

1 UNITED STATES PATENT AND TRADEMARK OFFICE

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3  
4 BEFORE THE BOARD OF PATENT APPEALS  
5 AND INTERFERENCES  
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8 *Ex parte* HARTMUT METZ and WALTER BAUR  
9

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11 Appeal 2008-1202  
12 Application 10/878,665  
13 Technology Center 3700  
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16 Decided: June 26, 2008  
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19 *Before* WILLIAM F. PATE, III, LINDA E. HORNER and BIBHU R.  
20 MOHANTY, *Administrative Patent Judges*.

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22 PATE, III, *Administrative Patent Judge*.

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24 DECISION ON APPEAL

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26 STATEMENT OF CASE

27 The Appellants appeal under 35 U.S.C. § 134 (2002) from a Final  
28 Rejection of claims 1, 2, 5, 9-12, 15, 19, 22 and 25. Claims 3, 4, 6-8, 13,

1 14, 16-18, 20, 21, 23 and 24 have been previously canceled<sup>1</sup>. We have  
2 jurisdiction under 35 U.S.C. § 6(b) (2002).

3 The Appellants claim a vertical tubular bagging machine including  
4 a combination of two rollers that clamp outer edges of the foil tube and a  
5 belt driven foil-removing means for transporting the formed foil tube.

6 Independent claim 1 reads as follows:

7 1. A vertical tubular bagging machine comprising a foil  
8 web unwound from a storage roll, a forming shoulder for  
9 reshaping the foil web into a foil tube, a vertically aligned fill  
10 pipe to receive and fill the foil tube, a longitudinal sealing  
11 device for welding the foil tube parallel to a transport direction  
12 in order to create a fin-like longitudinal seam, a welding device  
13 located on a side of the fill pipe opposite the longitudinal seam  
14 for welding a fin formed in the foil tube opposite the  
15 longitudinal seam, two rollers having a drive, which rollers  
16 clamp outer edges of the foil tube and further transport them to  
17 the longitudinal sealing device, for which the drive serves the  
18 further transport of the foil web and of the foil tube, two  
19 transverse sealing jaws that are movable against one another for  
20 welding of the foil tube transversely with respect to the  
21 transport direction and for creating top seams and bottom seams  
22 on tubular bags, and a separating device for separating a created  
23 tubular bag from the foil tube, wherein the rollers, viewed in  
24 transport direction, are provided between the forming shoulder  
25 and the longitudinal sealing device, and that an additional foil-  
26 removing means with a belt drive and a belt rotating around two  
27 wheels is provided, which belt acts against the foil tube and

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<sup>1</sup> The Appellants canceled claims 20, 21, 23 and 24 in the After-Final Amendment filed November 20, 2006, the entry of which is acknowledged by the Examiner in the Examiner's Answer (Ans. 2). Thus, these claims are not considered to be pending or appealed herein.



FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Kanemitsu discloses a vertical tubular bagging machine including a web 10 unwound from a storage roll 12, a forming shoulder 33 for reshaping the web into a tube 40, and a vertically aligned fill pipe (not numbered) to receive and fill the tube (Figs. 4 and 5; Col. 9, ll. 37-40 and 59-65). The bagging machine includes a longitudinal sealing device 35 for creating a longitudinal seam, a welding device 36 for welding a fin opposite the longitudinal seam, two transverse sealing jaws 38 for welding the tube transversely to create top and bottom seams, a separating device 43 for separating the created tubular bag from the tube, and removing means 60 with a belt drive and a belt rotating around two wheels (Fig. 4; Col. 9, l. 59-Col. 10, l. 28; col. 11, ll. 3-24). The belt acts against the tube and the fill pipe at a mid-portion of the foil tube where the longitudinal seam is not present (Fig. 4).

2. Kanemitsu does not disclose two driven rollers positioned between the forming shoulder and the longitudinal sealing device which clamp outer edges of the tube and transport the tube to the longitudinal sealing device.

3. Kanemitsu does disclose presser members 34 positioned between the forming shoulder and the longitudinal sealing device for pressing the edges of the film 10 so as to intermesh the portions of the zipper provided on the film (Fig. 4; Col. 9, ll. 65-67; Col. 11, ll. 8-16).

