IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Timothy C. Wright, et al.
U.S. Patent No.: 8,179,418   Attorney Docket No.: 51014-0002IP2
Issue Date: May 15, 2012
Appl. Serial No.: 12/082,953
Filing Date: April 14, 2008
Title: ROBOTIC BASED HEALTH CARE SYSTEM

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PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT NO. 8,179,418 PURSUANT TO 35 U.S.C. §§311–319, 37 C.F.R. §42

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AW-1002   Prosecution History of the '418 Patent ("the Prosecution History")

AW-1003   Declaration of Gregory S. Fischer, PhD

AW-1004   Curriculum Vitae of Gregory S. Fischer, PhD

AW-1005   U.S. Patent Application 2004/0143421 (Wang421)

AW-1006   U.S. Patent Application 2006/0271400 (Clements)

AW-1007   U.S. Patent 5,997,476 (Brown)

AW-1008   U.S. 6,594,634 (Hampton)

AW-1009   WIPO Publication WO2007/009895 (Brun)

AW-1010   Jason Shapiro, MD, *et al.,* "HandiStroke: A Handheld Tool for the Emergent Evaluation of Acute Stroke Patients," *Academy of Emergency Medicine,* Dec. 2003, Vol. 10, No. 12. pp. 1325-1328 (Shapiro)

AW-1011   Electronic Medical Record definition from Encyclopedia of Health Care Management, Copyright © 2004 by Sage Publications, Inc.

AW-1012   Definition of "tool" from American Heritage Dictionary of the English Language (2006)

AW-1013   Complaint filed Oct. 12, 2020, in *Teladoc Health, Inc. v. American Well Corporation*, 1:20cv1377

AW-1014   RESERVED

AW-1015   RESERVED

AW-1016   Civil Docket for *Teladoc Health, Inc. v. American Well Corp.*, case: 1:20-cv-01377-MN

AW-1017   *LegalMetric Time to Trial Report*, District of Delaware, Patent Cases (Jan. 1991 – Mar. 2021)

AW-1018   Apoorva Mandavilli, *The Coronavirus Is Threatening a Comeback. Here's How to Stop It*, *N.Y. Times*, (Feb. 25, 2021)

AW-1019   US Patent 10,471,588

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AW-1021   Order Denying Motion to Dismiss, *Teladoc Health, Inc. v. American Well Corp.*, case: 1:20-cv-01377-MN

AW-1022   Scheduling Order, *Teladoc Health, Inc. v. American Well Corp.*, case: 1:20-cv-01377-MN

I.   INTRODUCTION

American Well petitions for *Inter Partes* Review ("IPR") of claims 6, 7, and

9-24 ("Challenged Claims") of U.S. Patent 8,179,418 ("'418 patent"). A

reasonable likelihood exists that Petitioner will prevail on at least one Challenged

Claim.

The '418 patent relates to a patient treatment system wherein a mobile robot

at a patient site establishes a videoconferencing session with a remote station.

During prosecution, the claims were initially rejected as obvious over two

references. Applicant overcame the rejection and secured allowance by amending

two of the four independent claims. Specifically, Applicant amended independent

claim 1 to require "a mobile robot that has a camera and is located at a robot site"

and "a user interface that is located at the robot site and allows medical

information to be entered by a user." AW-1002, 134. Applicant similarly amended

independent claim 18 to require "moving a mobile robot into a vicinity of a patient

at a robot site through commands from a remote station" and "entering information

about the patient through a user interface located at the robot site." *Id.*, 136-137.

Thus, the limitations responsible for allowance, and supposedly missing from the

prior art, were the presence of the "user interface … that allows medical

information to be entered by a user" "at [the same] robot site" as the "mobile

robot."

But placing a user interface that allows medical information to be entered by a user at the same robot site as a mobile robot was well-known long before the Critical Date. *See, e.g.,* Clements (AW-1006), [0067], [0074]-[0075]. Because the reason for allowance relied on a limitation that was well-known in the prior art, the '418 patent never should have issued.

II.   REQUIREMENTS FOR IPR

A.   Grounds for Standing

Petitioner certifies that the '418 Patent is available for IPR. The present petition is being filed within one year of service of a complaint against American Well in the US District Court for the District of Delaware, AW-1013, filed October 12, 2020, and served October 13, 2020. Petitioner is not barred or estopped from requesting this review.

B.   Challenge and Relief Requested

Petitioner requests IPR of the Challenged Claims on the grounds presented below, and requests that each Challenged Claim be found unpatentable. An explanation of how these claims are unpatentable is provided, indicating where each element can be found in the prior art. Additional support is set forth in Exhibit AW-1003, Declaration of Gregory S. Fischer, PhD.

Ground	'418 Patent Claims	Basis for Rejection
Ground 1	**9, 10**	§103: Wang421, Clements
Ground 2	**6, 11-20**	§103: Wang421, Clements, Hampton
Ground 3	**7, 21**	§103: Wang421, Clements, Hampton, Brown, and Brun
Ground 4	**22-24**	§103: Wang421, Clements, Brown, Hampton, and Brun

Each reference pre-dates April 14, 2008 ("Critical Date"), which is the filing

date of the '418 patent.

Reference	Prior Art Date	Basis (pre-AIA)
Wang421 (AW-1005)	2004-07-22	§102(b)
Clements (AW-1006)	2006-11-30	§102(b)
Brown (AW-1007)	1999-12-07	§102(b)
Hampton (AW-1008)	2003-07-15	§102(b)
Brun (AW-1009)	2007-01-25	§102(b)

None of Brown, Hampton or Brun were made of record in the '418 patent.

Wang421, and Clements, while made of record, were not substantively considered

by the Office.

C. Claim Construction

All claim terms should be given their ordinary and customary meaning.

Petitioner reserves the right to respond to any constructions that may be offered by Patent Owner or adopted by the Board. Petitioner also reserves the right to identify terms for construction as may become necessary in the related District Court case. Petitioner is not waiving any arguments concerning indefiniteness or claim scope.

III.   THE '418 PATENT

A.   Specification

The '418 patent, entitled "Robotic based health care system," describes a robotic system that includes "a mobile robot" "controlled by a remote station that has a monitor." AW-1001, Abstract. Fig. 1 shows that the robotic system 10 has some components at a "robot site" and other components at a "remote station." AW-1001, 2:48-50, 61-64. The two sides are joined by a network 18, to which are connected an image server 54 and a registry server 56 that can store medical images, and historical data on patients, respectively. *Id.*, 3:32-39.

FIG. 1

Robot site — Remote station — User interface
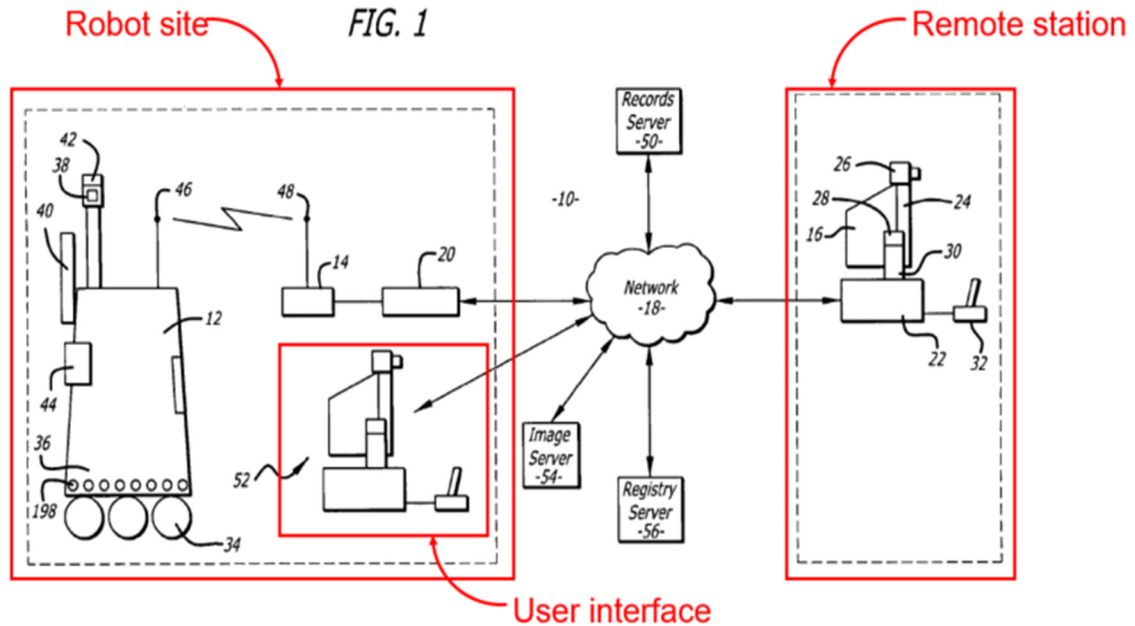
Patient information is provided to a records server 50 through a user interface 52, which may be a computer located at a nurses station, which may reside at (i.e., "be in close proximity to") the robot site:

> The system 10 may include a records server 50 that can be accessed through the network 18. Patient information can be provided to the server 50 through a user interface 52. The user interface 52 may or may not be in close proximity to the robot 12. For example, the user interface may be a computer located at a nurses station where information is entered when a patient checks into a facility. *Id.*, 3:13-19.

Fig. 4 shows a graphical user interface ("GUI") 150 displayed on the robot site that includes data fields 152 that the user can fill. *Id.*, 4:46-52.
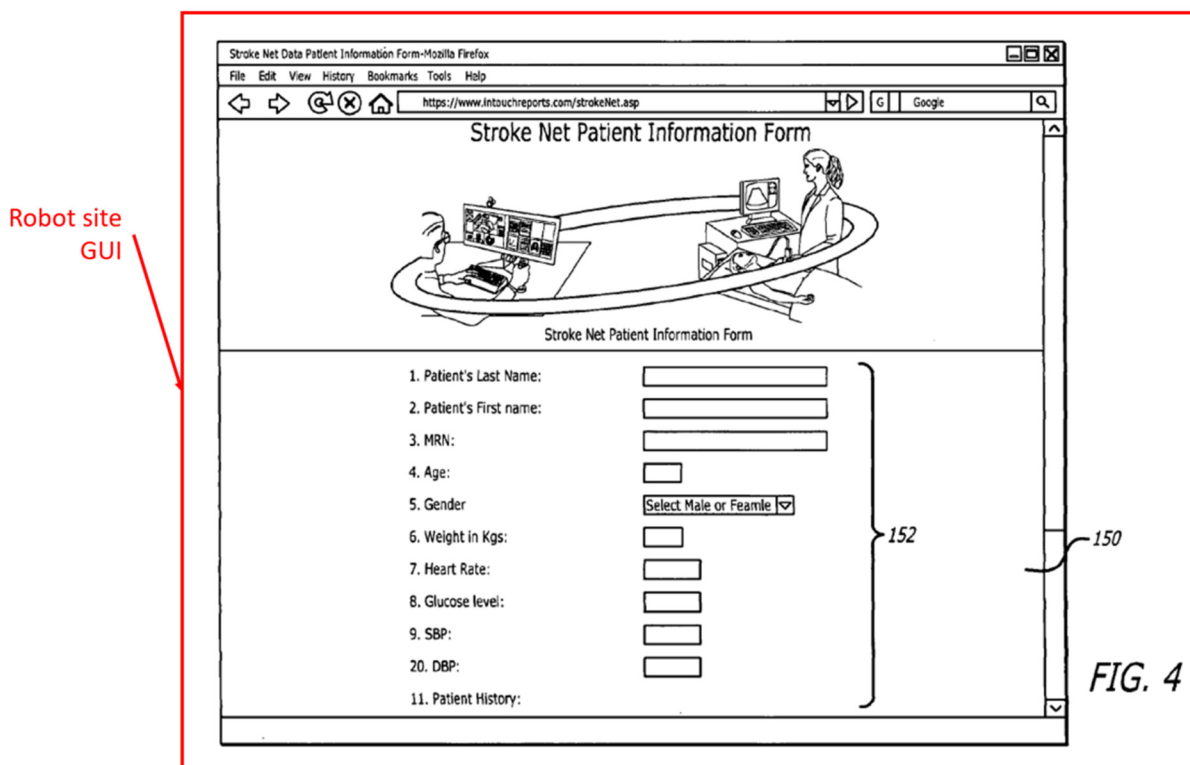
FIG. 4

Fig. 6 shows a GUI 170 displayed by the monitor of the remote station 16, and at least some of the medical information received through the data fields 152 shown in the robot site GUI of FIG. 4:

> FIG. 6 shows a [GUI] 170 that is displayed by the monitor of the remote station 16. …. Selection of the PATIENT INFO tab 172 displays various data fields 178 including patient name, age, weight, heart rate, etc. **This may be the same information [received through] the user interface [52].** *Id.*, 4:61-67.
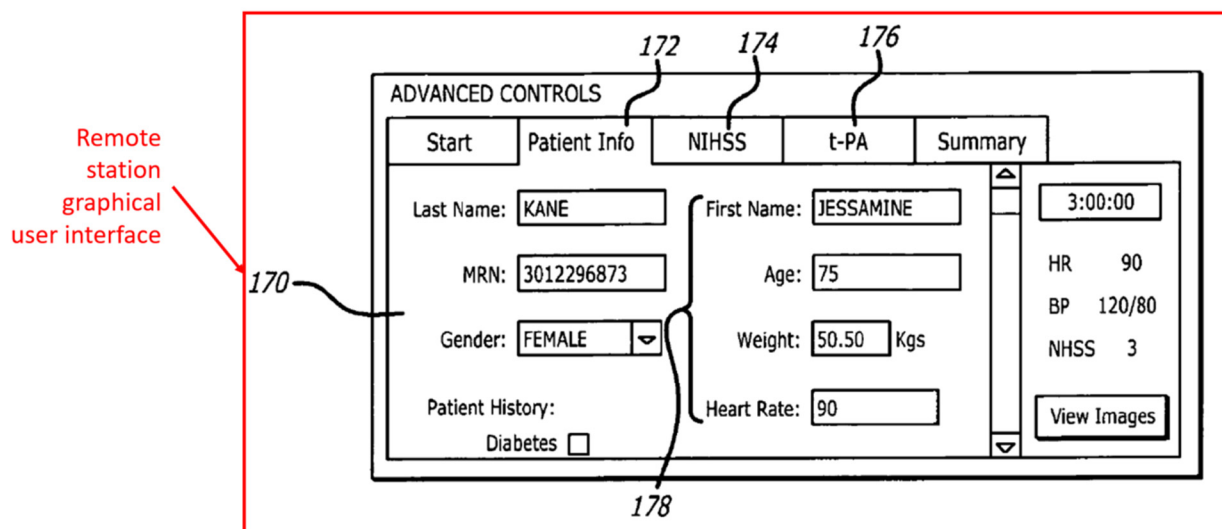
FIG. 6

According to the '418 patent, "medical personnel at the robot site can enter patient information into the system through a user interface." 2:18-20. The patient information can be stored in a server. *Id.* The physician can access the information from the remote station, which can provide GUIs that display the patient information. 2:20-24. The system allows a clinical specialist to remotely observe and treat a patient, which "is particularly advantageous when treating stroke patients, where time is critical." 2:30-33.

The '418 patent includes 24 claims. Claims 1, 11, 18 and 22 are independent.

B.   Prosecution History Summary

Applicant filed U.S. Application 12/082,953 on April 14, 2008. AW-1002, 61. The first office action rejected claims 1-21 under 35 USC 103(a) over US

6,535,793 ("Allard") and US 2007/0122783 ("Habashi"). *Id.*, 112. Applicant

submitted a response amending each of independent claims 1 and 18 to require that

"a mobile robot" "<u>is located at a robot site</u>" and "a user interface" "<u>is located at the</u>

<u>robot site</u>," without amending original independent claims 11 or 22. *Id.*, 134.

Applicant argued that "neither Allard or Habashi disclose a user interface that

allows medical information to be entered by a user that is located at the robot site."

Id., 138. Applicant further argued that "claim 11 recites a [GUI] that provide

patient statistics, a medical tool and a patient management plan" not found in

Habashi. *Id.*

In response, the Office allowed the application, asserting that the prior art

"fails to disclose or specifically [suggest] a remote station that is coupled to said

mobile robot to control movement of said mobile robot, said remote station

includes a monitor that is coupled to said mobile robot camera, and displays a

[GUI] that provides said medical information." *Id.*, 152. The '418 patent issued on

May 15, 2012.

IV. LEVEL OF ORDINARY SKILL

A person of ordinary skill in the art ("POSITA") at the time of the filing date

would have had at least a Bachelor's of Science Degree (or equivalent) in an

academic area emphasizing electrical engineering, computer engineering, computer

science, biomedical engineering, or a related technical field, and at least 2-3 years

of industrial or academic experience in the field of robotics, telepresence systems, or both (e.g., familiarity with wireless communication technology, biomedical robotic systems). AW-1003, ¶22.

V. CLAIMS 6, 7, AND 9-24 ARE UNPATENTABLE

This Petition shows how the cited references disclose or render obvious the Challenged Claims, and thus establishes a reasonable likelihood that the Petitioner will prevail with respect to at least one Challenged Claim.

A. GROUND 1 – Claims 9 and 10 are rendered obvious by Wang421 and Clements

1. Wang421 overview

Wang421 is entitled "Remote presence display through remotely controlled robot." AW-1005. Like the '418 patent, Wang421 relates to a robotic system that includes a remote controlled robot. [0023]. Also like the '418 patent, Wang421 discloses "a method for remotely monitoring a patient," which "includes generating and transmitting input commands to the robot from a remote station:

> The robot may also have a monitor and a speaker to allow for two-way videoconferencing between the patient and a doctor at the remote station. The robot can move from room to room so that a doctor can make "patient rounds" within a medical facility. The system thus allows a doctor to visit patients from a remote location, thereby improving the frequency of visits and the quality of medical care. *Id.* AW-1003, ¶32.

