



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
12/987,501 01/10/2011 Carl L.C. Kah JR. 47587/0005 8657

1912 7590 01/30/2019
AMSTER, ROTHSTEIN & EBENSTEIN LLP
90 PARK AVENUE
NEW YORK, NY 10016

Table with 1 column: EXAMINER

TSANG, LISA L

Table with 2 columns: ART UNIT, PAPER NUMBER

3642

Table with 2 columns: NOTIFICATION DATE, DELIVERY MODE

01/30/2019

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTODOCKET@ARELAW.COM

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CARL L.C. KAH JR. and DEBORAH AVIS

Appeal 2018-004620
Application 12/987,501¹
Technology Center 3600

Before LINDA E. HORNER, WILLIAM A. CAPP, and
ALYSSA A. FINAMORE, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner’s rejection of claim 17 under 35 U.S.C. § 103(a) as unpatentable over Wells (US 6,789,354 B2, issued September 14, 2004) and Brown (US 3,971,159, issued July 27, 1976). Final Office Action (March 20, 2017, “Final Act.”).² We have jurisdiction under 35 U.S.C. § 6(b).

¹ Appellants identify one of the named inventors, Carl L.C. Kah Jr., as the real party in interest. Appeal Brief (November 11, 2017, “Appeal Br.”) 3.

² Claims 1–16 and 18 are withdrawn. Final Act. 1.

The Examiner rejected the sole claim on appeal as unpatentable over the combination of Wells and Brown. Appellants do not contest the Examiner's findings as to the scope and content of Brown or the Examiner's proposed modification of Wells with the teaching of Brown. Appellants contest, however, the Examiner's findings that Wells discloses certain claimed subject matter. For the reasons explained below, we agree with Examiner's findings that Wells discloses the features as recited in claim 17. Thus, we AFFIRM.

CLAIMED SUBJECT MATTER

The claimed subject matter relates to a method of providing a pressurized watering system for use with Christmas trees or other plant life. Specification (January 10, 2011, "Spec.") ¶ 2. Claim 17 is reproduced below.

17. A method for supplementing nutrients and fluid to a tree without roots comprising:

creating a hole of a diameter of approximately three eighths of an inch in a trunk of the tree, said hole having a length of at least half a diameter of the trunk of the tree;

an interface device configured and operable to provide at least water [to the] tree in the hole;

connecting the interface device to a pressurized supply of water and nutrients;

operating a pump device to establish and maintain a high pressure in the pressurized supply of water and nutrients; and

supplying water and nutrients to the tree through the interface in a substantially constant manner over a period of time after operation of the pump is complete using the high pressure of the pressurized supply of water and nutrients.

Appeal Br. 11 (Claims Appendix).

ANALYSIS

Appellants contest three of the Examiner's findings about Wells. First, Appellants contest the Examiner's finding that Wells's liquid composition includes water and nutrients. Appeal Br. 6. The last limitation of claim 17 includes the step of supplying "water and nutrients" to the tree. The Examiner found that Wells explicitly discloses a device for supplying nutrients to a tree. Final Act. 3; Examiner's Answer (January 30, 2018, "Ans.") 3. We agree with this finding. Specifically, Wells describes devices for injecting trees with "therapeutic liquid compositions such as pest control agents and *nutrients*." Wells 1:15–17 (emphasis added).

The Examiner acknowledges that Wells does not explicitly disclose supplying water to the tree, but the Examiner found that "water would be required to make a 'liquid composition,' as disclosed by Wells." Final Act. 4 (citing Wells 5:26). The Examiner alternatively reasoned that it would have been obvious to modify "the interface device and pressurized supply of Wells to deliver water to the tree, in order to meet the specific needs of a user and additionally irrigate the tree." *Id.*

Appellants contest the Examiner's finding that Wells's liquid composition necessarily includes water. Appeal Br. 6. We agree with Appellants that the "therapeutic liquid composition" disclosed in Wells could be formed using fluids other than water, and thus, water is not a necessary component of Wells's liquid composition. Thus, the Examiner has not provided an adequate basis on which to find that Wells's liquid composition inherently includes water.

But Appellants do not address the Examiner's alternative reasoning that it would have been obvious to modify Wells to include water in its

liquid composition. The Examiner's reasoning is based on rational underpinnings. For instance, Brown shows that it was well known in the art to use water as a solvent when forming a liquid composition to treat trees. Brown, 1:40–42. Because the Examiner's alternative reasoning is based on rational underpinnings, and because Appellants do not contest this alternative basis set forth in the Final Office Action, Appellants' first argument does not identify error in the Examiner's rejection.

Second, Appellants contest the Examiner's finding that Wells discloses "operating a pump device to establish and maintain a high pressure in the pressurized supply of water and nutrients" as claimed. Appeal Br. 6. In addition to arguing that Wells does not disclose a pressurized supply of *water* and nutrients, which we address above, Appellants argue that Wells's cap 22 is not a "pump device that establishes and maintains a high pressure" in the pressurized supply of water and nutrients because cap 22 provides for a one-time injection of material and does not maintain pressure at all. *Id.* at 7.