1           4.       Ausnit discloses a vertical tubular bagging machine  
2 including a web 10, a forming shoulder 9 for reshaping the web into a  
3 tube, and a vertically aligned fill pipe 12 (Fig. 1; Col. 3, ll. 4-15). The  
4 bagging machine includes a longitudinal sealing device 27, 28 for  
5 creating a longitudinal seam, two transverse sealing jaws 31, 32 for  
6 welding of the tube transversely to create top and bottom seams, and a  
7 separating device 33 for separating the tubular bag from the tube (Fig. 1;  
8 Col. 4, ll. 1-12 and 46-51). Ausnit further discloses driven rollers 15, 16  
9 positioned between the forming shoulder and the longitudinal sealing  
10 device which clamp outer edges of the tube and further transport the tube  
11 to the longitudinal sealing device (Fig. 1; Col. 3, ll. 16-23).

12           5.       Ausnit discloses that the sealing device 27, 28 extends  
13 vertically and that the film edge is drawn downwardly between the bars  
14 by a means for drawing down the film (not shown) (Fig. 1; Col. 4, ll. 4-  
15 8). Thus, Ausnit discloses that driven rollers 15, 16 and the “means for  
16 drawing down the film” (not shown) transport the tube. However, Ausnit  
17 does not specifically disclose that the “means for drawing down the film”  
18 has a belt drive and a belt rotating around two wheels.

19           6.       Ausnit also does not disclose a welding device for welding a  
20 fin opposite the longitudinal seam.

21           7.       Tolson discloses a machine for producing a film wrapped  
22 package including a sealing device (SR, 34a, 34b) for sealing the  
23 wrapped film, driven devices (GC, 40a, 40b and CB, 44a, 44b) located  
24 upstream of the sealing device for carrying the film, and a driven device

1 (SB, 43a, 43b) for conveying the package as it is sealed (Figs.1 and 2;  
2 Col. 6, l. 49-Col. 7, l. 7).

3 8. However, the driven devices of Tolson are driven belts.  
4 Tolson fails to disclose two driven rollers which clamp outer edges of the  
5 tube and transport the tube.

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#### PRINCIPLES OF LAW

8 “Section 103 forbids issuance of a patent when ‘the differences  
9 between the subject matter sought to be patented and the prior art are  
10 such that the subject matter as a whole would have been obvious at the  
11 time the invention was made to a person having ordinary skill in the art to  
12 which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*,  
13 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on  
14 the basis of underlying factual determinations including (1) the scope and  
15 content of the prior art, (2) any differences between the claimed subject  
16 matter and the prior art, (3) the level of skill in the art, and (4) where in  
17 evidence, so-called secondary considerations. *Graham v. John Deere*  
18 *Co.*, 383 U.S. 1, 17-18 (1966).

19 In *KSR*, the Supreme Court emphasized “the need for caution in  
20 granting a patent based on the combination of elements found in the prior  
21 art,” and reaffirmed principles based on its precedent that “[t]he  
22 combination of familiar elements according to known methods is likely  
23 to be obvious when it does no more than yield predictable results.” *KSR*,  
24 127 S.Ct. at 1739. The Court also stated that “when a patent claims a

1 structure already known in the prior art that is altered by the mere  
2 substitution of one element for another known in the field, the  
3 combination must do more than yield a predictable result.” *Id.* at 1739-  
4 40. The Court further explained that, “[o]ften, it will be necessary for a  
5 court to look to interrelated teachings of multiple patents; the effects of  
6 demands known to the design community or present in the marketplace;  
7 and the background knowledge possessed by a person having ordinary  
8 skill in the art, all in order to determine whether there was an apparent  
9 reason to combine the known elements in the fashion claimed by the  
10 patent at issue.” *Id.* at 1740-41.

11 The Court noted that “[t]o facilitate review, this analysis should be  
12 made explicit.” *Id.* at 1741, citing *In re Kahn*, 441 F.3d 977, 988 (Fed.  
13 Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by  
14 mere conclusory statements; instead, there must be some articulated  
15 reasoning with some rational underpinning to support the legal  
16 conclusion of obviousness”). However, “the analysis need not seek out  
17 precise teachings directed to the specific subject matter of the challenged  
18 claim, for a court can take account of the inferences and creative steps  
19 that a person of ordinary skill in the art would employ.” *Id.* at 1741.