As shown in Fig. 1, Wang421's robotic system 10 includes a robot 12, a

base station 14 to communicate with the robot 12 wirelessly, and a remote control

station 16. [0023]. The base station at the patient environment (the robot site) can

communicate with the remote control station 16 via a network 18. [0029]. AW-

1003, ¶33.
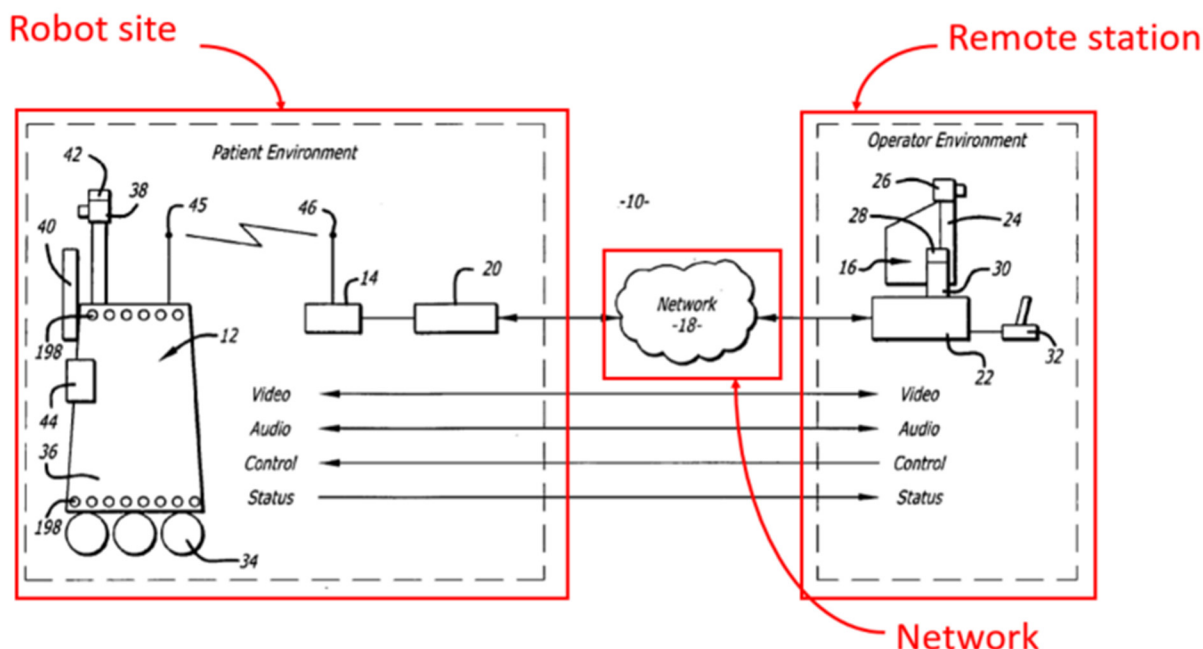
FIG. 1

Wang421's remote control station 16 includes a computer 22 having a

monitor 24, a camera 26, a microphone 28 and a speaker 30. [0024]. Wang421's

robot 12 includes a robot housing 36 to which is attached a camera 38, a monitor

40, a microphone 42 and a speaker 44. [0025]. Wang421 discloses "the system 10

allows a user at the remote control station 16 to move the robot 12 through the

input device 32," "the robot camera 38 is coupled to the remote monitor 24" and

the "robot monitor 40 is coupled to the remote camera 26" to allow a user at the

remote station to view a patient and vice versa. Wang421 also discloses "the microphones 28 and 42, and speakers 30 and 44, allow for audible communication between the patient and the user." *Id.* AW-1003, ¶34.

2. Clements overview

Clements is entitled "System, method and program product for delivering medical services from a remote location." AW-1006. Like the '418 patent, Clements discloses "medical services delivery to geographically distributed patient populations by remotely separated physicians." [0016]. AW-1003, ¶35.

As shown in Fig. 1A, Clements' system 30 facilitates the provision of remote physician medical services delivered from one or more physician sites 31 to multiple geographically distributed customer sites or facilities 33 using communication and information systems that enable live, face-to-face medical encounters with patients. [0058]. AW-1003, ¶36.

FIG.1A.
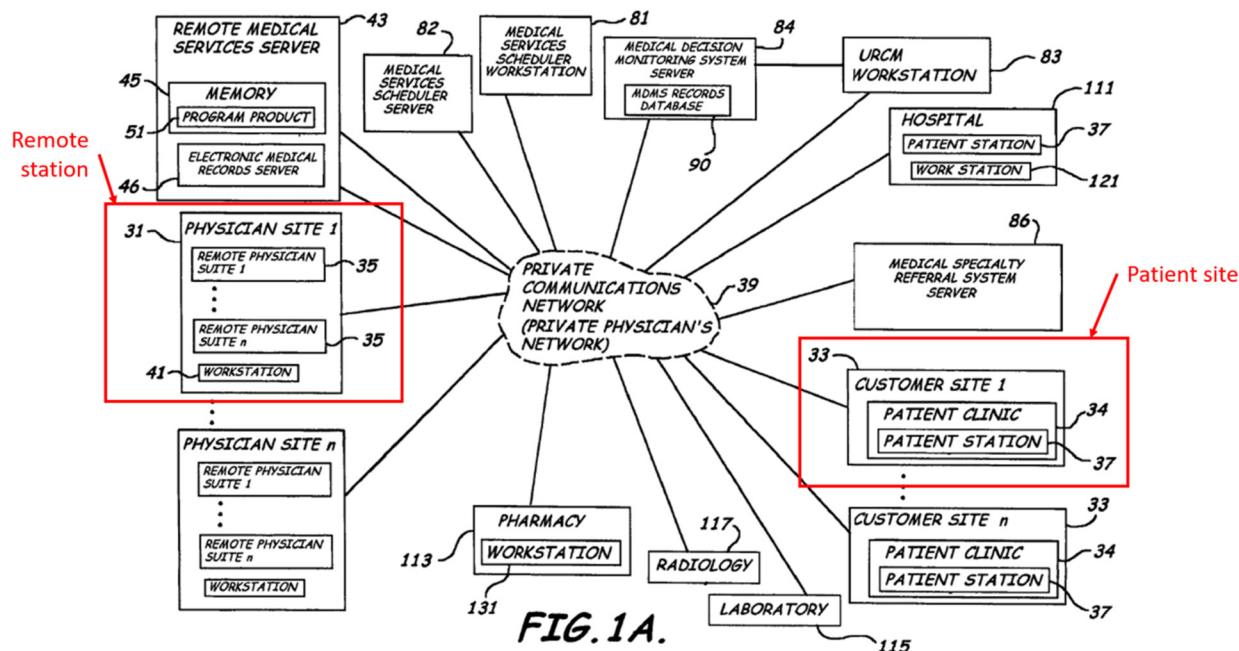
Each customer site 33 includes at least one patient medical service delivery station or cart 37 positioned in a patient clinic 34 located at the customer site 33 to enable the remote physician the to communicate with and treat a patient. [0037]. Each patient medical service delivery station 37 can be manned by either a patient clinic physician or a patient clinic nurse to provide the in-person medical service delivery. *Id.* AW-1003, ¶37.

Each patient medical service delivery station 37 can include a computer or workstation 77 in communication with the remote medical services server 43 through the private physician's network 39, allowing the patient clinic medical service provider at the customer site 33 complete access to patient medical information and necessary resources to connect to the remote physician medical delivery suites 35. [0069]. Clements' Fig. 3B is a view of a patient medical service

delivery station. [0039]. AW-1003, ¶38.

FIG.3B.
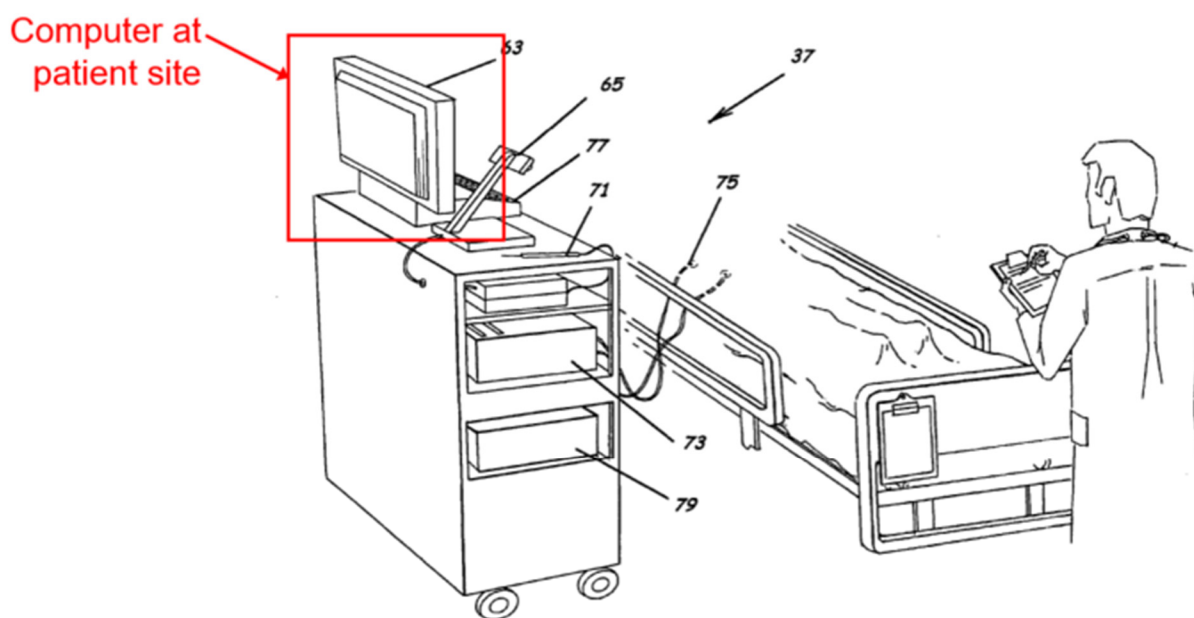
Further, Clements states:

> As … shown in FIGS. 3A-B, … at least one but preferably a
> plurality of patient medical service delivery stations or carts 37
> each preferably positioned in a patient clinic 34 located at the
> customer site 33 to provide the remote physician the ability to
> communicate with and treat a patient. …. The patient medical
> service delivery station 37 includes various medical
> videoconferencing components including at least one video
> monitor 63 and a remotely controllable pan/zoom video input
> device 65 …. [E]ach patient medical service delivery station 37 is
> adapted to be manned by either a patient clinic physician who
> requires consultation with a remote physician specialist while
> providing medical service delivery; or either a patient clinic

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physician assistant or patient clinic nurse … to provide the in-person portion of the medical service delivery …. [0067].

Clements' system 30 also includes one or more "URCM [Utilization Review or Case Management] workstations 83" that are "positioned either remote from the customer facility or site 33, within the customer facility or site 33, or a combination thereof." [0075]. *See also* FIG. 1B (depicting the URCM workstation 83 as residing at customer site 33). AW-1003, ¶40.

FIG.1B.
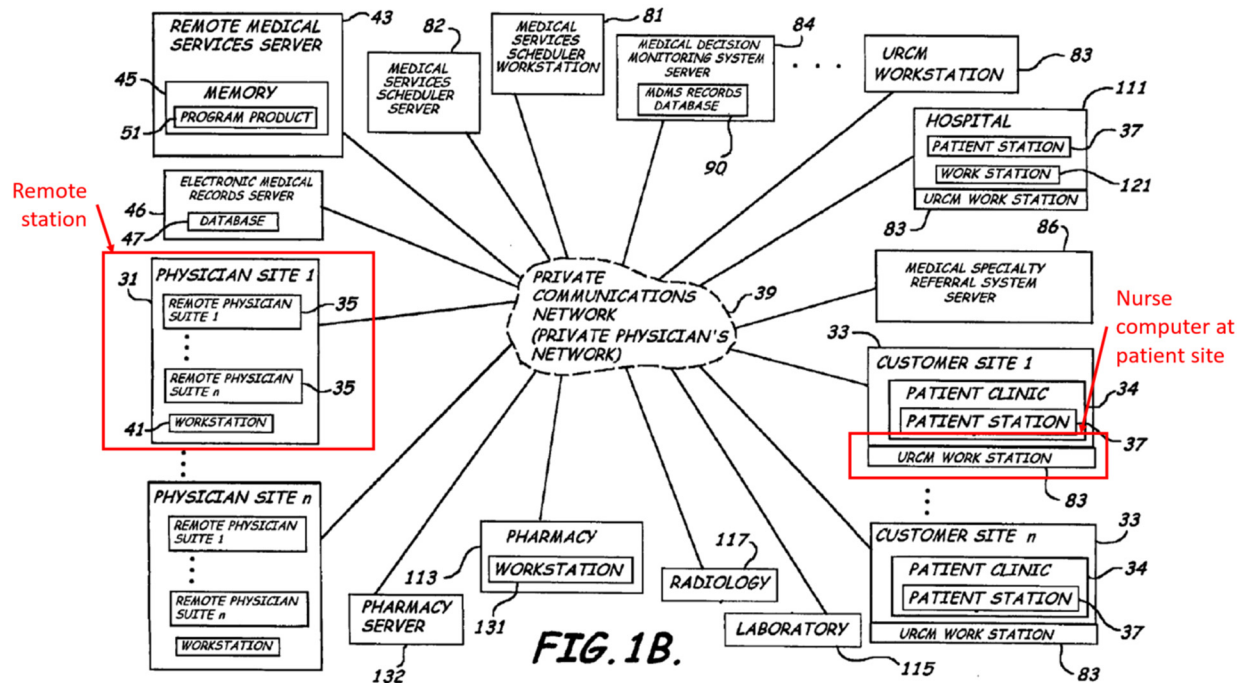
Clements describes these URCM nurse computers or workstations 83:

> The URCM nurse computers or workstations 83 are in
> communication with the remote medical services server 43 and can
> include memory and software stored in the memory adapted to
> provide access to the remote medical services program product 51

to allow a URCM nurse access to patient electronic medical records 49 preferably stored in database 47 to review resource utilization and/or monitor patient medical service delivery. [0075]. AW-1003, ¶41.

Clements' "nurse computers" enable a nurse to "monitor patient medical service delivery," which is administered at one or more "patient stations" 37 at a customer site 33. [0075]. AW-1003, ¶42.

Clements' URCM nurse computer or workstation includes "memory and software stored in the memory." Similarly, Clements' computer 77 also includes "memory and software stored in the memory". [0069]. AW-1003, ¶43.

A POSITA would have recognized that a computer including "memory and software stored in the memory" to perform operations is a conventional computer running a conventional operating system, and that each computer 77 of each patient station 37 and each URCM 83 would necessarily (inherently) require a user interface to enable the user of the computer or workstation to communicate with the computer or workstation. Otherwise, the nurse would be unable to perform computer operations, e.g., to "review current patient medical administration data and … enter additional patient medical administration data" or to "access … patient electronic medical records" or "enter additional patient medical administration data." [0069], [0074]-[0075]. AW-1003, ¶44.

Clements' Fig. 4 shows "a physician medical service delivery suite." [0041].

AW-1003, ¶45.

FIG.4.
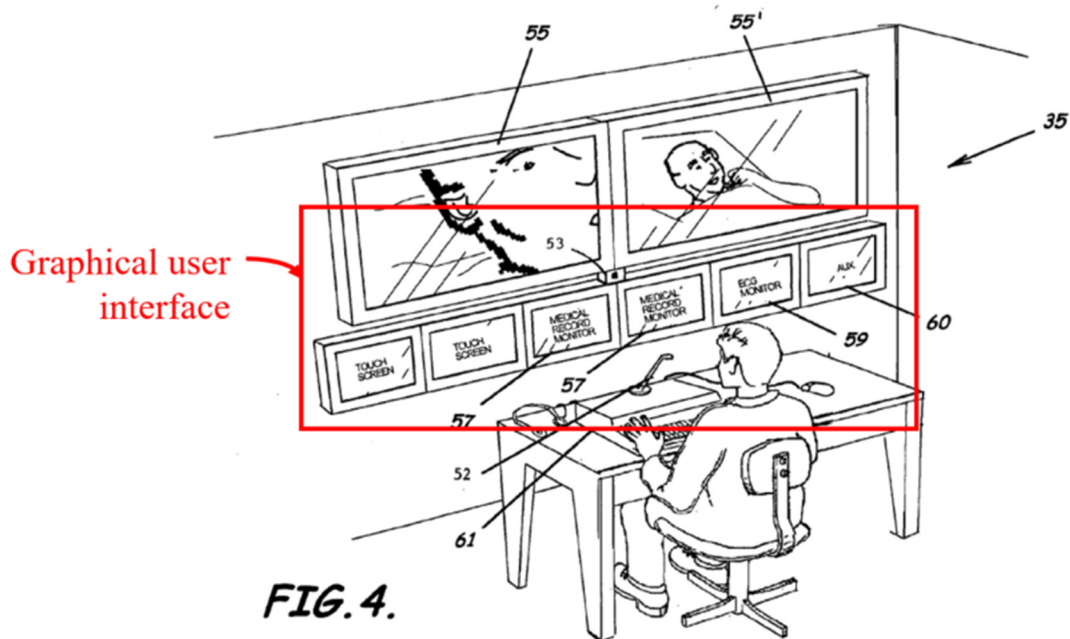
Each remote physician medical service delivery suite 35 is preferably

positioned at physician site 31, remote from customer site 33, and in

communication with the remote medical services server 43. [0064]. Each suite 35

includes an audio input device 52 and a video input device 53 to capture audio and

video images of the remote physician, and includes a video display device

including a plurality of video displays 55, 55', 57, 59, 60 to display patient areas of

interest and patient electronic medical records 49, and thereby enable the remote

physician to perform remote patient medical service delivery through the remote

physician medical service delivery suite 35. *Id.* AW-1003, ¶46.

3.   **Wang421-Clements Combination**

A POSITA would have been motivated to modify Wang421 to add Clements' carts 37 to Wang421's patient site so that Clements' cart 37 and Wang421's robot 12 could work cooperatively to establish a tele-presence session with Wang421's remote control station 16 or with Clements' remote physician medical delivery suites 35. AW-1003, ¶47. This is true for several reasons.

First, a POSITA implementing a robotic system such as that described by Wang421 would have been familiar with references such as Clements because both describe systems for providing tele-presence sessions between a patient site and a remote physician site. *Id.*, ¶48.

Second, given that both Wang421's robot 12 and Clements' computer 77 (and/or computer 83) are connected to respective networks to which Wang421's remote control station 16 and Clements' remote physician suites 35 are also respectively connected, a POSITA would have been motivated to make a simple modification to add Clements' cart 37 to Wang421's patient site and separately connect the cart 37 to the same network that Wang421's robot 12 is connected. *Id.*, ¶49.

Third, in light of Clements' disclosure "the combination of the remote physician medical service delivery suites 35 and patient medical service delivery stations 37 not only allows for remote medical service delivery from a specialist physician, but also an additional primary care physician" (AW-1006, [0071]), a

POSITA would have recognized that the caregiver at the patient site could employ the user interface of Clements' computer 77, which is also located at the patient site (and/or computer or workstation 83, which can be located at the patient site), to enter patient medical administration data, i.e., medical information, about the patient so that the entered medical information can be transmitted to the specialist physician residing at a remote location. A POSITA would have recognized that, in parallel, the specialist physician at the remote site can use Wang421's robot 12 to teleconference with the patient site. In particular, a POSITA would have recognized the presence of Wang421's robot 12 to establish the tele-conference session between the remote physician site and the patient site would free up Clements' computer 77 for the nurse at the patient site (and/or computer 83) to enter the medical information. *Id.*, ¶50.

Fourth, a POSITA would have recognized such modification would yield certain benefits including allowing medical personnel to view and/or enter medical information using Clements' computer 77 (and/or computer 83), such that patient medical administration data is accessible by Wang421's remote control station 16, just as it is accessible to Clements' remote physician. *Id.*, ¶51.

Fifth, a POSITA would have had a reasonable expectation the modification would have succeeded because each of Wang421's robot 12 and Clements' computer 77 (and/or computer 83) is connected to a respective network that

transmits data gathered on-site to a remote location, and, therefore, combining

Wang421 and Clements would successfully result in a computer at the robot site

displaying a user interface and allowing a user to enter medical information. AW-

1003, ¶52.

