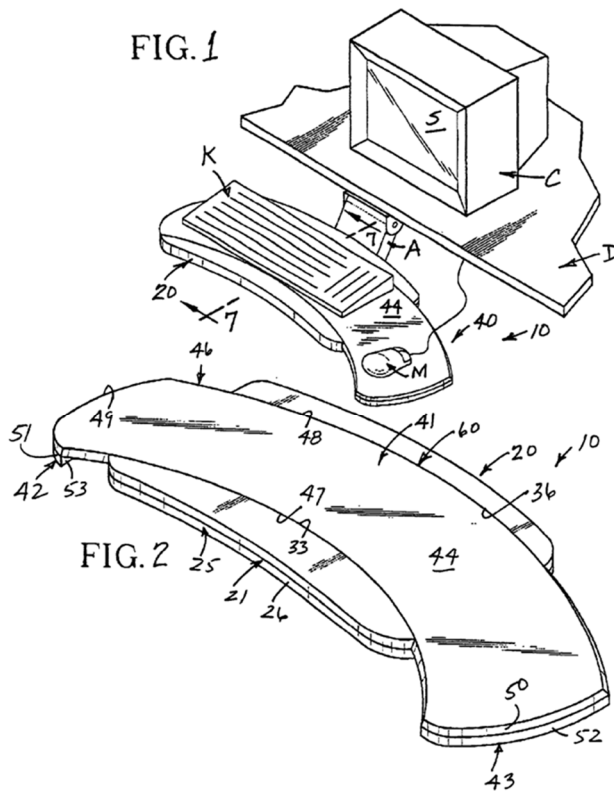
device of the work table.” *Id.*, 9:19-22. The “actuating device 80 comprises a Bowden pull 81 which “is guided to the edge of the table top 1 facing the user of the work table.” *Id.*, 9:24-26. The actuator’s holder 83 “can be connected at any desired location to the table top 1 so the actuating device 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.

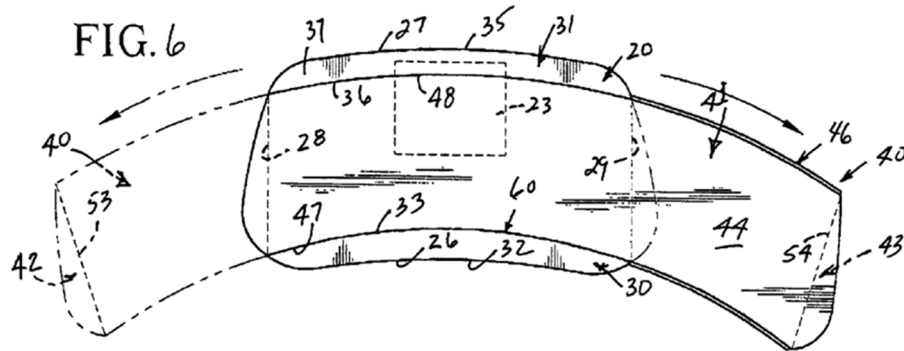
3. Gillis

37. 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. Gillis’s slidable member 40 may slide in either a left or rightward direction because the “groove 60 and the top member 41 effect 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. MOTIVATION FOR COMBINING CLARK AND MANNER [AND GILLIS, GROUND 1B]

1. The References are Analogous Art

38. The references are analogous art to the '650 patent because they are in the same field of endeavor: height adjustable work stations. The '650 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.” '650 patent, Abstract.

39. **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, 8:50-65. 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.

40. **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.

41. 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 Clark and Manner [and Gillis, Ground 1B]

42. Clark discloses the majority of features of the ’650 patent including a height adjustable medical cart with telescopic sections, a work platform, a moveable 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.

43. 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, 9:51-62, 10:30-37. 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. 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 medication was a common concern for medical carts. Ex. 1016, [0004]-[0005]; Ex. 1017, 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.

44. It is my opinion that 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 '650 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. 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.

45. In my opinion, 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.

46. 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, 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.

47. **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].

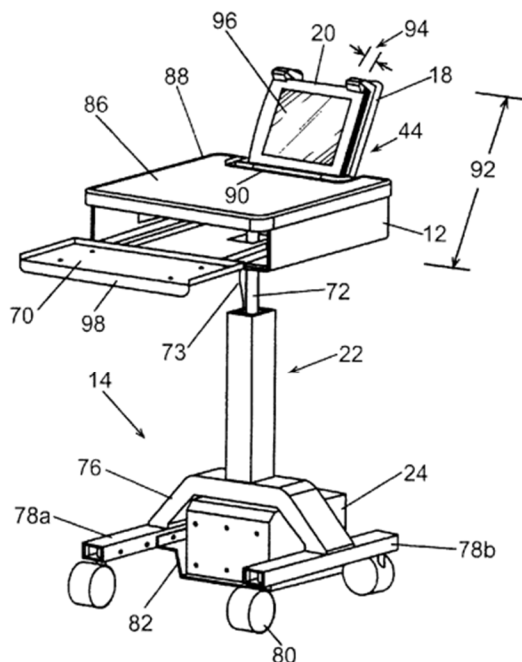
C. Claim 1

48. It is my opinion that claim 1 is unpatentable over Clark in view of Manner [and Gillis, Ground 1b].

1. [1pre] A cart comprising:

49. In my opinion, Clark discloses [1pre] 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.

50. 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.

51. Clark's implementation of a cart or workstation comports with the disclosure of the '650 patent. The '650 patent explains that it describes a medical cart with a work platform. *See* '650 patent, Abstract. Medical carts are used in a hospital environment to aid health professionals in, for example, dispensing medication. *See id.*, 1:42-59. 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. **[1a] a work platform including a work surface and at least one compartment for containing an item within the compartment, wherein the work surface is disposed above a top of the at least one compartment;**

52. It is my opinion that Clark discloses and/or renders obvious element [1a].

53. Clark discloses a work platform including a work surface and at least one compartment 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.

54. 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):

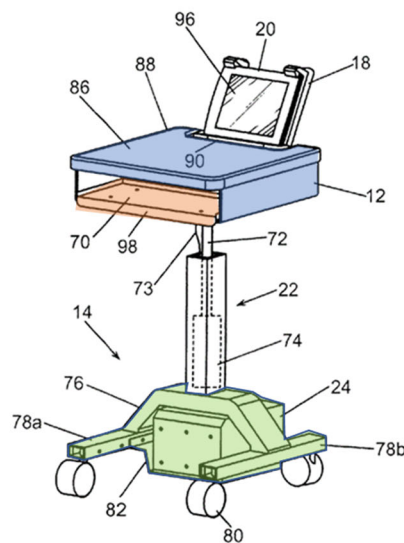


Fig. 4A

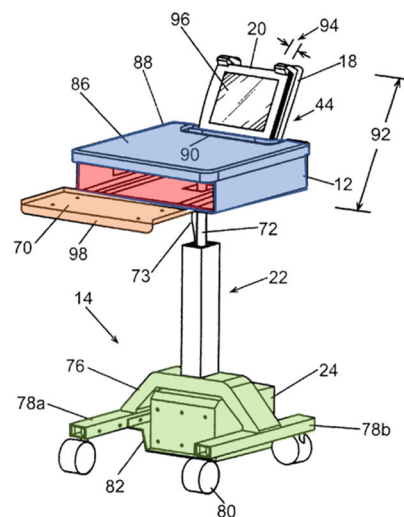


Fig. 4B

55. 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.**”); Alternatively, Clark discloses a drawer located under the horizontal tray 12. *Id.*

56. Though not depicted in figures 4A or 4B, Clark explains its pull-out tray could be positioned **above** the horizontal tray 12. Clark states “the docking

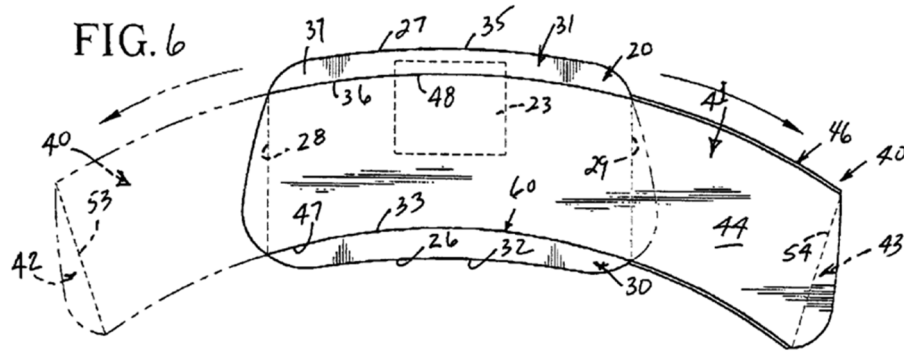
station 18 could be supported in a substantially horizontal position, for example **by a drawer or pull-out tray located above** or under **the horizontal tray 12.**” Clark, 10:30-33. By disclosing that its drawer can be located *under the horizontal tray 12* and that its pull-out keyboard can be located *above the horizontal tray 12*, Clark discloses a work surface disposed above a top of the at least one compartment.

57. It was well known in the art at the time of invention of the ‘650 patent that shelves, drawers, cabinets, trays, keyboards, work surfaces, barcode holders, and other components were combined in various configurations on mobile healthcare carts. The order in which these components were arranged was dependent on many factors, including, but not limited to the patient services that the cart served, the environment that the cart was used in (patient rooms, surgery, ICU’s, recovery, the interaction with other healthcare components (patient monitoring, pharmacy). For instance, Reeder discloses a mobile cart Figs. 32, 33 that has a base with storage cabinets, below a retractable keyboard tray, a slanted work surface above the keyboard tray, an open space above the work surface and another work surface that can also rotate between a vertical and horizontal position and is height-adjustable so as to vary the open space between the two work surfaces and provide adjustable angles for a computer display. The variation of components on mobile carts is clearly not predicated by manufacturing processes, but instead, by functional requirements. Accordingly, a POSITA would have known that the arrangement of storage and

workspace components of a mobile cart can be arranged in any configuration as required by function. Such arrangements would involve combining prior art elements according to known methods to yield predictable results.

58. **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.

59. 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.

60. In my opinion, 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. [1b] a base configured to be movable in at least a rearward direction; and

61. In my opinion, Clark discloses element [1b].

62. 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.

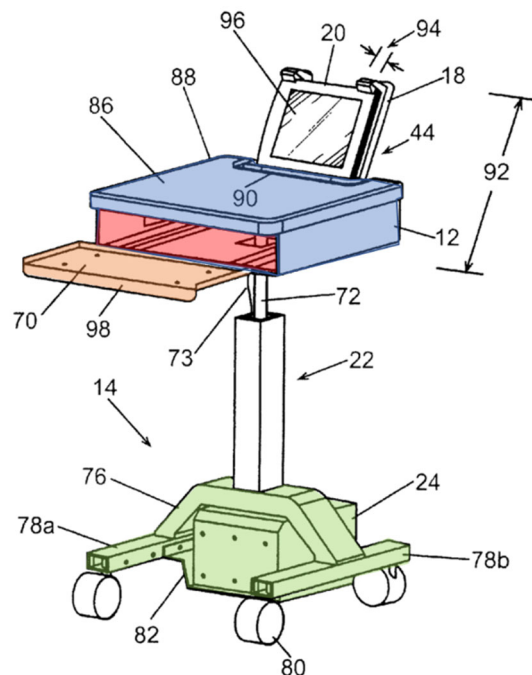


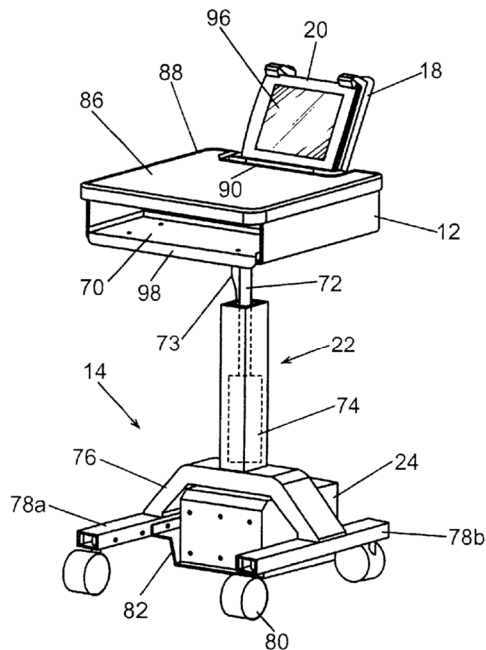
Fig. 4B

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. [1c] a height adjustment mechanism for adjusting a height of the work platform relative to the base,

63. It is my opinion that Clark discloses element [1c].

64. 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.

