

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GUNTHER E. ASTERLIN and H. WILLIAM MORGAN

Appeal No. 96-3465
Application No. 07/848,856¹

ON BRIEF

Before KIMLIN, WEIFFENBACH and HANLON, Administrative Patent Judges.

HANLON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims 1-4 and 15-17, all of the claims pending in the application. Claims 1, 3 and 15 are representative of the subject matter on appeal and read as follows:

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1. A method of forming a bag from a sheet of material comprising the steps of:

a) providing a mandrel having a plurality of protruding needlelike members, said mandrel of a general longitudinal shape approximately resembling the longitudinal shape of the bag;

b) wrapping said bag material having opposite edges around said mandrel;

c) initially piercing at least one edge of said bag material with said needlelike members to anchor the material to the mandrel until said edges are adjacent to each other;

d) securing said bag material at said edges onto said mandrel by clamping members;

e) retracting said needle-like members from said bag material;

f) securing said edges of said bag material together.

3. A method for sealing an open end of cylindrically formed material having an interior surface comprising the steps of:

a) inserting a heating element having a plurality of heating parts into said open end;

b) expanding said heating parts within said open end into contact with said interior surface of the cylindrically formed material to cause the material at its open end to form overlapping material layers;

c) pressing said overlapping layers onto said heating element to melt said interior surface about an interior perimeter of said cylindrically formed material;

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15. A method of longitudinally sealing a bag comprising the steps of:

a) providing an elongated mandrel having a longitudinally extending ridge, said mandrel having an indentation extending along said ridge;

b) wrapping a sheet of material having interwoven filaments around said mandrel such that opposite edges of said sheet of material overlap one another at said ridge forming an outer material layer overlying said ridge and an inner material layer overlying said indentation;

c) pressing inwardly on said sheet of material over said indentation to flex the edge of said outer material layer outwardly creating a gap between said outer material layer and inner material layer;

d) inserting a heating element in said gap;

e) pressing said overlapping edges onto said heating element to melt said edges;

f) removing said heating element;

g) pressing said overlapping melted edges together to cause said edges to seal to each other.

The references relied upon by the examiner are:

DeWoskin	4,157,719	June 12, 1979
Tumminia	4,396,449	Aug. 2, 1983
Colombo et al. (Colombo)	4,464,219	Aug. 7, 1984
Young et al. (Young)	4,502,906	Mar. 5, 1985

The following rejections are at issue in this appeal:

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(2) Claim 2 is rejected under 35 U.S.C. § 103 as being unpatentable over Colombo in view of Young or Tumminia and further in view of DeWoskin.

(3) Claim 17 is rejected under 35 U.S.C. § 112, second paragraph, as lacking antecedent basis for the phrase "said gap."

Grouping of claims

According to appellants, the claims are grouped as follows for purposes of this appeal (Brief, p. 4):

- (1) Claim 1 stands separately;
- (2) Claim 2 stands separately;
- (3) Claims 3 and 4 stand or fall together;
- (4) Claim 15 stands separately;
- (5) Claims 16 and 17 stand or fall together.

Claim 1

Claim 1 is rejected under 35 U.S.C. § 103 as being unpatentable over Colombo in view of Young or Tumminia. We reverse this rejection.

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the needle-like members to anchor the material to the mandrel until the edges of the bag material are adjacent to each other; (3) securing the bag material at its edges onto the mandrel by clamping members; (4) retracting the needle-like members from the bag material; and (5) securing the edges of the bag material together.

According to the examiner (Answer, p. 4):

[P]roviding needlelike members on said mandrel is a mere obvious matter of apparatus design choices and do [sic, does] not patentably distinguish the claimed process steps. Such design, it is submitted, was provided by applicant to anchor the fusible material on said mandrel. Likewise the aspect of drawing the needle like member serves only to release the fusible material. Colombo et al teaches the claimed steps of holding the material onto the mandrel and later releasing said material off the mandrel.

Appellants point out (Brief, pp. 5-6):

In Claim 1, the method includes the step of "initially piercing at least one edge of said bag material with said needlelike members to anchor the material to the mandrel until said edges are adjacent to each other." . . . The novelty of this method does not solely rest in the design limitations of the apparatus. Providing a mandrel with needlelike members merely sets the stage for the process step of piercing the bag material found in Step c). . . .

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The examiner has failed to provide a basis for the conclusion that "providing needlelike members on said mandrel is a mere obvious matter of apparatus design choices" (Answer, p. 4).² See In re McLaughlin, 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971) (a proper judgment of obviousness "does not include knowledge gleaned only from applicant's disclosure"). Moreover, the examiner's reliance on Colombo is not persuasive. Although Colombo discloses a method for heat sealing plastic film whereby the film is held onto a mandrel while the film is sealed and is later released from the mandrel, Colombo uses an electrostatic charger to hold the film onto the mandrel and releases it from the mandrel using gas pressure (col. 3, lines 40-44; col. 4, lines 20-34).

Therefore, we agree with appellants that the cited references, either taken alone or in combination, fail to teach or suggest the method recited in claim 1.

² In response to appellants' argument, the examiner

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Claim 3

Claim 3 is rejected under 35 U.S.C. § 103 as being unpatentable over Colombo in view of Young or Tumminia. We reverse this rejection.