4. Claim 1

[1.pre] A robotic system, comprising:[1]

Wang421 discloses this element: "a robotic system." AW-1005, [0023]

("FIG. 1 shows a robotic system"); Fig. 1. AW-1003, ¶80.
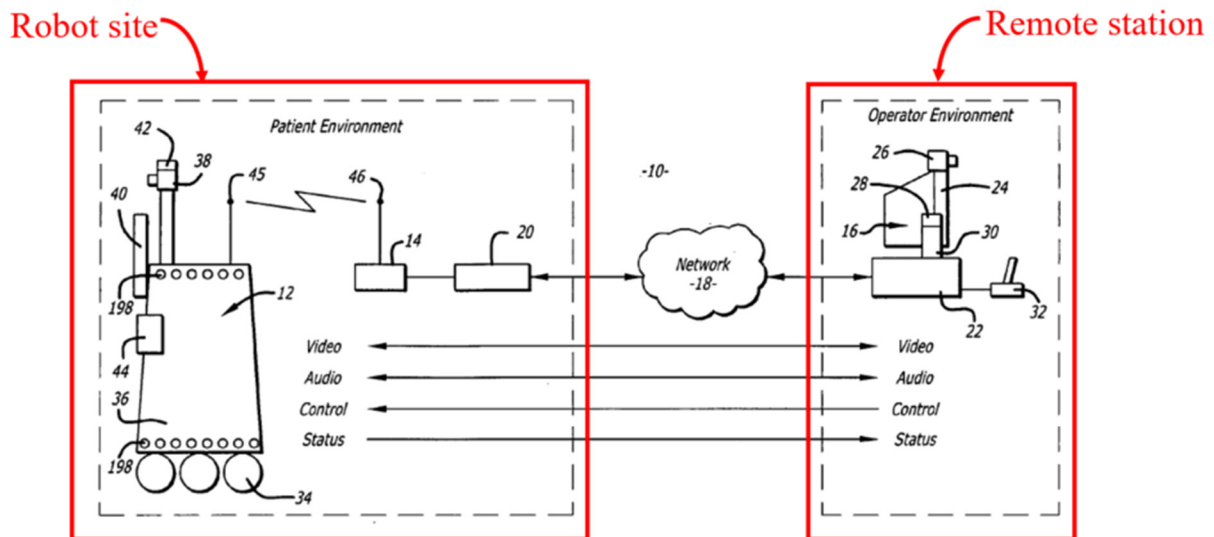
FIG. 1

[1.a] a mobile robot that has a camera and is located at a robot site;

Wang421 discloses a robot that moves in response to a robot input

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[1] Petitioner does not concede that the preamble is limiting for any of the claims.

command, hence, a "mobile robot." AW-1005, [0011]. Wang421 also expressly

calls its "robot 12" a "mobile robot." *Id.*, [0057]. Wang421's robot 12 has a camera

38. *Id.*, [0025]. A site at which Wang421's robot 12 is located is a "robot site."

AW-1003, ¶81.

[1.b] a user interface that is located at the robot site and allows medical information to be entered by a user

The '418 patent uses the terms "medical information," "patient information"

and "data on patients" to mean information about patients. AW-1003, ¶82.

Wang421 discloses this element in explaining that the robot 12 includes a monitor

40. AW-1005; [0025] ("Also attached to the robot housing 36 are … a monitor

40"). Wang421 further states that "the monitor 40 may include a touchscreen

function that allows the patient to enter input by touching the monitor screen"). *Id.*,

[0033]. Wang421's Fig. 3 identifies LCD Display/Touchscreen 40, which is also

identified as monitor 40 on the mobile robot 12 in Fig. 5. *Id.*, Figs. 3, 5. AW-1003,

¶82.

FIG. 3

FIG. 5
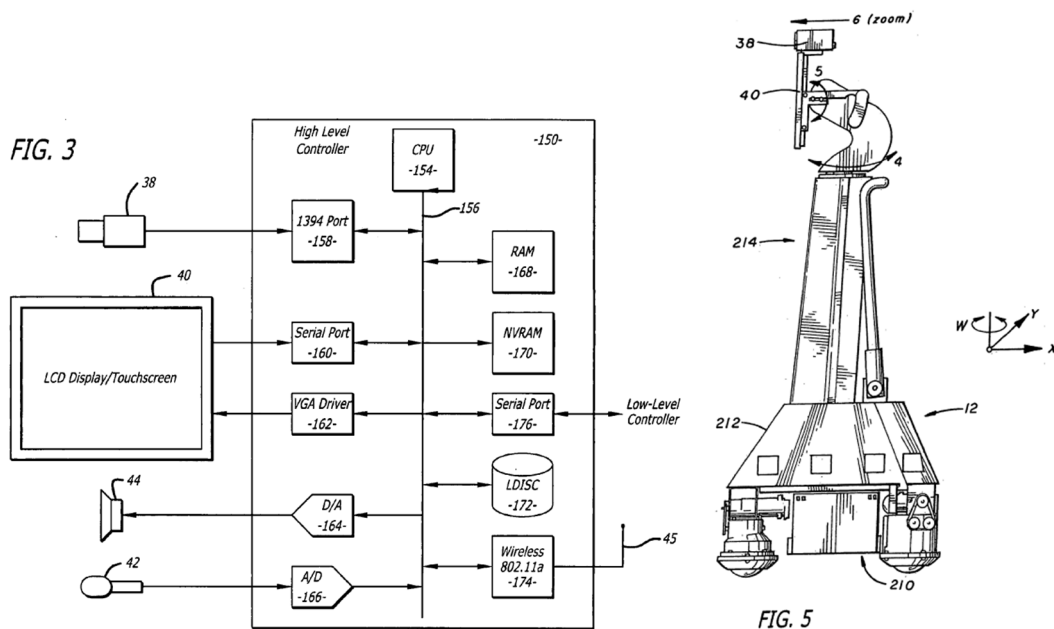
A POSITA would have recognized that Wang421's monitor 40 could present a user interface on the monitor 40 for the user to provide input by touching the monitor screen. In particular, a POSITA would have recognized that Wang 421's monitor 40 is a screen with which a user can enter input, meaning that Wang421 discloses a user interface. Moreover, a POSITA would have understood the screen with which a user could enter input is located at the robot site because, as shown in Fig. 5, the monitor 40 is attached to the robot 12 which is at the robot site. *Id.,* Fig. 5. AW-1003, ¶83.

Further, Clements discloses each patient medical service delivery station 37 can include "a computer or workstation 77 in communication with the remote medical services server 43 through the private physician's network 39, allowing the patient clinic medical service provider at the customer site 33 complete access

to patient medical information, and necessary resources to connect to the remote physician medical delivery suites 35." *Id.*, [0069]. Clements states that "each computer 77 includes memory and software stored in the memory adapted … to allow display of the patient electronic medical record 49 so that the patient clinic medical service provider can review current patient medical administration data and **can enter additional patient medical administration data**." *Id.;* Fig. 3B. AW-1003, ¶84.
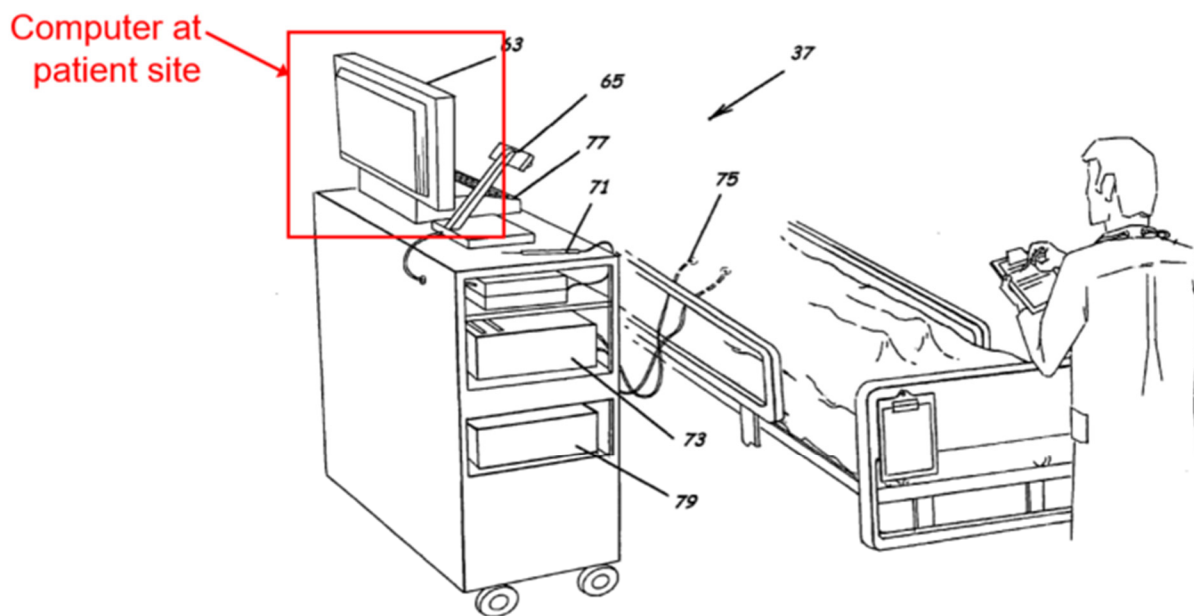

FIG.3B.

In addition, as described in Section V.A.2, Clements discloses nurse computers 83 "positioned either remote from the customer facility or site 33, within the customer facility or site 33, or a combination thereof." *Id.*, [0075]. Clements describes these nurse computers as being "in communication with the

remote medical services server 43 … to allow a URCM nurse access to patient electronic medical records 49 [and] to review resource utilization and/or monitor patient medical service delivery." *Id.* AW-1003, ¶85.

Clements' computer 77 located at customer site 33 (and/or nurse computers 83) must necessarily (inherently) include a user interface to enable the nurse or other user to interact with the computer.[2] Otherwise, the nurse or other user would be unable, e.g., to "access … patient electronic medical records" or "enter additional patient medical administration data." *Id.,* [0074]-[0075]. The presence of a video monitor 63 at Clements' computer 77 (*Id.*, [0067]) indicates that Clements' computer 77 must necessarily (inherently) offer some sort of user interface in the video monitor 63 for the medical personnel to access patient electronic medical records and/or enter patient medical administration data using the computer 77. AW-1003, ¶86.

[1.c.i] a remote station that is coupled to said mobile robot to control movement of said mobile robot

With reference to Fig. 1, Wang421 discloses a robotic system 10 that includes a robot 12 ("mobile robot") and a remote control station 16 ("remote station"). AW-1003, ¶87.

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[2] The claim requires only a "user interface," not a "graphical user interface."
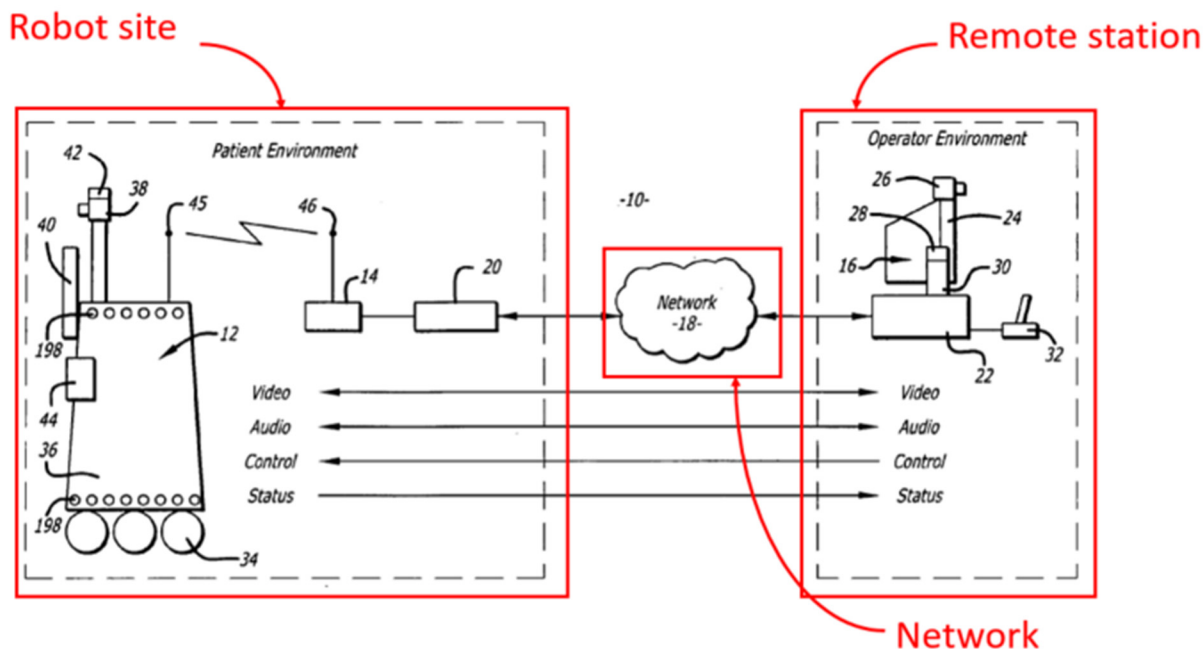
FIG. 1

Wang421's control station 16 "may be **coupled to** the base station 14

through a network 18." AW-1005, [0023]. Wang421 states that "any number of

robots 12 may be **controlled by** any number of remote stations." *Id.*, [0024].

Additionally, Wang421's system 10 "allows a user at the remote control station 16

to move the robot 12 through the input device 32." *Id.*, [0025]. Wang421 also

states:

> The system 10 allows the doctor to make patient rounds in the
> facility 50. For example, the doctor may generate robot input
> commands at the remote station 16 that are then transmitted and
> received by the robot 12. The input commands may cause the robot
> to move to the door of the first patient room 52A. *Id.*, [0030]. AW-
> 1003, ¶88.

Thus, Wang421 discloses "a remote station that is coupled to said mobile

robot to control movement of said mobile robot," as claimed. *Id.*, ¶89.

[1.c.ii] said remote station includes a monitor that is coupled to said mobile robot camera

Wang421 discloses this limitation in describing "remote control station 16

may include a computer 22 that has **a monitor 24**, a camera 26, a microphone 28

and a speaker 30." AW-1005, [0024]. Wang421 also states "also attached to the

robot housing 36 are **a camera 38**, a monitor 40, a microphone(s) 42 and a speaker

44." *Id.*, [0025]. Wang421 additionally states "the robot camera 38 is **coupled to**

the remote monitor 24 so that a user at the remote station 16 can view a patient."

Id. Thus, Wang421 discloses "said remote station includes a monitor that is

coupled to said mobile robot camera," as claimed. AW-1003, ¶90.

[1.c.iii] and displays a graphical user interface that provides said medical information.

Wang421 discloses a computer 22 having a monitor 24 at Wang421's

remote control station 16. AW-1005, [0024]. Wang421's monitor 24 is capable of

displaying an old picture of a patient and a video image of the patient side-by-side.

Id., [0034] ("The user, particularly a health care provider, can recall the old picture

and make a side by side comparison on the monitor 24 with a present video image

of the patient provided by the camera 38"). Thus, it was well-known that a

computer could display a user interface, such as a GUI, on a connected monitor. In

addition, the images compared by the health care provider are medical information

in and of themselves. Accordingly, a POSITA would have recognized that Wang421's monitor 24 could display, a GUI providing medical information. AW-1003, ¶91.

Further, Clements discloses a remote physician medical delivery suite 35 displaying a GUI that provides medical information. AW-1006, [0064] ("each remote physician medical delivery suite 35 preferably … includes a video display including a plurality of video displays 55, 55', 57, 59, 60, to display patient areas of interest and patient electronic medical records 49"). Clements discloses that the physician can "enter additional patient medical administration data" using the remote physician medical delivery suites or studios 35. *Id.*, [0066] ("the system 30 can … allow a user, e.g., a remote physician, physician assistant, scheduler, or utilization review or case management (URCM) nurse, to **display the patient electronic medical record 49** to review patient medical administration data and to enter additional patient medical administration data."). *Id.*, [0066], Fig. 4. AW-1003, ¶92.
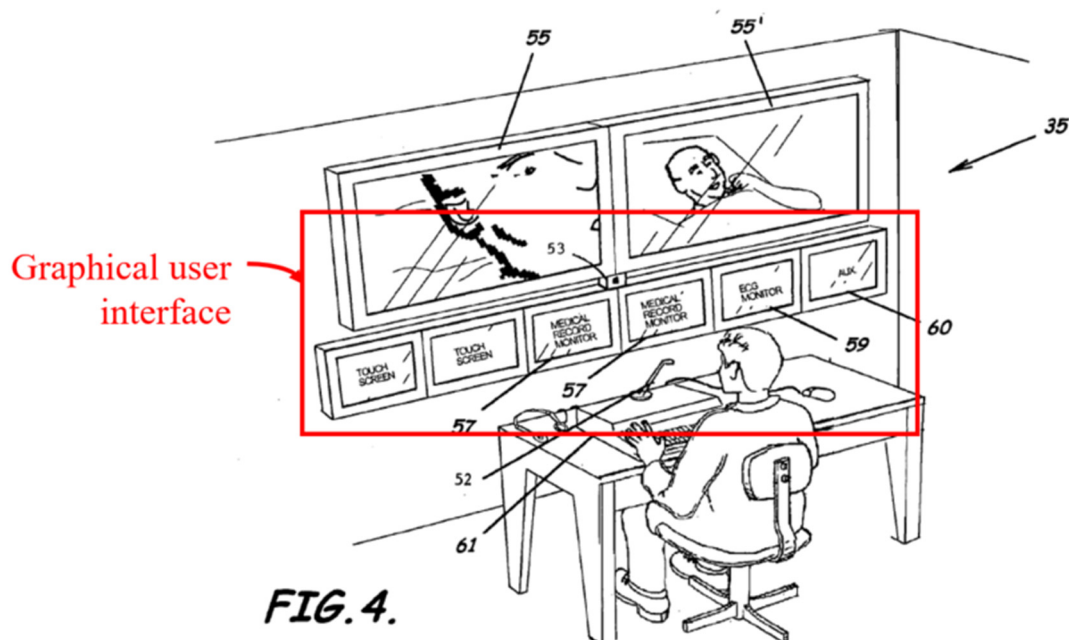
FIG.4.

While not numbered, Clements' suite 35 includes multiple touchscreens as demonstrated by the annotation "TOUCH SCREEN" on two displays in Fig. 4. A POSITA would have recognized that Clements' touchscreens necessarily (inherently) displayed a GUI to allow the physician to enter additional patient medical administration data. AW-1003, ¶93.

A POSITA would have found it obvious to modify Wang421's computer 22 at Wang421's remote control station 16 to provide a GUI in which information, such as Clements' patient medical administration data entered at the patient site using Clements' computer 77, can be displayed. Just as Wang421's health care provider reviews an old picture of the patient or a new image of the patient on Wang421's monitor 24, which is connected to Wang421's computer 22, Wang421's health care provider could also review updated patient medical

administration data entered at the patient site using Clements' computer 77. AW-
1003, ¶98. Wang421 states:

> Each remote station computer 22 may operate Microsoft OS
> software [] or other operating systems[]. [R]emote computer 22
> may also operate a video driver, a camera driver, an audio driver
> and a joystick driver. The video images may be transmitted and
> received with compression software such as MPEG CODEC. AW-
> 1005, [0026]. AW-1003, ¶94.

A POSITA would have known that such a conventional computer running a
conventional operating system, especially one that "may also operate a video
driver" and can transmit and receive video images with compression software such
as MPEG CODEC, could be readily modified to display GUIs. Moreover, because
Clements discloses a suite 35 with monitors providing GUIs in which information
received from a patient site is displayed, a POSITA would have had a reasonable
expectation that combining Wang421 and Clements would successfully result in
the monitor of the remote station providing a GUI in which the medical
information is displayed, as recited in claim 1. AW-1003, ¶95.

