

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(2) is not binding precedent of the Board.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. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BERND HANSEN

Appeal No. 95-2580
Application 08/110,958¹

HEARD: October 13, 1998

Before CALVERT, FRANKFORT and STAAB, Administrative Patent
Judges.

FRANKFORT, Administrative Patent Judge.

¹ Application for patent filed August 24, 1993.

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DECISION ON APPEAL

This is a decision on appeal from the examiner's refusal to allow claims 1 through 3, 5 through 7 and 9 through 14 as amended subsequent to the final rejection in a paper filed November 3, 1994 (Paper No. 7). Claims 1 through 3, 5 through 7 and 9 through 14 are all of the claims remaining in this application. Claims 4 and 8 have been canceled.

Appellant's invention relates to an ampule made of plastic for containing a liquid to be removed from the ampule by a hypodermic syringe with a conical member at one end thereof to be introduced into the ampule. It is of importance to appellant (1) that the inside wall of the ampule neck have at least one longitudinal passage therein so as to allow inlet of air into the ampule body when liquid is removed from the ampule body via the syringe and (2) that said at least one longitudinal passage be spaced from the longitudinal middle plane of the ampule defined by the separation plane of the

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mold in which the ampule is formed. Independent claims 1 and 10 are representative of the subject matter on appeal and a copy of those claims is appended to this decision.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Juhn 1987	4,641,663	Feb. 10,
Rose et al. (Rose) 1990	4,979,630	Dec. 25,
Hansen 1991	5,046,627	Sept. 10,

Claims 1 through 3, 5, 6, 9, 10 and 12 through 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hansen in view of Rose.

Claims 7 and 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hansen in view of Rose and Juhn.

Rather than reiterate the examiner's full statement of the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellant regarding those rejec-

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tions, we make reference to the examiner's answer (Paper No. 11, mailed February 24, 1995) for the examiner's reasoning in support of the rejections, and to appellant's brief (Paper No. 10, filed January 23, 1995) and reply brief (Paper No. 12, filed March 13, 1995) for appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by appellant and the examiner. As a consequence of our review, we have made the determinations which follow.

Turning first to the examiner's rejection of claims 1 through 3, 5, 6, 9, 10 and 12 through 14 under 35 U.S.C. § 103 as being unpatentable over Hansen in view of Rose, we note that Hansen discloses an ampule like that set forth in

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independent claim 1 on appeal, except that the exact location of the longitudinal passages (111) on the inside wall of the neck portion (106) therein (Figures 4 and 5) is not specified as being "spaced from said longitudinal middle plane" of the ampule defined by the separation plane of the mold in which the ampule is formed, as set forth in appellant's claim 1. Hansen is silent concerning the exact location of the one or more longitudinal grooves or passages to be formed in the inside wall of the neck portion (106) or in the annular bead (9) of the neck portion seen in Figure 3 of the patent (see col. 4, lines 21-23).

Rose, like Hansen and appellant, discloses a plastic ampule for use with a hypodermic syringe wherein the neck of the ampule "may be of any shape suitable for mating with the head of a syringe" (col. 4, lines 39-40). In addition, Rose also discloses the use of vacuum-relief means in the form of one or more grooves or channels formed in the inside wall of the ampule neck that is mateable with the head of the syringe. At column 3, lines 1-20, of Rose it is noted that

[i]n one embodiment, the neck is provided with two diametrically opposed grooves, running directly into the ampoule. As the liquid is taken up, air enters via the grooves to replace the displaced volume of liquid. While the liquid is being drawn up, there is a natural tendency for the greater external pressure to force air in, thus preventing escape of the contents. This effect is augmented by the effects of surface tension which will usually prevent escape of the liquid even when there is no pressure differential.

For ease of manufacture, it may be preferable to provide the channels by appropriate shaping of the neck. Thus, for example, to provide two channels, the neck cross-section can be made oval, the larger diameter providing the channels and the smaller diameter gripping the syringe head. Other configurations are equally possible, such as a generally rounded triangular cross-section to provide 3 channels, or a square cross-section for 4 channels, although two channels are generally preferred.

Thus, Rose specifically discloses the use of three or four venting grooves/channels in the neck of the ampule and, for ease of manufacture, notes that it may be preferable to provide such channels by appropriate shaping of the neck, as may be seen in Figures 9A-9C of Rose.

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Like the examiner, we consider that the collective teachings of the applied references to Hansen and Rose would have been suggestive of the ampule defined in claim 1 on appeal, especially when three or four venting grooves/channels are provided in the inside wall of the ampule neck, as suggested in both Hansen and Rose. Both Hansen and Rose make reference to "one or more" longitudinal channels or grooves being provided in the inside wall of the neck of the ampule for venting purposes, with Rose specifically depicting possible arrangements of three or four channels in the neck and a preferable neck shape allowing ease of manufacturing of such multiple grooves/channels. Thus, when the ampule seen in Figures 1-2 of Hansen is provided with grooves as in Figures 4-5 thereof, but with three or four grooves being provided therein as suggested in Rose, at least one of the grooves/channels will be "spaced from said longitudinal middle plane" of the ampule defined by the separation plane of the mold in which the ampule is formed.