65. The '650 patent similarly describes its height adjustment mechanism as including a driver 430 that includes a gas driven piston 432. '650 patent, 8:29-55.

5. [1d] wherein the height adjustment mechanism is configured to releasably position the work platform at a plurality of heights,

66. It is my opinion that Clark discloses element [1d].

67. 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.”)

68. Clark’s height adjustment mechanism releasably positions 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.

69. Clark’s height adjustment mechanism releasably positions the work platform in the same way as described in the ’650 patent. *See* ’650 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).

6. [1e] the height adjustment mechanism comprising: a driver configured to releasably position the work platform; and

70. In my opinion, Clark discloses element [1e].

71. Clark discloses a driver configured to releasably position the work platform. 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.

72. Clark’s driver is configured to releasably position the work platform. 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.*, 9:53-10:8 *see also id.*, 14:65-15:10. The ’650 patent offers a similar disclosure of its driver 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.” ’650 patent, 8:52-55. The ’650 patent releasably positions the work platform in a similar way as described in the Clark. *See* ’650 patent, 9:13-16, 9:31-35.

73. 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. 1018.

74. 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.

75. While in some contexts the definitions of these terms may be different, it is my opinion that Clark and the '650 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 '650 patent, to comport with the configuration and function of Clark's gas spring.

7. **[1f] an actuator for controlling the driver,**

76. It is my opinion that Clark discloses element [1f].

77. 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.*

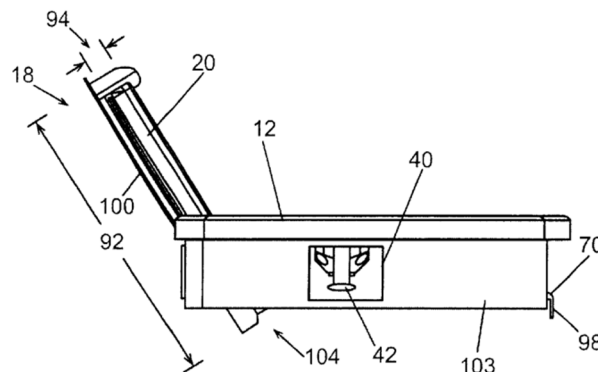


Fig. 5A

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

8. **[1g] wherein the base includes a portion projecting, relative to the height adjustment mechanism, in a forward direction that is substantially opposite to the rearward direction,**

78. In my opinion, Clark discloses element [1g].

79. 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:

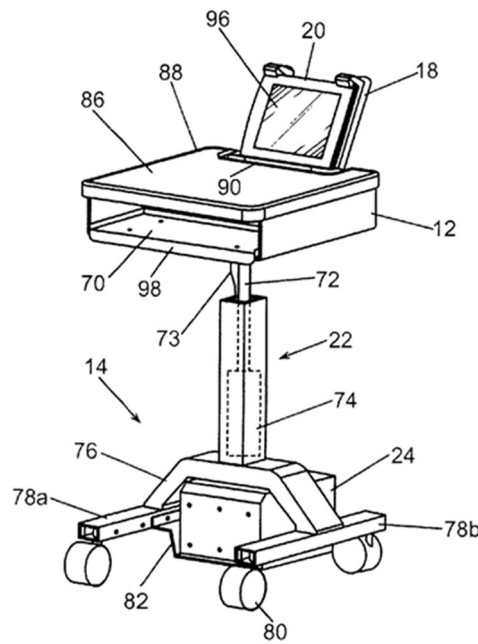


Fig. 4A

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

9. [1h] wherein the work platform includes a portion projecting, relative to the height adjustment mechanism, in the forward direction, wherein the compartment is disposed in the portion of the work platform projecting in the forward direction, and the compartment is configured to permit a user facing in the rearward direction to access the item within the compartment,

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

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

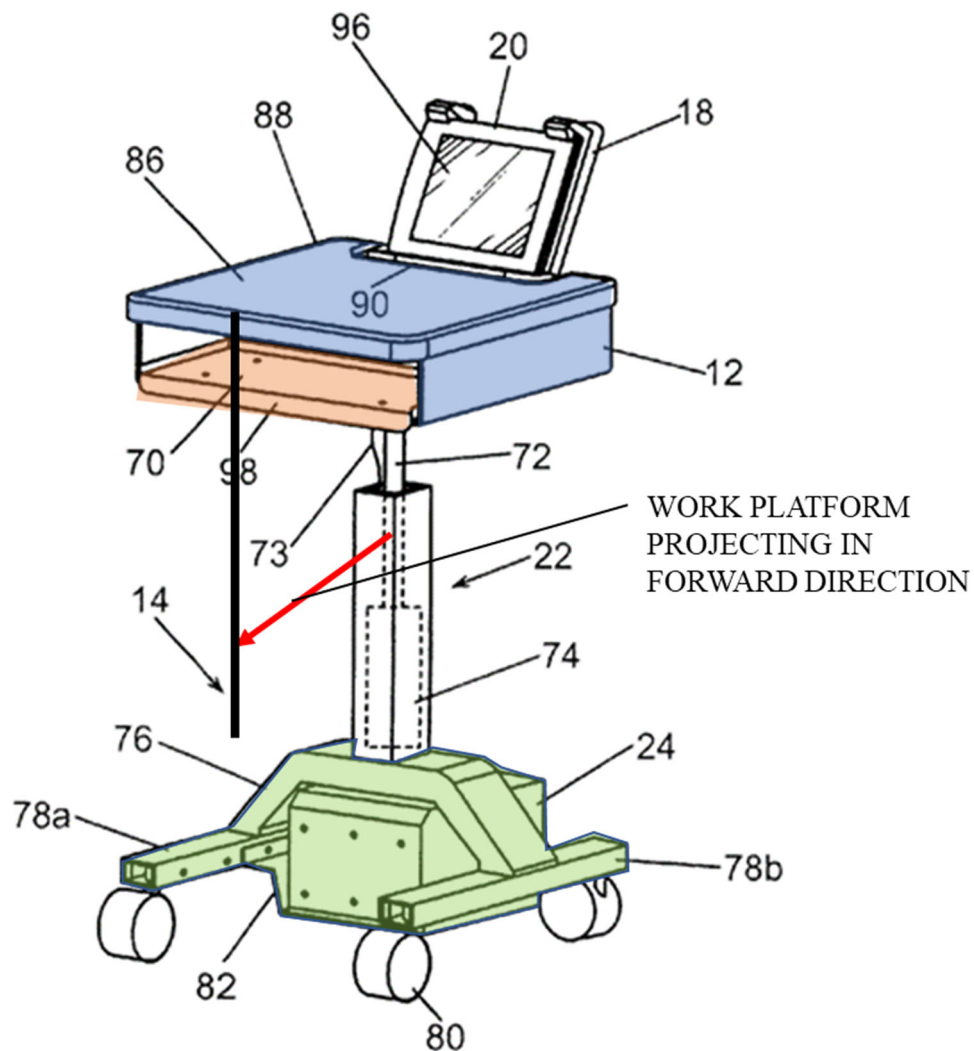


Fig. 4A

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.

10. [1i] wherein the actuator is disposed above the compartment and on the portion of the work platform projecting in the forward direction, and

82. In my opinion, Clark combined with Manner discloses element [1i].

83. Clark discloses an actuator as discussed in element [1f], Section VI.C.7. 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 as depicted in the annotated Figure 2B:

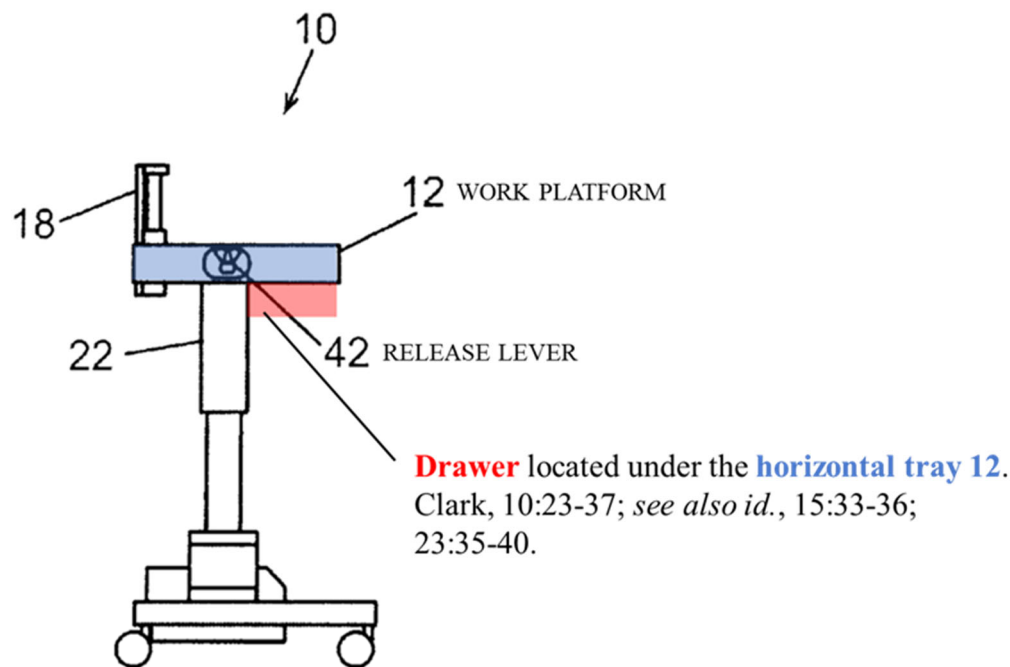


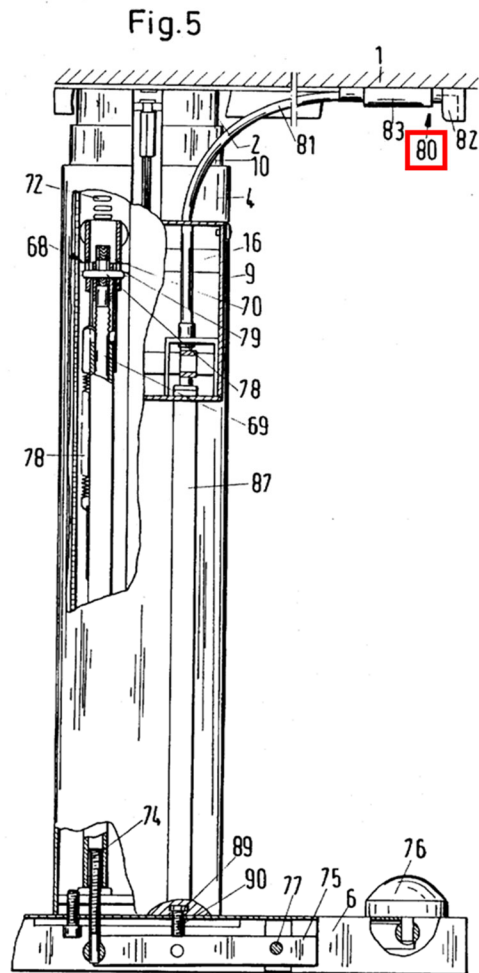
Fig. 2B

Clark, Fig. 2B (annotated).

84. 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* 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.

85. 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.

86. In my opinion, it would have been obvious to combine Clark 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. 1019, [0008], Fig. 3 (depicting actuator 20); Ex. 1020, 4:6-16, Figs. 4, 10 (depicting switch 9); Ex. 1021, 3:28-56, Fig. 1 (depicting switches 105-109); Ex. 1022, 4:46-67, Fig. 1 (depicting release paddle 26).

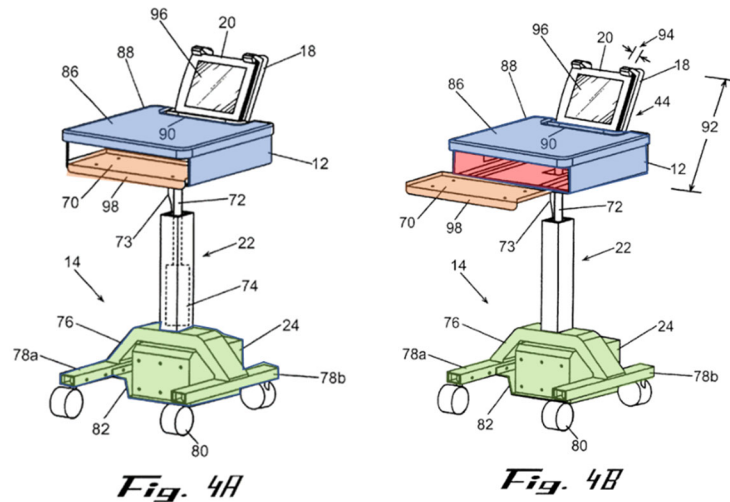
11. [1j] wherein the work surface is movable relative to a remainder of the work platform from an extended position to a non-extended position.