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1 ANALYSIS

2 Rejection of claims 1, 2, 5, 9-12, 15, 19, 22 and 25 as unpatentable  
3 over Kanemitsu and Ausnit

4 In the Appeal Brief, the Appellants argue various rejected claims  
5 in separate groups. Thus, we address each of these claim groups  
6 separately.

7 Claims 1, 2, 5, 9 and 10

8 The Examiner rejected claim 1 stating that Kanemitsu discloses the  
9 claimed invention except for the recited two rollers (Ans. 3 and 6; FF 1  
10 and 2). The Examiner relies on Ausnit to cure this deficiency noting that  
11 Ausnit discloses a similar bagging machine with driven rollers 15, 16 for  
12 engaging/creating the seam that is sealed by the longitudinal sealing  
13 devices (Ans. 3 and 4; FF 4). The Examiner contends that it would have  
14 been obvious to one of ordinary skill in the art to substitute the pressing  
15 members 34 of Kanemitsu with the driven rollers of Ausnit to bring the  
16 foil ends together and to assist in transporting the web (Ans. 4; FF 3).  
17 The Examiner further states that it is desirable to utilize the driven guide  
18 rollers of Ausnit in the bagging machine of Kanemitsu to provide  
19 redundancy in pulling down the web material in order to ensure proper  
20 positioning and to reduce friction between the web and the pressing  
21 members (Ans. 6 and 8).

22 The Appellants contend that there is no motivation to provide the  
23 pair of additional driven rollers 15, 16 of Ausnit in the bagging machine  
24 of Kanemitsu because the driven rollers 15, 16 of Ausnit align and bond

1 the zipper portions to the film while the zipper portions in Kanemitsu are  
2 already bonded to the film, thereby making the driven rollers unnecessary  
3 (App. Br. 10). However, we note that Ausnit specifically discloses that  
4 another function of the driven rollers 15, 16 is to draw and guide the film  
5 material downwardly, thereby disclosing the function performed by the  
6 Appellants' recited rollers (FF 4; Ausnit: Col. 3, ll. 18-22; Col. 4, ll. 28-  
7 35). Moreover, the Examiner has articulated a rational reason as to why  
8 one of ordinary skill in the art would combine the cited references in the  
9 manner suggested. *KSR*, 127 S.Ct. at 1341.

10 In arguing against the suggested combination of prior art  
11 references, the Appellants assert that “[t]here is no disclosure or  
12 suggestion in Ausnit to provide any other drive elements that act to  
13 advance the film 10 along the vertical bag forming machine” (App. Br.  
14 10 and 11). However, the Appellants' assertion is not correct. Ausnit  
15 specifically discloses a second “means for drawing down the film” in  
16 addition to the driven rollers (FF 5). While Ausnit does not disclose that  
17 the “means for drawing down the film” is a belt drive, the bagging  
18 machine of Kanemitsu clearly discloses such a belt drive for drawing  
19 down the film (i.e., the web material). Thus, while the use of multiple  
20 drive means including rollers is not specifically taught in Kanemitsu, this  
21 feature is specifically disclosed in Ausnit.

22 The Appellants further argue that the pressing members 34 of  
23 Kanemitsu are intended for interlocking the zipper portions and not  
24 intended to apply significant force to the film (App. Br. 12). However,

1 we note that force applied by the pressing members to interlock the  
2 zipper portions in Kanemitsu is also applied to the film by the virtue of  
3 the zipper portions being positioned on the film (FF 3). Moreover, as  
4 discussed *supra*, the Examiner has articulated a rational reason why one  
5 of ordinary skill in the art would have been motivated to provide the  
6 rollers of Ausnit in the bagging machine of Kanemitsu, namely, to assist  
7 in transporting and pulling down the web material, and to reduce friction  
8 (Ans. 6 and 8). The Examiner's rejection may have been clearer to the  
9 Appellants if Ausnit was cited as a primary reference (rather than  
10 Kanemitsu). However, we note that the order of the applied references is  
11 merely considered to be a matter of exposition and not significant to the  
12 substantive rejection. *See In re Bush*, 296 F.2d 491, 496 (CCPA 1961).

13 The Appellants' argument that the rollers of Ausnit may apply  
14 additional forces that may cause the zipper portions of Kanemitsu to  
15 mesh improperly and damage the zipper is merely speculative and not  
16 persuasive (App. Br. 10; Ans. 8). One of ordinary skill would know how  
17 to implement the rollers appropriately for the intended purpose.