5. Claim 2

**[2.i] further comprising a records server that … stores said medical
information**

Clements discloses element [2.i]: "a database 47 or plurality of preferably
structured databases, preferably one for each customer unit, is associated with an

electronic medical record database server 46 which along with the other computers

and/or networking servers [] form the remote medical services server 43." AW-

1006, [0060]; Fig. 1A. A POSITA would have understood that Clements'

"electronic medical record database server 46" served as a "records server" as that

term is used in the '418 claims. AW-1003, ¶96.

FIG.1A.
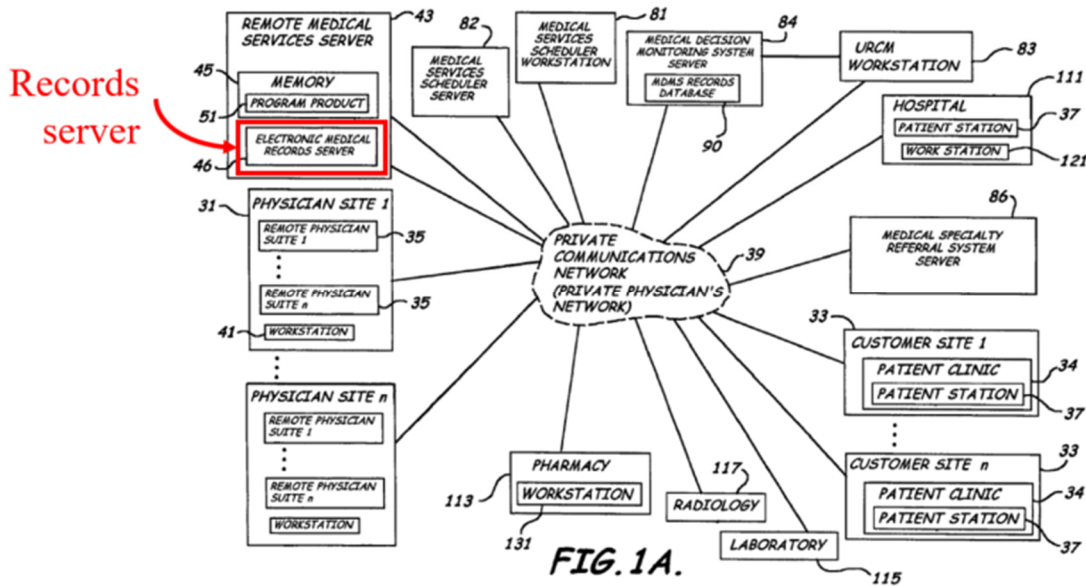
[2.ii] further comprising a records server that is coupled to said remote station

Clements discloses a private physician's network 39 which links, i.e.,

"couples," the remote medical services server 43, each customer site 33 and at least

one remote physician site 31. AW-1006, [0062] ("The system 30 also includes a

dedicated communications link, either physical or virtual, in communication with

the remote medical services server 43 which provides dedicated communications

between each customer site 33 and at least one remote physician site 31 located

remote from each customer site 33, to thereby establish a private network

connection between each customer site 33 and the remote physician site 31,

defining a private physician's network 39"). Thus, Clements' remote medical

services server 43, which includes the electronic medical records server 46, is

linked to, i.e., "coupled to," Clements' suites 35 ("remote station") through

Clements' private communications network 39. AW-1006, FIG. 1A. AW-1003,

¶97.

Moreover, Wang421 discloses the remote station 16 includes a computer 22

which is merely a generic computer:

> Each remote station computer 22 may operate Microsoft OS
> software and WINDOWS XP or other operating systems.... AW-
> 1005, [0026], AW-1003, ¶102.

In the Wang421-Clements combination, it would have been within a

POSITA's skill to modify Wang421's computer 22 at remote station 16 to connect

to Clements' remote medical services server 43 for storing, retrieving, and

updating patient records including patient medical administration data, i.e., medical

information. *Id.*, ¶98.

[2.iii] further comprising a records server that is coupled to … said user interface

As discussed in element [2.ii], Clements discloses a private physician's

network 39 which links, i.e., "couples," the remote medical services server 43,

each customer site 33 and at least one remote physician site 31. AW-1006, [0062].

Because Clements' customer site 33 includes computer 77 that provides the user

interface through which a patient site user enters patient medical administration data, Clements' electronic medical record database server 46 is linked to, i.e., "coupled to," Clements' computer 77 and the user interface that computer 77 necessarily provides.[3] AW-1003, ¶100.

6. Claim 3

[3] further comprising an image server that is coupled to said remote station and stores a plurality of medical images.

Wang421 discloses this limitation: "a mass storage device 172" is included in Wang421's high level control system 150, which, in turn, is included in Wang421's robot 12. AW-1005, [0033], [0034]. Wang421's mass storage device 172 "may contain medical files of the patient" including "a picture of the patient. *Id.*, [0034]. Because Wang421's mass storage device 172 contains a patient picture, a POSITA would have understood that Wang421's mass storage device 172 qualifies as an "image server" as that term is used in claim 3. Because Wang421's robot 12 is coupled to Wang421's remote station 16, Wang421's mass storage device 72 also is coupled to Wang421's remote station 16. More specifically, Wang421 discloses that, while mass storage device 172 is a component of robot 12, information stored thereon "can be accessed by the user at

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[3] A user could not interact with a computer unless the computer had a user interface of some sort.

the remote control station 16." *Id.* Consequently, a POSITA would have

understood that Wang421's mass storage device 172 must be coupled (e.g.,

communicatively) to Wang421's remote station 16 to enable a user at the remote

station to access the information (e.g., "picture of the patient") stored thereon. A

POSITA would have understood the claim did not require the "image server" to be

a separate computer, and, consequently, the "mobile robot" itself could host the

"image server." AW-1003, ¶101.

A POSITA also would have recognized that "a picture of the patient" is a

type of medical image. Thus, a POSITA would have recognized that "medical

files of the patient" including "a picture of the patient" stored on Wang421's mass

storage 72 qualifies as "a plurality of medical images," especially since a POSITA

would have understood that Wang421's mass storage device 172 could, and likely

would, have stored more than one patient picture. *Id.*, ¶102.

Clements also describes a radiology order request "utilizing a patient's

electronic medical record 49 and functionality of the remote medical services

program product 51." AW-1006, [0112] ("The radiology technician then retrieves

the order, takes the **image**, and sends the radiology order and the **image** to the

radiologist. The radiologist reviews the **image** and enters the results directly into

the patient's electronic medical record 49."). Clements further states that "the

image, if not already generated electronically, can be scanned and stored in a

database, e.g. database 47, and can be associated with or appended to the patient's electronic medical record 49, to thereby provide ready access." *Id.*, [0112]. Because a POSITA would have understood that radiology images are a type of medical image, and because Clements' database 47 can store radiology images, Clements' database 47 is "an image server [that] stores a plurality of medical images." In that regard, a POSITA would have understood that Clements' database 47, because it stores images, taken together with Clements' electronic medical record database server 46, qualifies as an "image server," as that term is used in the claims. *Id.* ("a database 47 or plurality of preferably structured databases … is associated with an electronic medical record database server 46 which along with the other computers and/or networking servers, known to those skilled in the art, form the remote medical services server 43"), AW-1003, ¶103.

Moreover, as discussed in element [2.ii], Clements discloses a private physician's network 39 that links, i.e., "couples," the remote medical services server 43, each customer site 33 and at least one remote physician site 31. AW-1006, [0062] Clements' Figs. 1A, 1B show lines linking, i.e., "coupling," each component of system 30 to private communications network 39. In particular, Clements' Fig. 1B shows electronic medical records server 46, to which the database 47 is associated, and the physician site 31, each linked to the private communications network 39 by respective lines. AW-1003, ¶104.

A POSITA would have understood the lines as representing a link effected by the private communications network 39 between the database 47 associated with the electronic medical records server 46 and the remote physician suite 35 at the physician site 31. In other words, a POSITA would have understood the database 47 is linked to, i.e., "coupled to," the remote physician suite 35. *Id.*

FIG.1B.
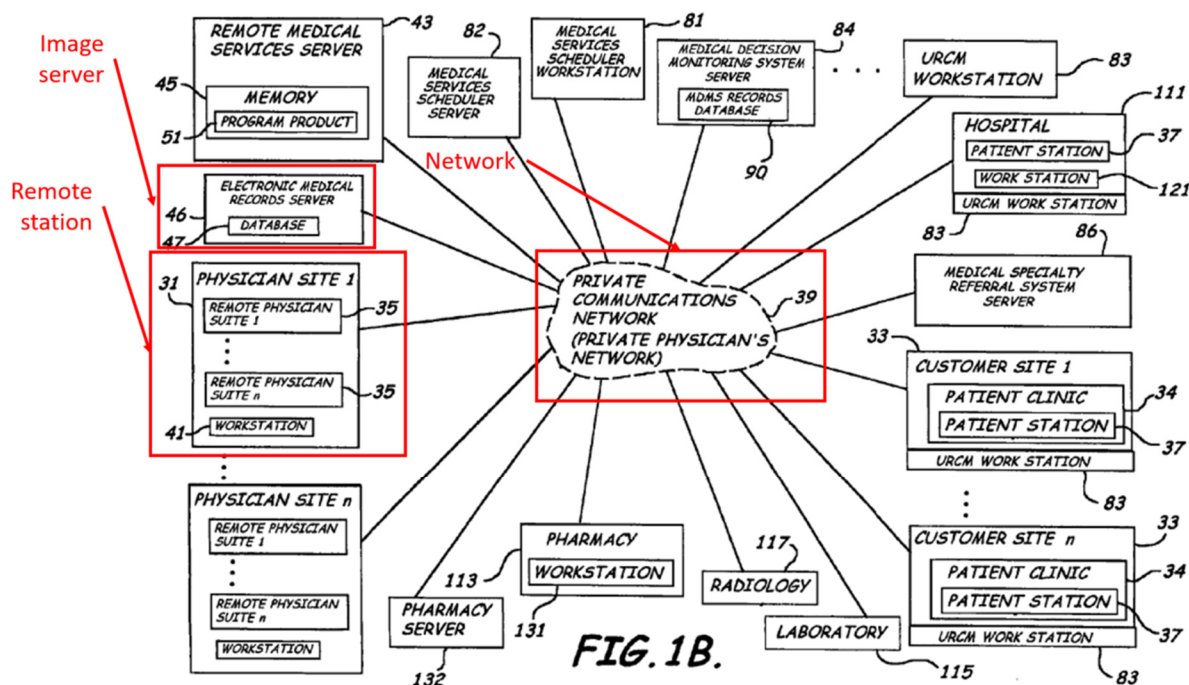
Thus, Clements' database 47, which stores the multiple medical images and serves as the claimed "image server," is coupled to Clements' remote physician site 31. *Id.*, ¶105.

7. Claim 4

[4] wherein said medical information includes patient statistics

The '418 patent does not provide a definition for the term "patent statistics,"

but rather mentions this term only in the claims, specifically, in claims 4, 11 and 12. Claim 11, in particular, recites "said [GUI] provide[s] **said patient statistics**, a medical tool and a patient management plan." AW-1001, claim 11. Thus, according to the claim, one portion of the "graphical user interface" shows "patient statistics." AW-1003, ¶106.

Fig. 6 of the '418 patent shows a "graphical user interface":

FIG. 6

The '418 patent states "the interface 170 includes a 'Patient Info' tab 172, a 'NIHSS' tab 174 ("NIHSS" is an acronym for "National Institutes of Health Stroke Scale") and a 't-PA' tab 176." *Id.*, 4: 61-64. The '418 patent references the 'NIHSS' tab 174 as a medical tool:

> FIG. 7 shows an interface 180 with the "NIHSS" tab 174 is selected. The interface 180 has a data field 182 that provides a questionnaire to rate the severity of a stroke victim using the

35

NIHSS stroke scale. This provides a readily available **medical tool** for the physician. AW-1001, 5:1-5. AW-1003, ¶107.
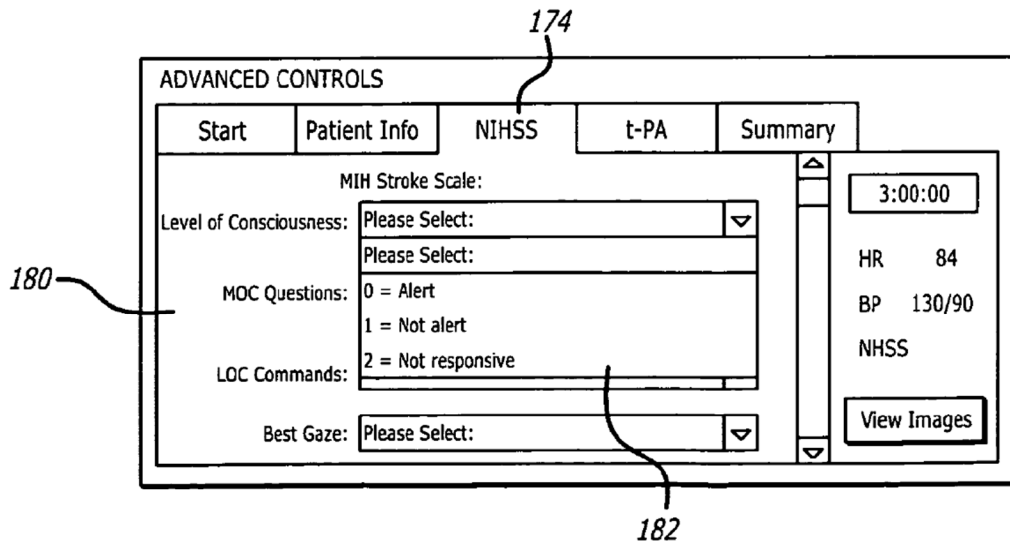
FIG. 7

Further, the '418 patent references the 't-PA' tab 176 as a patient management plan:

> FIG. 8 shows an interface 190 when the "t-PA" tab 176 is selected. The interface 190 may include a data field 192 that provides the patient's weight, a "TOTAL DOSE" data field 194, a "BOLUS DOSE" data field 196 and an "INFUSION DOSE" data field 198. The interface 190 may also include a "CALCULATE" button 200. When the CALCULATE button 182 is selected the data fields 194, 196 and 198 are automatically populated with a calculated dosage. This provides a **patient management plan** for the physician to review. *Id.*, 5: 6-14. AW-1003, ¶108.

FIG. 8

To summarize, the GUI 170 includes a "NIHSS' tab 174 (the "medical tool") and a 't-PA' tab 176 (the "patient management plan"). By the process of elimination, a POSITA would have understood that the 'Patient Info' tab 172 corresponds to the "patient statistics," which, as shown in Fig. 6, includes information about a patient, for example, the patient's first and last names, age, gender, weight, etc. Accordingly, a POSITA would have understood "patient statistics" to mean information about a patient. *Id.*, ¶109.

Wang421 discloses "wherein the medical information includes patient statistics" as would have been understood by a POSITA. As described above, Wang421 discloses "a mass storage device 172" which "may contain medical files of the patient that can be accessed by the user at the remote control station." AW-1005, [0034]. Because each medical file includes information about a patient, Wang421 discloses the claimed "patient statistics." Wang421 discloses such

medical files can be input by a user into monitor 40 of Wang421's robot 12. *Id.*,

[0033] ("The monitor 40 may include a touchscreen function that allows the

patient to enter input by touching the monitor screen 40"). Wang421 discloses that

such medical files are accessible by the remote control station. *Id.*, [0034]

("medical files of the patient that can be accessed by the user at the remote control

station 16"). AW-1003, ¶110.

Clements also discloses "wherein the medical information includes patient

statistics," as understood by a POSITA. For example, Clements discloses

collecting and storing patient electronic medical records. *Id.*, Abstract, [0115],

[0118]. The Encyclopedia of Health Care Management (AW-1011), defines

"electronic patient record" as follows:

> [A]n electronic patient record is a medical document stored in a
> machine-readable format. Data are entered into the record via
> many different sources including computerized entry and various
> document imaging systems. The record should include electronic
> documentation of **information** normally included in a paper
> record **regarding a specific patient**. AW-1011, pp. 153, 154;
> AW-1003, ¶111.

For the definition of an "electronic medical record," the Encyclopedia states

"*See* Electronic Patient Record," meaning that the definition of "electronic medical

record" is the same as that of "electronic patient record." Consequently, an

electronic medical record includes information about a patient. Therefore,

Clements discloses the claimed "patient statistics." AW-1003, ¶112.

8.   Claim 8

[8] wherein said user interface is a computer terminal

Wang421 discloses this limitation in that the combination of Wang421's

high level control system 150 and monitor 40 is a computer terminal. Wang421

states:

> The high level control system 150 may include a processor 154
> that is connected to a bus 156. The bus 156 is coupled to the
> camera 38 by an input/output (I/O) port 158, and to the monitor 40
> by a serial output port 160 and a VGA driver 162. The monitor 40
> may include a touchscreen function that allows the patient to enter
> input by touching the monitor screen 40. AW-1005, Wang421,
> [0033]; AW-1003, ¶113.

A POSITA would have understood that a monitor with a touchscreen that

can receive input by touching the monitor screen qualifies as a "user interface,"

and that the monitor coupled to a high level control system (such as the high level

control system 150, which is a computer because it includes a CPU 154, a video

driver for controlling the display on the screen 162, a serial port 160 for receiving

the touchscreen's user input, a wireless network interface 174, RAM 168, and disk

storage 172) qualifies as a "computer terminal," as that term is used in the claims.

Id., Fig. 3, AW-1003, ¶114.

FIG. 3
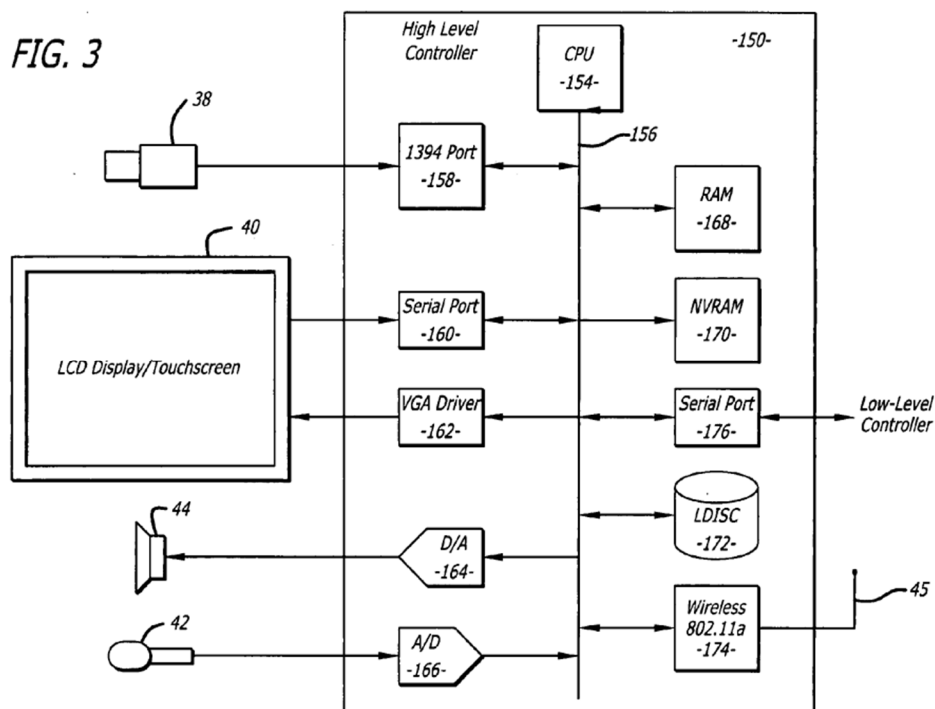
Further, as described in Section V.A.3, Clements' computer 77 is located at the customer site 33 and must necessarily (inherently) include a user interface[4] that allows patient medical administration data to be entered, otherwise a user would have no way to enter the data. A POSITA would have understood that Clements' computer 77 qualifies as a computer terminal. *Id.*, ¶115.

9.   Claim 9

[9] wherein said mobile robot includes a monitor coupled to a camera of said remote station

Wang421 discloses this limitation: "said mobile robot includes a monitor

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[4] Claim 8 requires a "user interface" and not necessarily a "graphical user interface."

coupled to a camera of said remote station." AW-1005, [0025] ("the robot monitor

40 is coupled to the remote camera 26 so that the patient can view the user"). AW-

1003, ¶116.

10. Claim 10

[10] wherein said mobile robot includes a speaker and a microphone.

Wang421 discloses this limitation: "said mobile robot includes a speaker and

a microphone." AW-1005, [0025] ("Also attached to the robot housing 36 are …

microphone(s) 42 and a speaker 44"); *Id.* ("[M]icrophones 28 and 42, and speakers

30 and 44, allow for audible communication between the patient and the user").

AW-1003, ¶117.

B. GROUND 2 – Claims 6 and 11-20 are rendered obvious over Wang421, Clements and Hampton

1. Hampton overview

Hampton is entitled "Method and apparatus for reporting emergency

incidents." AW-1008. Hampton discloses "a hand-held computer 20 used to record

and report emergency incidents." 3:49-51. Hampton discloses the hand-held

computer 28 is installed with an event reporting program 48 "to electronically

record and report emergency incidents." 3:51-54. Hand-held computer 20

"comprises a touch screen display 32 for displaying the windows produced by the

event recording program 48." 3:54-57. Hampton's Fig. 5 is "a flowchart

illustrating the logic used by the event reporting program to record events and

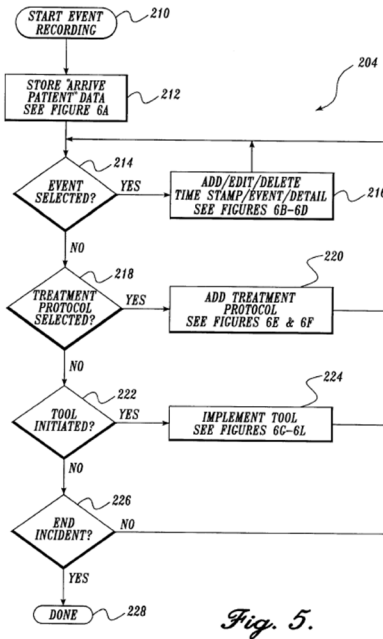related information during the emergency incident." 3:28-30; AW-1003, ¶63.

Fig. 5.

Hampton discloses different operations implemented by the logic with reference to corresponding "event recorder windows 60." For example, in an operation 216, "the emergency service provider may add, edit, or delete an entire event." 7:59-61. Fig. 6B shows event recorder window 60 which corresponds to operation 216; AW-1003, ¶64.

42
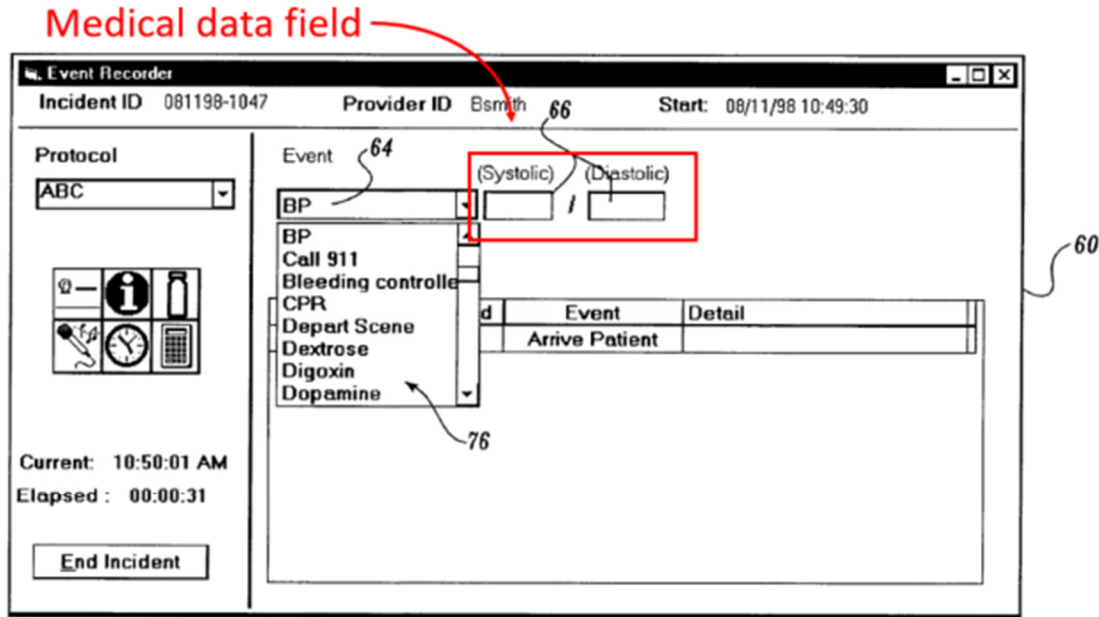
Fig. 6B.

Hampton states:

> The emergency service provider may open an event menu 76 by tapping the touch screen pen 22 on the arrow of the event selection field 64. The emergency service provider may then highlight the desired event descriptor from the menu of events displayed in the event menu window 76 using the touch screen pen 22. 7:64-8:2; AW-1003, ¶65.

In another example, in an operation 224, event reporting program 48 implements "tools … to assist [the emergency service provider] in treatment of the patient." 10:21-24. Fig. 6H shows one such tool, namely, a drug tool, implemented as a Drug Guidelines window 86, which allows the service provider to select a desired drug from a drug menu by tapping a down-arrow in a drug identification

field 88 as well as calculate an appropriate dosage of the drug by selecting a dose
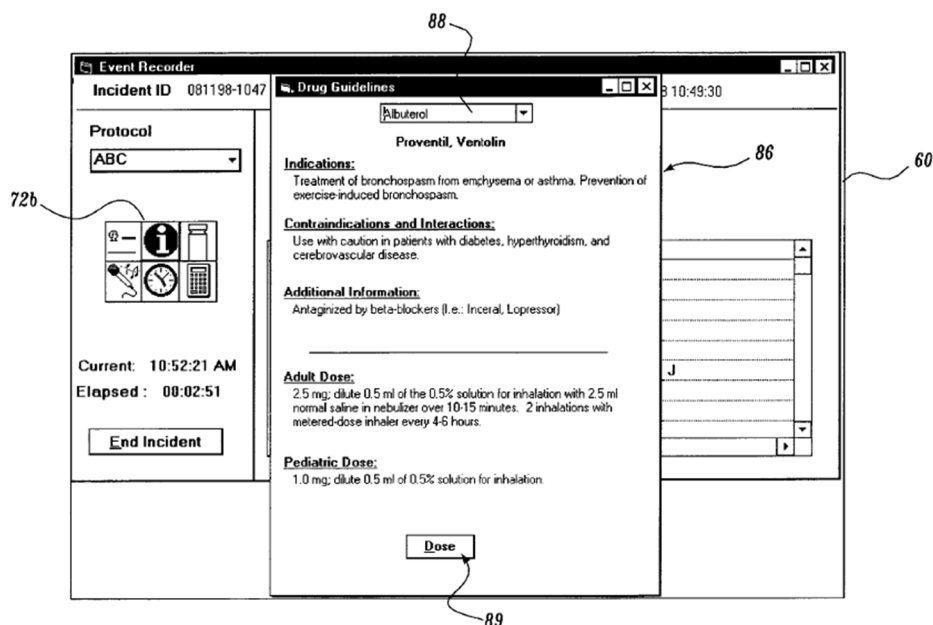
button 89. 10:43-62; AW-1003, ¶66.

Fig. 6H.

In a further example, Fig. 6J shows a Narrative Story window 96 that a

service provider may edit. 15:15-20; AW-1003, ¶67.

Fig. 69.
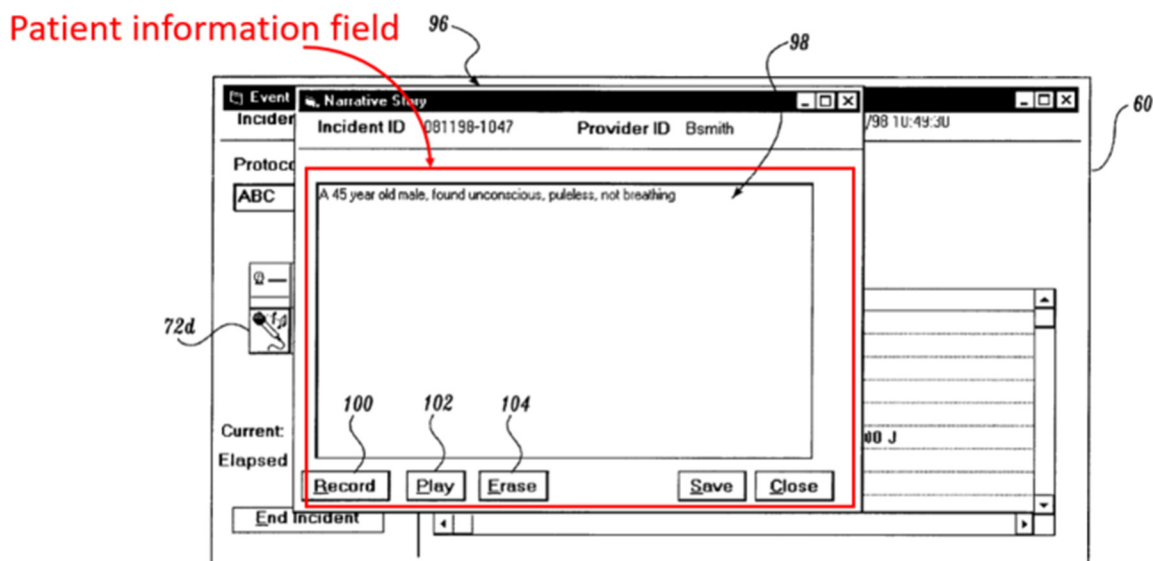
In sum, Hampton discloses an "event recording component" which "records events as they occur during the incident" and a "post-processing component" which "further processes the events recorded by the event recording component once the incident has concluded." *Id.*, 2:26-28; AW-1003, ¶68.

2. Wang421-Clements-Hampton Combination

A POSITA would have been motivated to modify the Wang421-Clements combination to further incorporate Hampton's event recorder windows to be displayed in the user interface of Clements' computer 77 (and/or nurse computer 83) to allow Clements' primary care physician at the patient site to enter medical information gathered from the patient at the patient site into Hampton's event recorder windows. AW-1003, ¶69.

First, a POSITA implementing a system with a patient site computer (such

as Wang421's robot 21 or Clements' computer 77) would have been familiar with references such as Hampton because Hampton also discloses a patient site computer (Hampton's hand-held computer 20). *Id.*, ¶70.

Second, a POSITA would have found modifying the user interface provided by Clements' computer 77 (and/or nurse computer 83) to include information including a patient information field, a medical data field, and a patient management plan as disclosed in Hampton, to be a simple modification within their skill. *Id.*, ¶71. Further, Clements discloses that it is important to keep track of a "dosage of [a patient's] medication" (AW-1006, [0014]), as well as being able to "benchmark prescription [] dosages" and "provide[] for comparison of a physician's [] dosage choices." *Id.,* [0084]. Given that, it would have been obvious to a POSITA to incorporate Hampton's Dosage/Infusion Calculator window 114 (see Claim [6.b] below), which in the combination serves as the claimed "patient management plan," into Clements' system to be able to better monitor and otherwise manage dosages. AW-1003, ¶71.

Third, a POSITA would have recognized the modification would have been beneficial because such fields would be required by, or at least useful to include in, Clements' computer 77's user interface (and/or nurse computer 83). AW-1003, ¶72.

Fourth, because modifying a user interface to include fields into which a

user can enter information was within a skill of a POSITA, a POSITA would have

reasonably expected the modification described above to successfully result in a

user interface that allows medical information to be entered by displaying multiple

data fields that include at least one patient information field and at least one

medical data field that are filled by a user at the computer. *Id.*, ¶73.

3.   Claim 6

[6.a] wherein said remote station provides a graphical user interface that can receive information

As described in Section V.A.3, Wang421 states that "each remote station

computer 22 may operate Microsoft OS software … or other operating systems…."

AW-1005, [0025]. A POSITA would have known that such a computer, especially

a conventional computer running a conventional operating system "may also

operate a video driver" and can transmit and receive video images with

compression software such as MPEG CODEC, can be readily modified to display

GUIs. *Id.*, AW-1003, ¶128. Moreover, because Clements discloses a remote

physician medical delivery suite with monitors that display GUIs in which

information received from a patient site are displayed, a POSITA would have had a

reasonable expectation that the Wang421-Clements-Hampton combination would

successfully result in a monitor that displays both the image of the patient and said

patient information and said medical data provided by the user, as recited in

element [1.c.iii]. *Id.*

[6.b] and display a patient management plan

A POSITA would have understood "patient management plan" in the context of the '418 patent, as encompassing a guideline or instructions for a patient's care or treatment. The '418 patent does not provide an express definition for "patient management plan," but it does provide an example of such an item, namely, "an interface that provides a patient management plan such as **a calculated dosage**." AW-1001, 2:26-28, Fig. 8; AW-1003, ¶129.

FIG. 8

With reference to Fig. 8, the '418 patent states:

> The interface 190 may include a data field 192 that provides the patient's weight, a 'TOTAL DOSE' data field 194, a 'BOLUS DOSE' data field 196 and an 'INFUSION DOSE' data field 198. The interface 190 may also include 'CALCULATE' button 200. When the CALCULATE button 182 is selected the data fields 194, 196 and 198 are automatically populated with calculated dosage

information. This provides a **patient management plan** for the physician to review." 5:6-14. AW-1003, ¶130.

As shown in Fig. 8, interface 190 is implemented as a GUI displaying a calculated dosage of medication. AW-1003, ¶131.

Hampton discloses this limitation in describing a drug guideline window 86, which allows a service provider to select a desired drug from a drug menu by tapping an arrow in a drug identification field 88 as well as calculate an appropriate dosage of the drug by selecting a dose button 89. AW-1008, 10:43-62. In particular, Hampton states that "once information regarding the desired drug has been retrieved and displayed, the emergency service provider may opt to **calculate an appropriate dosage for the drug by selecting a dose button 89**." *Id.*, 10:56-59. AW-1003, ¶132.
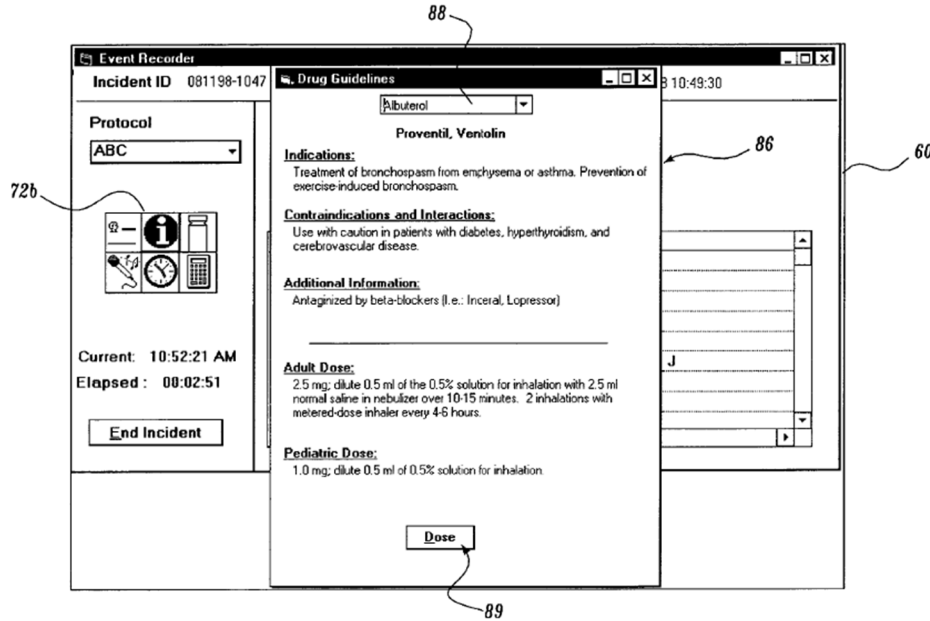
Fig. 6H.

Further, Fig. 6L shows a Dosage/Infusion Calculator window 114 with a "Calculate" button 122 "to initiate calculation of the appropriate dosage/infusion" using "the appropriate information for calculating the dosage and/or infusion" has been "input by the provider." *Id.*, 12:59-63. AW-1003, ¶133.
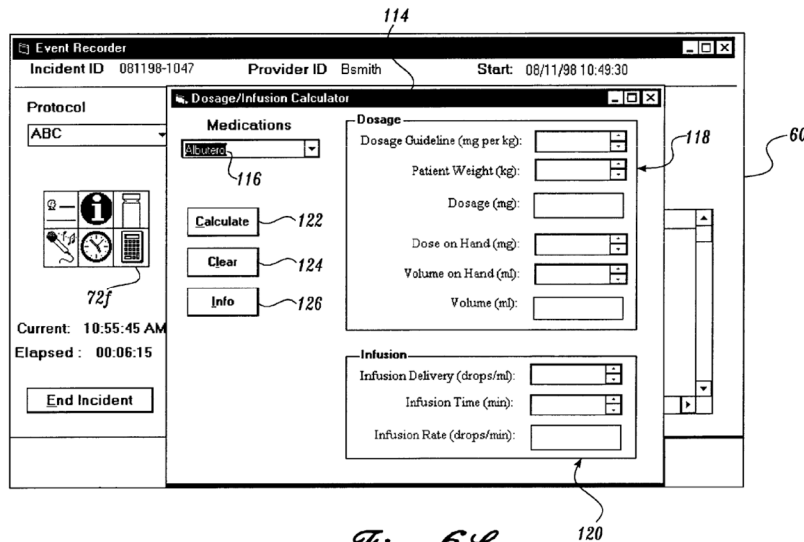

Fig. 6L.

A POSITA would have regarded Hampton's Dosage/Infusion Calculator as a guideline for a patient's care or treatment, i.e., a patient management plan. AW-1003, ¶134.

4. Claim 11

[11.pre] A robotic system, comprising:

See element [1.pre], Section V.A.4. AW-1005, [0023]; AW-1003, ¶135.

[11.a] a mobile robot that has a camera;

See element [1.a], Section V.A.4. AW-1005, [0011], [0025], [0057]; AW-1003, ¶136.

[11.b] a user interface that allows patient information and patient statistics to be entered by a user;

See element [1.b], Section V.A.4. AW-1005, [0025], [0033]; AW-1006, [0067], [0069], Fig. 3B. Also, see element [4], Section V.A.7. AW-1005, [0034]. AW-1003, ¶137.

[11.c.i] a remote station that is coupled to said mobile robot to control movement of said mobile robot

See element [1.c.i], Section V.A.4. AW-1005, [0022]; AW-1003, ¶138.

[11.c.ii] said remote station includes a monitor that is coupled to said mobile robot camera

See element [1.c.ii], Section V.A.4. AW-1005, [0024]; AW-1003, ¶139.

[11.c.iii] and that displays a plurality of graphical user interfaces, said graphical user interfaces provide said patient statistics, a medical tool and a patient management plan

See element [1.c.iii], Section V.A.4. AW-1005, [0024], [0034]; AW-1006,

[0064], [0066], Fig. 4; AW-1003, ¶140. Also, see element [4], Section V.A.7.

AW-1005, [0034]; AW-1003, ¶141. Further, see element [5], Section V.C.5. AW-

1006, [0071]; AW-1007, Abstract, 3:8-11, 9:14-21, Fig. 8; AW-1003, ¶142.

Additionally see element [6.b], Section V.B.3. AW-1008, 10:43-63, 10:56-59,

12:59-63, Fig. 6L; AW-1003, ¶143.

5.   Claim 12

**[12] further comprising a records server that is coupled to said remote station
and said user interface and stores said patient information and said patient
statistics**

See elements [2.i], [2,ii] and [2.iii], Section V.A.5. AW-1005, [0026]; AW-

1006, [0060], Fig. 1A; AW-1003, ¶144. Also, see element [4], Section V.A.7.

AW-1005, [0034]; AW-1003, ¶144.

6.   Claim 13

**[13] further comprising an image server that is coupled to said remote station
and stores a plurality of medical images**

See element [3], Section V.A.6. AW-1005, [0033], [0034]; AW-1006,

[0112], Figs. 1B, 2B; AW-1003, ¶146.

7.   Claim 14

**[14] wherein at least one of said graphical user interfaces displays at least one
of said medical images**

Clements discloses this limitation: "utilizing a patient's electronic medical

record 49 and functionality of the remote medical services program product 51" to

"[enter a] radiology order request" in response to which a "radiology technician"

"takes the image, and sends the radiology order and the image to the radiologist."

AW-1006, [0112]. Clements states:

> [R]adiologist reviews the image and enters the results directly into
> the patient's electronic medical record 49. Further, the image, if
> not already generated electronically, can be scanned and stored in a
> database, e.g. database 47, and can be associated with or appended
> to the patient's electronic medical record 49, to thereby provide
> ready access. … A facility medical service provider can review
> the radiologist results by accessing the patient's electronic medical
> record 49. [0012].

As described in Section V.A.3, Clements' database 47, which stores the multiple medical images, is coupled to Clements' remote physician site 31. To allow a facility medical service provider to review the radiologist results by accessing the patient's electronic medical records 49, the computer at Clements' remote physician site 31 can display at least one of the medical images stored in Clements' database 47 on a user interface. AW-1003, ¶147.

8. Claim 15

[15] wherein said user interface is a computer terminal

See element [8], Section V.A.8. AW-1005, [0033]; AW-1003, ¶148.

9. Claim 16

[16] wherein said mobile robot includes a monitor coupled to a camera of said remote station.

See element [9], Section V.A.9. AW-1005, [0024]; AW-1003, ¶149.

10. Claim 17

[17] wherein said mobile robot includes a speaker and a microphone

See element [10], Section V.A.10. AW-1005, [0025]; AW-1003, ¶150.

11. Claim 18

[18.pre] A method for treating a patient, comprising:

Wang421 discloses this limitation: "the system thus allows a doctor [to] visit patients from a remote location, thereby improving the frequency of visits and the quality of medical care." AW-1005, Abstract. AW-1003, ¶151.

[18.a] moving a mobile robot into a vicinity of a patient at a robot site through commands from a remote station

See elements [1.pre]-[1.c.iii], Section V.A.4. In addition, Wang421 states:

> A method for remotely monitoring a patient with a robot that has a camera and a microphone. A robot input command is generated and transmitted from a remote station. The robot input command is received by the robot. The robot moves in response to the robot input command. AW-1005, *[0011]*. AW-1003, ¶153.

Wang421 further states that "the robot can move from room to room so that a doctor can make 'patient rounds' within a medical facility." *Id.*, [0022]. AW-1003, ¶154.

[18.b] entering information about the patient through a user interface located at the robot site

See elements [1.pre]-[1.c.iii], Section V.A.4; AW-1003, ¶154.

[18.c] displaying the patient information at the remote station; and,

See elements [1.pre]-[1.c.iii], Section V.A.4; AW-1003, ¶155.

[18.d] displaying a patient management plan at the remote station

See element [6.b], Section V.B.3; AW-1003, ¶156.

12. Claim 19

[19] further comprising displaying a medical image at the remote station

See element [3], Section V.A.6; AW-1003, ¶157.

13. Claim 20

[20] wherein the patient management plan includes a calculated dosage at the remote station

See element [6.b], Section V.B.3; AW-1003, ¶158.

C. GROUND 3 – Claims 7 and 21 are rendered obvious by Wang421, Clements, Hampton, Brown, and Brun

1. Brown overview

Brown is entitled "Networked system for interactive communication and remote monitoring of individuals." AW-1007. Like the '418 patent, Brown "presents a networked system for communicating information to an individual and for remotely monitoring the individual." *Id.*, Abstract. Brown states "the individuals are patients and the system is used to collect data relating to the health status of the patients." 4:27, 28; AW-1003, ¶53.

As shown in Fig. 1, Brown's networked system 16 includes a server 18 and a workstation 20 connected to server 18 through a communication network 24. *Id.*,

4:37-39. Brown's system 16 also includes two remotely programmable apparatuses (26, 32) for monitoring two respective patients. *Id.*, 4:49-53 ("Each apparatus 26/32 is designed to interact with a patient in accordance with script programs received from server 18"). AW-1003, ¶53.
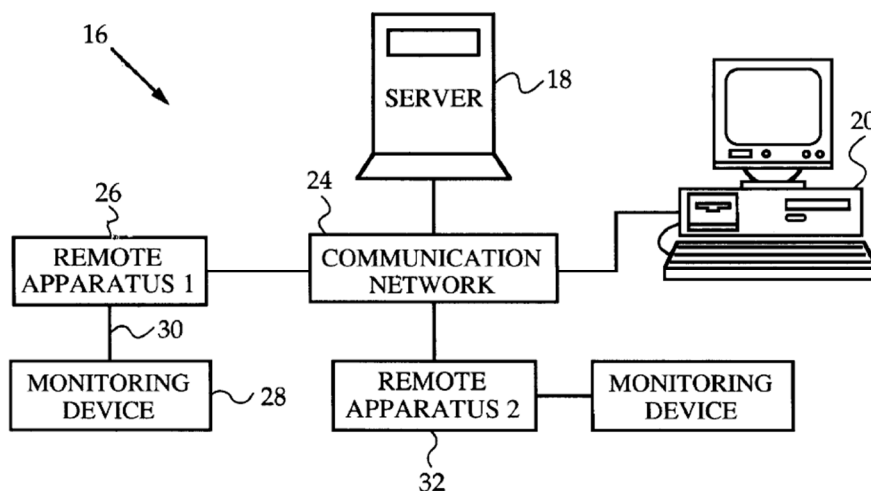

FIG. 1

Brown also states "each patient to be monitored is also provided with a monitoring device 28," which "is designed to produce measurements of a physiological condition of the patient, record the measurements, and transmit the measurements to the patient's remotely programmable apparatus through a standard connection cable 30." 4:65-5:3; AW-1003, ¶53.

Brown's Fig. 5 discloses a script entry screen 56 which includes "entry fields 94 for entering a set of queries to be answered by a patient." 6:66, 67. AW-1003, ¶54.

FIG. 5

Using the script information entered using the script entry screen 56, a script

generator 50 generates a script program 40 which displays the queries to be

answered by a patient on each apparatus 26/32. 5:16-20 ("Script programs 40 are

executed by each apparatus e.g., 26/32, to communicate queries and messages to a

patient, receive responses 42 to the queries, collect monitoring device

measurements 44, and to transmit responses 42 and measurements 44 to server

18"); 8:6-8 ("To generate a script program 40, script generator 50 inserts into the

template the script information entered in screen 56"); 8:12-18 ("The script

program 40 includes display commands to display the queries and response choices

entered in fields 94 and 96, respectively. The script program 40 also includes input

commands to receive responses 42 to the queries. The script program 40 further

includes a collect command to collect device measurements 44 from the

monitoring device 28 specified in check boxes 98."). AW-1003, ¶55.

Fig. 8 shows an apparatus 26 displaying the sample query and response

choices in display 64. A patient inputs responses using response buttons 70A-D.

10:46-49 ("each response choice is displayed immediately above a respective input

button 70A-D. The patient presses button 70A-D corresponding to his or her

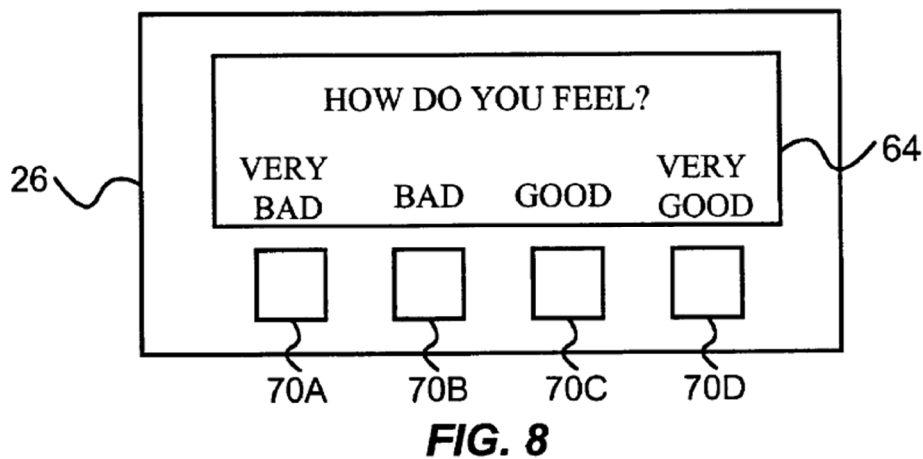response."). AW-1003, ¶56.

FIG. 8

Fig. 9 shows that the patient is prompted to connect a monitoring device to

the apparatus 26 to receive measurements collected by the monitoring device.

10:55-58 ("microprocessor 76 prompts the patient to connect the selected

monitoring device 28"). AW-1003, ¶57.

CONNECT GLUCOSE METER
AND PRESS ANY BUTTON
WHEN FINISHED
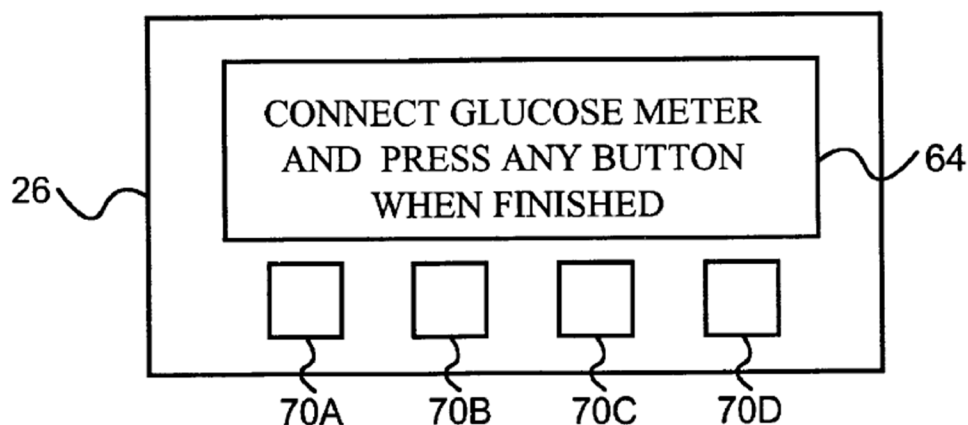
70A   70B   70C   70D

FIG. 9

Brown's monitoring system "allows each patient to select a convenient time to respond to queries." *Id.*, 11:23-25. Also, it "allows each apparatus 26 to be programmed remotely through script programs 40." *Id.*, 11:34-36. Further, it "provides a powerful, convenient, and inexpensive system for remotely monitoring a large number of patients." *Id.*, 11:43-45; AW-1003, ¶58.

2. Wang421-Clements-Brown Combination

A POSITA would have been motivated to modify the Wang421-Clements combination to add Brown's script programs 40 to determine a patient's medical condition. AW-1003, ¶59.

First, a POSITA implementing the Wang421-Clements combination would have been familiar with references such as Brown because Wang421, Clements and Brown each discloses exchanging medical information between a server and a remote device (Wang421's remote station 16 and robot 12; Clements' remote physician medical delivery suites 35 and patient medical service delivery stations

or carts 37; Brown's server 18 and apparatus 26). AW-1003, ¶60.

Second, a POSITA would have been motivated to modify Wang421 to include Brown's capability of providing a medical tool that includes information to determine the condition of a patient. AW-1007, 9:14-21, AW-1003, ¶61.

Third, a POSITA would have been motivated to modify Wang421 to provide Brown's queries to be communicated to the patients. Indeed, Wang421 contemplates such modification by disclosing the monitor 40 of Wang421's robot 12 "may include a touchscreen function that allows the patient to enter input by touching the monitor screen." AW-1005, [0033]. A POSITA would have been motivated to display Brown's queries in Wang421's monitor 40 for collecting medical information. AW-1003, ¶62.

3.   Brun Overview

Brun relates to "the prevention of, or minimizing severity of complications in [intracerebral haemorrhage] (ICH) patients." AW-1009, 1:7-8. Brun discloses the NIHSS in Appendix 4, thereby establishing that the NIHSS was available long before the Critical Date. AW-1009, Appendix 4, AW-1003, ¶74. An excerpt of the NIHSS as reproduced in Brun is shown below. AW-1009, PDF p.31.

30

NIH STROKE SCALE   The NINDS t-PA Stroke Trial No ___ ___-___ ___-___ ___ ___

FORM 5   Pt Date of Birth ___ ___/___ ___/___ ___

1 of 4   Hospital _____(___ -___ ___ ___!

                                                          Date of Exam ___ ___/___ ___/___ ___

Interval.   1[] Baseline   2[ ] 2 hours post treatment   3[ ] 24 hours post onset of symptoms ±20 minutes   4[ ] 7-10 days
            5[] 3 months 6[] Other _____(___ ___)

Time. ___ ___ ,___ ___   1[]am   2[]pm

Administer stroke scale items in the order listed   Record performance in each category after each subscale exam. Do not go
back and change scores. Follow directions provided for each exam technique. Scores should reflect what the patient does, not
what the clinician thinks the patient can do The clinician should record answers while administering the exam and work quickly
Except where indicated, the patient should not be coached (i.e., repeated requests to patient to make a special effort).

IF ANY ITEM IS LEFT UNTESTED, A DETAILED EXPLANATION MUST BE CLEARLY WRITTEN ON THE FORM. ALL
UNTESTED ITEMS WILL BE REVIEWED BY THE MEDICAL MONITOR, AND DISCUSSED WITH THE EXAMINER BY
TELEPHONE.

Instructions	Scale Definition	Score
1a. Level of Consciousness: The investigator must choose a response, even if a full evaluation is prevented by such obstacles as an endotracheal tube, language barrier orotracheal trauma/bandages A 3 is scored only if the patient makes no movement (other than reflexive posturing) in response to noxious stimulation	0 = Alert, keenly responsive 1 = Not alert, but arousable by minor stimulation to obey, answer or respond 2 = Not alert, requires repeated stimulation to attend, or is obtunded and requires strong or painful stimulation to make movements (not stereotyped) 3 = Responds only with reflex motor or autonomic effects or totally unresponsive flaccid, areflexic	____
1b. LOC Questions: The patient is asked the month and his/her age The answer must be correct - there is no partial credit for being close Aphasic and stuporous patients who do not comprehend the questions will score 2 Patients unable to speak because of endotracheal intubation, orotracheal trauma severe dysarthria from any cause language barrier or any other problem not secondary to aphasia are given a 1 It is important that only the initial answer be graded and that the examiner not "help" the patient with verbal or non-verbal cues	0 = Answers both questions correctly 1 = Answers one question correctly 2 = Answers neither question correctly	____

4.   Wang421-Clements-Hampton-Brown-Brun Combination

A POSITA would have been motivated to modify the Wang421-Clements-Hampton-Brown combination to add the NIHSS disclosed in Brun. AW-1003, ¶75.

First, a POSITA implementing the Wang421-Clements-Hampton-Brown combination would have been familiar with the NIHSS both because it was, and continues to be, ubiquitous in medical literature, and because it was disclosed in Brun which was published long before the Critical Date. AW-1003, ¶76.

Second, a POSITA would have been motivated and found it obvious to modify Brown to computer-encode the NIHSS questionnaire as one of the script programs presentable on Brown's remotely programmable apparatus. Brown discloses "first and second remotely programmable apparatuses 26 and 32," each

of which "is designed to interact with a patient in accordance with script programs received from server 18." AW-1007, 4:49-53. Brown further discloses generating "multiple script programs, e.g. a script program for diabetes patients, a script program for asthma patients, etc." AW-1007, 9:16-18. It would have been obvious to a POSITA to configure Brown to generate the NIHSS disclosed in Brun as a script program for stroke patients and to present the NIHSS script program on a remotely programmable apparatus to receive responses to the NIHSS questions. *See, e.g.*, Shapiro (describing a Palm-OS based, handheld tool that computer-encodes the same NIHSS questionnaire described in Brun). AW-1010, 1325. A POSITA would have been motivated to perform this combination to allow the medical tool described in Brown to be used to evaluate a wider range of medical conditions, thereby increasing the tool's utility to a medical practitioner. AW-1003, ¶77.

Third, a POSITA would have recognized that Brown's script programs, when executed on Brown's remotely programmable apparatus, present queries to a user of the apparatus. Because the NIHSS is a series of questions, a POSITA would have reasonably expected to have been able to successfully modify Brown to generate a script program that can present the NIHSS questions on Brown's remotely programmable apparatus. Further, the proposed configuration would have been predictable to a POSITA because similar configurations were well-

known in the art prior to the Critical Date. *See, e.g.*, Shapiro (describing a Palm-OS based, handheld tool that computer-encodes the same NIHSS questionnaire described in Brun). AW-1010, 1325; AW-1003, ¶78.

5. Claim 5

[5] wherein said remote station provides a medical tool.

A POSITA would have understood the term "medical tool," in the context of the '418 patent, as being broad enough to include an aid used to determine a patient's medical condition. AW-1003, ¶122. The '418 patent does not provide an express definition for the term "medical tool" but does provide an example of a "medical tool," namely, "a NIHSS questionnaire to determine the severity of a stroke." AW-1001, 2:25-29 ("The remote station may provide [GUIs] that display the patient information and provide a medical tool. [T]he remote station may present to the user a NIHSS questionnaire to determine the severity of a stroke.") Further, the '418 patent states that "the interface 170 includes a 'Patient Info' tab 172, a 'NIHSS' tab 174 and a 't-PA' tab 176." *Id.*, 4: 61-64. The '418 patent references the "NIHSS" tab 174 as a medical tool:

> FIG. 7 shows an interface 180 with the "NIHSS" tab 174 is selected. The interface 180 has a data field 182 that provides a questionnaire to rate the severity of a stroke victim using the NIHSS stroke scale. This provides a readily available **medical tool** for the physician. 5:1-5; AW-1003, ¶118.

