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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BILL L. MILLER, H. BRUCE PERRY,
and THOMAS EDWARD JOHNSON

Appeal 2011-010026
Application 11/651,444
Technology Center 1600

Before TONI R. SCHEINER, DEMETRA J. MILLS, and
FRANCISCO C. PRATS, *Administrative Patent Judges*.

PRATS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims directed to processes of feeding ruminants.

The Examiner entered rejections for anticipation, obviousness, and obviousness-type double patenting. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm two of the three anticipation rejections the Examiner entered, and vacate the third. We also affirm the obviousness and obviousness-type double patenting rejections.

STATEMENT OF THE CASE

When raising ruminants such as cattle, typical liquid feeds for calves “include fluid milk or fluid milk replacers. Fluid milk replacers are frequently substituted in place of fluid milk because fluid milk that is produced by mature, lactating ruminants is generally more valuable when sold to consumers or when used to manufacture food products that are sold to consumers” (Spec. 2).

Appellants’ invention is directed, essentially, to their discovery that including hemicellulose, such as psyllium, in fluid milk replacers enhances both pre- and post-weaning weight gain in cattle (*see id.* at 42, 48).

Claims 1-19 and 62 stand rejected and appealed (App. Br. 2). Claims 1, 6, and 62, the independent claims, illustrate the appealed subject matter and read as follows:

1. A method of feeding ruminants, the method comprising: feeding a ruminant a fluid animal feed during a feeding period, the fluid animal feed comprising an animal feed component and the ruminant consuming greater than about 1.25 pounds of the animal feed component per day, based on the dry weight of the animal feed component, during the feeding period; and feeding the ruminant a psyllium composition during the feeding period.
6. A method of feeding ruminants, the method comprising: feeding a first ruminant a fluid animal feed composition during a first feeding period, the fluid animal feed composition comprising an animal feed component and the first ruminant consuming greater than about 1.25 pounds of the animal feed component per day, on a dry matter basis, during the first feeding period; and feeding the first ruminant a supplemental feed material during

the first feeding period, the supplemental feed material comprising at least about 50 weight percent hemicellulose, based upon the dry weight of the supplemental feed material.

62. A method of feeding a ruminant, the method comprising: feeding the ruminant an effective amount of an animal feed component during a pre-weaning feeding period; and feeding the ruminant an effective amount of a psyllium composition during the pre-weaning feeding period..

The following rejections are before us for review:

- (1) Claim 62, under 35 U.S.C. § 102(b) as anticipated by Land O'Lakes¹ (Ans. 6);
- (2) Claim 62, under 35 U.S.C. § 102(b) as anticipated by Wilson² (Ans. 7);
- (3) Claim 6, under 35 U.S.C. § 102(b) as anticipated by Christensen³ (Ans. 8);
- (4) Claims 1-5 and 62, under 35 U.S.C. § 103(a) as obvious over Land O'Lakes (Ans. 9-10); and
- (5) Claims 1-19 and 62, on the ground of obviousness-type double patenting over claims 1-69 of Miller⁴ (Final Rej. 11-12).

As Appellants do not allege error in the obviousness-type double patenting rejection (*see* App. Br. 41; *see also* Reply Br. 30), we summarily affirm it.

¹ WO 96/32849 A1 (published October 24, 1996).

² U.S. Patent No. 6,066,341 (issued May 23, 2000).

³ U.S. Patent No. 4,820,527 (issued April 11, 1989).

⁴ U.S. Patent No. 7,160,552 B2 (issued January 9, 2007).

Also, as we find the Examiner's anticipation rejection of claim 62 over Wilson to be cumulative of the anticipation rejection of that claim over Land O'Lakes, we decline to address that rejection, and accordingly vacate it.

ANTICIPATION – LAND O'LAKES

The Examiner found that Land O'Lakes described feeding “effective amounts of feed components, considered as milk replacer . . . to pre-weaned calves” (Ans. 6 (citing Land O'Lakes, Example 1)).

The Examiner further found that Land O'Lakes described administering “an effective amount of psyllium” as required by claim 62, and in particular urged that the “effects defined in the instant specification . . . are inherently met, as the claimed feeding of a feed component and psyllium was done” (*id.*).

Appellants argue that the Examiner erred in finding that Land O'Lakes describes administering the effective amounts of an animal feed component or a psyllium composition required by claim 62, because the term “effective amount” as defined in the Specification requires specific effects to occur upon feeding the claimed ingredients, and none of those effects are disclosed in Land O'Lakes (*see* App. Br. 15-18 (citing Spec. 19-30); *see also* Reply Br. 4-7)). Appellants also argue that the Examiner improperly ignored the definitions of “an effective amount” provided in the Specification (*see* Reply Br. 7-10).

As stated in *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992):

[T]he examiner bears the initial burden . . . of presenting a *prima facie* case of unpatentability. . . .

After evidence or argument is submitted by the applicant in response, patentability is determined on the totality of the

record, by a preponderance of evidence with due consideration to persuasiveness of argument.

As stated in *In re Best*, 562 F.2d 1252, 1254-1255 (CCPA 1977) (quoting *In re Swinehart*, 439 F.2d 210, 212-13 (CCPA 1971)):

[W]here the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

Appellants' arguments do not persuade us that the preponderance of the evidence fails to support the Examiner's prima facie case of anticipation.

As an initial matter, given the Examiner's express contention that the "effects defined in the instant specification . . . are inherently met" by administration of the claimed agents (Ans. 6), we are not persuaded that the Examiner unilaterally ignored the definitions of "effective amount" Appellants provided in the Specification. Moreover, we find that Land O'Lakes provided the Examiner with a reasonable basis to shift to Appellants the burden of showing non-anticipation.

Specifically, we note that among the effects required by claim 62 are a greater amount of weight gain in ruminants fed psyllium as compared to ruminants not fed psyllium, over a period of time that extends from the pre-weaning period and into the post-weaning period, as well as improved feed efficiency during a segment of the post-weaning period (Spec. 20-21). As shown in Appellants' Examples, those effects can be obtained by feeding calves 6.24 grams of psyllium twice daily (*see* Spec. 38, 41, 45; *see also id.* at 42 (pre-weaning weight increase in psyllium-treated calves), 48 (post-

weaning weight increase in psyllium-treated calves), 57 (increase in feed efficiency average in psyllium-treated calves)).

Example 1 of Land O'Lakes, which the Examiner cited (Ans. 6), describes feeding calves a mixture of milk replacer and psyllium twice daily (Land O'Lakes 7), with the administered dosages of psyllium ranging from 2.5 grams per feeding to 10 grams per feeding (*id.* at 8). As seen in Table 1, calves receiving 5 grams or more of psyllium per feeding experienced greater average weight gain and greater average protein efficiency than calves that did not receive psyllium over the measured period (*see id.*).

Thus, given that Land O'Lakes describes administering the same ingredient as recited in claim 62, to recipients encompassed by claim 62, at dosages very close to those described in Appellants' Specification as being effective, with weight gain and protein efficiency improvements resulting from the treatment, we conclude that the Examiner had a reasonable basis for finding that Land O'Lakes described administering effective amounts of the products recited in claim 62 to the calves. Accordingly, as the Examiner had a reasonable basis for shifting to Appellants the burden of showing non-anticipation, and as Appellants advanced no clear or specific evidence to rebut the Examiner's reasonable finding, we affirm the Examiner's rejection of claim 62 over Land O'Lakes.

ANTICIPATION – CHRISTENSEN

In rejecting claim 62 as anticipated by Christensen, the Examiner found that Example 2 of Christensen described feeding cows a fluid feed composition that included 1.8 kilograms of dry matter, thus meeting claim 6's requirement that the ruminant consumes greater than 1.25 pounds of dry matter in the fluid feeding composition (Ans. 8). The Examiner further

found that Christensen disclosed that the preferred dry component of its feeding regimen included at least 60% hemicellulose, and thus also described feeding to cows a supplemental feed material encompassed by claim 62 (*id.* (citing Christensen, col. 3, ll. 6-16)).

Appellants urge that the Examiner erred in finding that Christensen described feeding 1.25 pounds of an “animal feed component” per day to its cows because the Specification defines “animal feed component” as being a milk replacer (App. Br. 22). In contrast, Appellants argue, the fluid feed composition administered by Christensen is not a milk replacer as evidenced by the fact that Christensen’s composition includes materials such as fish meal, whey powder, hydrolyzed soy meal, meat-and-bone meal, fish silage, glucose, mineral and vitamin premix, animal fat, and vegetable fat, and does not include milk or a milk replacer (App. Br. 22; *see also* Reply Br. 15-19). Appellants further argue that Christensen explicitly states that its methods are effective even when the liquid feed is not a milk replacer (App. Br. 22). Moreover, Appellants urge, Christensen fed adult cows, whereas claim 6 is directed to feeding only young ruminants (*see* App. Br. 23; *see also* Reply Br. 19-20).