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Contrary to appellant's arguments (brief, pages 9-10), we do not see that the teachings of Hansen and Rose with regard to providing multiple grooves/channels in the neck of the ampule of either Hansen or Rose are limited to the particular neck shapes seen in Figures 9B and 9C of Rose. These shapes are merely set forth as being a preferable way to provide for ease of manufacturing of these multiple groove/channel arrangements, and are by no means limiting with regard to the overall teachings of the Rose patent concerning the use of multiple grooves/channels in the neck of the ampule, that is, where the multiple grooves are formed directly in the neck of the ampule as generally seen and exemplified by Figures 3 and 3A of Rose.

Moreover, even if we accept appellant's position (brief, page 10) that the only obvious modification of the Hansen ampule in view of the Rose patent would be a modification of the Hansen ampule to provide the rectangular or square cross section of the Rose patent to provide the four channels (e.g., as a

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replacement for the cylindrical section 106 of Hansen Fig. 4), we are of the opinion that this modification of the Hansen ampule would result in an ampule like that set forth in appellant's claim 1 on appeal, wherein at least one, if not all, of the four grooves/channels would be "spaced from said longitudinal middle plane" of the ampule defined by the separation plane of the mold in which the ampule is formed. In this regard, note appellant's argument on page 13 of the brief re: claim 2, wherein appellant urges that the combination of Hansen and Rose would result in passages being located at 45 degree angles to the longitudinal middle plane.

Regarding dependent claims 12 through 14 on appeal, we note that Figures 1 and 2 of the Hansen patent appear to be identical to Figures 1 and 2 of the present application with respect to the external appearance of the depicted ampules, and thus the Hansen patent clearly includes the planar flange of appellant's claim 12 and an arrangement thereof which circum- scribes the ampule body and neck as in claims 13 and

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14 on appeal, at least to the same extent that appellant's marking/ flange does in Figures 1 and 2 of the present application.

In light of the foregoing, we will sustain the examiner's rejection of claims 1 and 12 through 14 under 35 U.S.C. § 103 based on Hansen and Rose.

We next look to the examiner's rejection of dependent claims 2 and 3, and of independent claim 10 under 35 U.S.C. § 103 as being unpatentable over Hansen in view of Rose. Claims 2 and 10 each require that the first longitudinal passage formed in the inside wall of the neck of the ampule be spaced from the longitudinal middle plane of the ampule and located "in a plane perpendicular to said longitudinal middle plane." Claim 3 sets forth a second longitudinal passage/groove located diametrically opposite the first longitudinal passage and requires that the first and second passages define "a plane forming a 90 degree angle with said longitudinal middle plane." We find nothing in the

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collective teachings of Hansen and Rose which teaches or fairly suggests such arrangements of the grooves therein. This particular orientation of the longitudinal passages/grooves in appellant's ampule goes directly to the particular problem being solved by appellant concerning the need for more precise control of the shape and dimensions of the passages during the blow

molding process (specification, pages 2-3). Nothing in the applied patents addresses appellant's problem and we see nothing therein which would have fairly suggested the recited orientation of the grooves/passages as set forth in claims 2, 3 and 10 on appeal. Accordingly, the examiner's rejections of claims 2, 3 and 10, and the claims which depend therefrom, will not be sustained.

We have reviewed the patent to Juhn applied by the examiner against dependent claims 7 and 11, but we find

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nothing therein which would provide that which we have indicated above to be lacking in the basic combination of Hansen and Rose.

As should be apparent from the foregoing, we have affirmed the examiner's rejection of claims 1 and 12 through 14 under 35 U.S.C. § 103 as being unpatentable over Hansen in view Rose, but we have reversed the examiner's rejections of claims 2, 3, 5 through 7, 9, 10 and 11 under 35 U.S.C. § 103. The decision of the examiner is, accordingly, affirmed-in-part.

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

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	IAN A. CALVERT)	
	Administrative Patent Judge)	
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)	BOARD OF
PATENT)	
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APPENDIX

1. An ampule made of plastic for a liquid to be removed from the ampule by a hypodermic syringe with a conical member at one end thereof to be introduced into the ampule, comprising:

an ampule body extending along a longitudinal axis and having a marking thereon defining a longitudinal middle plane coinciding with a mold separation plane and with said longitudinal axis; and

a neck extending along said axis from one axial end of said body, said neck having an inside wall for receiving the conical member, said inside wall having a first longitudinal passage for allowing air to pass into said ampule body between the conical member and said inside wall during removal of liquid from said ampule body, said first longitudinal passage being spaced from said longitudinal middle plane, said first longitudinal passage having a shape and dimensions to form means for only allowing air to pass therethrough, but preventing liquid from passing therethrough, when the conical member is fully inserted in said neck.

10. An ampule made of plastic for a liquid to be removed from the ampule by a hypodermic syringe with a conical member at one end thereof to be introduced into the ampule, comprising:

an ampule body extending along a longitudinal axis and having a marking thereon defining a longitudinal middle plane coinciding with a mold separation plane and with said longitudinal axis; and

a neck extending along said axis from one axial end of said body, said neck having an inside wall for receiving the conical member, said inside wall having a first longitudinal passage for allowing air to pass into said ampule body between the conical member and said inside wall during removal of liquid from said ampule body, said first

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longitudinal passage being spaced from and located in a plane perpendicular to said longitudinal middle plane, said first longitudinal passage having a

shape and dimensions to form means for only allowing air to pass therethrough, but preventing liquid from passing therethrough, when the conical member is fully inserted in said neck, said inside wall of said neck including a radially inwardly projecting annular bead, said first longitudinal passage being formed by an interruption in said bead, said neck including an outer surface with an annular groove laterally adjacent said bead, said annular groove having interruptions aligned with said interruptions in said bead.