Claim 3 recites a method for sealing an open end of cylindrically formed material comprising (1) inserting a heating element having a plurality of heating parts into the open end; (2) expanding the heating parts into contact with an interior surface of the cylindrically formed material to cause the material at its open end to form overlapping material layers; (3) pressing the overlapping layers onto the heating element to melt the interior surface of the material; (4) collapsing the heating parts and removing the heating element from the open end; and (5) pressing the overlapping layers together at the melted interior surface to seal the layers to each other.

According to the examiner (Answer, p. 6):

[I]nserting particular types of heating elements which expands [sic, expand]/collapse on demand is directed to specifics of apparatus limitation as opposed to process limitations. Indeed, the manipulative step of

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Appellants point out (Brief, p. 11):

Claim 3 includes the method steps of "inserting a heating element" into a [sic, an] open end of a cylindrical formed material. None of the references cited by the Examiner show or suggest a step of inserting a heating element within an open end of bag material. The methods disclosed in the Examiner's cited references relate to cutting and/or sealing layered materials. In Tumminia and Young, the layers are pressed together as part of the heat sealing process; however, none of the references teach the step of inserting the heating element between the layers or the open ends of the bag material.

The examiner has failed to provide a basis for the conclusions that "the manipulative step of inserting the heating element is taught by the obvious combined references" and "[h]eating elements with plurality of heating parts are directed to mere matters of apparatus design choices" (Answer, p. 6). See McLaughlin, 443 F.2d at 1395, 170 USPQ at 212 (a proper judgment of obviousness "does not include knowledge gleaned only from applicant's disclosure"). To the extent that Colombo discloses (Supplemental Answer (Paper No. 19), p.1):

[W]rapping material (a) about heating [element] and pressing the material to facilitate its melting
[and] the removal of his heating element "off" the

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Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336, 345 (1961) (in determining obviousness under 35 U.S.C. § 103 there is "no legally recognizable or protected 'essential', 'gist', or 'heart' of the invention[,]" rather each claimed invention must be considered as a whole).

The references, either taken alone or in combination, do not teach or suggest inserting a heating element into an open end of a cylindrically formed material, melting the interior surface of overlapping material layers formed at the open end, and sealing the layers together. See APPLICANT'S REPLY TO EXAMINER'S NEW GROUND OF REJECTION (Paper No. 20), p. 2. Therefore, we agree with appellants that the references, either taken alone or in combination, fail to teach or suggest the method recited in claim 3.

Claim 15

Claim 15 is rejected under 35 U.S.C. § 103 as being unpatentable over Colombo in view of Young or Tumminia. We reverse this rejection.

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- b) wrapping a sheet of material having interwoven filaments around said mandrel such that opposite edges of said sheet of material overlap one another at said ridge forming an outer material layer overlying said ridge and an inner material layer overlying said indentation;
- c) pressing inwardly on said sheet of material over said indentation to flex the edge of said outer material layer outwardly creating a gap between said outer material layer and inner material layer;
- d) inserting a heating element in said gap;
- e) pressing said overlapping edges onto said heating element to melt said edges;
- f) removing said heating element;
- g) pressing said overlapping melted edges together to cause said edges to seal to each other.

According to the examiner (Answer, p. 7):

Studying the Tumminia patent, it seems the instant patent places heating element (20) between an apparent gap on surface (10). More relevant, Colombo et al in figure 2, teaches heating element (35) between "gapped" surface (19). It is believed that as material (9) is payed off roller (11), its journey would take it to overlapping junction, shown in figure 2, and to be in close proximity to heating element (35). Thus both references to Colombo et al and Tumminia teaches [sic, teach] forming gaps into their respective material and later heat sealing the edges together (see Tumminia, figures 6B and 6C).

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surface formed in the surface of the drum. The method recited in claim 15 requires that a heating element be inserted in a gap created between overlapping outer and inner material layers of a sheet of material. In Colombo, Tumminia and Young the layered material is sealed along its adjacent edges, not on opposite edges of the same section of material as required by the claimed method. Therefore, we agree with appellants that the cited references, either taken alone or in combination, fail to teach or suggest the method recited in claim 15.

Rejection under 35 U.S.C. § 112, second paragraph

Claim 17 is rejected under 35 U.S.C. § 112, second paragraph, as lacking antecedent basis for the phrase "said gap" (Answer, pp. 7-8).

According to appellants (Brief, pp. 9-10):

During the preparation of this brief, the Applicant/Appellant discovered that Claim 17 is erroneously dependent on Claim 2 and consequently lacks an antecedent for "said gap." Claim 17 should be dependent on Claim 16. Upon the successful resolution of this appeal, the appropriate amendment will be made to Claim 17.

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should give favorable consideration to an amendment filed correcting the dependency of claim 17.

Claims 2, 4, 16 and 17

Claims 2 and 16 are dependent on claim 1 and claim 4 is dependent on claim 3. Since the rejections of claims 1 and 3 have been reversed, the rejections of claims 2, 4 and 16 are also reversed. Furthermore, since claim 17 is dependent on claim 1 and the rejection of claim 1 has been reversed, the rejection of claim 17 based on 35 U.S.C. § 103 is also reversed. See 37 CFR § 1.75(c) ("Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim."). However, the rejection of claim 17 under 35 U.S.C. § 112, second paragraph is affirmed for the reasons stated herein.

The decision of the examiner is affirmed-in-part.

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

AFFIRMED-IN-PART

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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)	
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)	BOARD OF PATENT
CAMERON WEIFFENBACH)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
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ADRIENE LEPIANE HANLON)	
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