87. It is my opinion that Clark discloses element [1j].

88. Clark discloses "a pull-out keyboard tray 70, which is supported by the underside of the horizontal tray 12. The pull-out keyboard tray 70 slides from

an inner position, shown in FIG. 4A, to an outer position, shown in FIG. 4B.”

Clark, 11:41-45.



Id., 4A-4B.

89. Clark’s figure discloses the pull-out keyboard tray 70 located below the cavity/compartment, however Clark’s description expressly states that the pull-out tray may be **located above the horizontal tray 12**. *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.**”). By disclosing the pull-out tray above the horizontal tray 12, Clark’s moveable work surface is disposed over the top of the at least one compartment.

D. Claim 2

90. In my opinion, Clark combined with Manner [and Gillis, Ground 1B], renders obvious claim 2.

1. **[2a] wherein the height adjustment mechanism comprises a first telescoping portion connected to the base, and a second telescoping portion connected to the work platform and configured to move relative to the first telescoping portion, and**

91. It is my opinion that Clark discloses element [2a].

92. Clark discloses a first telescoping portion connected to the base. The casing is visible below vertical beam 22 when Clark's work platform is in an elevated position:

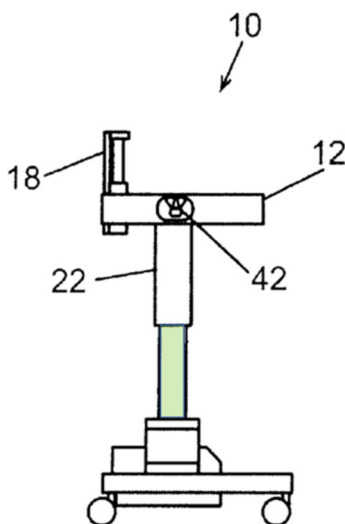
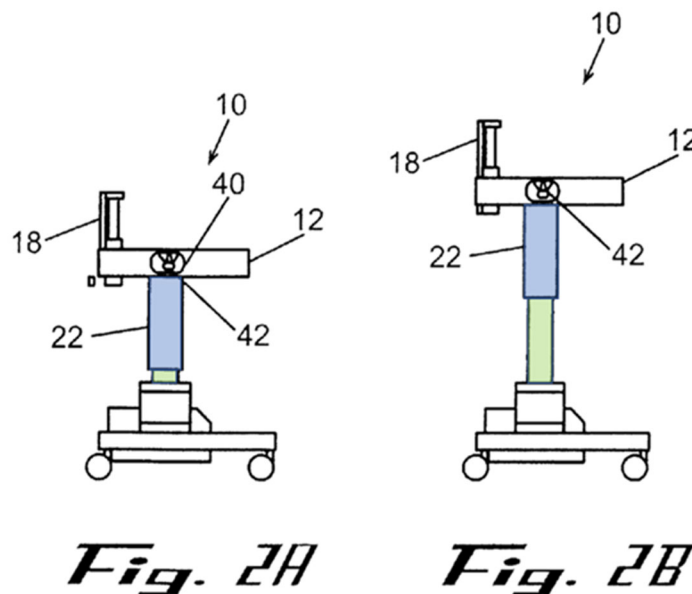


Fig. 2B

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

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



Clark, Figs. 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.").

2. [2b] wherein the driver is configured to releasably position the second telescoping portion relative to the first telescoping portion.

95. In my opinion, Clark discloses element [2b].

96. Clark's driver is configured to releasably position the second telescoping portion relative to the first telescoping portion. 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.*, 9:53-10:8 *see also id.*, 14:65-15:10. The '650 patent offers a similar disclosure of its driver 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." '650 patent, 8:52-55. The '650 patent releasably positions the work platform in a similar way as described in the Clark. *See* '650 patent, 9:13-16, 9:31-35.

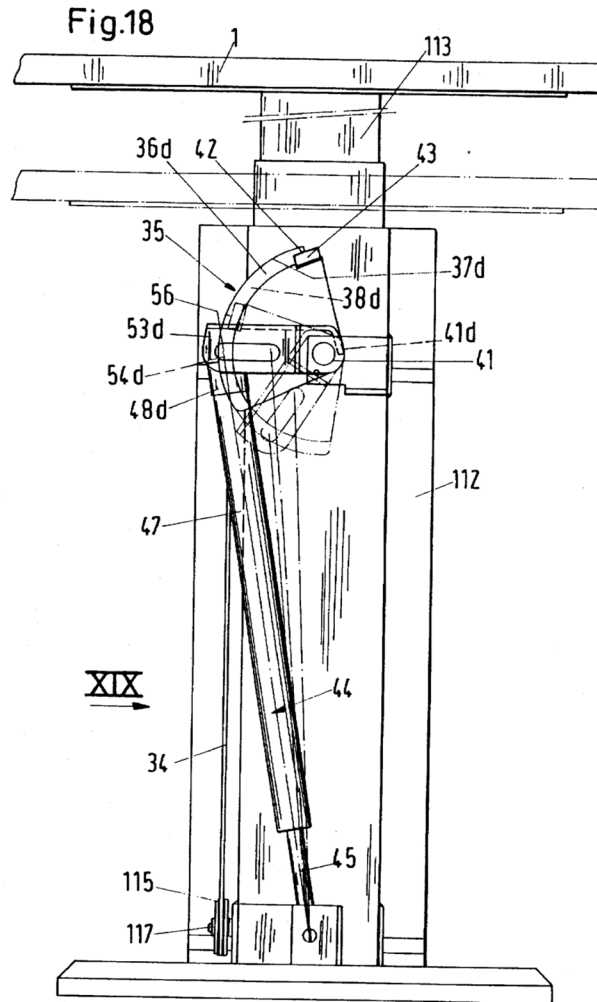
E. Claim 3: wherein the first telescoping portion is a stationary outer casing, and the second telescoping portion is a movable inner casing.

97. It is my opinion that Clark and Manner [and Gillis, Ground 1B], render claim 3 obvious.

98. Clark discloses wherein the first telescoping portion is a stationary *inner* casing and the second telescoping portion is a movable *outer* casing. *See*

Clark, Figs. 2A-2B; *supra* claim 2, Section VI.D. It would have been obvious for a POSITA to reverse the orientation of the casings so that the first telescoping portion is a stationary ***outer*** casing and the second telescoping portion is a movable ***inner*** casing.

99. For example, Manner depicts the orientation of a stationary outer casing (column 112), and the second telescoping portion is a movable inner casing (support 113). Manner explains “FIGS. 18 to 21 show a work table which has only one single column 112 as a support frame. In this column 112 the support 113 which supports the table top 1 is height adjustably supported.” Manner, 15:1-5. The casings are depicted in e.g., Fig. 18:



Manner, Fig. 18.

100. In my opinion, it would have been obvious to change the orientation of the portions in Reeder to the orientation as described in Manner. Telescoping portions require one portion to be set within another portion, leading to only two possible orientations. Telescoping portions with stationary outer casings and moveable inner casings, or the reverse arrangement, were both known, as evidenced by Clark and Manner. It would have been obvious for a POSITA to simply switch

the arrangement of the telescoping portions in Clark to the other available choice shown in Manner.

101. In typical applications the piston rod end of gas springs may be oriented in a vertical or near-vertical position. For nitrogen filled gas springs, the piston rod may be directed downward so that internal lubrication of the device be consistent and effective and with the piston rod at the lower so that the lubricating oil in the device flows to that end. For applications requiring that the piston rod be pointing upward, “dampers” look and perform like gas springs and are readily substituted, Dampers are filled with oil rather than gas and perform better when the piston rod is pointing upward.

102. A POSITA would have been aware that at the time of invention of the ‘650 patent, that height adjustable furniture, particularly height adjustable office chairs and small tables, frequently had telescopic support columns configured with a larger outer column attached to the chair or table base and a smaller height-adjustable inner column (piston rod end) that attached to the chair body or table surface. These air springs were likely “damper” versions of air springs. It would have been obvious to a POSITA that such a configuration was common in height-adjustable furniture and that the arrangement of inner and outer telescopic columns did not affect the functionality of the assemblies. For example, U.S. Patent Nos. 6,578,501 and 6,883,439 each depict height adjustable carts with telescoping inner

columns and fixed outer columns. Ex. 1027, Figs. 1 and 2 (depicting telescoping column 21 and 22); Ex. 1028 Fig 2 (depicting telescoping columns 16 and 17). Accordingly, reversing the orientation of the casings of the height-adjustment mechanism was a known method to yield predictable results. Such an arrangement would have been a mere design choice well within the ordinary skill of a POSITA. For example, Dell shows such an arrangement with telescoping columns 62 and 66, indicating such features were well known. Dell, 2:57-3:6, Fig. 4.

F. Claim 5: wherein the actuator is disposed at a spaced vertical distance above the compartment.

103. In my opinion, Clark combined with Manner [and Gillis, Ground 1B], renders obvious claim 5.

104. As explained above for element [1i], Section VI.C.10, a POSITA would have combined Manner's actuator with Clark's height adjustment mechanism to position the actuator on the forward projection of the work platform. Clark also discloses a drawer positioned below the horizontal tray 12. Clark, 10:30-33 ("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."). It would have been obvious to position Clark's actuator on the front edge of the work platform as depicted in Manner and including a drawer located below the work platform (horizontal tray 12) as taught by Clark. Such an arrangement would result in the actuator disposed at a spaced vertical distance above the compartment because

the dimension of the work platform and work surface would be between the actuator and the compartment.

G. Claim 8: The cart of claim 1, wherein the driver includes a piston that, in response to the user's actuation of the actuator, permits gas to flow out of the piston during lowering of the height of the work platform, and that, in response to the user's actuation of the actuator, permits gas to flow into the piston during increasing of the height of the work platform.

105. In my opinion, Clark combined with Manner [and Gillis, Ground 4B], discloses claim 8.

106. Claim 8 merely recites the well-known and conventional operation of a gas piston. As explained in element [1e], Section VI.C.6, Clark discloses a driver in the form of “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. A POSITA would have understood Clark's disclosure of a driver in the form of a gas spring height adjustment mechanism to include a piston, which are well known components of gas springs.

107. The driver responds to the user's actuation of the actuator. Clark explains that the operator “lifts a release lever 42, which releases a stop in the gas-spring height adjustment mechanism in the vertical beam.” Clark, 9:50-61. The operator raises and lowers the horizontal tray 12 while holding the release lever. *Id.* It would have been obvious to a POSITA to configure gas to flow in and out of the piston as described by claim 8. Clark depicts its work platform lowering and raising

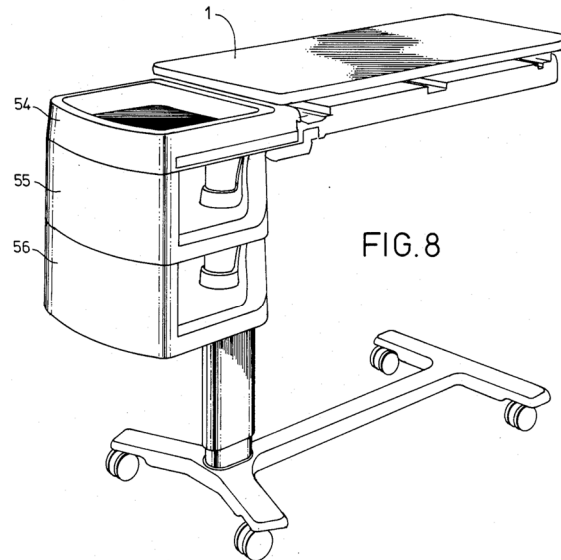
in height “within the adjustment range of the gas-spring height adjustment mechanism.” *Id.*, 9:63-10:8, Figs. 2A-2D.

108. Gas springs and pistons were ubiquitous in the art. 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, 7:25-37. Similarly, Dell teaches a mobile workstation “which houses a height adjustment mechanism, typically a piston and cylinder.” Dell, 2:57-60. Operation of gas pistons were well-known to a POSITA.

VII. GROUND 2: CLAIM 6 IS UNPATENTABLE OVER CLARK IN VIEW OF MANNER AND HARTMAN [AND GILLIS, GROUND 2B]

A. Hartman

109. Hartman discloses an overbed table for use by patients in hospitals and other health care facilities. Hartman, 1:6-10. Hartman employs “two useable horizontal surfaces which may be employed in a variety of different combinations.” *Id.*, 2:65-67. By sliding a release lever, Hartman’s lower horizontal surface is “exposed and moved in a direction toward the user.” *Id.*, 3:3-7. The top surface can also “be slid in either direction by employing the release lever located on either side of the table.” *Id.*, 3:14-16. Hartman depicts its overbed table with top tray 1 in Figure 1:

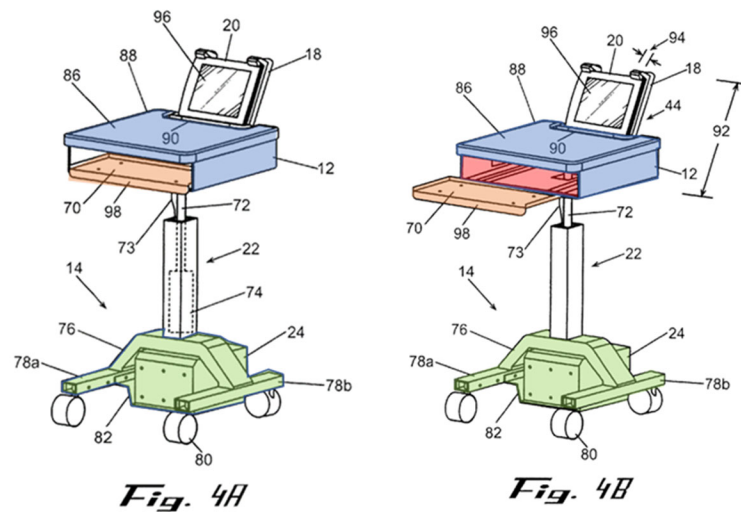


Hartman, Fig. 1.

B. Claim 6: wherein the work platform further comprises a movable platform configured to move in at least one of the forward direction and the rearward direction.

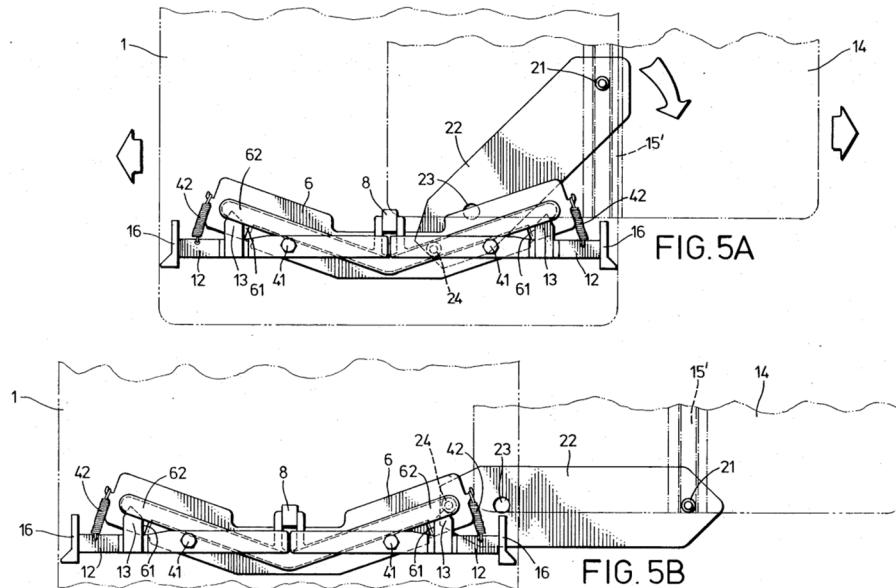
110. In my opinion, Clark, Manner, and Hartman [and Gillis, Ground 2B] render obvious claim 6.

111. Clark's work platform includes a platform in the form of work surface 86:



Clark, Figs. 4A-B (annotated). Clark does not expressly disclose that its platform is moveable.

112. Hartman discloses a work platform that comprises a moveable platform configured to move in at least one of the forward direction and the rearward direction. Hartman discloses a top tray 1 that can be slid in a forward or rearward direction “by employing the release lever located on either side of the table.” Hartman, 3:14-16. Hartman’s top tray 1 cooperates with a second moveable surface, lower tray 14, and both the top tray and the lower tray can move independently or together in a forward and rearward direction. *Id.*, 2:5-10, 2:65-67, 3:3-16, 5:57-6:38. Hartman depicts the top tray 1 and the lower tray 14 moving relative to each other with a pivoting release assembly in Figs. 5A and 5B:



Id., Figs. 5A-5B. Top tray 1 employs slide pivots 2 mounted underside of the top tray that enable a sliding movement of the top tray 1. *Id.*, 3:44-51, Fig. 1A;

113. In my opinion, it would have been obvious to incorporate Hartman's slidable top tray 1 into Clark's work platform/work surface 86. It was well known to a POSITA to add slide pivots to enable sliding movement for a surface as in Hartman. Hartman, 3:44-51, Fig. 1A; Such a combination would have involved combining known elements, (Hartman's slideable top tray 1 and slide pivots 2) with Clark's platform ([work surface 86 on horizontal tray 12](#)) according to known methods to yield the predictable result of a movable platform configured to move in at least one of the forward direction and the rearward direction. A POSITA would have been motivated to combine Hartman and Clark to "provide[] sufficient horizontal surface for use by medical personnel...without rearranging or relocating items already placed on the [surface.]" Hartman, 1:51-59. Such a modification would

have enabled a medical professional to, for example, place a computer on Clark's docking station 18 and slide the work surface 86 in a rearward direction to access a lower surface for writing or placement of objects without relocating the computer.

114. It would also have been well within the ordinary skill of a POSITA to employ a moveable platform and a movable work surface in a single cart as in Clark. Hartman expressly discloses how to employ two moveable surfaces with its movable top tray 1 and lower tray 14. Hartman., 2:5-10, 2:65-67, 3:3-16, 5:57-6:38, Figs. 1A, 5A, and 5B.

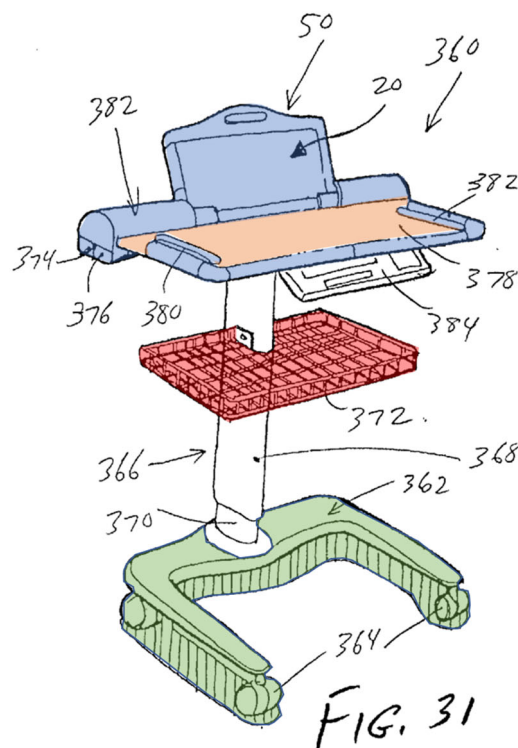
VIII. GROUND 3: CLAIMS 1-3, 5-6, AND 8 ARE UNPATENTABLE OVER REEDER IN VIEW OF MANNER [AND GILLIS, GROUND 3B]

A. Overview of the Combination

1. Reeder

115. 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].

116. 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).

117. 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].

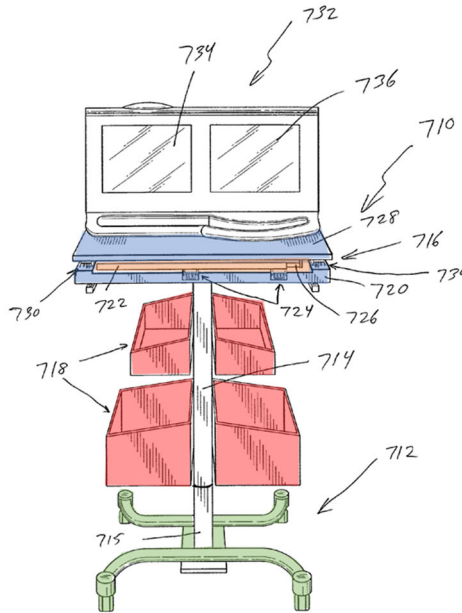


Fig. 45

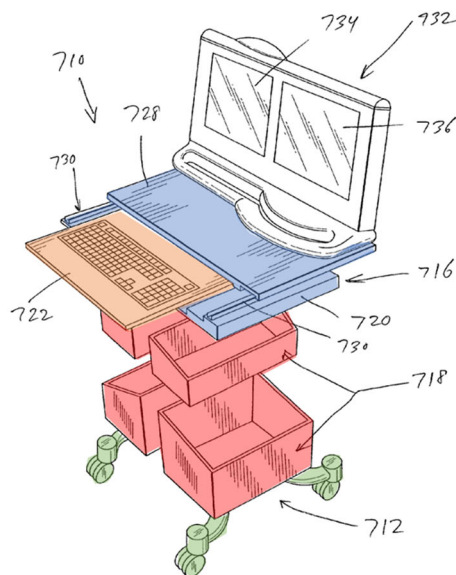


Fig. 46

Reeder, Figs. 45-46 (annotated).

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

1. The References are Analogous Art

118. The references are analogous art to the '650 patent because they are in the same field of endeavor: height adjustable work stations. The '650 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.” ’650 patent, Abstract.

119. **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 section.” Reeder, [0118].

120. **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.

121. Because both 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 Gillis, Ground 3B]

122. Reeder discloses the majority of features of the ’650 patent including a height adjustable medical cart with telescopic casings, a work platform, and a moveable work surface, but it does not expressly disclose (1) a driver or (2) an actuator disposed on the portion of the work platform that projects in the forward direction.

123. 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]. A POSITA would have understood that Reeder’s controls must control a device 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.

124. A POSITA would have readily understood that Manner explicitly discloses such additional information on implementing height adjustable features for telescoping work platforms. Like Reeder and the ’650 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.

125. 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. *Id.* 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, 7:25-37. 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.

126. 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].

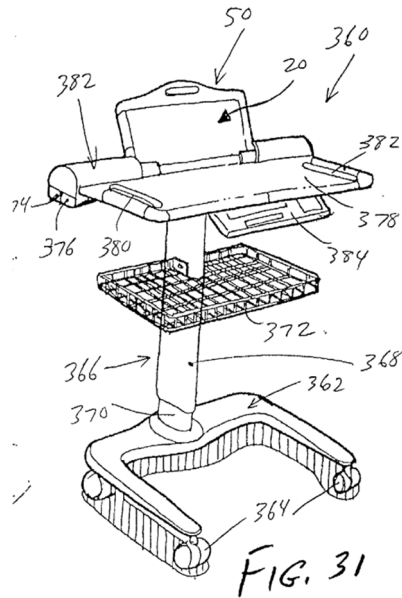
127. A POSITA would have had a reasonable expectation of success in combining these features because the prior art recognized that height adjustable work platforms include weight-compensation devices employing gas springs. Manner, 1:13-33, 2:26-28, 7:6-15, 7:60-67, 15:8-12, 15:62-16:23. The prior art expressly recognized its benefits when used in "smaller work tables, especially in the computer field." *Id.*, 1:30-33. The combination would have involved combining known prior art elements (a height adjustable medical cart, a gas spring, 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.