FIG. 7

The '418 patent states "the medical tool and dosage can be transmitted to the user interface so that this information can be viewed by medical personnel in physical proximity to the patient." 2:28-30. As such, that the term "tool" clearly is not be used in its most conventional sense, i.e., "a device, such as a saw used to perform or facilitate manual or mechanical work." AW-1012. Rather, the '418 patent uses "medical tool" to refer to something that is not necessarily a physical, hand-held object, but instead, e.g., an interactive display of information that assists in the performance of the physician's duties. Thus, a POSITA would have understood "said remote station provides a medical tool" to include a meaning that remote control station 16 of the '418 patent provides an aid used to determine a patient's medical condition. AW-1003, ¶119.

Brown discloses a "medical tool," specifically, "a script entry screen 56" implemented as a web page on server 18 and accessible by workstation 20, into

which script information is entered to generate a script program, which, when

executed, aids to determine a patient's medical condition. AW-1003, ¶120. In this

regard, Brown states:

> Script generator 50 [Fig. 2, reproduced below] is designed to
> generate script programs 40 from script information entered
> through workstation 20. The script information is entered through a
> script entry screen 56 [which] is implemented as a web page on
> server 18. Workstation 20 includes a web browser for accessing
> the web page to enter the script information. AW-1007, 6:56-62;
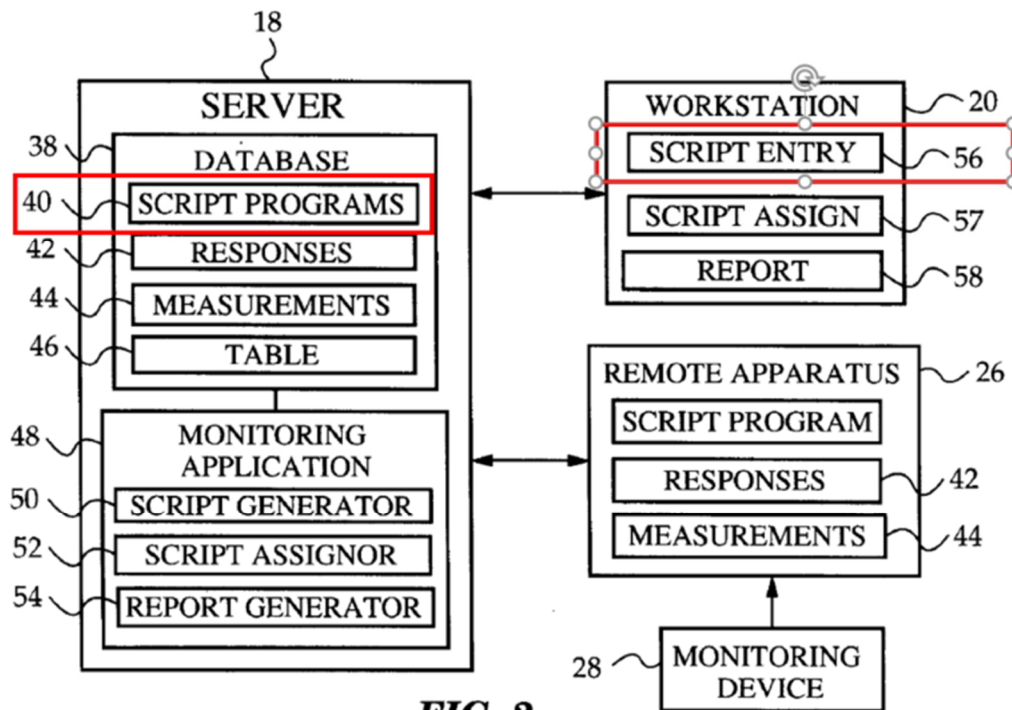> AW-1003, ¶120.

FIG. 2

Brown discloses a script program to communicate with a patient:

Server 18 includes a database 38 for storing script programs 40.

Script programs 40 are executed by each apparatus e.g., 26/32, to communicate queries and messages to a patient, receive responses 42 to the queries, collect monitoring device measurements 44, and to transmit responses 42 and measurements 44 to server 18. 5:14-19. AW-1003, ¶121.

Brown also discloses a "script entry screen 56 as it appears on workstation 20." 6:63. AW-1003, ¶122.

FIG. 5

Brown's script entry screen 56 includes queries and response choices that aid in determining a patient's medical condition:

Screen 56 also includes entry fields 94 for entering a set of queries to be answered by a patient. Each entry field 94 has corresponding response choice fields 96 for entering response choices for the query. *Id.*, 6:66-7:2. AW-1003, ¶123.

Brown states that "Screen 56 also includes a CREATE SCRIPT button 102 for instructing script generator 50 to generate a script program 40 from the information entered in screen 56." *Id.*, 7: 12-15. In this manner, the workstation 20 ("the remote station") provides the script information through the script entry screen 56 to generate the script program 40 ("the medical tool") which is then presented on a patient's remotely programmable apparatus 26/32:

> The [remotely programmable apparatus] apparatus interacts with the individual in accordance with **a script program** received from the server. The server includes a script generator for generating the script program from the set of queries entered through the remote interface [of the Workstation 20]. The script program is received and executed by the apparatus to communicate the queries to the individual, to receive responses to the queries, and to transmit the responses from the apparatus to the server. Abstract. AW-1003, ¶124.

Alternatively, Brown discloses a "medical tool," specifically, a patient report 58 with reference to Fig. 10. AW-1003, ¶125.
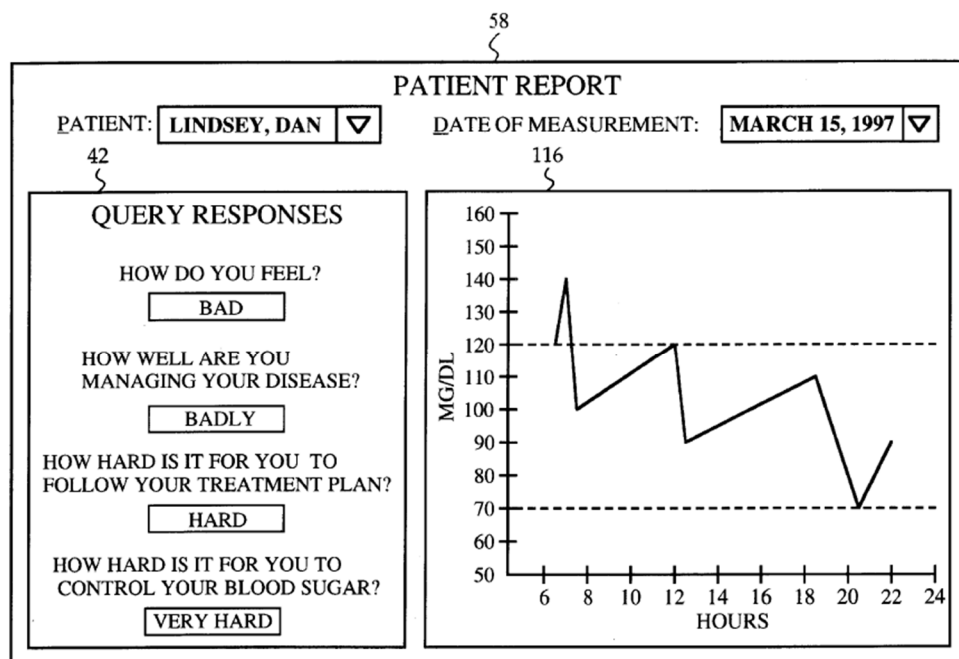
FIG. 10

Brown's server 18 includes a report generator 54 which "is designed to generate a patient report 58 from responses 42 and device measurements 44 received in server 18":

> Patient report 58 is displayed on workstation 20. FIG. 10 shows a sample patient report 58 produced by report generator 54 for a selected patient. Patient report 58 includes a graph 116 of the device measurements 44 received from the patient, as well as a listing of responses 42 received from the patient. AW-1007, 8:46-53. AW-1003, ¶126.

The query responses included in the patient report 58 aid in determining a patient's medical condition. AW-1003, ¶127.

6.   Claim 7

[7] wherein said medical tool is a stroke evaluation

The '418 patent does not purport to have created or invented the NIH Stroke Scale (NIHSS). Rather, the '418 patent merely mentions presenting the NIHSS as a questionnaire to determine the severity of a stroke. AW-1001, 2:23-25. As described below, the NIHSS was well-known long before the Critical Date of the '418 patent. AW-1003, ¶159.

As explained with regard to claim 5, a POSITA would have understood the term "medical tool" recited in claim 7, in the context of the '418 patent, as meaning an aid used to determine a patient's medical condition. AW-1003, ¶160.

As described in Section V.C.5, Brown discloses a script entry screen, which serves as an aid used to determine a patient's medical condition. In particular, Brown discloses using the queries and response choices entered via a script entry screen 56 to generate a script program 40 executable on a remotely programmable apparatus 26/32 to present the queries and response choices and to determine a patient's medical condition. *Id.* Whereas Brown contemplates script programs for multiple medical conditions as discussed in Section V.C.6, Brown does not expressly disclose a stroke script program for stroke evaluation. AW-1003, ¶161.

Brun discloses the NIHSS. AW-1009, Appendix 4. Because Brown contemplates multiple script programs, a POSITA would have been motivated to modify Brown to generate a script program to present, on Brown's remotely programmable apparatus 26/32, the NIHSS, just as Shapiro provided the NIHSS on

the handheld tool. AW-1010, 1325. A POSITA would have recognized that, because Brown's apparatus 26/32 executes script programs 40 to communicate queries and messages to a patient and receive responses 42 to the queries (AW-1007, 5:15-18), the Brown-Brun combination could execute a script program to communicate the NIHSS to a patient on Brown's apparatus 26/32 and receive responses to the NIHSS. AW-1003, ¶162. The NIHSS form maps well into Brown's script generator 50 because it includes a series of categories (i.e. Queries of Brown), in which a response related to the patient's performance on predefined scale for each category is selected by the administrator of the tool (i.e. Choices of Brown). *Id.*, ¶162.

In this manner, a POSITA would have been motivated and found it obvious to generate a medical tool for stroke evaluation. *Id.*, ¶163.

7. Claim 21

[21] wherein the patient management plan is a stroke evaluation

See element [7], Section V.C.6; AW-1003, ¶164.

D. GROUND 4 – Claims 22-24 are rendered obvious over Wang421, Clements, Brown, Hampton and Brun

1. Claim 22

[22.pre.i] A graphical user interface that is displayed on a monitor of a remote station that controls a mobile robot

See element [1.c.iii], Section V.A.4; AW-1003, ¶165.

[22.pre.ii] the mobile robot having a camera, comprising:

See element [1.a], Section V.A.4; AW-1003, ¶166.

[22.a] a graphical user interface that includes; a patient information area

Clements discloses this limitation: Clements' Fig. 4 shows a "MEDICAL RECORD MONITOR" 57 and an "ECG MONITOR" 59, at least the latter of which clearly shows information about a patient. AW-1003, ¶167.

FIG.4.
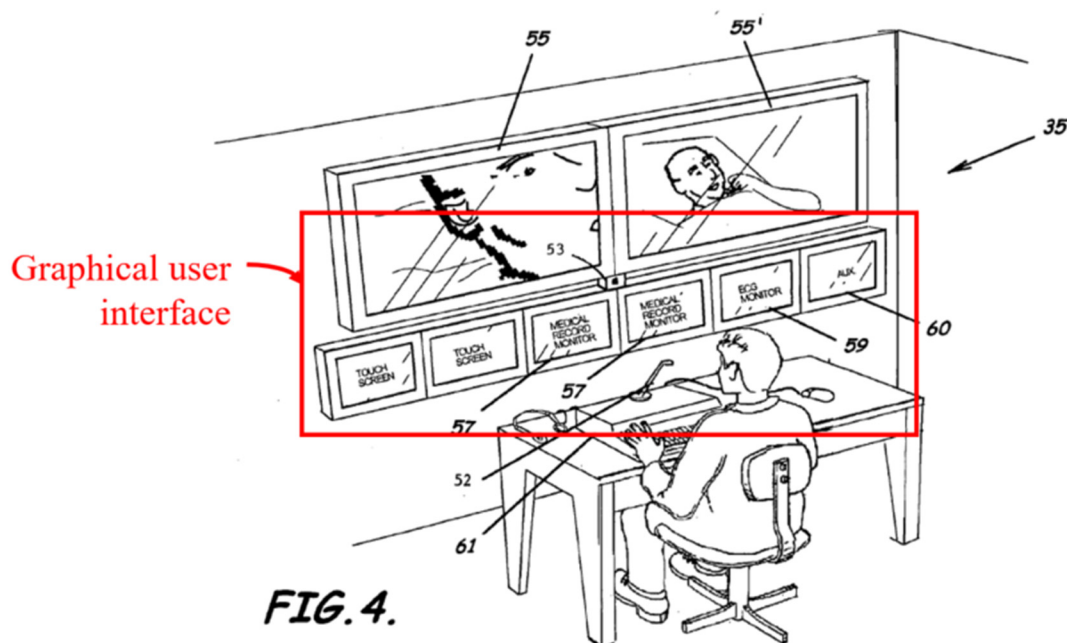
Hampton also discloses this limitation Hampton's Fig. 6B shows a GUI that includes "a detail field 66" in which patient information such as systolic and diastolic information about a patient's blood pressure can be entered. AW-1008, 8:10-15. AW-1003, ¶168.
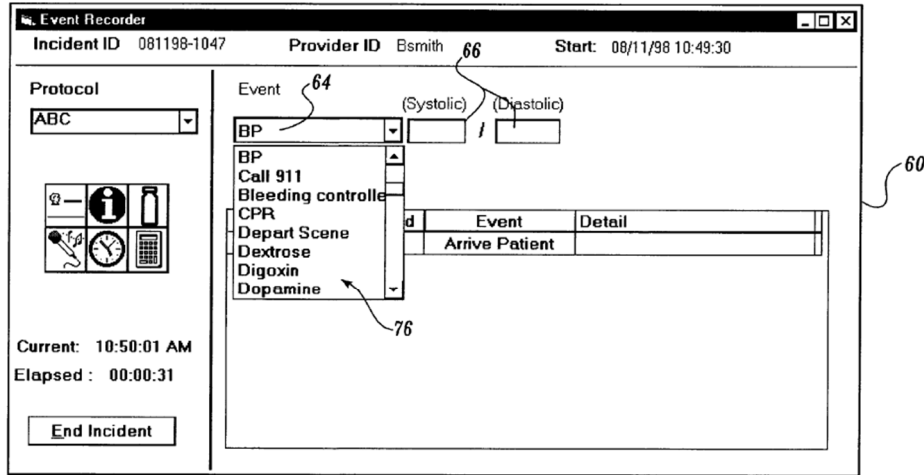
Fig. 6B.

In addition, Hampton's Fig. 6J shows a GUI including "a narrative field 98" in which patient information such as a narrative about a patient can be entered. *Id.*, 11:7-10. AW-1003, ¶169.
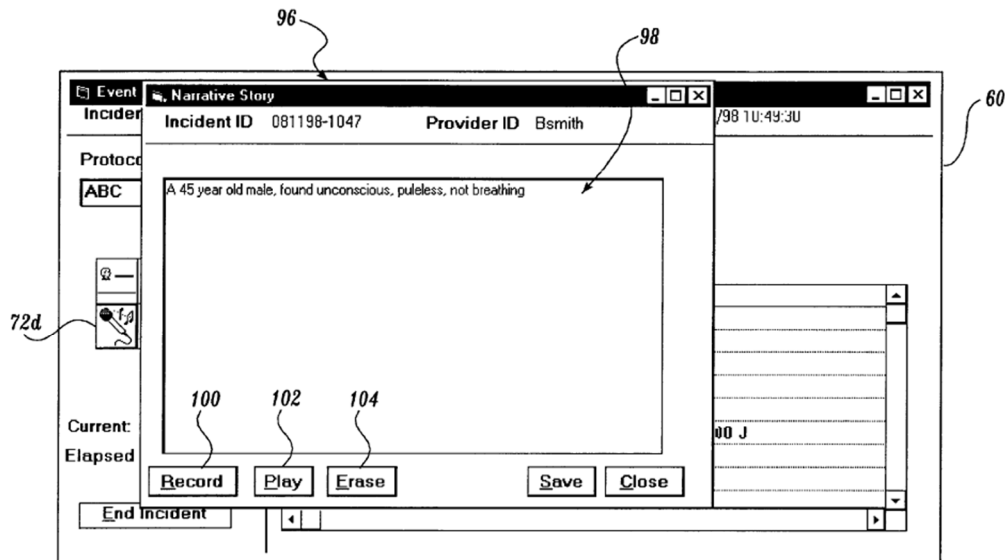

Fig. 6J.

Thus, Hampton's GUIs include a patient information area. AW-1003, ¶170.

A POSITA would have found it obvious to modify a GUI provided by the combination of Wang421 and Clements to include a field to show patient information, as taught by Hampton, so that information about the patient's medical condition is readily identifiable to a user viewing the GUI. AW-1003, ¶171.

[22.b] a medical assessment area

A POSITA would have understood "medical assessment area" in the context of the '418 patent as being broad enough to encompass a GUI portion which presents information to assess a patient's medical condition. The '418 patent does not provide an express definition for "medical assessment area" or "medical assessment." Claim 23 recites that "selection within said medical assessment area causes a display of a NIHSS scale questionnaire." AW-1001, Claim 23. The '418 patent describes an interface 180 with an "NIHSS" tab 174 which, when selected, provides the NIHSS scale questionnaire:

> FIG. 7 shows an interface 180 when the "NIHSS" tab 174 is
> selected. The interface 180 has a data field 182 that provides a
> questionnaire to rate the severity of a stroke victim using the
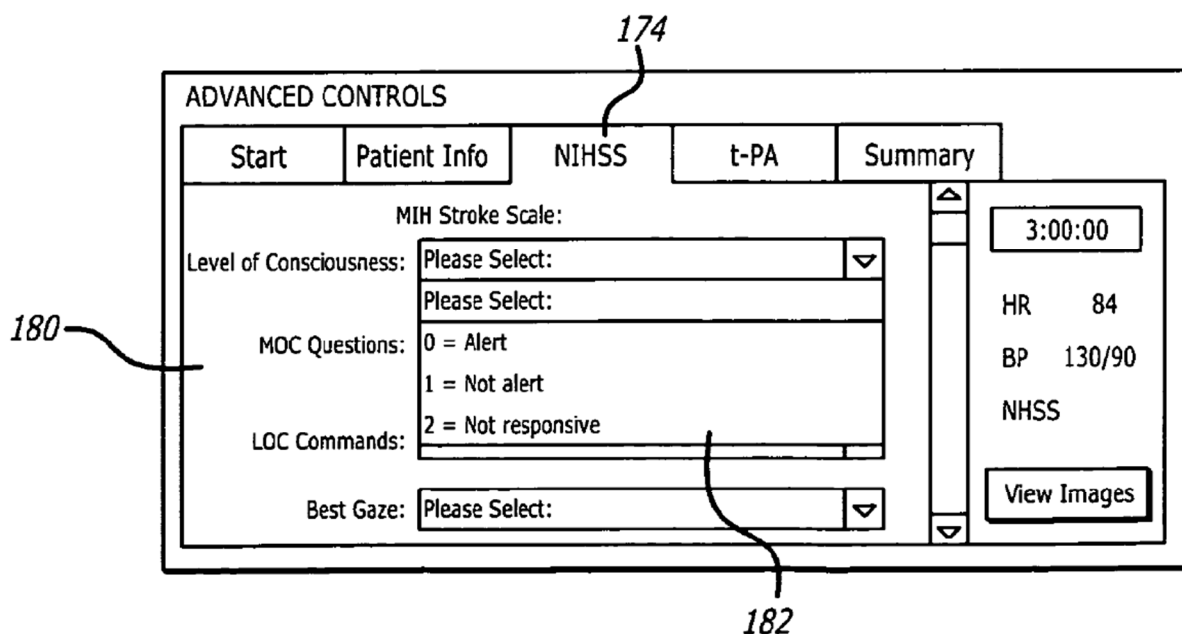> NIHSS stroke scale. *Id.*, 5:1-4; AW-1003, ¶172.

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FIG. 7

Thus, according to the '418 patent, when the "NIHSS" tab 174 is selected, the interface provides a data field 182 to rate the severity of a stroke victim. AW-1001, 5:1-5. A POSITA would have recognized the data field 182 as the stroke assessment area, and, by association, would have understood that "medical assessment area" is a GUI portion which presents information to assess a patient's medical condition. AW-1003, ¶173.

Brown's Fig. 5 shows a "script entry screen 56," which is a GUI displayed on a remote station. Brown's "script entry screen" 56 is accessible by Brown's workstation 20, which is remote from Brown's programmable apparatus 26/32:

> In the preferred embodiment, script entry screen 56 is implemented as a web page on server 18. Workstation 20 includes a web browser for accessing the web page to enter the script information.

AW-1007, 6:59-62. AW-1003, ¶174.

FIG. 5

Further, Brown's "script entry screen" 56 displays information to assess a patient's medical condition. Brown's "script entry screen" 56 "also includes entry fields 94 for entering a set of queries to be answered by a patient." 6:66-7:2 ("Each entry field 94 has corresponding response choice fields 96 for entering response choices for the query"). As shown in Brown's Fig. 5, example queries include "How do you feel?" and "How well are you managing your disease?", and example response choices include "Very Bad" and "Good." A POSITA would have understood that Brown's queries and response choices allow assessing a patient's medical condition, and that Brown's "script entry screen" 56 is consequently a GUI that allows assessing a patient's medical condition. AW-1003, ¶175.

A POSITA would have found it obvious to modify a GUI provided by the

combination of Wang421 and Clements to include a script entry screen, as taught

by Brown, as a GUI portion that presents information to assess a patient's medical

condition. AW-1003, ¶176.

[22.c] a patient management plan area

See element [6.b], Section V.B.3; AW-1003, ¶177.

2.   Claim 23

[23] wherein selection within said medical assessment area causes a display of a NIHSS scale questionnaire

See element [7], Section V.C.6; AW-1003, ¶178.

3.   Claim 24

[24] wherein selection within said patient management plan area causes a display with input fields and a calculation button that provides a calculated dosage when selected

See element [6.b], Section V.B.3; AW-1003, ¶179.

Further, Hampton states that "once information regarding the desired drug

has been retrieved and displayed, the emergency service provider may opt to

calculate an appropriate dosage for the drug by selecting a dose button 89." AW-

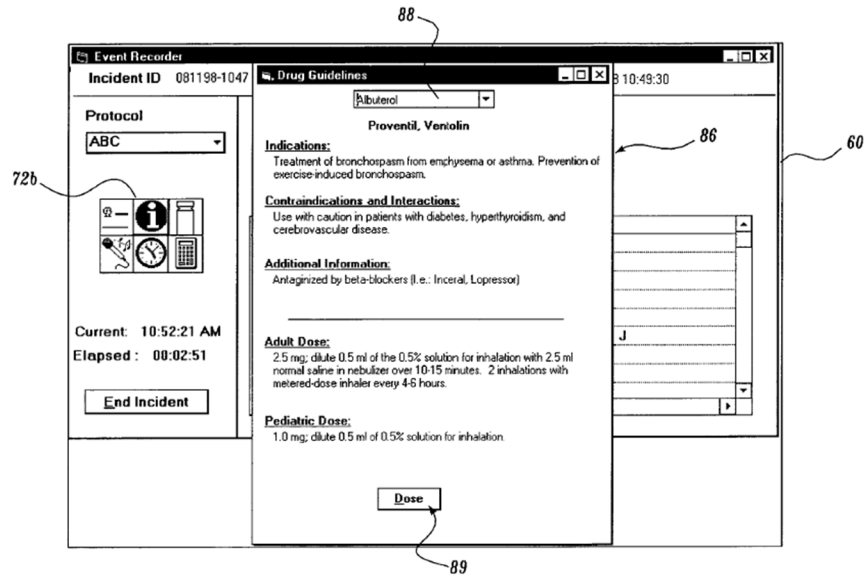1008, 8:56-59, Fig. 6H. AW-1003, ¶180.

Fig. 6H.

Further, Fig. 6L shows an event recorder window 60 with a "Calculate" button 122 "to initiate calculation of the appropriate dosage/infusion" using "the appropriate information for calculating the dosage and/or infusion" has been "input by the provider." 12:59-63. AW-1003, ¶181.
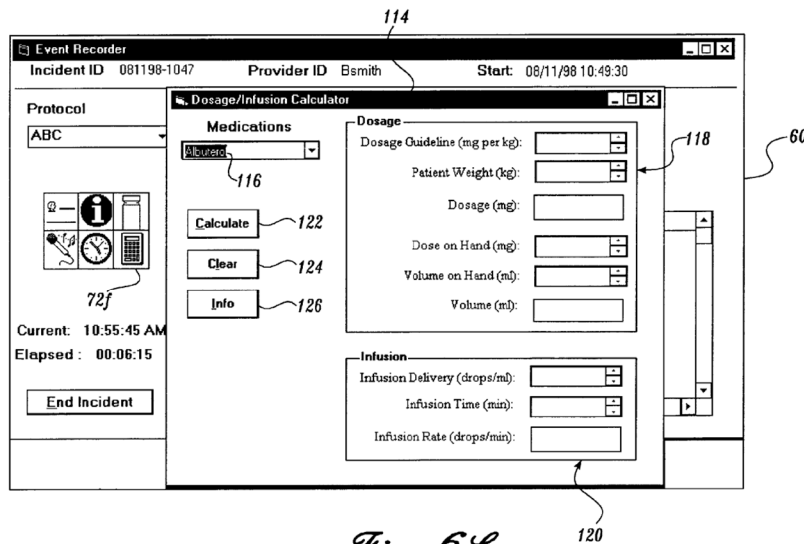

Fig. 6L.

VI.   DISCRETION SHOULD NOT PRECLUDE INSTITUTION

A.   Discretion Under §314(a)

Fintiv favors institution. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper

11, 6 (PTAB Mar. 20, 2020) (precedential); *Sotera Wireless, Inc. v. Masimo Corp.*,

IPR2020-01019 Paper 12, 20-21 (PTAB Dec. 1, 2020) (precedential); *Snap, Inc. v.*

SRK Technology LLC, IPR2020-00820 Paper 15, 19 (PTAB Oct. 21, 2020)

(precedential).

1.   Factor 1: Institution will increase likelihood of stay

Petitioner plans to shortly move—no later than the end of October 2021—

for a stay of the companion district court litigation based on IPR proceedings

already instituted for numerous of the other patents asserted in the litigation,

which, based on its track record, the Delaware District Court (including the

assigned judge here) is likely to grant. *See*, *e.g.*, *Quest Diagnostics Investments*

LLC v. Laboratory Corporation of America Holdings et al, Case No. 1:18-cv-

01436-MN (D. Del.), Sept. 4, 2020, Order Staying Case Pending Resolution of IPR

(Noreika, J.). The companion litigation is still in an early stage. The parties have

exchanged only minimal discovery, the majority of which comprises publicly

available files. Claim construction issues have not yet been briefed, and in fact, the

district court recently rescheduled the claim construction hearing to February 8,

2023, delaying it significantly from the originally scheduled date of April 5, 2022.

AW-1016; AW-1020. Moreover, in response to Petitioner's Motion to Dismiss

under 35 U.S.C. § 101 (concerning the '418 patent and two other related patents), the district court declined to resolve patentability issues until a significantly later stage in the litigation. AW-1021. Given that a stay may already be entered in the district court litigation when an institution would occur in this proceeding, a finding of invalidity would advance judicial efficiency by relieving the District of Delaware of the need to conduct a jury trial on the '418 patent. Even a finding that only certain of the challenged claims are invalid would significantly narrow the issues for trial.

Stay of the companion litigation pending the Board's final written decision ("FWD") would weigh strongly in favor of institution. *Snap, Inc. v. SRK Technology LLC*, IPR2020-00820 Paper 15, 8-9, 19 (PTAB Oct. 21, 2020) (precedential).

2.   Factor 2: The Board's Final Written Decision will issue in advance of any foreseeable trial

Patent Owner filed its complaint on October 12, 2020, and the District Court has set a trial date for August 14, 2023. AW-1022. Based on the 18-month IPR schedule, a FWD in an IPR arising from this Petition would issue as early as April 2023, ***roughly four months in advance of any potentially foreseeable district court trial date***.

Moreover, as in *NHK*, district court trial dates shift, even in normal times. *Mylan Pharma. Inc. v. Sanofi-Aventis Deutschland GMBH*, IPR2018-01680, Paper

22, 17 (PTAB 2019). Scheduling issues cannot be ruled out because the country is still recovering from the COVID pandemic, and a resurgence is possible, even now that vaccine distribution has begun. AW-1016 ("*The Coronavirus is Threatening a Comeback*"). And, as the Board found when granting institution in *Juniper Networks, Inc. et al. v. Packet Intelligence LLC*, "it is more likely that the District Court will incur delays due to the COVID-19 pandemic than the Board." IPR2020-00388 Paper 22, 14 (Sept. 9, 2020).

For at least these reasons, *Fintiv* factor two favors institution. *Sand Revolution*, 8-10.

3. Factor 3: Amwell's investment in IPR outweighs the parties' minimal investment in litigation to date

As noted above, the companion litigation is in an early stage, with a substantial amount of work relating to invalidity remaining to be done. Only minimal discovery has been exchanged, with fact discovery not set to close until September 13, 2022. AW-1022. Claim construction issues have not yet been briefed, and a claim construction hearing is not set to occur until February 2023; these facts weigh strongly in favor of institution. *Fintiv*, 11; *Snap*, 9-10. Moreover, Petitioner's substantial investment in two IPRs challenging the '418 patent[5] far outweighs the parties' minimal investment of resources in the co-

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[5] Specifically, this IPR petition and Petitioner's filings in IPR2021-00748.

pending litigation.

4.   Factor 4: No overlap between issues raised in the petition and in the parallel proceeding

Petitioner asks the Board to consider the unique challenges raised in the Petition. *Fintiv*, 12-13. If the Board institutes this Petition, Petitioner will not pursue district court invalidity challenges based on the same grounds in this petition, thereby eliminating any risk of duplicated effort between the District Court and the PTAB.

5.   Factor 5: Same parties

The parties are the same in this IPR and the District Court proceeding.

6.   Factor 6: Other circumstances support institution

As *Fintiv* noted, "if the merits of a ground raised in the petition seem particularly strong … the institution of a trial may serve the interest of overall system efficiency and integrity." *Fintiv*, 14-15. The ground raised herein is strong, and institution would result in invalidation of the Challenged Claim.

In summary, the *Fintiv* factors weigh against discretionary denial.

B.   Discretion Under §325(d)

The Board applies a two-part framework in considering whether to exercise discretion to deny institution under §325(d). *Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GMBH*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential) ("*Advanced Bionics*"), 8. In applying the two-part

framework, the Board considers the non-exclusive factors outlined in *Becton, Dickinson and Co., v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8, 17-18 (PTAB Dec. 15, 2017) ("*Becton* factors").

1. Advanced Bionics - <u>Part I</u>

The Board reviews *Becton* factors (a), (b), and (d) to determine whether the same or substantially the same art or arguments previously were presented to the Office. *Advanced Bionics*, 10.

Neither Clements, Brown, Hampton, nor Brun were considered or cited in the prosecution of the '418 patent, but they were considered by the Board in an earlier-filed IPR petition, which has now been instituted as IPR2021-00748. In the Institution Decision in the earlier IPR, the Board instituted trial on all claims on all grounds but identified two purported defects in the petition, namely, (i) that "Petitioner has not adequately shown that Wang421 and Clements teach the limitations in claim 9 for purposes of institution, and (ii) although "Petitioner has sufficiently shown that Hampton teaches 'a patient management plan, as recited in claim 6," "Petitioner has not provided sufficient rationale for the combination of Wang421, Clements, and Hampton." *American Well Corp. v. Teledoc Health, Inc.,* IPR2021-00748, Paper 10 at 46, 63 (PTAB Oct. 7, 2021). The first finding was the direct result of inadvertent misstatements made in the petition regarding the relevant teachings of Wang421 relative to claim 9. Specifically, the petition

inadvertently cited the incorrect paragraph of Wang421 ([0024] instead of [0025])

and the incorrect sentence within paragraph [0025] ("The robot camera 38 is

coupled to the remote monitor 24 so that a user at the remote station 16 can view a

patient" instead of "the robot monitor 40 is coupled to the remote camera 26 so that

the patient can view the user"). The second finding arose due to an inadvertent

mistake in the petition regarding language appearing in the '418 patent and

language appearing in the '418 patent's continuation, US 10,471,588, which is also

being challenged by an IPR petition filed the same day as the first '418 patent IPR

petition. As such, the revised arguments and evidence herein regarding claims 6

and 9, which seek to correct those inadvertent errors, have not previously been

considered by the Office, and thus do not constitute "the same or substantially the

same prior art or arguments previously were presented to the Office." 35 USC

325(d).

Wang421 was cited in an IDS by the applicant in the prosecution of the '418

patent, but was not relied on by the Examiner to reject any pending claim. *See*

AW-1001, Face. The Board has generally refused to exercise its discretion where,

as here, a prior art reference was merely cited by the applicant in an IDS and not

applied by the Examiner to reject the claims. *See Comcast Cable Communs., LLC*

v. Promptu Sys. Corp., IPR2018-00342, Paper 13, 17 (PTAB July 19, 2018)

(granting institution "because [the prior art] was only cited in an IDS and not

applied by the examiner … in any rejection of claims"); *Synaptic Medical Inc. v. Karl Storz-Endoscopy-America, Inc.*, IPR2018-00462, Paper 6, 10 (PTAB July 16, 2018).

Only US 7,761,185 ("Wang185"), US 6,535,793 ("Allard") and US 2007/0122783 ("Habashi") were relied upon to reject the claims. None of the prior art relied upon in this Petition is cumulative over Wang185, Allard and Habashi.

As previously discussed (*see* [1.b], *supra*), the combination of Wang421 and Clements teaches "a user interface <u>that is located at the robot site</u>"—a limitation not disclosed by Allard or Habashi. During prosecution, Applicant successfully overcame Allard and Habashi by arguing that neither reference discloses "a user interface that is located at the robot site." *See id.*, 138, 147. Thus, the Wang421-Clements combination, which teaches this feature (*see* [1.b], *supra*), is not cumulative over Allard and Habashi.

In sum, the Board should not exercise its discretion to deny institution under 325(d) based at least on the first prong. *Advanced Bionics,* 8.

2.   Advanced Bionics - <u>Part II</u>

Only if the Board determines that the same or substantially the same art or arguments previously were presented to the Office, the Board will review factors (c), (e), and (f), which relate to whether the petitioner demonstrates that the Office erred in a manner material to the patentability of the challenged claims. *Advanced*

Bionics, 10; *see also* IPR2020-00306, Paper 18, 47, 50.

As discussed above, neither Clements, Brown, Hampton, nor Brun were cited during prosecution, let alone used as the basis for rejection or otherwise evaluated during examination. Wang421 was only cited in an IDS by the applicant during prosecution, and was not relied on by the Examiner to reject any claim. These facts alone "weigh[] strongly against exercising [] discretion to deny institution under [Section] 325(d)." *Cellco Partnership v. Huawei Device Co.,* IPR2020-01117, Paper 10, 13 (PTAB Feb. 3, 2021).

In sum, none of the Grounds involve the same or substantially the same prior art or arguments previously presented to the Office, and accordingly, *Advanced Bionics's* two-part framework weighs against discretionary denial. 35 U.S.C. §325(d). *See Advanced Bionics,* 10 ("[I]f the record of the Office's previous consideration of the art is not well developed or silent, then a petitioner may show the Office erred by overlooking something persuasive under [*Becton Dickinson*] factors (e) and (f).").

VII. CONCLUSION

Petitioner requests institution of IPR of the '418 patent.

VIII. PAYMENT OF FEES – 37 C.F.R. §42.103

Petitioner authorizes the Patent and Trademark Office to charge Deposit Account No. 06-1050 for the fee in 37 C.F.R. §42.15(a) and further authorizes

payment for any additional fees to be charged to this Deposit Account.

IX. MANDATORY NOTICES UNDER 37 C.F.R §42.8(a)(1)

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

Petitioner, American Well Corporation, is the real party-in-interest.

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

The '418 patent is the subject of a civil action, namely, *Teladoc Health, Inc.*

v. American Well Corporation, 1:20cv1377 (AW-1013).

Petitioner is not aware of any disclaimers, reexamination certificates for the

'418 Patent. Petitioner previously filed a first *inter partes* review petition for the

'418 patent on April 2, 2021. Trial was instituted as IPR2021-00748 on October 7,

2021. The present IPR petition is being filed to correct inadvertent misstatements

made in the first petition relating to claims 6 and 9.

A first IPR petition for US Patent 10,471,588, which is a continuation of the

'418 patent, was filed April 2, 2021, and instituted as IPR2021-00749 on

September 29, 2021. A second IPR petition for US Patent 10,741,588, which is a

continuation of the '418 patent, is being filed this same day.

C. Lead And Back-Up Counsel Under 37 C.F.R. §42.8(b)(3)

Petitioner provides the following designation of counsel.

Lead Counsel	Backup counsel
John C. Phillips, Reg. No. 35,322 Fish & Richardson P.C. 3200 RBC Plaza	Daniel D. Smith, Reg. No. 71,278 Fish & Richardson P.C. 3200 RBC Plaza

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D. Service Information

Please address all correspondence and service to the address listed above.

Petitioner consents to electronic service by email at IPR51014-0002IP2@fr.com

(referencing No. 51014-0002IP2 and cc'ing PTABInbound@fr.com,

phillips@fr.com, and dmith@fr.com.

Respectfully submitted,

Dated: October 13, 2021

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(Control No. IPR2022-00038)   Attorneys for Petitioner

CERTIFICATION UNDER 37 CFR §42.24

Under the provisions of 37 CFR §42.24(d), the undersigned hereby certifies

that the word count for the foregoing Petition for *Inter Partes* Review totals 13,983

words, which is less than the 14,000 allowed under 37 CFR §42.24.

Dated: October 13, 2021

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§42.6(e)(4)(i) *et seq.* and 42.105(b), the undersigned

certifies that on October 13, 2021, a complete and entire copy of this Petition for

Inter Partes Review, and all supporting exhibits, were provided via FedEx to the

Patent Owner by serving the correspondence address of record as follows:

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