It is well settled that, during examination the PTO must interpret terms in a claim using “the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant’s specification.” *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

Appellants' arguments do not persuade us that when given its broadest reasonable interpretation consistent with the Specification, claim 6 fails to encompass processes described by Christensen.

We note that claim 6 requires the practitioner to feed a fluid animal feed composition to a ruminant such that the ruminant consumes greater than about 1.25 pounds of an "animal feed component" per day (App. Br. 42 claim 6)).

We also note the Specification's statement that "[a]s used herein, the term 'animal feed component' generally refers, collectively, *to any and all milk replacer(s)*, such as dry or powdered milk replacer(s), fluid milk replacer(s), liquid milk replacer(s), and/or rehydrated milk replacer(s) incorporated in the fluid animal feed" (Spec. 14 (emphasis added)).

We also note Christensen's disclosure that "[i]t has now been found that it is possible to stimulate ruminants to close the oesophageal groove when ingesting liquid feed, even when they have a fully developed rumen function and *even when the liquid feed is not milk or a milk substitute*" (Christensen, col. 2, ll. 52-56 (emphasis added)).

As the Examiner found, the fluid feed in Christensen's Example 2 was fed at a rate of 1.8 kilograms of dry matter per day, and as Appellants point out, that feed composition included fish meal, whey powder, hydrolyzed soy meal, meat-and-bone meal, fish silage, glucose, mineral and vitamin premix, animal fat, and vegetable (*id.* at col. 18, ll. 43-61).

Appellants do not, however, point to any clear or specific evidence suggesting that an ordinary artisan would interpret the term "milk replacer," as broadly defined in Appellants' Specification (Spec. 14), as failing to encompass Christensen's whey-containing fluid composition merely because

it also contained fish meal, hydrolyzed soy meal, meat-and-bone meal, fish silage, glucose, mineral and vitamin premix, animal fat, and vegetable fat.

Indeed, while Christensen may state that its methods can be carried out without a milk substitute, Christensen also explicitly states that the fluid component of its split feeding regimen can be “an acceptable liquid such as water, plant juice, yeast cream, *or animal sera such as milk [or] whey*” (*id.* at col. 3, ll. 3-4 (emphasis added)), contrary to Appellants’ arguments.

Thus, given this disclosure, and given the breadth of the definition of “milk replacer” in the Specification, Appellants’ arguments do not persuade us that an ordinary artisan giving claim 6 its broadest reasonable interpretation consistent with the Specification would have failed to conclude that “animal feed component” encompassed the milk- or whey-containing fluid feed compositions described in Christensen.

We are also not persuaded that claim 6 is limited to feeding young ruminants. Claim 6 does not expressly limit the age of the ruminants, and the definition of “ruminant” in the Specification makes no specific mention of age (*see* Spec. 15-16).

Moreover, while it might be true that the central thrust of Appellants’ disclosure is to improving growth in young ruminants, it is improper to confine claims to a preferred embodiment absent specific limiting language. *See In re Trans Texas Holdings Corp.*, 498 F.3d 1290, 1299 (Fed. Cir. 2007) (“[W]hile ‘the specification [should be used] to interpret the meaning of a claim,’ courts must not ‘import[] limitations from the specification into the claim.’ . . . [I]t is improper to ‘confine the claims to th[e] embodiments’ found in the specification”) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005)).

In sum, as Appellants' arguments do not persuade us, for the reasons discussed, that Christensen fails to anticipate claim 6, we affirm the rejection of that claim over that reference.

OBVIOUSNESS – LAND O'LAKES

In rejecting claim 1 as obvious over Land O'Lakes, the Examiner found that Land O'Lakes expressly described giving one pound of milk replacer per day on a dry weight basis, split into two half-pound feedings, and therefore differed from claim 1 in that it did not describe the calves as consuming at least 1.25 pounds of an animal feed component per day (Ans. 9 (citing Land O'Lakes, Example 1)). The Examiner reasoned, however, that "there is every expectation of feeding more, to larger calves, later in the pre-weaning period, if needed, while still attaining the claimed instant advantages and effects" (*id.*).

The Examiner concluded, therefore, that an ordinary artisan would have considered it obvious that,

since the psyllium was effective to spare protein and increase calf weight (page 9), more would also be effective, and would be appropriate to feed to larger calves. Since there is no requirement for the time of the first feeding period, one would find it obvious to feed more, as the calf grows, with expectation of continuing protein sparing.