18 While we agree with the Appellants' further argument that the  
19 ultrasonic welder 57 of Kanemitsu should not be considered a  
20 longitudinal sealing device, we note that this error is harmless and does  
21 not impact the outcome of present appeal in that Kanemitsu specifically  
22 discloses the recited longitudinal sealing device 35 as well as the welding  
23 device 36 (App. Br. 11; FF 1).

1           In view of the above, we conclude that the Appellants' claimed  
2 invention merely substitutes elements found in the prior art to yield  
3 predictable results. *See KSR*, 127 S.Ct. at 1739-40. We further find that  
4 the Examiner articulated a rational reason for combining the references in  
5 the manner suggested. *KSR*, 127 S.Ct. at 1741. Hence, we concur with  
6 the Examiner that provision of rollers in the bagging machine of  
7 Kanemitsu would have been obvious, and find that the Appellants have  
8 not shown that the Examiner erred in rejecting claim 1 over Kanemitsu  
9 and Ausnit. The Appellants do not provide any arguments directed to the  
10 limitations recited in claims 2, 5, 9 and 10 that ultimately depend from  
11 claim 1. Thus, the Appellants have not shown that the Examiner erred in  
12 rejecting these claims as well. *See* 37 C.F.R. § 41.37(c)(1)(vii).

13                           *Claims 11, 12 and 15*

14           The Appellants initially rely on arguments directed to the recited  
15 rollers as set forth relative to claim 1 (App. Br. 12). However, the  
16 Appellants' arguments fail to convince for the reasons discussed *supra*.

17           The Appellants further contend that Kanemitsu fails to teach  
18 locating the foil-removing devices upstream of the longitudinal sealing  
19 device as recited in independent claim 11 (App. Br. 12). The Examiner  
20 notes that in the bagging machine of Kanemitsu, portions of the foil-  
21 removing devices 60 are located upstream of at least a portion of the  
22 longitudinal sealing device (Ans. 4). The Examiner argues that the  
23 required rearranging of the foil-removing device so that it is fully  
24 upstream of the longitudinal sealing device involves only routine skill

1 and would have been obvious to one of ordinary skill in the art (Ans. 4).

2 We agree.

3 The Specification does not appear to describe the recited positional  
4 relationship between the foil-removing devices and the longitudinal  
5 sealing device, or any functional purpose or advantage of the recited  
6 location. Thus, the recited location of the foil-removing device appears  
7 to be a matter of design choice involving only routine skill, and does not  
8 impact the operation of the bagging machine. *See In re Kuhle*, 526 F.2d  
9 553, 555 (CCPA 1975). Thus, we agree with the Examiner that the  
10 recited location would have been obvious to one of ordinary skill and  
11 find that the Appellants have failed to show that the Examiner erred in  
12 rejecting independent claim 11. Moreover, because the Appellants do not  
13 provide any arguments directed to the limitations recited in claims 12 and  
14 15 depending from claim 11, they have not shown that the Examiner  
15 erred in rejecting these claims as well. *See* 37 C.F.R. § 41.37(c)(1)(vii).

16 *Claims 19 and 22*

17 Appellants argue that these claims are patentable because the prior  
18 art fails to disclose the limitation “said storage roll comprises the only  
19 storage roll of said bagging machine and the foil web consists of a single  
20 foil web” as specifically recited in claims 19 and 22; Kanemitsu and  
21 Ausnit both including rolled zipper portions (App. Br. 13). We disagree.

22 In the Specification and in claims 1 and 11 (from which claims 19  
23 and 22 depend), the recited “storage roll” is a roll from which the web  
24 material is unwound and reshaped into a tube by the bagging machine

1 (Spec. ¶ [0016]). Kanemitsu includes only one such “storage roll” 12  
2 from which the single web material 10 is unwound (Kanemitsu: Fig. 4;  
3 Col. 9, ll. 37-40). We do not find the fact that both Kanemitsu and  
4 Ausnit also include rolled zipper portions to be dispositive because they  
5 are not storage rolls from which the web material of the bag is unwound.  
6 Moreover, the base claims 1 and 11, as well as dependent claims 19 and  
7 22, all recite the open-ended transitional term “comprising” which does  
8 not exclude additional, unrecited elements such as the rolled zipper  
9 portions. *See Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501 (Fed.  
10 Cir. 2005). Therefore, the Appellants have not shown that the Examiner  
11 erred in rejecting claims 19 and 22.