128. **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];

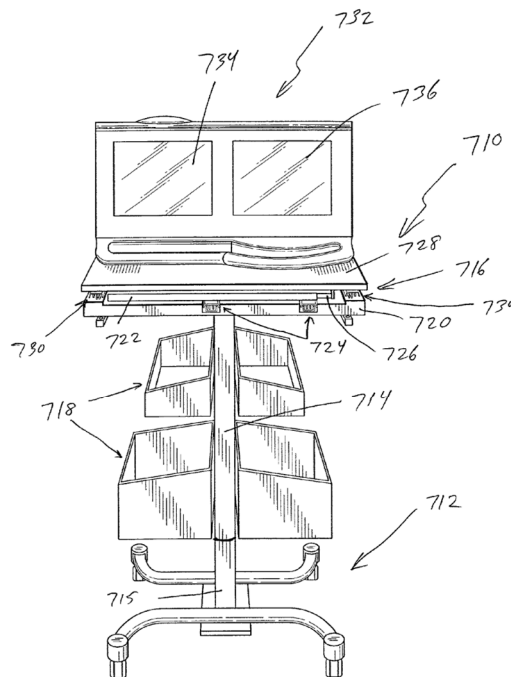
C. Claim 1

1. [1pre] A cart comprising:

129. In my opinion, Reeder discloses [1pre] 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.



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

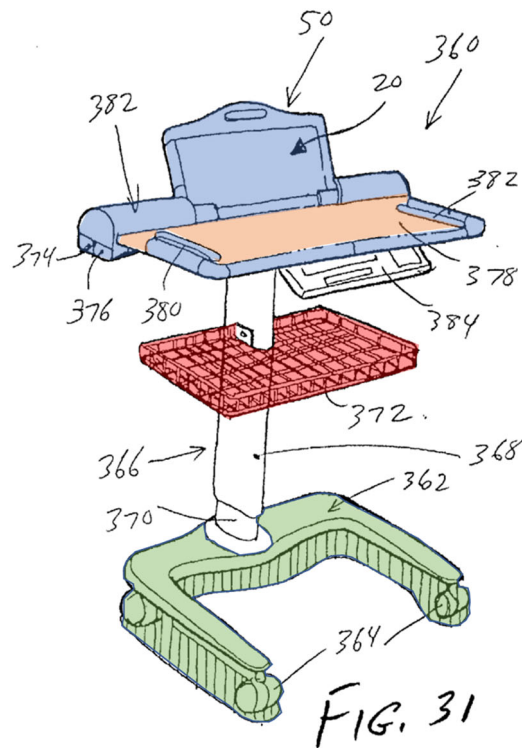
130. Reeder's implementation of a cart or work station comports with the disclosure of the '650 patent. The '650 patent explains that it describes a medical cart with a work platform. *See* '650 patent, Abstract. Medical carts are used in a hospital environment to aid health professionals in, for example, dispensing medication. *See id.*, 1:42-59.

131. 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. [1a] a work platform including a work surface and at least one compartment for containing an item within the compartment, wherein the work surface is disposed above a top of the at least one compartment;

132. In my opinion, Reeder discloses and/or renders obvious element [1a].

133. Reeder discloses a work platform including a work surface and at least one compartment 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). As can be seen in figure 31, the work platform is disposed above the at least one compartment.

134. Reeder discloses another embodiment of a cart with a work platform including a work surface and at least one compartment 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:

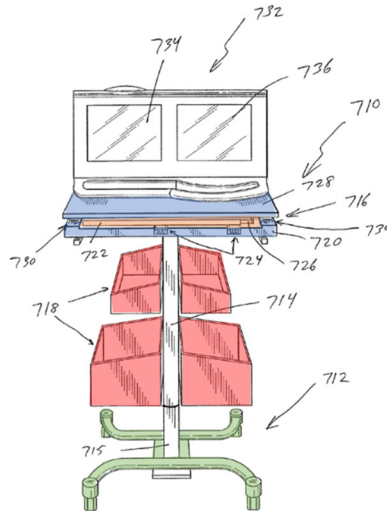


Fig. 45

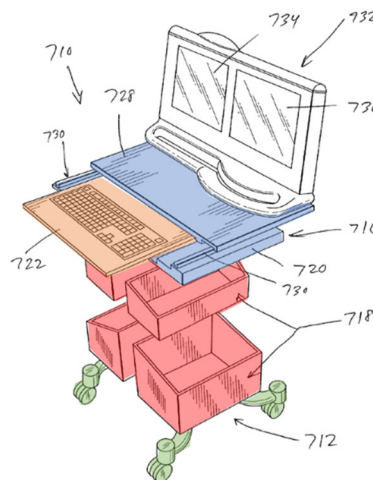
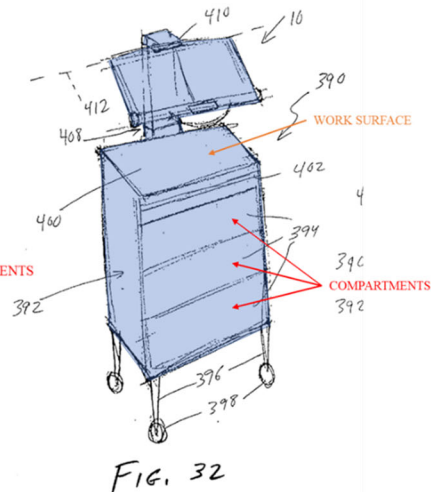
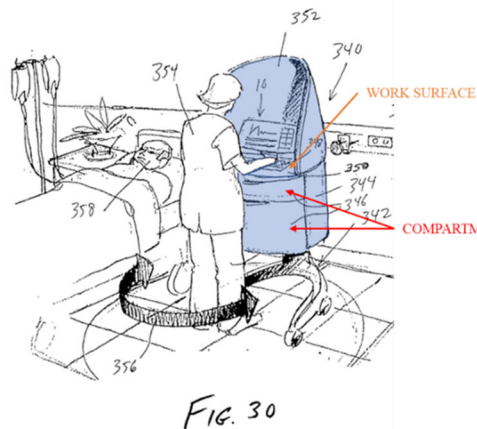


Fig. 46

Reeder, Figs. 45-46 (annotated). In both cart 360 and cart 710, Reeder’s work surface is located above the compartments. See Figs. 31, 45-46.

135. To the extent Capsa argues 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).

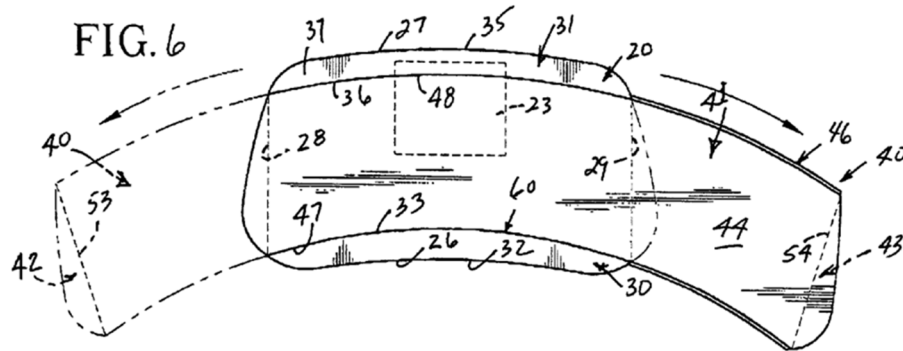
136. In my opinion, it would have been obvious to incorporate Reeder's drawer embodiments shown in figures 30 and 32 into Reeder's "bin-style" embodiments depicted in figures 31, 45, and 46. Employing drawers in medical carts was well known in the art, as demonstrated by Reeder's other embodiments in figures 30 and 32. Indeed, Ellman, issued years before the '650 patent, demonstrates such features were routine. *Id.* Ellman discloses a mobile "surgical cart specifically adapted to provide a chairside or table side location not only for an electrosurgical instrument but also for the accessories most frequently used during ... [electrosurgical] procedures," having two pull-out drawers 23, and 24 located below a sliding pull-out shelf 25 and a top shelf 27. Ellman, 1:20-23 (emphasis added), 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). Alternatively, one of ordinary skill in the art would recognize that the purpose of providing height adjustment features to the cart, nominally to place the work surface at an ergonomic height for the user, would be just as useful in embodiments with drawers as it is with bins. Substituting “drawer” compartments for “bin-style” compartments would have been the simple substitution of one known element for another to obtain predictable results.

137. **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.

138. 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:



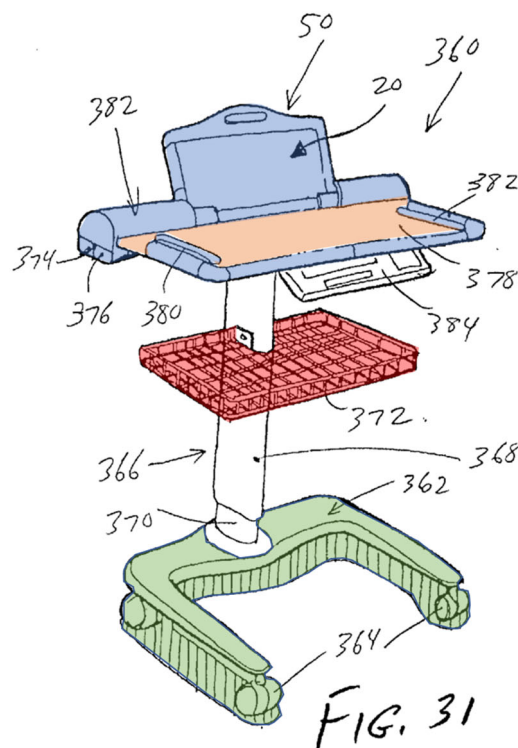
Id., Fig. 6.

139. 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. [1b] a base configured to be movable in at least a rearward direction; and

140. In my opinion, Reeder discloses element [1b].

141. 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).

142. 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:

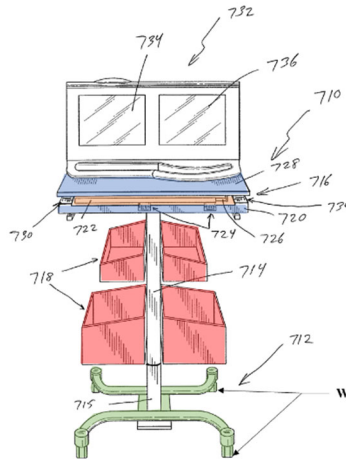


Fig. 45

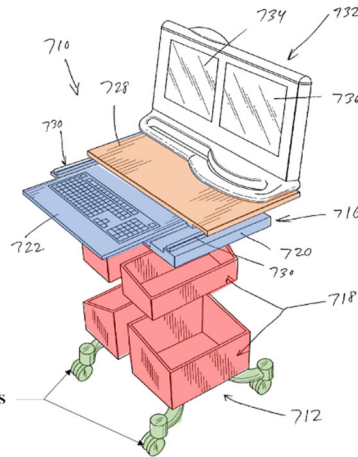


Fig. 46

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.

4. [1c] a height adjustment mechanism for adjusting a height of the work platform relative to the base,

143. It is my opinion that Reeder discloses element [1c].

144. 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

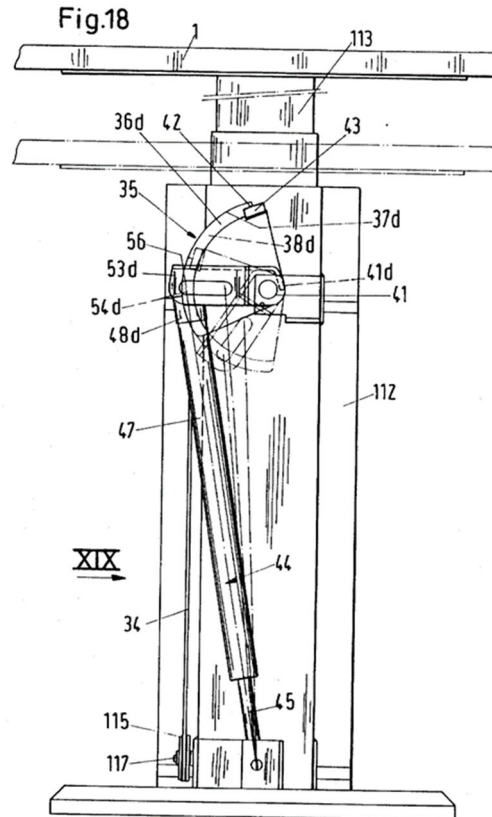
keyboard in a standing or seated position discloses a height adjustment mechanism for adjusting the height of the work platform. The '650 patent similarly describes its height adjustment mechanism as “enabl[ing] a standing user or a sitting user to ergonomically raise and lower the work platform 340.” ’650 patent, 8:25-28.

5. [1d] wherein the height adjustment mechanism is configured to releasably position the work platform at a plurality of heights,

145. In my opinion, Reeder combined with Manner renders obvious element [1d].

146. Reeder discloses a height adjustment mechanism that can be positioned in at least a sitting position and a standing position as described in [1c], Section VIII.C.4. To the extent that Reeder does not expressly disclose that the height adjustment mechanism is configured to *releasably* position the work platform at a plurality of heights, Manner does.

147. 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 36*d*, and an arresting device (not shown):

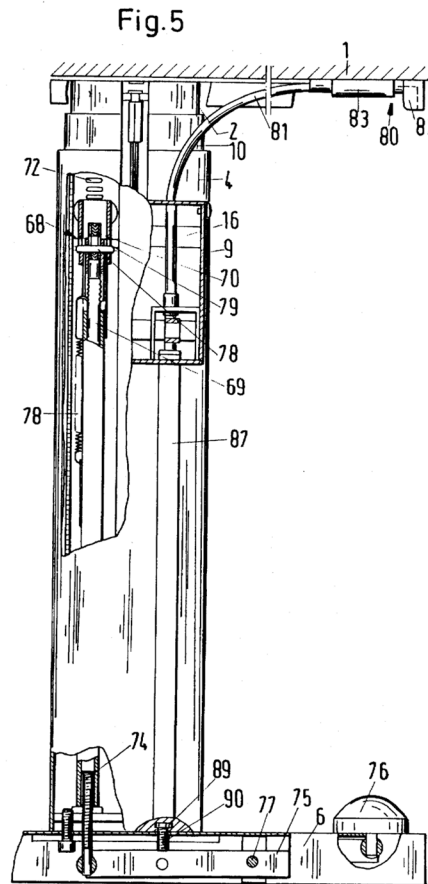


Manner, Fig. 18; *see also id.*, 15:1-16:35; *see also id.*, 15:62-65 (referring to arresting device), 16:23-27 (same). Manner explains that the “support 113 can, as disclosed in connection with previous embodiments be arrested with locking disks in the desired position relative to the column 112.” *Id.*,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

148. 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 worktable 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 “in 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.

149. Manner describes its height adjustment mechanism releasably positioning 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 '650 patent's height adjustment mechanism releasably locks the work platform. *Id.*, 9:10-16; '650 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).

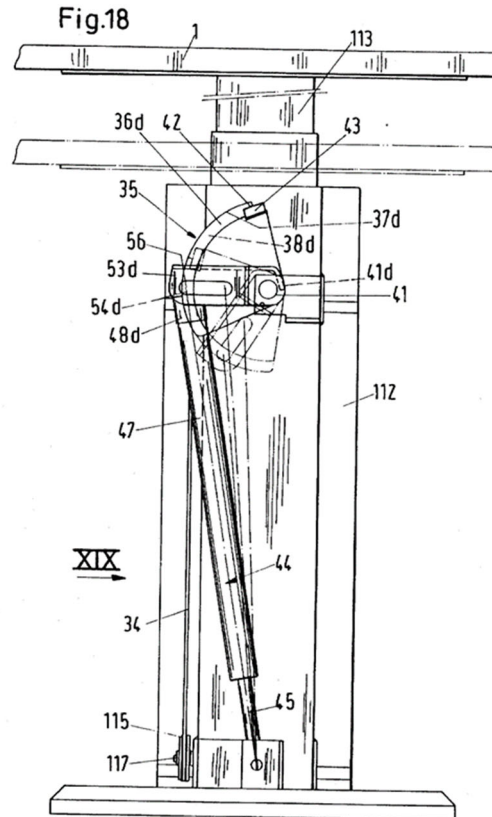
150. In my opinion, a POSITA would have been motivated to combine Reeder and Manner for the reasons identified in Section VIII.B and because Manner

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.

6. [1e] the height adjustment mechanism comprising: a driver configured to releasably position the work platform; and

151. It is my opinion that Reeder combined with Manner discloses element [1e].

152. 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:



153. Manner, Fig. 18; *see also id.*, 15:1-16:35. 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 [1d], Section VIII.C.5, Manner’s gas piston cooperates with arresting device 68 and an actuating device to releasably lock the telescopic casing relative to the stationary casing.

154. Manner's description of a gas spring 44 with a piston rod 45 comports with the '650 patent's disclosure of a driver that includes "a gas driven piston 432" with "a body portion 436 and a telescoping strut 434." '650 patent, 8:52-55.

155. 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. 1018.

156. 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.

157. While in some contexts the definitions of these terms may be different, it is my opinion that Manner and the '650 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 ’650 patent to comport with the configuration and function of Manner’s gas spring.

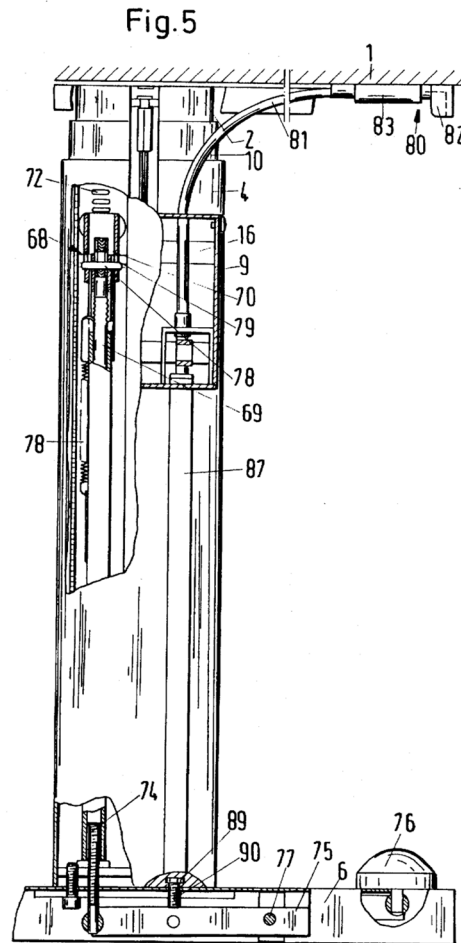
158. In my opinion, a POSITA would have been motivated to combine Reeder and Manner for the reasons identified in Section VIII.B and because Manner further expands on the disclosure of the mechanical details of the height adjustment mechanism already described in Reeder. Reeder implies a driver because 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.

7. [1f] an actuator for controlling the driver,

159. It is my opinion that Reeder combined with Manner discloses element [1f].

160. Reeder discloses an actuator in the form of “controls 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.

161. 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.” *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 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.*, 9:24-36. Manner depicts its actuating devices 76 and 80 in e.g., Fig 5:



Manner, Fig. 5.

162. 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. A POSITA would understand Manner's disclosure of an actuator as an actuator for controlling the driver.

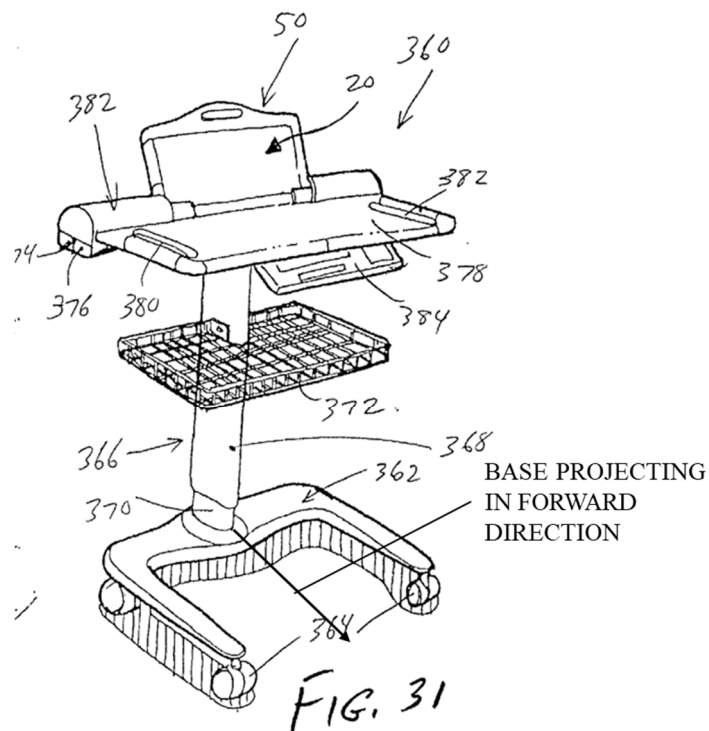
163. In my opinion, a POSITA would have been motivated to combine Reeder and Manner for the reasons identified in Section VIII.B and because Manner

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, [0117]. 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.

8. [1g] wherein the base includes a portion projecting, relative to the height adjustment mechanism, in a forward direction that is substantially opposite to the rearward direction,

164. It is my opinion that Reeder discloses element [1g].

165. 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:

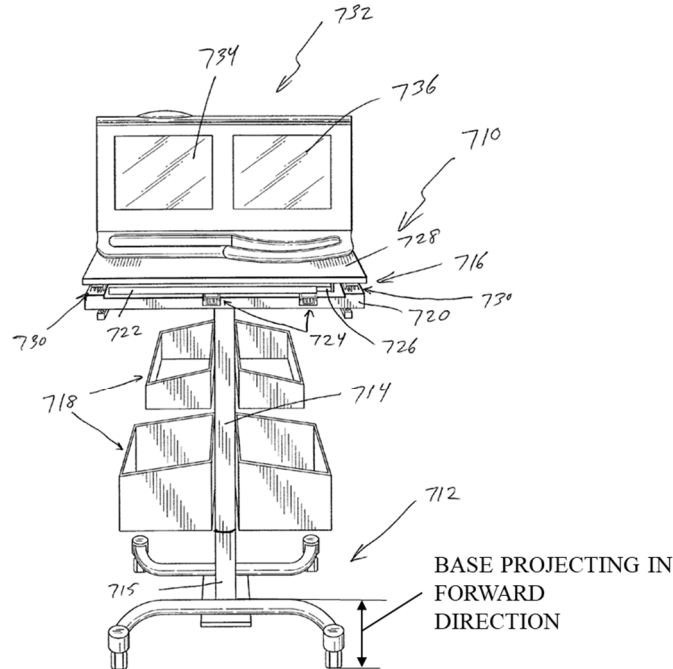


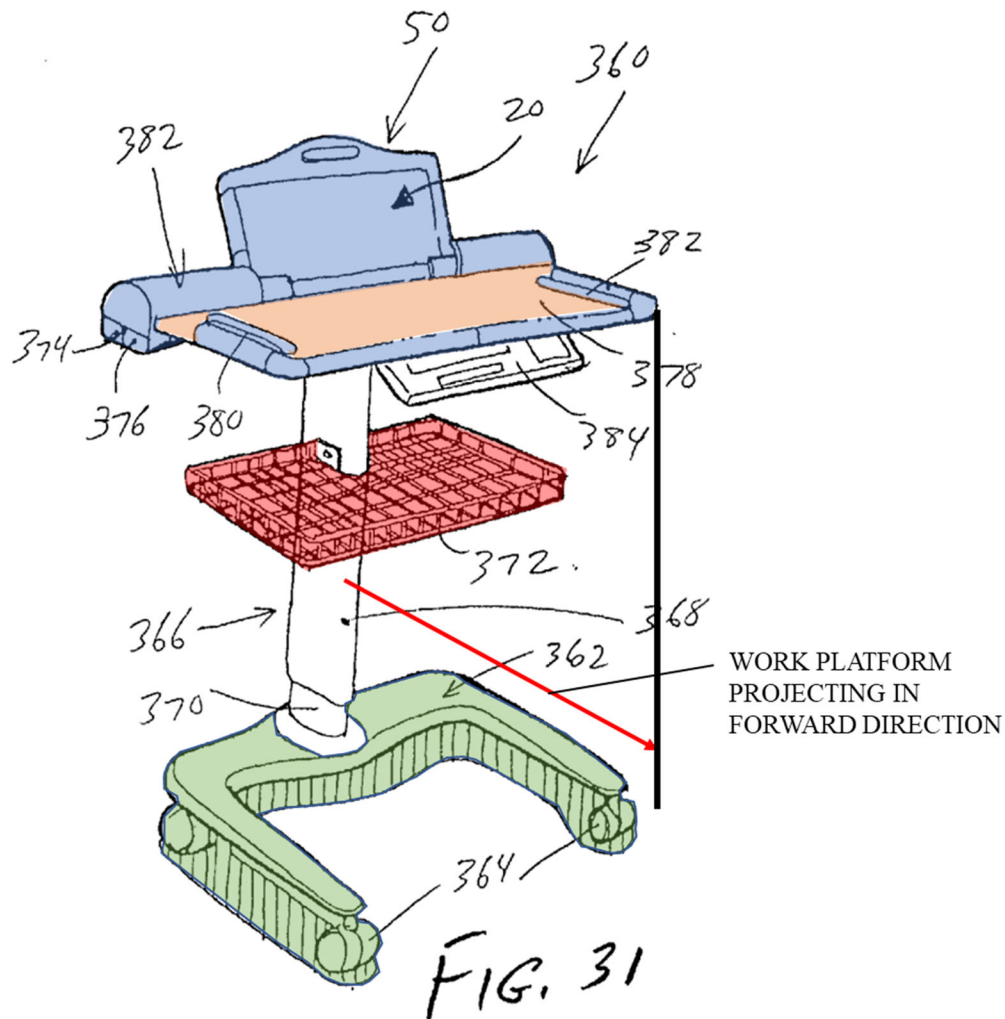
Fig. 45

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

9. [1h] wherein the work platform includes a portion projecting, relative to the height adjustment mechanism, in the forward direction, wherein the compartment is disposed in the portion of the work platform projecting in the forward direction, and the compartment is configured to permit a user facing in the rearward direction to access the item within the compartment,

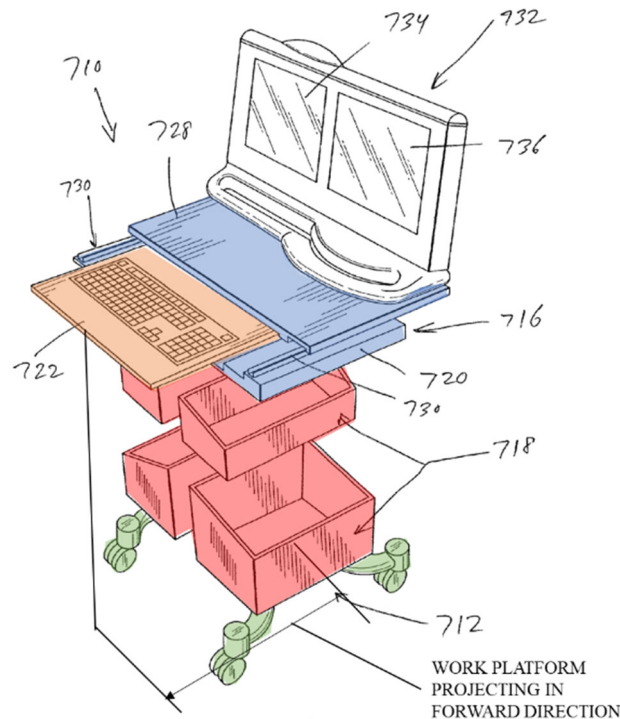
166. In my opinion, Reeder discloses or renders obvious this element.

167. 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).

168. 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.

169. 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. 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.

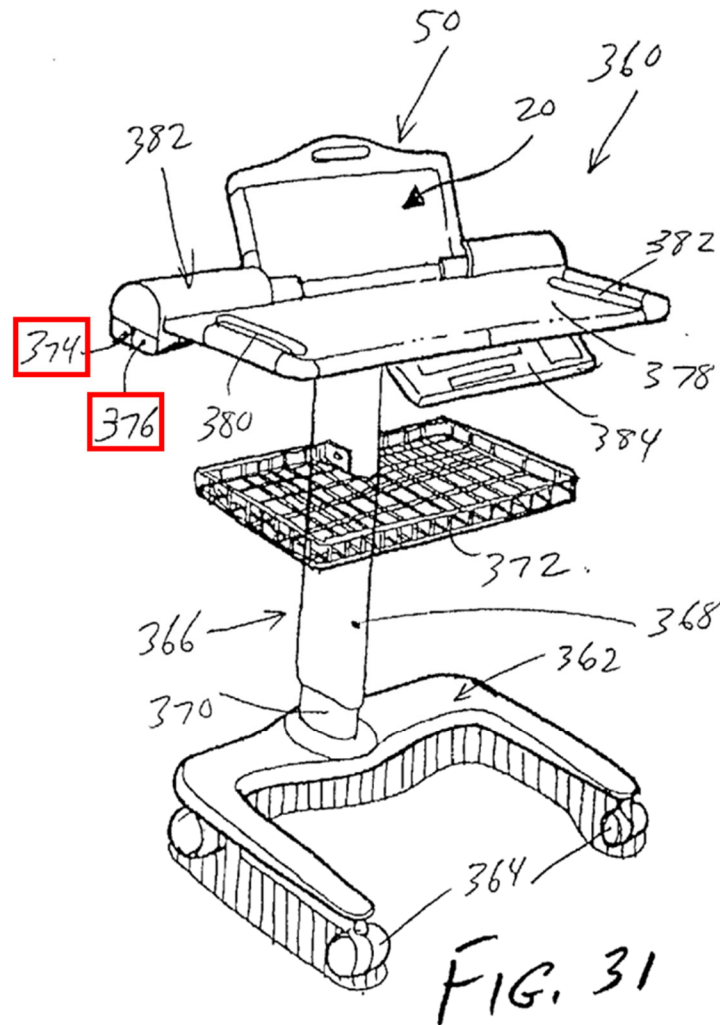
Drawers in medical carts attached below a work platform were well-known in the art of medical carts. For example, Ellman discloses “a surgical cart specifically adapted to provide **a chairside or table side location** not only for an electrosurgical instrument but also for the accessories most frequently used during . . . [electrosurgical] procedures,” having two pull-out drawers 23, and 24 located below a sliding pull-out shelf 25 and a top shelf 27. Ellman, 1:20-23 (emphasis added), 2:18-24, Figs 1-2. 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). *Id.* Such a modification would have been well within the skill of a POSITA. *Id.*

10. [1i] wherein the actuator is disposed above the compartment and on the portion of the work platform projecting in the forward direction, and

170. In my opinion, Reeder combined with Manner discloses element [1i].

171. Reeder disclose an actuator in the form of “controls 374 and 376 [that] are provided for raising and lowering telescoping sections 368 and 370.” Reeder,

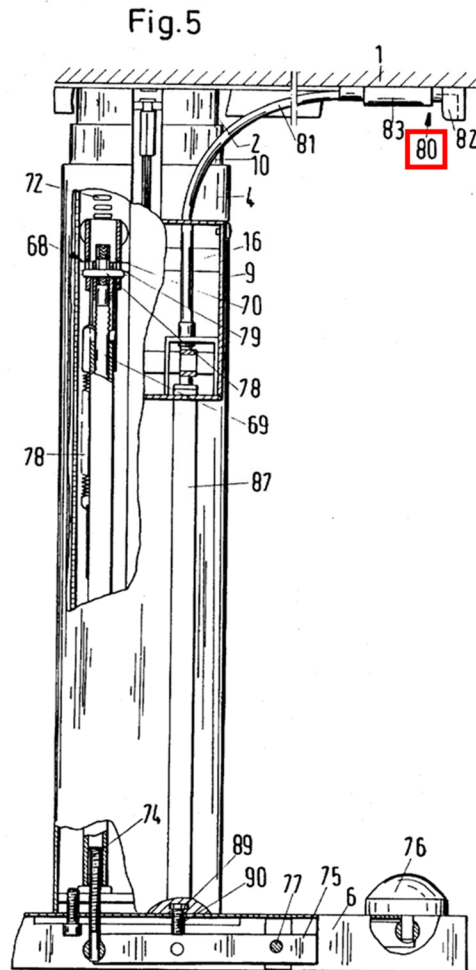
[0118]. Reeder's actuator is disposed above the compartments and on the work platform in line with the height adjustment mechanism:



Reeder, Fig. 31. It would have been obvious to adjust the location of the actuator to be located on the portion of the work platform that projects in the forward direction.

172. 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, 9:33-36. Manner depicts its actuator 80 at the edge of the table top 1 in Fig. 5:



Manner, Fig. 5.

173. 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 is my opinion that 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. 1019, [0008], Fig. 3 (depicting actuator 20); Ex. 1020, 4:6-16, Figs. 4, 10 (depicting switch 9; Ex. 1021, 3:28-56, Fig. 1 (depicting switches 105-109); Ex. 1022, 4:46-67, Fig. 1 (depicting release paddle 26).

11. [1j] wherein the work surface is movable relative to a remainder of the work platform from an extended position to a non-extended position.

174. In my opinion, Reeder discloses element [1j].

175. Reeder's work surface includes a keyboard tray 722 that is movable relative to a remainder of the work platform from an extended position to a non-extended position. Reeder explains that **"keyboard 722 is movably and coupled to base frame 720 by tracks 724 so that keyboard 722 is movable from a retracted position shown in FIG. 45 to an extended position shown in FIG. 46."** Reeder, [0147]. Reeder's keyboard is controlled by a release mechanism 726. *Id.* Reeder depicts its movable work surface in figures 45 and 46:

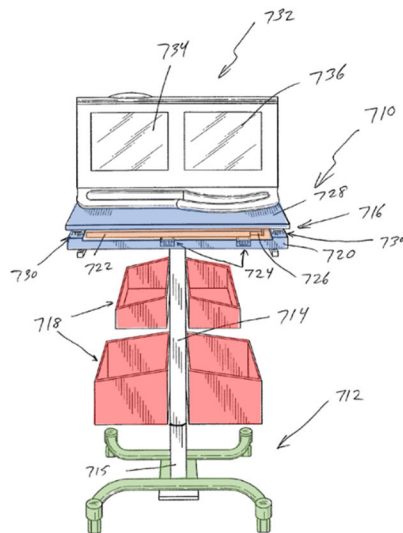


Fig. 45

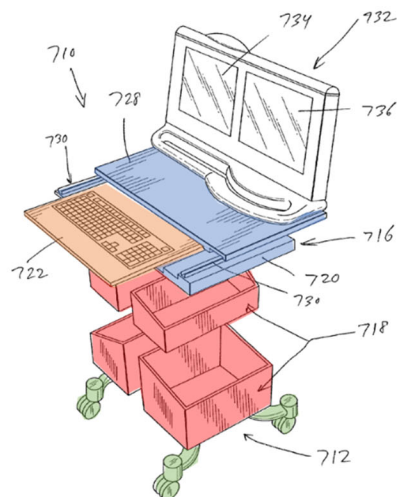


Fig. 46

Reeder, Figs. 45-46 (annotated).

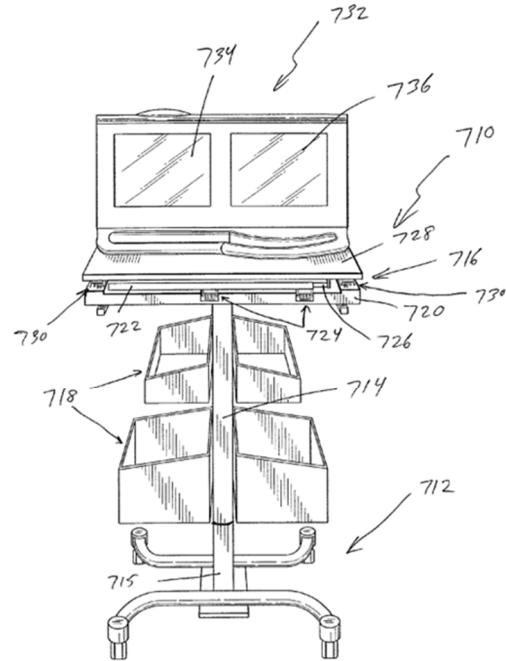
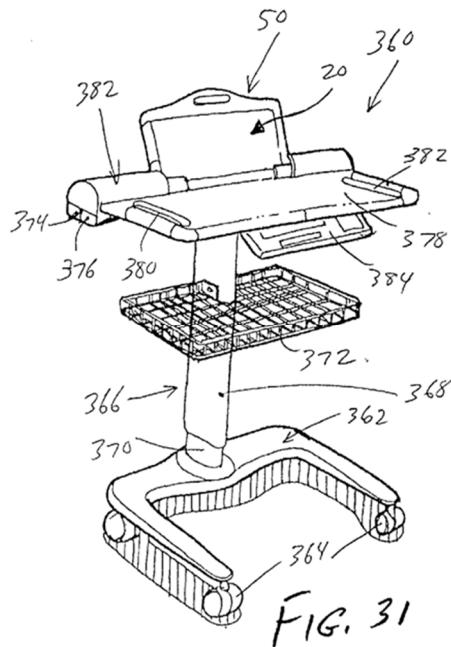
D. Claim 2:

176. It is my opinion that Reeder combined with Manner renders obvious claim 2.

1. **[2a] wherein the height adjustment mechanism comprises a first telescoping portion connected to the base, and a second telescoping portion connected to the work platform and configured to move relative to the first telescoping portion, and**

177. In my opinion, Reeder discloses element [2a].

178. 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.

179. It is my opinion that 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];

2. [2b] wherein the driver is configured to releasably position the second telescoping portion relative to the first telescoping portion.

180. In my opinion, Reeder combined with Manner discloses element [2b].

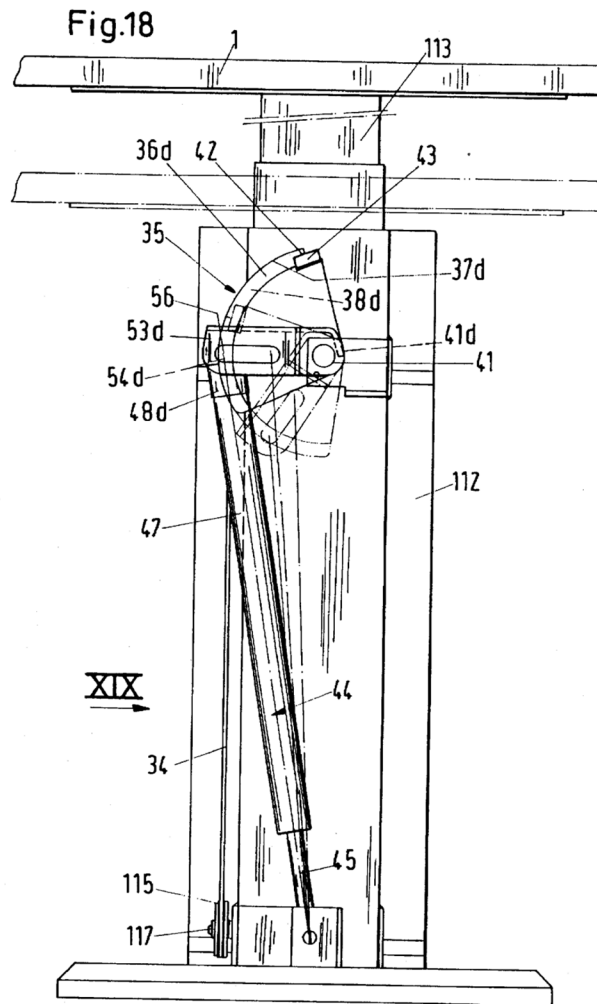
181. As explained in element [1d], Section VIII.C.5, Manner's height adjustment mechanism includes a driver and at least one arresting device for arresting the support relative to the at least one column." Manner, 2:29-45. The user releases Manner's actuating member "[a]s soon as the table top 1 has been adjusted at the desired height," which locks the table top at that height. *Id.*, 9:10-16. Manner explains that "releasing the arresting device ... 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. A POSITA would have understood Manner's driver is configured to releasably position the second telescoping portion relative to the first telescoping portion because releasing Manner's arresting device causes "the piston rod 45 to be pushed into the gas spring 44." *Id.*, 15:62-67. Furthermore, because Reeder describes the work platform attached to the upper casings as height adjustable, releasably positioning the work platform as described in Manner (table top 1) results in releasably positioning the second telescoping portion relative to the first telescoping portion because the tabletop is attached to the top telescoping portion.

E. Claim 3: wherein the first telescoping portion is a stationary outer casing, and the second telescoping portion is a movable inner casing.

182. It is my opinion that Reeder combined with Manner renders obvious claim 3.

183. Reeder discloses wherein the first telescoping portion is a stationary *inner* casing and the second telescoping portion is a movable *outer* casing. *See* Reeder, Figs. 31, 45; *supra* claim 2, Section VIII.D. It would have been obvious for a POSITA to reverse the orientation of the casings so that the first telescoping portion is a stationary *outer* casing and the second telescoping portion is a movable *inner* casing.

184. For example, Manner depicts the orientation of a stationary outer casing (column 112), and the second telescoping portion is a movable inner casing (support 113). Manner explains “FIGS. 18 to 21 show a work table which has only one single column 112 as a support frame. In this column 112 the support 113 which supports the table top 1 is height adjustably supported.” Manner, 15:1-5. The casings are depicted in e.g., Fig. 18:



Manner, Fig. 18.

185. In typical applications the piston rod end of gas springs may be oriented in a vertical or near-vertical position. For nitrogen filled gas springs, the piston rod may be directed downward so that internal lubrication of the device be consistent and effective and with the piston rod at the lower so that the lubricating oil in the device flows to that end. For applications requiring that the piston rod be pointing upward, “dampers” look and perform like gas springs and are readily

substituted, Dampers are filled with oil rather than natural gas and perform better when the piston rod is pointing upward.

186. A POSITA would have been motivated to change the orientation of the casings in Reeder to the orientation as described in Manner to conceal Manner's gas piston, arresting device, and inner telescoping portion within the outer column because a larger sized outer column provides more room to accommodate the driver and arresting device. A POSITA would have been aware that at the time of invention of the '650 patent, height adjustable furniture, particularly height adjustable office chairs and small tables, frequently had telescopic support columns configured with a larger outer column attached to the chair or table base and a smaller height-adjustable inner column (piston rod end) that attached to the chair body or table surface. It would have been obvious to a POSITA that such a configuration was common in height adjustable furniture and that the arrangement of inner and outer telescopic columns did not affect the functionality of the assemblies. For example, U.S. Patent Nos. 6,578,501 and 6,883,439 each depict height adjustable carts with telescoping inner columns and fixed outer columns. Ex. 1027, Figs. 1 and 2 (depicting telescoping column 21 and 22); Ex. 1028 Fig 2 (depicting telescoping columns 16 and 17). Accordingly, reversing the orientation of the casings of the height-adjustment mechanism was a known method to yield predictable results and would have been well within the skill of a POSITA. Such an arrangement would

have been a mere design choice well within the ordinary skill of a POSITA. For example, Dell shows such an arrangement with telescoping columns 62 and 66, indicating such features were well known. Dell, 2:57-3:6, Fig. 4. Additionally, though Reeder shows its drawers mounted to the outer telescopic column, it would have been obvious to modify the location of Reeder's drawers to function with a moveable inner column by, for example, raising the height of the location of the drawers or attaching the drawers to bottom of the work surface.

F. Claim 5: wherein the actuator is disposed at a spaced vertical distance above the compartment.

187. In my opinion, Reeder combined with Manner renders obvious claim 5.

188. As explained above for element [1i], Section VIII.C.10, a POSITA would have combined Manner's actuator with Reeder's height adjustment mechanism to position the actuator on the forward projection of the work platform. When doing so with Reeder's work platform, the actuator would be disposed at a spaced vertical distance above the compartment because Reeder's compartments are located at a spaced distance below the bottom level of the work surface. It would have been obvious for a POSITA to recognize that when a user of the cart raised or lowered the work platform they would likely grasp the forward projection of the work surface and apply appropriate upward or downward pressure on the work surface. In order to facilitate the height-adjustment process, it would be logical to

locate the actuator at or near the front of the top surface where the user's hands would be positioned.

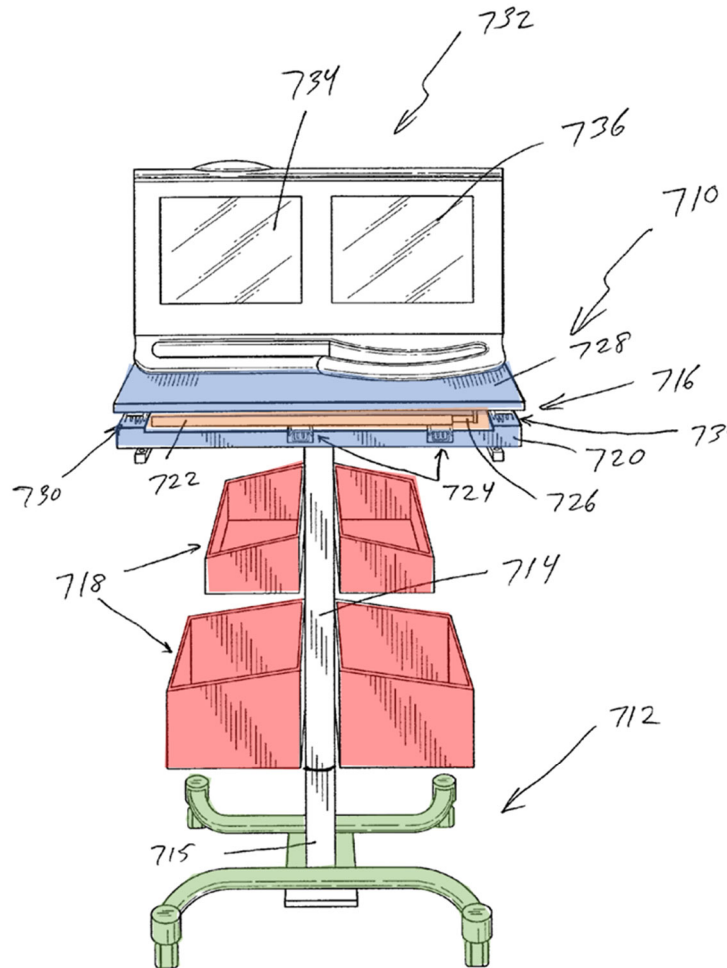


Fig. 45

189. Even if the combination included compartments attached to the bottom of the work platform, element [1h], Section VIII.C.9, it would have been obvious to position the actuator on the top surface of the work platform. 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, 9:33-36. In that scenario, positioning the actuator on the top surface of the work platform would mean the actuator is disposed at a spaced vertical distance above the compartments the work surface would be positioned between the actuator and the compartments.

G. Claim 6: wherein the work platform further comprises a movable platform configured to move in at least one of the forward direction and the rearward direction.

190. It is my opinion that Reeder combined with Manner renders obvious claim 6.

191. Reeder’s work platform further comprises a moveable platform in the form of top surface 728. Top surface 728 is configured to move in at least one of the forward direction and the rearward direction. Reeder explains that “**top surface 728 is movably coupled to base frame 720 by tracks 730.** Top surface 728 is movable from a retracted position shown in FIG. 45 to an extended position relative to base frame 720 as shown in FIG. 46.” Reeder, [0148]. Reeder’s moveable platform allows “the caregiver [to] extend the keyboard 722 and top surface 728 to provide a workstation for entering or reviewing patient data” as shown in Figures 45 and 46:

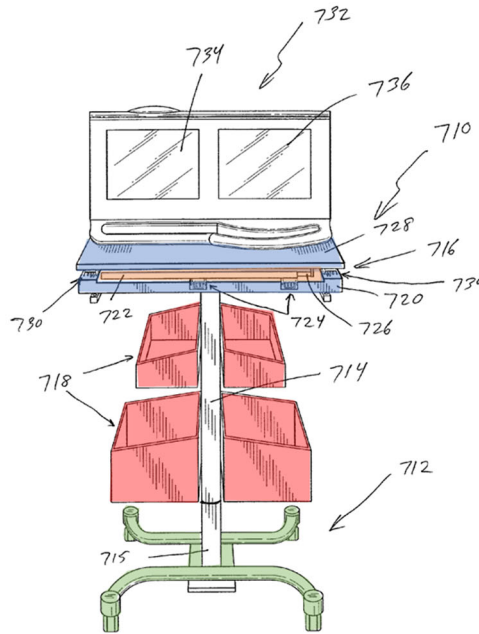


Fig. 45

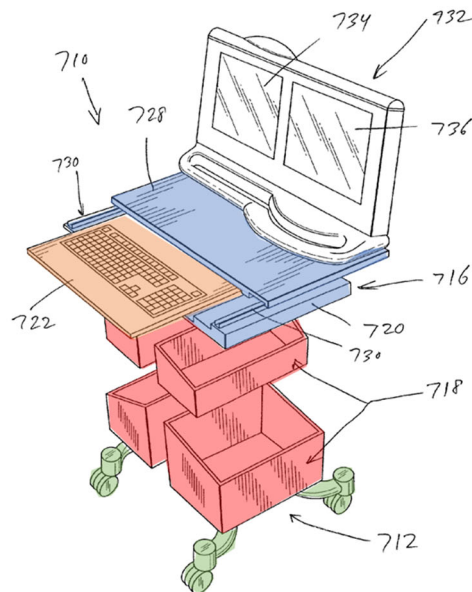


Fig. 46

Id., [0148], Figs. 45-46 (annotated). Reeder's movable platform/top surface 728 is distinct from the movable work surface/keyboard tray 722.

- H. Claim 8: The cart of claim 1, wherein the driver includes a piston that, in response to the user's actuation of the actuator, permits gas to flow out of the piston during lowering of the height of the work platform, and that, in response to the user's actuation of the actuator, permits gas to flow into the piston during increasing of the height of the work platform.**

192. In my opinion, Reeder combined with Manner discloses claim 8.

193. Claim 8 merely recites the well-known and conventional operation of a gas piston. As explained in element [1e], Section VIII.C.6, Manner discloses a driver in the form of a gas piston that includes a piston rod. Manner explains that lowering the height of the work platform "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, *see also id.*, 15:1-16:37, 16:2-9. A POSITA would have understood that the piston rod being pushed into the gas spring when the platform was lowered permits gas to flow out of the piston. Conversely, a POSITA would have understood Manner to indicate gas flowed into the piston during increasing the height of the work platform because the raising process would mirror the process of lowering the platform as described in Manner. A POSITA would also have understood the user's actuation of the actuator to control the gas flow because Manner discloses "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. A POSITA would have understood Manner's disclosure to mean a gas spring permitting gas to flow into and out of the gas piston as described in Claim 8.

IX. CONCLUSION

194. Petitioner requests the Board institute review and cancel the Challenged Claims.

Date: August 3, 2023

Respectfully Submitted,

/Ronald B. Kemnitzer/

Ronald B. Kemnitzer