(*Id.*).

Appellants argue that the Examiner's rationale is based on an inaccurate extrapolation that administering more psyllium as taught in Example 1 of Land O'Lakes would necessarily mean that an additional amount of milk replacer would be concomitantly fed to the calves (App. Br. 25-27; *see also* Reply Br. 21-24). Appellants also argue that the Examiner's

finding, that an ordinary artisan would have been prompted to give more milk replacer to calves as they grow larger, lacks evidentiary support (App. Br. 27-28; *see also* Reply Br. 24-25). In particular, Appellants urge “[t]he Examiner's assertion is actually somewhat curious, since one would expect as the calves advance toward weaning the dairy farmer would instead be inclined to add to increase non-liquid feeds so the eventually weaning (cessation of liquid milk replacer feeding) would be less drastic to the calves physically” (App. Br. 28; *see also* Reply Br. 25).

Appellants’ arguments do not persuade us that a preponderance of the evidence fails to support the Examiner’s *prima facie* case of obviousness.

As the Supreme Court has noted, “the [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Thus, a “person of ordinary skill is . . . a person of ordinary creativity, not an automaton.” *Id.* at 421.

We note that, in Example 1 of Land O’Lakes, calves were fed a half pound of milk replacer twice daily, along with varying amounts of psyllium, to experimentally assess effects of the psyllium supplementation, which were ultimately very positive (*see* Land O’Lakes 7-8). Contrary to Appellants’ argument regarding the desirability of ceasing liquid feeding during pre-weaning, however, as Land O’Lakes points out, calves grow quickly while still requiring a liquid diet (*see* Land O’Lakes 1 (“During this [pre-weaning] stage calves grow rapidly despite the fact that their four-compartment stomach is undeveloped when compared to the stomach of

mature cows. As a result of the undeveloped stomach, calves are limited to consumption of nutrients in liquid form.”)).

Thus, we agree with the Examiner that it was reasonable to infer that an ordinary artisan raising calves and seeking to obtain the advantages of psyllium supplementation taught by Land O’Lakes would not limit the amount of milk replacer to the daily one pound used in the experiment described in Example 1 as the calves grew larger, but would instead have increased the amount of milk replacer fed to the growing calves, so as to provide adequate nourishment.

Therefore, as the Examiner’s obviousness rationale is based on a reasonable inference that it would have been desirable to increase the amount of milk replacer given to calves as they grow, we are not persuaded that the Examiner’s prima facie case as to claim 1 lacks an evidentiary foundation. Moreover, given the reasonableness of increasing the amount of milk replacer given to calves as they grow, Appellants’ arguments do not persuade us that the Examiner erred in finding it would have been obviousness to allow calves to consume the amounts of milk replacer required by claims 3-5.

Accordingly, as Appellants’ arguments do not persuade us, for the reasons discussed, that the Examiner failed to make out a prima facie case of obviousness as to claims 1 and 3-5, and as Appellants advance no clear or specific evidence of secondary considerations of non-obviousness coming from the processes recited in those claims, we affirm the Examiner’s obviousness rejection of claims 1 and 3-5 over Land O’Lakes. As claim 2 was not argued separately, it falls with those claims. *See* 37 C.F.R. § 41.37(c)(1)(vii).

The Examiner also included claim 62 in this ground of rejection (Ans. 9). As noted above, we agree with the Examiner that Land O'Lakes anticipates claim 62.

“It is well settled that ‘anticipation is the epitome of obviousness.’” *In re McDaniel*, 293 F.3d 1379, 1385 (Fed. Cir. 2002) (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983)).

Thus, because we find that Land O'Lakes anticipates claim 62, we also conclude that Land O'Lakes renders that claim obvious, and therefore affirm the Examiner's obviousness rejection of claim 62 over Land O'Lakes.

SUMMARY

We affirm the Examiner's anticipation rejection of claim 62 over Land O'Lakes.

We vacate the Examiner's anticipation rejection of claim 62 over Wilson.

We affirm the Examiner's anticipation rejection of claim 6 over Christensen.

We affirm the Examiner's obviousness rejection of claims 1-5 and 62 over Land O'Lakes.

We affirm the Examiner's obviousness-type double patenting rejection of claims 1-19 and 62 over claims 1-69 of Miller.

TIME PERIOD

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

AFFIRMED

Appeal 2011-010026
Application 11/651,444

cdc