12 Claim 25

13 The Appellants merely rely on arguments presented with respect to  
14 independent claims 1 and 11 for patentability of claim 25 (App. Br. 13).  
15 Thus, the Appellants have not shown that the Examiner erred for the  
16 same reasons discussed *supra* relative to claims 1 and 11.

17  
18 Rejection of claims 11, 12, 15, 22 and 25 as unpatentable over  
19 Kanemitsu and Tolson

20 The Examiner alternatively rejected these claims as unpatentable  
21 over Kanemitsu and Tolson. The Appellants argue various rejected  
22 claims in separate groups in the Appeal Brief which we address *infra*.

1                    Claims 11, 12 and 15

2            To remedy the lack of rollers in Kanemitsu discussed *supra*, the  
3 Examiner cites Tolson for teaching driven foil-removing devices GC,  
4 40a, 40b that are located upstream of the sealing device SR, and for  
5 teaching other feed devices CB and SB (Ans. 5; FF 7). The Examiner  
6 contends that it would have been obvious to one of ordinary skill in the  
7 art to include the driven rollers and belt assemblies of Tolson in the  
8 bagging machine of Kanemitsu to result in the invention recited in these  
9 claims (Ans. 5).

10           Appellants argue that in Tolson, the drive devices function as a  
11 forming shoulder to form a tubular film, and thus, are not the foil-  
12 removing devices claimed (App. Br. 16). The Appellants further argue  
13 that the foil-removing devices of Tolson are not located on opposite sides  
14 of a fill pipe, and that these devices advance a film instead of a tube  
15 (App. Br. 16).

16           While we agree with the Examiner that the Appellants appear to be  
17 inappropriately arguing the references independently, we also do not  
18 understand the basis for the Examiner's rejection (Ans. 8). The  
19 Examiner has failed to articulate a rational reason for modifying  
20 Kanemitsu with the driven belts of Tolson to derive the claimed  
21 invention. Moreover, we note that the driven foil-removing devices 40a,  
22 40b, and other driven devices CB and SB are driven belts (FF 8). In our  
23 view, one of ordinary skill in the art would not interpret the Appellants'  
24 claimed "two rollers" to encompass such driven belts which are

1 specifically recited elsewhere in these claims. Thus, we fail to see how  
2 the combination of Kanemitsu and Tolson teaches or suggests the  
3 invention claimed. Therefore, we find that the Examiner erred in  
4 rejecting claim 11, as well as claims 12 and 15 depending therefrom, as  
5 unpatentable over Kanemitsu and Tolson.

6 Claim 22

7 The Appellants' argument for the patentability of claim 22 based  
8 on the limitation "said storage roll comprises the only storage roll . . ." is  
9 unconvincing for the reason discussed *supra* relative to the Examiner's  
10 rejection of this claim based on Kanemitsu and Ausnit (App. Br. 17).  
11 However, because claim 22 depends from claim 11, we also find that the  
12 Examiner erred in rejecting claim 22 as unpatentable over Kanemitsu and  
13 Tolson.

14 Claim 25

15 The Appellants rely on the arguments presented relative to  
16 independent claim 11 to argue the patentability of independent claim 25  
17 (App. Br. 17). Because the Examiner's combination of Kanemitsu and  
18 Tolson fails to result in a bagging machine with the two rollers recited in  
19 claim 25 as discussed *supra* relative to claim 11, we find that the  
20 Examiner erred in rejecting claim 25 as unpatentable over Kanemitsu and  
21 Tolson.

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CONCLUSIONS

1. The Appellants have not shown that the Examiner erred in rejecting claims 1, 2, 5, 9-12, 15, 19, 22 and 25 as unpatentable over Kanemitsu and Ausnit.

2. The Examiner erred in rejecting claims 11, 12, 15, 22 and 25 as unpatentable over Kanemitsu and Tolson.

ORDERS

1. The Examiner's rejection of claims 1, 2, 5, 9-12, 15, 19, 22 and 25 as unpatentable over Kanemitsu and Ausnit is AFFIRMED.

2. The Examiner's rejection of claims 11, 12, 15, 22 and 25 as unpatentable over Kanemitsu and Tolson is REVERSED.

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) (2007).

AFFIRMED

JRG

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