For the reasons that follow, we find that Wells discloses operating a pump device and that operation of Wells's device establishes and maintains a high pressure in the pressurized supply of liquid composition. Wells discloses plant injection capsule 20 formed of cap 22 hermetically sealed to receptacle 24 and containing therapeutic liquid composition 66. Wells, 4:42–46, 5:25–26. Receptacle 24 includes aperture 42 that is sealed by dislodgeable "knockout" membrane 70. *Id.* at 5:39–40. Cap 22 includes rigid central portion 50 circumscribed by annuluses 52A, 52B, 52C that are bridged by stepped ridges 54A, 54B, 54C so that the cap is initially convexly arcuate, as shown in Figure 5, and can flex inwardly, as shown in Figure 6,

when a downward force is applied to central portion 50. *Id.* at 5:9–17. Depending downwardly from central portion 50 is socket 60 having hexagonal-shaped bore 62. *Id.* at 5:17–20, Fig. 4B. Depending upwardly from floor 28 of receptacle 24 is upwardly tapering spindle 30. *Id.* at 4:51–52, Fig. 3. Wells describes that in the initial, unpressurized state shown in Figure 5, the end of socket end 60 is disposed only about halfway down spindle 30. *Id.* at 5:34–36. Wells describes that depressing central portion 50 forces spindle 30 deeper into bore 62 of socket 60 so that the end of the socket is proximate floor 28, and an interference fit is formed between the outer surface of spindle 30 and the inner surface of bore 62 to maintain socket 60 in this position. *Id.* at 5:49–52. Wells describes that depressing cap central portion 50 “pre-pressuriz[es] the capsule.” *Id.* at 5:43–44. Wells describes that aperture 42 is slidably positioned over an end of filling tube 44, which has been inserted into a pre-drilled hole in a tree trunk, and force 76 is applied to the capsule to cause the end of filling tube 44 to dislodge membrane 70. *Id.* 5:45–59, Fig. 6.

We agree with the Examiner’s finding that Wells’s cap 22 is a “pump device” based on the ordinary meaning of “pump” as presented by the Examiner. Ans. 5 (defining a “pump device” as “a device that raises, transfers, delivers, or compresses fluids or that attenuates gases especially by suction or pressure or both”) (citing Merriam-Webster Dictionary).³ We agree with the Examiner that the broadest reasonable interpretation of “pump device” does not require the device to be configured for repeated use. In other words, a single use of the device to raise pressure suffices under the

³ See first definition for “pump” in Merriam-Webster on-line dictionary at <https://www.merriam-webster.com/dictionary/pump>.

ordinary meaning of “pump.” Appellants do not direct us to any language in the claim or description in the Specification that would necessitate a narrower interpretation.

Further, we agree with the Examiner’s determination that “high” is not defined in Appellants’ Specification, and, thus, depression of cap 22 in Wells establishes the claimed “high pressure” in the same manner that depression of hand pump 29 in Appellants’ described invention provides the recited pressure. Ans. 5. In fact, Appellants’ Specification does not use the term “high pressure” at all. The Specification describes only that hand pump 29 “allows pressure to be easily established and maintained by the user” and that the “higher pressure ensures pushing fluid into the tree trunk 1A.” Spec. ¶ 23. We understand “higher pressure” in paragraph 23 to refer to the fact that the fluid in container 27 is at a pressure higher than the pressure at the tree trunk so that fluid flows from the container to the tree. This description does not otherwise clarify what is meant in claim 17 by “high pressure.”

We also agree with the Examiner’s determination that because Wells’s cap is locked in a pre-pressurized condition due to the interference fit between spindle 30 and bore 62 of socket 60, pressure is *maintained* until membrane 70 is dislodged. Ans. 5. Specifically, Wells’s reference to “pre-pressuriz[ing] the capsule” means that, in use, cap central portion 50 is depressed, and the capsule is thereby pressurized, prior to applying force 76 to dislodge membrane 70. Thus, after cap central portion 50 is depressed and before membrane 70 is dislodged to allow the liquid composition flow out of the capsule, the capsule is maintained at a high pressure due to depressing of cap 22, the interference fit between cap 22 and receptacle 24,

and the fact that the capsule remains hermetically sealed. Thus, Appellants' second argument does not identify error in the rejection.

Third, Appellants contest the Examiner's finding that Wells discloses "supplying water and nutrients to the tree through the interface device in a substantially constant manner over a period of time after operation of the pump is complete." Appeal Br. 7. Appellants argue that because Wells's device is used to provide a single, one-time injection, it cannot supply water and nutrients "in a substantially constant manner." *Id.* Appellants further argue that because a user must apply pressure, i.e., force 76, to the container to cause filling tube 44 to dislodge membrane 70 to allow flow from the container, "liquid is only delivered with the application of pressure by the user and thus does not and cannot continue to flow after operation of the pump." Reply Brief (March 30, 2018) 3.

We agree with the Examiner that the operation of Wells's pump, i.e., cap 22, is complete once the cap has been depressed and locked into its pressurized position on spindle 30. Ans. 6. Further, we agree with the Examiner, as discussed in detail above, that the flow of liquid composition begins in Wells only after the above-described operation of the pump is complete. *Id.* (citing Wells, 3:64–4:2, 5:43–55). The Examiner further found that "Wells discloses supplying the liquid 'in a substantially constant manner,' i.e. continuously, because of the constant pressurized state of the container (via the friction fit) and the open position of the membrane." Ans. 7. This determination is reasonable and supported by the description of the device in Wells, and Appellants do not provide persuasive evidence refuting the fact that fluid would flow unimpeded from capsule 20 through tubing 44 to the tree once membrane 70 is dislodged.

Further, as noted by the Examiner, the claim language broadly recites that the flow is provided in a substantially constant manner “over a period of time” after operation of the pump is complete. We agree with the Examiner’s interpretation of this claim language as encompassing a substantially constant flow for any period of time, however fleeting, after operation of the pump is complete. Neither the claim language nor Appellants’ Specification necessitates a narrower interpretation, nor have Appellants presented us with one. Thus, Appellants’ third argument does not identify error in the Examiner’s rejection.

For these reasons, we sustain the rejection of claim 17 under 35 U.S.C. § 103(a) as unpatentable over Wells and Brown.

DECISION

The decision of the Examiner rejecting claim 17 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED